

# Network OS 7.0.2a for Extreme VDX Release Notes v2.0



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# **DOCUMENT HISTORY**

Version	Summary of Changes	Publication Date
1.0	Initial Release	31 July 2018
2.0	Migration path table updated for ISSU support.	26 September 2018



# **PREFACE**

# Contacting Extreme Technical Support

As an Extreme customer, you can contact Extreme Technical Support using one of the following methods: 24x7 online or by telephone. OEM customers should contact their OEM/solution provider.

If you require assistance, contact Extreme Networks using one of the following methods:

GTAC (Global Technical Assistance Center) for immediate support

Phone: 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: <a href="https://www.extremenetworks.com/support/contact">www.extremenetworks.com/support/contact</a>.

Email: support@extremenetworks.com. To expedite your message, enter the product name or model number in the subject line.

GTAC Knowledge - Get on-demand and tested resolutions from the GTAC Knowledgebase, or create a help case if you need more guidance.

The Hub - A forum for Extreme customers to connect with one another, get questions answered, share ideas and feedback, and get problems solved. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Support Portal - Manage cases, downloads, service contracts, product licensing, and training and certifications.

Before contacting Extreme Networks for technical support, have the following information ready:

Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products

A description of the failure

A description of any action(s) already taken to resolve the problem

A description of your network environment (such as layout, cable type, other relevant environmental information)

Network load at the time of trouble (if known)

The device history (for example, if you have returned the device before, or if this is a recurring problem)

Any related RMA (Return Material Authorization) numbers



#### Extreme resources

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

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

# Document feedback

Quality is our first concern at Extreme, and we have made every effort to ensure the accuracy and completeness of this document. However, if you find an error or an omission, or you think that a topic needs further development, we want to hear from you.

You can provide feedback in two ways:

- Use our short online feedback form at <a href="http://www.extremenetworks.com/documentation-feedback-pdf/">http://www.extremenetworks.com/documentation-feedback-pdf/</a>
- Email us at internalinfodev@extremenetworks.com

Provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.



# **OVERVIEW**

Extreme Network OS 7.0.2a release introduces incremental capabilities to further enable the Layer 3 Extreme® IP Fabrics, Layer 2 VCS ® Data Center Fabrics, Standards (BGP-EPVN) based network Virtualization for Intra DC and DC-Interconnect solutions.

#### Hardware

The following section lists new hardware introduced with this release as well as hardware that are no longer supported with this release.

#### New devices

None

#### New interface modules

None

## Deprecated Hardware

None

## Software Features

The following section lists new, modified, and deprecated software features for this release. For information about which platforms support these features, refer to the NOS Feature support Matrix.

## New Software Features for Network OS v7.0.2a

On October 30, 2017, Extreme Networks, Inc. acquired the data center networking business from Brocade Communications Systems, Inc. The code in this release has been updated to replace technical references to Brocade Communications, Inc. with Extreme Networks, Inc., as appropriate.

For details, refer to the "What's new in this document" section in the following:

- Extreme Network OS Command Reference, 7.0.2a
- Extreme Network OS Troubleshooting Guide, 7.0.2a
- Extreme Network OS YANG Reference Manual, 7.0.2a
- Extreme Network OS Software Upgrade Guide, 7.0.2a



#### New Software Features for Network OS v7.0.2

Importing TLS certificates and keys using SCP

This feature allows TLS server certificates (third party CA certificate) and keys to be directly imported without any trust point support.

#### New Software Features for Network OS v7.0.1

The following software features are new in this release:

SNMP CLI knob to control 3-tuple vs 2-tuple

By default IF MIB objects ifName and ifDescr are retrieved in 2-tuple format. New CLI knob "snmp-server three-tuple-if enable" enables to retrieve in 2-tuple/3-tuple format as per configuration

#### Two Factor Authentication

Traditional password based authentication is one factor which has security risk as it can be guessed, cracked, or compromised. Two factor authentication uses password as one factor and randomly generated RSA token as second factor. These two factors combined to generate a "passcode". The passcode is sent to the Radius server for authentication

#### **Duration login**

Login Duration enhancement helps to restrict the user's log-in duration, user can be restricted to login within specific duration, for example, setting login duration as 0900-1100(HHMM format) for a specific user, will restrict that user to login only from 9am to 11 am

#### IP Fabric enhancements:

#### Decouple IPv4 and eVPN address-family

To have separate BGP peering session between leaf and spine for underlay and overlay, to decouple overlay neighbor-ship errors from the underlay session and so the routes are not compromised.

#### Layer 3 VNI IMR routes

IMR routes are originated whenever L3VNI is configured under a VRF, even if there are no prefix routes originated, IMR route will establish tunnel-vlan membership on the remote leaf nodes.

Traffic tromboning avoided in IP Fabric by converting ARP into /32 routes.

The MACIP (ARP) routes are converted to /32 prefix routes and installed into the RIB, along with the subnet routes. The /32 host routes help with traffic being delivered directly to the leaf node where host resides, thus avoiding traffic tromboning.

#### Peer disable AS-check

AS path check can be enforced at the sender side, saving the amount of BGP RIBout memory used to store the routes which are discarded at the receiver and also avoid sending updates and withdraw for those routes, thus improving the convergence time.



#### Hardware TCAM profiles

Support for increased IPv4 ACL scale has been added as part of hardware TCAM profiles in VDX8770. ACL scale is increased as well as support for number of rules per ACL.

#### MAPS policy reapply

New command to reapply the MAPS policy globally. If you modify the MAPS policy configuration on a cluster, this command reapplies the policy to the cluster with the updated configuration.

#### MAC-move-detect feature

The mac-address-table mac-move detect command has been added to support the detection of MAC moves. When this feature is enabled, the default number of MAC-moves that are detected is 20. This limit can be changed by means of the mac-address-table mac-move limit command.

#### LLDP Enhancement

RASlog support is added in LLDP to capture and report connectivity to peer status change in order to trigger python scripts.

#### **Modified Features**

The following software features have been modified in this release:

None

# **Deprecated Software Features**

None



# **CLI Changes**

The following section lists new, modified, and deprecated commands for this release. For details, refer to the Network OS Command Reference.

New Commands for Network OS v7.0.2a

## New Commands for Network OS v7.0.2

The following configuration commands are new in this release:

- show cert-util tlscert
- show cert-util tlsprivkey

New Commands for Network OS v7.0.1c

New Commands for Network OS v7.0.1b

#### New Commands for Network OS v7.0.1

The following configuration commands are new in this release:neighbor <ip address/peer-group> enable-peer-as-check

clear bgp evpn I2route type inclusive-multicast
maps reapply-policy
mac-address-table mac-move detect
area <area\_id> nssa default-information-metric metric-type <type> metric <value>
area <area\_id> nssa no-redistribution
area <area\_id> nssa translator-always
area <area\_id> nssa translator-interval <interval\_value>
snmp-server three-tuple-if enable
spanning-tree ieee-bpdu limit-vlan-flood

The following show commands are new in this release:

#### ARP:

show system internal arp clientlist structures show system internal arp counters



show system internal arp interface ve 100
show system internal arp ipv4 vrf all
show system internal arp ipv6 vrf all
show system internal arp 12 clientdb
show system internal arp memstats
show system internal arp rib memstats
show system internal arp rib routes
show system internal arp static config interface ve 100
show system internal arp static config vrf all
show system internal arp summary
show system internal arp vrf all

#### RIB:

show system internal rib clients
show system internal rib ip adj vrf default-vrf
show system internal rib ip route vrf default-vrf
show system internal rib ipv6 adj vrf default-vrf
show system internal rib ipv6 route vrf default-vrf
show system internal ribm memory-stats
show system internal ribm vrf

#### FIB-ARP:

show system internal fib 0 arp arp-bum-stats show system internal fib 0 arp counters show system internal fib 0 arp dai-filter show system internal fib 0 arp dai-list show system internal fib 0 arp dai-stats show system internal fib 0 arp dai-trust



show system internal fib 0 arp dai-usr-acl show system internal fib 0 arp interface ve 100 show system internal fib 0 arp ipv4 vrf all show system internal fib 0 arp ipv6 vrf all show system internal fib 0 arp memstats show system internal fib 0 arp nd-bum-stats show system internal fib 0 arp summary show system internal fib 0 arp vrf all

#### FIB-RIB:

show system internal fib 0 rib clients
show system internal fib 0 rib ip adj vrf default-vrf
show system internal fib 0 rib ip route vrf default-vrf
show system internal fib 0 rib ipv6 adj vrf default-vrf
show system internal fib 0 rib ipv6 route vrf default-vrf
show system internal fib 0 rib memory-stats

# Modified Commands for Network OS v7.0.1b None

#### Modified Commands for Network OS v7.0.1

The following commands have been modified for this release:

duplicate-mac-timer <interval> max-count <count> username <name> access-time HHMM to HHMM ip mtu ipv6 mtu mtu password-attributes

# Deprecated Commands for Network OS v7.0.1b None



# Deprecated Commands for Network OS v7.0.1

no nssa-translator

system tunnel replicator load-balance

# **API Changes**

Network OS follows the YANG model for CLI and NetConf/REST API. Hence relevant changes in above CLI Changes will get mirrored in API Changes as well.

# Newly supported standards and RFCs

The following section lists RFCs and other standards newly supported in this release.

This software generally conforms to Ethernet standards in a manner consistent with accepted engineering practices and procedures. In certain cases, Extreme might add proprietary supplemental functions to those specified in the standards, or choose to implement modifications to the standards for performance or behavioral improvements.

None



# HARDWARE SUPPORT

# Supported devices

Extreme NOS v7.0.2a supports following VDX Switches:

- ExtremeSwitching VDX 6940-144S
- ExtremeSwitching VDX 6940-36Q
- ExtremeSwitching VDX 6740
- ExtremeSwitching VDX 6740T
- ExtremeSwitching VDX 6740T-1G
- ExtremeSwitching VDX 8770-4
- ExtremeSwitching VDX 8770-8
- ExtremeSwitching VDX 2741
- ExtremeSwitching VDX 2746

#### ExtremeSwitching VDX 6940-144S

The ExtremeSwitching VDX 6940-144S is a 2U platform that offers  $96 \times 10$ GbE SFP+ downlink ports for server connectivity and also  $12 \times 40$  GbE QSFP+ uplink ports to connect to the aggregation layer. These ports support the following:

- Available in 64, 96 and 144 ports SKU.
- Each 40GbE port can be broken into 4 independent 10GbE ports, providing a total of up to 144 x 10GbE ports in a 2RU form factor.
- 64 port SKU can be upgraded up to 144 ports with Ports On Demand (POD) software license. There are two POD licenses 16x10GbE for 10GbE server connecting ports and 6x40GbE for the 40GbE uplink ports. The same 6x40GbE POD license can be used to upgrade up to 12x40GbE uplink ports in both 64 and 96 port SKUs.
- Deployable as high-density 10GbE switch for the Top of Rack (TOR) or Middle of Row (MOR) or for End of Row (EOR) configurations.
- Provides optimized on-chip buffer (24MB) and latency (800ns), making it an ideal switch for a wide variety of workloads.
- Interface 97, 98 103 and 104 are dual personality ports. These ports can be configured in 40GbE or 100GbE mode.

#### ExtremeSwitching VDX 6940-36Q

The ExtremeSwitching VDX 6940-36Q is a 1U platform that offers 36 x 40 GbE QSFP+ ports. Each 40 GbE ports can be further broken out into 4 independent 10 GbE SFP+ ports providing a total of 144 x 10 GbE SFP+ ports. These ports support the following:



- Available in 24 and 36 ports SKU.
- Each 40GbE port can be broken into 4 X 10GbE ports, providing up to 144 x 10GbE ports in a 1RU form factor.
- The 24 port SKU can be upgraded up to 36 ports via 40GbE DPOD license of 12 ports.
- It can be used as a high-density 40GbE spine switch or it can also be used as a leaf switch with dynamic breakout capability.
- It provides optimized on-chip buffer (24MB) and latency (800ns), making it an ideal switch for a wide variety of workloads.

#### ExtremeSwitching VDX 6740

The ExtremeSwitching VDX 6740 offers 48 10GbE SFP+ ports and 4 ports of 40 Gigabit quad small form-factor pluggable plus (QSFP+), each can be broken out into four independent 10 GbE SFP+ ports, providing an additional  $16 \times 10$  GbE SFP+ ports. No 40 GbE ports are enabled as part of the base license. Four 40 GbE ports can be upgraded via the Ports on Demand (PoD) software license. These ports support the following:

- Available in 24, 48 and 64 port SKU.
- 850-ns microsecond latency for any port to port to assure rapid response for latencysensitive applications.
- The base SKU is available with 24 ports and can be upgraded up to 48 ports via 10Gbe
   DPOD license of 8 ports.
- Of the 48 10GbE SFP+ ports, 32 ports can be configured as FlexPorts (FC/Ethernet).
- It has 4 X 40Gbe QSFP ports which can be used for the uplink and VCS fabric formation.
- Each 40GbE port is capable of doing a breakout of 4 X 10GbE ports.
- Additional 4X40GbE ports can be added to base version with 2X40GbE POD license increments.
- 100Mb Support Refer to "Support for 100-Mb interfaces" sections below.

#### ExtremeSwitching VDX 6740T

The VDX 6740T offers 48 10GbE Base-T ports and 4 ports of 40-gigabit quad small form-factor pluggable plus (QSFP+), each can be broken out into four independent 10GbE SFP+ ports, providing an additional 16 x 10 GbE SFP+ ports. No 40 GbE ports are enabled as part of the base license. Four 40 GbE ports can be upgraded via the Ports on Demand (PoD) software license.

- Available in 24, 48 and 64 port SKU.
- 3 microsecond latency for any port to port to assure rapid response for latency-sensitive applications.
- The base SKU is available with 24 10GbE Base-T ports and can be upgraded up to 48 ports via 10Gbe DPOD license of 8 ports.
- It has 4 X 40 GbE QSFP ports which can be used for uplink and VCS fabric formation.
- Each 40GbE port is capable of doing a breakout of 4 x 10GbE ports.



- Each 40GbE port is also capable of doing a FC breakout of 4\*8G or 4\*16G. These ports can be used to connect to the FOS switches.
- Each 40GbE port is also capable of doing an FC breakout of 4 x 8G/16G.
- Additional 4X40GbE ports can be added to base version with 2X40GbE POD license increments
- 100Mb Support Refer to "Support for 100-Mb interfaces" below.

#### ExtremeSwitching VDX 6740T-1G

The ExtremeSwitching VDX 6740T-1G offers 48 1000BASE-T ports and two 40 GbE QSFP+ ports in base version. Each 40 GbE port can be broken out into four independent 10 GbE SFP+ ports, providing an additional eight 10 GbE SFP+ ports for uplink. All 48 1000BASE-T ports can be upgraded to 48 10GBASE-T ports via a Capacity on Demand (CoD) software license. Two 40 GbE ports are enabled as part of the base license. The additional two 40 GbE ports can be upgraded via the Ports on Demand (PoD) software license.

- Base version is available with 48 x 1000BASE-T ports and 2 x 40 GbE QSFP+ ports.
- 3-microsecond latency for any port to port to assure rapid response for latency-sensitive applications.
- All 48 x 1000BASE-T ports can be upgraded to 10Gbase-T port with capacity on demand license
- Additional 2X40Gbe ports can be added to base version with 2X40Gbe POD license.
- It has 4 X 40Gbe QSFP ports which can be used for the uplink and VCS fabric formation.
- Each 40GbE port is capable of doing a breakout of 4 X 10GbE ports.
- Each 40GbE port is also capable of doing a FC breakout of 4 x 8G/16G.
- 100Mb Support Refer to "Support for 100-Mb interfaces" below.

#### ExtremeSwitching VDX 8770-4 and VDX 8770-8

The ExtremeSwitching VDX 8770 is available in two form factors; a 4-I/O slot system and an 8 I/O slot system with line-card support for 1-GbE, 10-GbE, 10GbE-T, 40GbE, and 100GbE ports. The ExtremeSwitching VDX 8770 delivers a high-performance switch to support the most demanding data center networking needs, capable of supporting:

- 4 Tbps per slot line-rate design for substantial capacity and headroom.
- ~4-microsecond latency to assure rapid response for latency-sensitive applications.
- Up to 384,000 MAC addresses per fabric for extensive virtualization scalability.
- More than 8000 ports in a single VCS Fabric with Extreme Fabric Multipathing technology, enabling the switch to serve extremely large-scale deployments with the best-possible network utilization.

#### Supported Blades for VDX 8770

The flexible, modular switch design offers interconnection with other Extreme switches, traditional Ethernet switch infrastructures, and direct server connections. Modular 4-slot and 8-



slot chassis options are available to match the switch to the needs of the organization. These include:

- ExtremeSwitching VDX 8770-4: Supports up to 192 1/10 GbE ports, or 108 40 GbE ports and 24 100 GbE ports, or a combination.
- ExtremeSwitching VDX 8770-8: Supports up to 384 1/10 GbE ports, or 216 40 GbE ports and 48 100 GbE ports, or a combination.

The switches support two Management Modules in an active standby configuration. The 4 slot chassis can hold up to 3 Switch Fabric Modules (SFM) and 4 Power supply Units (PSU) while the 8 slot chassis can hold 6 SFMs and 8 PSUs. The switch supports a variety of wire-speed line cards to offer maximum flexibility in terms of port bandwidth as well as cable and connector technology:

- 1 GbE: LC48×1G line card provides up to 48 SFP/SFP-copper ports.
- 10 GbE: LC48×10G line card provides up to 48 SFP+ ports .
- 10 GbE-T: LC48×10GT line card provides up to 48 RJ-45 ports.
- 40 GbE: LC12×40G line card provides up to 12 x 40 GbE QSFP ports.
- 40 GbE: LC27×40G line card provides up to 27 x 40 GbE QSFP ports.
- 100 GbE: LC6×100G line card provides up to 6 x 100 GbE CFP2 ports.

#### ExtremeSwitching VDX 2741

- ExtremeSwitching VDX blade switch for Converged Ethernet Fabrics in Sugon TC-6600 Chassis.
- Internal Ports (KR)
  - 28 x 10G Eth (with 1GbE/10GbE auto negotiation)
- External Ports
  - 16 x Flex Ports (10GbE or 16G FC)
  - 4 x 40GbE ports with breakout capability
- Support for low cost of entry base with POD upgrades
- Single ASIC with 850ns low latency
- 128K MAC, 32K ARP and 12K ACL support
- Extreme features as supported in NOS 7.0.0
- Sugon specific features:
  - Feature on Demand (S/W upgrades)

#### ExtremeSwitching VDX 2746

- ExtremeSwitching VDX blade switch for the Hitachi BladeSymphony 2500 chassis
- Internal Ports (KR)
  - 42 x 10G Eth (with 1GbE/10GbE auto negotiation)
- External Ports
  - 14 x Flex Ports (10GbE or 16G FC)
  - 2 x 40GbE ports with breakout capability (also Flex)
- Support for low cost of entry base with POD upgrades:
  - Management integration with Hitachi's chassis management module



## Support for 100-Mb interfaces

- Full duplex speed support only for P2P connections
- Limited L2 configuration supported. For example Switchport, LLDP, MTU size, L2 ACL and L3 ACL.
- No support for adding a 100 Mbit/s shared media/hub.
- L3, FCoE, TRILL, PFC configuration are NOT supported on 100 Mbit interfaces.
- Examples for 100 Mbit/s usage are as follows:
  - o 100 Mbit/s Host device requirement with IPv4/v6 Connectivity.

# Supported power supplies

The following table lists the power supplies that are available for the devices supported in this release:

Part number	Description	Compatible devices
XBR-ACPWR-3000	FRU,3000W AC POWER SUPPLY	VDX 8770-4, VDX 8770-8
XBR-DCPWR-3000	FRU,3000W DC POWER SUPPLY	VDX 8770-4, VDX 8770-8
XBR-250WPSAC-F	FRU,250W,ACPS/FAN,NONPORTSIDE	VDX 6740
	EXHAUST	
XBR-250WPSAC-R	VDX 6740 AC RTF PWR SUPPLY FAN	VDX 6740
XBR-250WPSDC-F	FRU,250W,DCPS/FAN,NONPORTSIDE	VDX 6740
	EXHAUST	
XBR-250WPSDC-R	FRU,250W,DCPS/FAN,PORT SIDE	VDX 6740
	EXHAUST	
XBR-500WPSAC-F	FRU 500W ACPS	VDX 6740T, VDX 6740T-
		1G, VDX 6940-36Q
XBR-500WPSAC-R	FRU 500W ACPS	VDX 6740T, VDX 6740T-
		1G, VDX 6940-36Q
RPS9DC+E	FRU,500W DC PSU PORT SIDE	VDX 6740T, VDX 6740T-
	EXHAUST	1G, VDX 6940-36Q
RPS9DC+I	FRU,500W,DCPS/FAN,NONPORTSIDE	VDX 6740T, VDX 6740T-
	EXHAUST	1G, VDX 6940-36Q
XBR-1100WPSAC-R	FRU,1100W PSAC,PORTSIDE EXHAUST AF	VDX 6940-144S



Part number	Description	Compatible devices
XBR-1100WPSAC-F	FRU,1100W PSAC,NON-PORT SIDE EXHAUST AF	VDX 6940-144S
XBR-1100WPSDC-01-R	FRU 1100W DCPS,PORTSIDE EXHAUST	VDX 6940-144S
XBR-1100WPSDC-01-F	FRU 1100W DCPS,NON PORTSIDE EXHAUST	VDX 6940-144S

The VDX 8770 switches ship with multiple, field replaceable, load-sharing AC or DC power supplies based on the configuration selected. The PSU SKU is shared by both 4- and 8-slot systems. The VDX 8770-4 ships with a minimum of 2 AC or DC PSU. Additional 2 PSU can be ordered for redundancy. The VDX 8770-8 system ships with a minimum of 3 PSU and additional PSU may be ordered for redundancy:

- XBR-ACPWR-3000 3000 W power supply unit AC
- XBR-DCPWR-3000 3000 W power supply unit DC

The VDX -6740 switches are both delivered with two internal, redundant, field-replaceable, load-sharing AC or DC power supplies:

- XBR-250WPSAC-F FRU 250 W AC power supply/fan, non-port-side exhaust airflow
- XBR-250WPSAC-R FRU 250 W AC power supply/fan, port-side exhaust airflow
- XBR-250WPSDC-F FRU 250 W DC power supply/fan, non-port-side exhaust airflow
- XBR-250WPSDC-R FRU 250 W DC power supply/fan, port-side exhaust airflow

The VDX -6740T switches ship with two internal, redundant, field-replaceable, load-sharing AC or DC power supplies:

- XBR-500WPSAC-F -FRU 500 W AC power supply/fan, non-port-side exhaust airflow
- XBR-500WPSAC-R FRU 500 W AC power supply/fan, port-side exhaust airflow
- XBR-500WPSDC-F -FRU 500 W DC power supply/fan, non-port-side exhaust airflow
- XBR-500WPSDC-R FRU 500 W DC power supply/fan, port-side exhaust airflow

The VDX -6940-36Q switches ship with two internal, redundant, field-replaceable, load-sharing AC or DC power supplies:

- XBR-500WPSAC-F -FRU 500 W AC power supply/fan, non-port-side exhaust airflow
- XBR-500WPSAC-R FRU 500 W AC power supply/fan, port-side exhaust airflow
- XBR-500WPSDC-F -FRU 500 W DC power supply/fan, non-port-side exhaust airflow
- XBR-500WPSDC-R FRU 500 W DC power supply/fan, port-side exhaust airflow



The VDX -6940-144S switches ship with two internal, redundant, field-replaceable, load-sharing AC or DC power supplies:

- XBR-1100WPSAC-F -FRU 500 W AC power supply/fan, non-port-side exhaust airflow
- XBR-1100WPSAC-R FRU 500 W AC power supply/fan, port-side exhaust airflow
- XBR-500WPSDC-01-F -FRU 500 W DC power supply/fan, non-port-side exhaust airflow
- XBR-500WPSDC-01-R FRU 500 W DC power supply/fan, port-side exhaust airflow



# Supported Optics for Network OS v7.0.1x

For a list of supported fiber-optic transceivers that are available from Extreme, refer to the latest version of the Extreme Optics Family Data Sheet available online at <a href="https://www.extremenetworks.com">www.extremenetworks.com</a>.

The VDX switches support following optics types listed below. The FC SFP+ optics are supported only on VDX 6740, 2741 and 2746 switches. Breakout optics are supported only for the VDX 8770 (40G line-card), 6740/T, 2741, 2746 and 6940 platforms. The Mellanox (MAM1Q00A) optic is only supported on the VDX 8770, 6740/T and 6940 platforms. The tunable DWDM optics is supported only on VDX 8770, 6740 and 6940-144S platforms 10G ports.

Speed	FRU and Optics SKU	Description	Part Number
	XBR-000190 (1-pack)	1 GbE copper	57-1000042-01
	E1MG-SX-OM (1-pack)*	1000Base-SX	33211-100
1GbE	E1MG-SX-OM-8 (8-pack)*		
	E1MG-LX-OM (1-pack)*	1000Base-LX	33210-100
	E1MG-LX-OM-8 (8-pack)*		
	10G-SFPP-SR (1-pack)	10 Gbps SR	57-0000075-01
	10G-SFPP-SR-8 (8-pack)		
	10G-SFPP-LR (1-pack)	10 Gbps LR (10km)	57-0000076-01
	10G-SFPP-LR-8 (8-pack)		
	10G-SFPP-ER (1-pack)	10 Gbps ER (40km)	57-0000085-01
	10G-SFPP-ER-8 (8-pack)		
	10G-SFPP-ZR	10 Gbps ZR (80km)	57-1000180-01
	10G-SFPP-ZRD-T	10 Gbps tunable DWDM SFP+ (80km)	57-1000266-01
	10G-SFPP-TWX-0101 (1-pack)	1m Twinax copper cable	58-1000026-01
10GbE	10G-SFPP-TWX-0108 (8-pack)		
	10G-SFPP-TWX-0301 (1-pack)	3m Twinax copper cable	58-1000027-01
	10G-SFPP-TWX-0308 (8-pack)		
	10G-SFPP-TWX-0501 (1-pack)	5m Twinax copper cable	58-1000023-01
	10G-SFPP-TWX-0508 (8-pack)		
	10G-SFPP-AOC-0701	10GbE SFP+ Direct Attached Active Optical Cable, 7m, 1-pack	57-1000273-01
	10G-SFPP-AOC-1001	10GbE SFP+ Direct Attached Active Optical Cable, 10m, 1- pack	57-1000274-01
	10G-SFPP-USR	10GE USR SFP+ optic (LC), target range 100m over MMF, 1-pack	57-1000130-01
	40G-QSFP-QSFP-C-0101	40GbE Direct Attached QSFP+ to QSFP+ Active Copper cable, 1m, 1-pack	58-0000041-01
	40G-QSFP-QSFP-C-0301	40GbE Direct Attached QSFP+ to QSFP+ Active Copper cable, 3m, 1-pack	58-0000042-01
	40G-QSFP-QSFP-C-0501	40GbE Direct Attached QSFP+ to QSFP+ Active Copper cable, 5m, 1-pack	58-0000043-01
40GbE	40G-QSFP-4SFP-C-0101	4x10GbE Direct Attached QSFP+ to 4 SFP+ Copper Breakout Cable, 1m, 1-pack	58-0000051-01
	40G-QSFP-4SFP-C-0301	4x10GbE Direct Attached QSFP+ to 4 SFP+ Copper Breakout Cable, 3m, 1-pack	58-0000052-01
	40G-QSFP-4SFP-C-0501	4x10GbE Direct Attached QSFP+ to 4 SFP+ Copper Breakout Cable, 5m, 1-pack	58-0000053-01
	40G-QSFP-SR4	40 GbE SR4 optic	57-1000128-01



Speed	FRU and Optics SKU	Description	Part Number
	40G-QSFP-SR4-INT	40 GbE SR4 (4×10 GbE SFPP break-out capable) Breakout optical cable is not included with this optics	57-1000129-01
	40G-QSFP-SR-BIDI	40 GbE QSFP+ Bi-Directional 100m optics	57-1000339-01
	40G-QSFP-ESR4	40GBase-eSR4 QSFP+ optic (MTP 1x12) 300m over MMF, (10GBASE-SR compatible, breakout), 1- pack	57-1000296-01
	40G-QSFP-ER4	40 GbE 40Km optic	57-1000327-01
	40G-QSFP-LR4	40 GbE 10Km optic	57-1000263-01
	40G-QSFP-LM4	40 GbE 140m multi-mode or 2km single-mode optic	57-1000325-01
	40G-QSFP-QSFP-AOC-1001	40GE Direct Attached QSFP+ to QSFP+ Active Optical Cable, 10m, 1-pack	57-1000306-01
	40G-QSFP-4SFP-AOC-1001	4x10GE Direct Attached QSFP+ to 4 SFP+ Active Optical Breakout Cable, 10m, 1-pack	57-1000307-01
	XBR-000163 (1-pack) XBR-000164 (8-pack)	8G FC SWL	
8G FC	XBR-000153 (1-pack) XBR-000172 (8-pack)	8G FC LWL	
	XBR-000174	8G FC ELWL	
	XBR-000192 (1-pack) XBR-000193 (8-pack)	16G FC SWL	
16G FC	XBR-000198 (1-pack) XBR-000199 (8-pack)	16G FC LWL	
FC QSFP	XBR-000245	4x8G or 4x16G FC QSFP breakout. VDX 6740T, 6740T-1G, 2740 and 2746 only (not applicable for VDX 6740).	
	100G-CFP2-SR10 (1-pack)	100 GbE CFP2 optic, SR10, for distances up to 100 m over MMF	57-1000284-01
	100G-CFP2-LR4-10KM	100 GbE CFP2 optic, LR4, for distances up to 10 km over SMF	57-1000285-01
	100G-CFP2-ER4-40KM	100 GbE CFP2 optic, ER4, for distances up to 40 km over SMF	57-1000328-01
100GbE	100G-QSFP28-SR4	100 GbE SR4 QSFP28 optic for distances up to 100m over MMF. Supported on VDX6940-144S and VDX8770-4/8 platforms.	57-1000326-01
	100G-QSFP28-LR4L-2KM	100 GbE QSFP28 optic for distances up to 2 km over SMF. Supported on VDX 6940-144s and VDX 8770 platforms.	57-1000329-01
	100G-QSFP28-LR4-10KM	100 GbE QSFP28 optic for distances up to 10 km over SMF. Supported on VDX 6940-144s and VDX 8770 platforms.	57-1000334-01

Note: 100G QSFP28 SR4 optic use core-12 cables, same cables that are used for 40G QSFP optics.

The following 10GbE CWDM optics from Smartoptics are supported on VDX 6740, 6940-144S and 8770. Please note that these are not Extreme parts and is a reference sale. So, the parts needs to be



purchased directly from SmartOptics. The mark \* one is qualified by Extreme.

Smartoptics 10GbE CWDM SKU	Description
SO-10GE-ZR-C47	10 Gbps CWDM 1470 nm wavelength (70 km)*
SO-10GE-ZR-C49	10 Gbps CWDM 1490 nm wavelength (70 km)
SO-10GE-ZR-C51	10 Gbps CWDM 1510 nm wavelength (70 km)
SO-10GE-ZR-C53	10 Gbps CWDM 1530 nm wavelength (70 km)
SO-10GE-ZR-C55	10 Gbps CWDM 1550 nm wavelength (70 km)*
SO-10GE-ZR-C57	10 Gbps CWDM 1570 nm wavelength (70 km)
SO-10GE-ZR-C59	10 Gbps CWDM 1590 nm wavelength (70 km)
SO-10GE-ZR-C61	10 Gbps CWDM 1610 nm wavelength (70 km)*

Note: The Smartoptics require at least 20km distance or the appropriate attenuation in order for ISL to form.

The VDX 6940x, VDX 8770, and VDX 6740x switches also support the following Quad to Serial Small Form Factor Pluggable Adapters:

Mellanox MAM1Q00A-QSA	Quad to Serial Small Form Factor Pluggable Adapter which can be used with following P/Ns: 10G-SFPP-SR (10G SR) 10G-SFPP-USR (10G USR) 10G-SFPP-LR (10G LR) 10G-SFPP-ER (10G ER) 10G-SFPP-AOC-0701 (10G AOC 7m) 10G-SFPP-AOC-1001 (10G AOC 10m) 10G-SFPP-TWX-0101 (10G 1m Twinax cable) 10G-SFPP-TWX-0301 (10G 3m Twinax cable) 10G-SFPP-TWX-0501 (10G 5m Twinax cable)
CFP2 to QSFP28 conversion module (PN: 80-1008646-01)	CFP2 to QSFP28 conversion module connects the QSFP28 optic (100G optic) in a CFP2 capable port of 2/6x100G line cards in VDX8770-4/8 chassis.

<sup>\*</sup>Note: Legacy Foundry Networks branded optics are not supported.

<u>Note</u>: 100G QSFP28 SR4 optic used in the CFP2 to QSFP28 conversion module uses core-12 cables, same cables that are used for 40G QSFP optics.



# SOFTWARE UPGRADE AND DOWNGRADE

# Image filenames

Download the following images from www.extremenetworks.com

Image Filename	Description	Supported Device or Module
nos7.0.2a.tar.gz	Network OS v7.0.2a for unix	NA
	Network OS v7.0.2a for	NA
nos7.0.2a.zip	Windows	
nos7.0.2a_all_mibs.tar.gz	Network OS v7.0.2a MIBS	NA
	Network OS v7.0.2a Release	NA
nos 7.0.2a_v1_0_release notes	Notes v1.0 (PDF)	
nos7.0.2a.md5	Network OS v7.0.2a MD5	NA
	Checksum	

# Upgrade/Downgrade considerations

Starting with Network OS v6.0.0, an Extreme 4GB USB drive is required for firmware installation using USB. Extreme 2GB USB drives are not supported.

# Migration Path

Recommended upgrade/downgrade migration paths in both fabric cluster and logical chassis cluster modes are summarized in table below.

**Note:** Firmware download is not available for identical release numbers, such as Network OS 7.0.0 to Network OS 7.0.0.

Fro	o	5.0.2a	6.0.1a	6.0.1a2	6.0.2	7.0.0	7.0.1x/ 7.0.2x  Refer Notes (# 8) for limitation.
5.0	).2a	NA	coldboot	coldboot	coldboot	coldboot default-config	coldboot default-config



6.0.1a	coldboot	NA	ISSU	ISSU	coldboot	coldboot
6.0.1a2	coldboot	coldboot	NA	ISSU	coldboot	coldboot
6.0.2	coldboot	coldboot	coldboot	NA	coldboot	coldboot
7.0.0	coldboot default-config	coldboot	coldboot	coldboot	NA	ISSU*
7.0.1x/ 7.0.2x Refer Notes (# 8) for limitation.	coldboot default-config	coldboot	coldboot	coldboot	coldboot**	ISSU for upgrade; Coldboot for downgrade

#### **NOTES**

- \*ISSU with only non BGP-eVPN IP Fabric configurations are supported between NOS7.0.0 to NOS7.0.1
- 2. \*\* CFP2 to QSFP28 conversion module (PN: 80-1008646-01) Version3 downgrade to any release prior to NOS7.0.1 will cause CRC errors on the link.
- 3. Only Brocade Network Advisor (BNA) v14.0.1 (available separately) supports NOS v7.0.1. It is required to first upgrade to BNA v14.0.1 and then upgrade switches to Network OS v7.0.1.
- 4. Before downgrading to lower releases, it is recommended to disable all new features that are not supported on lower releases by using the "no" version of the CLIs. Stray configurations left out before downgrade can cause undesired behavior.
- 5. While upgrading chassis based system, under stress condition (e.g. due to excessive processing load on the processor), some linecards may become faulty during firmware download. To recover, run "power off sinecard>" followed by "power on <linecard>" command."
- 6. You must remove the IGMP snooping static mrouter configuration from all VLANs before upgrading or downgrading from or to the Network OS 6.0.2x release.
- 7. \*\*Limitations:
  - a) After downgrading from Network OS v7.0.1 to Network OS v5.0.x FCoE devices may not log back in or FCoE configuration may be lost. To recover, reload the switch. Alternate recovery method: re-configure FCoE by removing and adding fcoeport configuration (no fcoeport/fcoeport default) on the affected interfaces.
    - b) In rare occurance, 40G links may not come up online after upgrade to 7.0.1, need to do shut/no shut to recover
    - c) In VDX 8770 platforms, After upgrade form 6.0.2 to 7.0.1 with coldboot, SNMP V3 traps are not received for the V3host which is under Rbridge.



- d) Dport test between VDX 6740T and VDX 6940-144S breakout link may fail in upgrade to 7.0.1.
- 8. ISSU is not supported from NOS7.0.1a/NOS7.0.1b to NOS7.0.2/NOS7.0.2a.

## Management IP connectivity

In regards to SNMP, firmware downgrade from Network OS v7.0.x to v6.0.0/v6.0.1x/v5.0.x that do not support "use-vrf" keyword, the host/v3host with use-vrf value as "default-vrf" or "user-defined vrf" is not supported. The host/v3host configuration should set the use-vrf value as "mgmt-vrf" before downgrade.

Also, firmware downgrade from Network OS v7.0.1 to v6.0.0/v6.0.1x/v5.0.x with use-vrf option in host/v3host set to user-defined vrf is not supported. The host/v3host configuration should set the use-vrf value as "mgmt-vrf" or "default-vrf" before downgrade.

Firmware upgrade to v7.0.1 from v6.0.0/v6.0.1x/v5.0.x that do not support "use-vrf" keyword will modify the host/v3host configuration to append "use-vrf" keyword with value of mgmt-vrf and all the existing host/v3host entries will be assigned to mgmt-vrf.

Similarly on downgrade, the "use-vrf" keyword will be automatically removed from the configuration & depending upon the version, it will be put into mgmt-vrf.

The above downgrade/upgrade restrictions holds good for other IP services like Syslog-server, sFlow, NTP, Radius, TACACS and LDAP

For users in 5.x that have configured Inband Management over VE interfaces, may expect to see the configuration fall into Default VRF, however, as noted above, the "use-vrf" keyword pointing to mgmt-vrf will be appended & applied. Thus such customers would need to modify the configuration after upgrade to adapt it according to their needs.

For HTTP services, firmware upgrade to v7.0.1 will add two entries by default under http configuration with "use-vrf" keyword appended with value as "mgmt-vrf" and other entry as "default-vrf".

Firmware downgrade to v6.0.1/6.0.2 with http server on user-defined vrf is not supported. Http server configuration on user-defined vrf should be removed before downgrade.

Firmware downgrade to v6.0.0 or v5.0.x that do not support "use-vrf" keyword, the http server configuration on default-vrf and user-defined vrf are not supported. Http server configuration on default-vrf and user-defined vrf should be removed before downgrade.

#### Firmware Installation

In fabric cluster mode



- The "firmware download" command is required to be executed by logging on to each individual node.
- Under certain stress conditions firmware download might time out on a node, (e.g. due to
  excessive processing load on the processor). The firmware download command will recover
  the system automatically. It is required to wait for completion of recovery before retrying
  the firmware download command.
- While upgrading firmware on the node, it is recommended not to make any configuration changes before firmware download has been completed successfully.

#### In logical chassis cluster mode

- The "firmware download logical-chassis" command can be used from the principal node to upgrade one or more nodes in the cluster.
  - Under certain stress conditions firmware download might time out on some nodes, (e.g. due to excessive processing load on the processor) it is recommended to re-run the logical-chassis firmware download command to upgrade these failed nodes and bring their firmware level to be the same as the rest of nodes first before activating any of them.
  - While upgrading the cluster, it is recommended not to make any configuration changes in the cluster until all of the nodes have been upgraded to the same firmware. Otherwise, it may cause cluster segmentation.
  - The firmware download command can also be executed on individual nodes. In such a case, please follow the procedure from Fabric cluster mode.

General information on installing Extreme Network OS can be found in the Extreme *Network OS Administrator's Guide.* This section includes special considerations and caveats to be aware of when upgrading to or from this version of Extreme Network OS, as well as recommended migration paths to use to reach this version of Extreme Network OS.

**Note**: Installing Extreme Network OS may be service disruptive and any unsaved running configuration may be lost during the process. In Fabric cluster mode, running-config needs to be saved to startup-config in order to preserve the running-config across reboots. In Logical Chassis mode, running-config is always preserved across reboots. The firmware version migration path determines if the configuration across upgrade/downgrade shall be preserved.

# Upgrading to this Release (Best Practices)

In logical chassis cluster mode it is required to upgrade Principal switch at the end if all nodes in the cluster are not upgraded at the same time.

#### A. Upgrade all nodes in the cluster at same time -- Service Disruptive Cluster Wide

- Download the firmware on all the switches running Network OS v7.0.1 using the coldboot option.
- After all switches complete the firmware download, they will be automatically rebooted.
- Since all nodes reboot at the same time, this procedure is service disruptive.

#### B. Upgrade Odd/Even Nodes (one segment at a time)—Lossless Upgrade:

- This is the most recommended procedure for lossless upgrade. This requires servers to be dual homed.
- Download the firmware in all the odd nodes running Network OS with the coldboot option.
- After these switches complete the firmware download, they will be rebooted automatically. After they boot up, half of the cluster is now on the latest version.
   Traffic resumes and passes through the other half of the cluster.
- Now download the firmware in all even nodes with the coldboot option.
- After these switches complete the firmware download, they will be rebooted automatically. After they boot up, the entire cluster is loaded with latest image and up and running

#### C. Upgrade one node at a time -- Service Disruptive at Node level in the Cluster

- Download the firmware in the switch nodes one node at a time in cluster running Extreme NOS 6.0.x using the coldboot option. Principal node in a cluster should be last to be upgraded.
- After a node is upgraded, it will join the existing Network OS v7.0.1 cluster and form Fabric cluster. Eventually, when all the nodes are upgraded, they will form one Network OS 7.0.1 VCS Cluster. The data path will remain intact in Fabric cluster. [Note that no configuration changes are allowed during this time.]

# Downgrading to a Previous Release

- In normal circumstances, the SW/0 partition is Active. When an ISSU performed, the SW/1 partition becomes active. In order to ensure config is retained during coldboot downgrade, it is important to have SW/0 partition Active before downgrade. The SW/0 partition can be made Active by reloading the switch before initiating firmware downgrade.
- Alternative: Execute a coldboot downgrade with SW/1 Active.
  - Back-up the config to external server by "copy running file" (for logical chassis cluster) or "copy running start" (for fabric cluster).

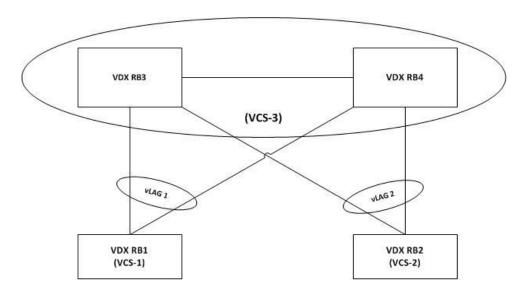
 Execute a coldboot downgrade. In FC mode, the startup-config file will be re-applied automatically. In LC mode, copy the 6.0.1x config back by executing "copy file running".

# Upgrade/downgrade Considerations for vLAG deployments

There are 2 approaches by which vLAG nodes can be upgraded.

- Approach 1: Graceful shutdown of vLAG ports on one node at a time.
- **Approach 2**: Static vLAGs and Dynamic vLAGs without configuration changes.

#### vLAG deployment upgrade Illustration



**Approach 1:** Graceful shutdown of vLAG ports on one node at a time.

**Step 1:** If in FC mode, shut the port-channel associated with vLAG 1 on RB3. With LC mode, shutting down port-channel takes down entire port-channel including port-channel interfaces on remote RBs. Therefore, if in LC mode, shut all the member ports of the vLAG 1 on RB3.

**Step 2:** Save running configuration to startup-configuration if VCS is in FC mode. This reduces the vLAG into a single node vLAG/port-channel on RB4. **Note:** if the vLAG is in static mode, all members of the port-channel should be shutdown. This is due to the static LAG behavior where it may bring up the member links even if the port-channel is admin shut.

Step 3: Upgrade RB3 to the desired Network OS version.

**Step 4**: After RB3 has rebooted from the Network OS upgrade and is operational, repeat step 1 and 2 on RB4. **Warning:** there will be a complete impact to the data path on vLAG 1 at this time.

**Step 5**: Promptly perform "no shutdown" on all the interfaces that were shut in step 1 and 2 on RB3. **Note:** if the vLAG is in static mode, it is required to perform "no shutdown" on all the shutdown members of the port-channel.

Step 6: Upgrade RB4 to the desired Network OS version.

**Step 7**: After RB4 has rebooted after Network OS upgrade and is operational, promptly perform "no shutdown" on all the interfaces that were shut in step 1 and 2 on RB4.

**Step 8**: Verify RB3 and RB4 were successfully upgraded to the desired Network OS version and the vLAG on RB3 and RB4 was re-established and operational with traffic forwarding.

**Step 9**: If VCS is in FC mode, perform a "copy running-configuration startup-configuration" on RB3 and RB4 to return the startup-configuration back to the original configuration.

#### **Advantages**

- Clean upgrade
- No duplicate primary port issues
- Works well for both static and dynamic vLAGs.

#### **Disadvantages**

- Requires manual execution by administrator to perform shutdown/no shutdown on port-channel, allowing for human errors particularly with large numbers of vLAGs.
- Requires precise and efficient execution.
- Impact to the data path for a very small period of time when the vLAG is shut on the second node (RB4).

Approach 2: Static vLAGs and Dynamic vLAGs without configuration changes.

**Step 1:** Upgrade RB3 to the desired Network OS version and reboot. There are two possible behaviors depending on the *ignore-split* configuration as follows:

*Ignore-split on (default)*: No impact/reconvergence to Static or Dynamic vLAGs. Minimal data path impact observed.

Ignore-split off: For Dynamic vLAGs,

- if RB3 is the primary vLAG node, observe vLAG flap and a few seconds of data path impact.
- if RB3 is not the primary vLAG node, there will be minimal data path impact but no vLAG reconvergence.

**Step 2:** After RB3 has rebooted from the Network OS upgrade and is operational, RB3 will re-join the vLAG.

**Step 3:** Upgrade RB4 to the desired Network OS version and reboot. There are two possible behaviors depending on the *ignore-split* configuration as follows:

**Ignore-split on (default)**: No impact/reconvergence to Static or Dynamic vLAGs. Minimal data path impact observed.

Ignore-split off: For Dynamic vLAGs:

- If RB4 is the primary vLAG node, observe vLAG flap and a few seconds of data path impact.
- If RB4 is not the primary vLAG node, there will be minimal data path impact but no vLAG reconvergence.

**Step 4:** After RB4 has rebooted from the Network OS upgrade and is operational, RB4 will re-join the vLAG with the three possible behaviors as follows:

#### **Advantages:**

- No manual administrative configuration required.
- Straightforward upgrade process, no special handling for vLAGs.

#### **Disadvantages:**

- Data path impact as detailed above.

# Upgrade/downgrade with default configuration

**Step 1:** Copy and save the running configuration to the RBridge flash or FTP server.

**Step 2:** If default-config option is available in firmware download command in the active NOS version on the switch, execute firmware download using default-config. If default-config option is not available perform copy default configuration to startup configuration.

**Step 3:** If the VCS is in FC mode, reboot the RBridge manually. If the VCS is in LC mode, all the RBridge(s) in the VCS will reboot automatically.

**Step 4:** Downgrade the RBridge(s) to the desired Network OS version and reboot the RBridge(s).

Step 5: Restore the original configuration file by copying the configuration saved in step 1 back to the running-configuration (Individually on each RBridge in FC mode, and from principal RBridge if in LC mode)

**Step 6:** In FC mode, save the configuration by performing copy running-configuration to the startup-configuration. In LC mode, configuration is automatically saved and is persistent.

# Management Gateway IP changes

#### VDX Fixed-form switches (No L3 license required)

Starting with Network OS v5.x, Management Gateway IP can only be configured under Rbridge-Id context/vrf mgmt-vrf as follows:

```
SW(config) # rbridge-id <RBridge#>
SW(config-rbridge-id-<RBRidge#>) # vrf mgmt-vrf
SW(config-vrf-mgmt-vrf) # address-family ipv4 unicast
SW(vrf-ipv4-unicast) # ip route 0.0.0.0/0 <GW IP Address>
```

#### Note:

After upgrading to Network OS v5.x or above, remove the old Gateway using "no ip route" command and configure the new route with higher metric to avoid forming ECMP with old and new gateways.

#### VDX 8770 (with L3 license/without L3 license)

Prior to Network OS v4.0.0, Management Gateway could be configured in two ways based on the availability of L3 license on the node.

- L3 license installed: Configure using command "ip route 0.0.0.0/0 <gateway ip>". Using the command "ip gateway-address" under the management interface will display an error.
- L3 license not installed: Configure using command "ip gateway-address" under the management interface.

In Network OS v4.0 there is only one option to configure the gateway that is "ip route 0.0.0.0/0 <gateway ip>".

#### Note:

After upgrading to Network OS v4.0.1 or above, it is required to remove the old Gateway using "no ip route" command and configure the new route with higher metric to avoid forming ECMP with old and new gateways.

# Management Services

#### Telnet, SSH and AAA VRF support

Starting with Network OS 7.0.0, support for TELNET, SSH and AAA (RADIUS, TACACS+ and LDAP) on user defined / default vrf is provided.

#### CLI Changes for Telnet, SSH, AAA

The following CLI has an additional parameter "use-vrf" to support these features.

[no] ssh server use-vrf <vrf-name> [shutdown]

[no] telnet server use-vrf <vrf-name> [shutdown]

[no] Idap-server host <IPv4|IPv6|hostname> [use-vrf <VRF name>]

[no] tacacs-server host < IPv4|IPv6|hostname > [use-vrf < VRF name >]

[no] radius-server host < IPv4 | IPv6 | hostname > [use-vrf < VRF name>]

#### HTTP VRF support

HTTP/HTTPS services are supported on user-defined VRF and default-vrf in addition to mgmt-vrf. CLI option use-vrf is introduced to enable/disable HTTP/HTTPS services on user-defined/default-vrf.

[no] http server use-vrf <vrf-name> shutdown

#### NTP VRF support

Starting with Network OS 7.0.0, support for NTP on user defined / default vrf and MGMT-VRF in Inband is provided

#### **CLI Changes for NTP**

The following CLI has an additional parameter "use-vrf" to support this feature.

[no] ntp server < IPv4 | IPv6 | hostname > [use-vrf] < mgmt-vrf | default-vrf | non-default-vrf >]

#### SNMP- Community string maximum length increased to 64:

Maximum length for community string is increased from 16 to 64 characters.

#### SNMP - Support for traps during hafailover:

Cpstatuschange trap will be triggered during hafailover with cpLastEvent as hafailoverstart and hafailoverdone to notify that hafailover is started and hafailover is completed in the switch.

#### SNMP-Trap Source IP support:

CLI option source-interface is introduced in host/v3host commands to select the loopback/ve interface IP as source IP in traps.

[no] snmp-server host ip-address <community-string> source-interface {

loopback number | ve vlan\_id}]

[no] snmp-server v3host ip-address <username> source-interface {

loopback number|ve vlan id}]

#### SNMP context based query:

A single SNMP agent can be supported by multiple instances of the same MIB module by mapping the context name to a virtual routing and forwarding (VRF) instance created within the switch. Each VRF is mapped with a specific key called context name. The context name is used to identify the VRF and fetch the MIB details of the mapped VRF from the underlying modules. In case of snmp v1 and v2c, we need to map the community with the context name.

[no] snmp-server context <context\_name> vrf <vrf\_name>

[no] snmp-server mib community-map <community-name> context <context-name>

#### SNMP MIB – VLAN update

During an snmpwalk or snmpgetbulk, all the VLAN interfaces are filtered out from the IF MIB output. Similarly, there is an object "ifNumber" that tells the number of interfaces in the system. The "ifNumber" object is also correspondingly reduced by this number.

#### SNMP Trap VRF Support

SNMP is able to receive the packets from any VRF including mgmt-vrf/default-vrf and respond to the corresponding VRF from where the SNMP packet is received. The support is also added to send the notification (trap) to the host/v3host configured in the switch through the vrf-name mapped with the host/v3host.

#### SNMP-Trap CLI

CLI option use-vrf is introduced to get the vrf-id for each client. This option is applicable for both SNMP V1/V2c and V3 versions in host/v3host commands.

[no] snmp-server host ip-address community <comm-string> use-vrf <vrf-name>

[no] snmp-server v3host ip-address <username> [notifytype traps | informs] use-vrf <vrf-name>

To disable per link TRAP under interface

[No] snmp trap link-status

#### SNMP - IF MIB

To display Interface details when linecard is powered-off

[No] snmp-server offline-if enable

#### Sflow VRF Support

Sflow can be configured to point to collector in either default-vrf, mgmt-vrf, or non-default vrf..

#### Sflow-CLL

CLI option use-vrf is introduced to assign the vrf-id for each client.

[no] sflow collector <ipv4/ipv6 address> <port> [use-vrf] <mgmt-vrf | default-vrf |
non-default-vrf >

#### Syslog VRF Support

Syslog servers logging can be configured to point to syslog servers in default-vrf, mgmt-vrf, or non-default vrf.

#### Syslog-CLI

CLI option use-vrf is introduced to get the vrf-id for each client.

[no] logging syslog-server <code><ipv4/ipv6</code> address<code>></code> use-vrf <code><mgmt-vrf</code> | default-vrf | non-default-vrf <code>></code> [secure [port <code><xxxx></code>]]

#### LDAP Support

We support Windows LDAP Active Directory 2008 and 2012

#### Firmware download, Copy support, Copy config

The use-vrf option is introduced to these commands to specify the name of VRF where the server resides.

# Other Management Services

Other management services like REST, Netconf, HTTP, SNMP MIB's would be available in default, user defined and management VRFs.

# SCALABILITY AND INTEROPERABILITY

# Scalability numbers

All scalability limits are subject to change. The limits noted in this section apply to all the platforms listed unless otherwise specified.

NOS v7.0.1 Scalability Numbers	VDX 6740, 6740T, 6740T- 1G	VDX 8770	VDX 6940- 36Q	VDX 6940- 144S
Maximum # of dot1Q VLANs (Virtual-Fabric Disabled)	4096	4096	4096	4096
Maximum # of VLANs (dot1Q + Virtual-Fabric)	6000	8192	8192	8192
Maximum # of Service Virtual Fabric VLANs	2000	4096	4096	4096
Maximum # of Transport Virtual Fabric VLANs	1000	1000	1000	1000
Maximum # of MAC addresses per Switch	120000	256000	75000	75000
Maximum # of MAC addresses per Fabric (with CML)	256000	256000	256000	256000
Maximum # of MAC addresses across VxLAN tunnels per VCS cluster for VMware NSX	8000	N/A	8000	8000
Maximum # of MAC addresses across VxLAN tunnels per VCS cluster for Virtual-Fabric Extension	120000	N/A	75000	75000
Maximum # of MAC-based Virtual-Fabric VLAN Classification per switch	256	1024	1000	1000
Maximum # of Classified Virtual Fabric VLANs per Trunk Interface	2000	4096	4096	4096
Maximum # of port profiles (AMPP)	1000	1,000	512	512
Maximum # of VLANS in port profiles	3500	4000	3500	3500
Maximum # of sites (tunnels) in Virtual-Fabric Extension	50	N/A	50	50
Maximum # of dot1q VLANs that can be attached on VxLAN GW for Virtual-Fabric Extension	4000	N/A	4000	4000
Maximum # of Virtual-Fabric (Service + Transport) VLANs that can be extended via Virtual-Fabric Extension	2000	N/A	4000	4000
Maximum # of dot1q VLANs + Virtual-Fabric VLANs enabled on edge-interfaces that can be attached to VxLAN GW and extended via Virtual-Fabric Extension	(2000+1000)	N/A	(2000+100 0)	(2000+10 00)
Max # of IGMP groups over Tunnels via Virtual- Fabric Extension	6000	N/A	6000	6000

NOS v7.0.1 Scalability Numbers	VDX 6740, 6740T, 6740T- 1G	VDX 8770	VDX 6940- 36Q	VDX 6940- 144S
Max # of BFD sessions over Virtual-Fabric Extension Tunnels	10	N/A	10	10
Maximum # of dot1q VLANs that can be attached on VxLAN GW for VMware NSX	2000	N/A	2000	2000
Maximum # of VLANs (dot1q VLANs attached to VxLAN GW for NSX + Virtual Fabric VLANs enabled on edge-interfaces)	(2000+1,000)	N/A	(2000+100 0)	(2000+10 00)
Maximum # of VxLAN tunnels with VMware NSX	250	N/A	250	250
Maximum # of service-nodes with VMware NSX	5	N/A	5	5
Maximum # of MAC Associations for AMPP	8000	4000	8000	8000
Maximum # of per priority pause levels	3	8	3	3
Maximum # of VMware vCenters per Fabric	4	4	4	4
Maximum # of ELD instances in the fabric	2000	2000	2000	2000
Maximum # of IGMP Snooping Interfaces supported	512	512	512	512
Learning rate for IGMP snooping (groups/second)	512	512	512	512
Maximum # of L2 (IGMP Snooping) multicast groups	6000	6000	6000	6000
Maximum # of MLD Interfaces	256	256	256	256
Maximum # of MLD Groups	4000	4000	4000	4000
Learning rate for MLD snooping (groups/second)	512	512	512	512
# of L3 (S,G) forwarding Entries	2000	2000	2000	2000
# of L3 (*,G) forwarding Entries	256	256	256	256
PIM Interfaces Supported	32	32	32	32
IGMP interfaces supported	32	32	32	32
Learning Rate for PIM-SM (flows/second)	32	32	32	32
Maximum # of L2 ACL(ingress/egress) *	3000/120	12000/20 00	6128/496	6128/49 6
Maximum # of L3 ACL ipv4 (ingress/egress) *	1500/120	12000/20 00	3064/475	3064/47 5
Maximum # of class-maps	2048	2048	2048	2048
Maximum # of policy-maps	2048	2048	2048	2048
Maximum # of class-maps per policy map	50	50	50	50
Maximum Total # of L3 ACL ipv6 (ingress/egress) *	500/120	4000/200 0	1000/500	1000/50 0
Maximum # of VF/FCoE interfaces/Logins (Per switch)	1000	1000	1000	1000
Maximum # of Enodes/FCoE Devices per Fabric	2000	2000	2000	2000
Maximum # of NPIV per Port	64	64	64	64
Maximum # of SAN Devices (FC + FCoE) per Fabric	3000	3000	3000	3000

NOS v7.0.1 Scalability Numbers	VDX 6740, 6740T, 6740T- 1G	VDX 8770	VDX 6940- 36Q	VDX 6940- 144S
Maximum # of MSTP instance	32	32	32	32
Maximum # of VLAN in PVST	128	128	128	128
Maximum # of LAGs (Port Channels)	64	288	144	144
Maximum # of members in a standard LAG	16	16	16	16
Maximum # of members in a Brocade Trunk (10G)	16	8	12	12
Maximum # of members in a Brocade Trunk (40G)	2	NA	3	3
Maximum # of members in a Brocade Trunk (100G)	NA	NA	NA	NA
Maximum # of switches in a Fabric cluster mode  **	48	48	48	48
Maximum # of switches in Logical cluster mode  **	48	48	48	48
Maximum # of L2 ECMP Paths	16	8	16	16
Maximum # of vLAGs in a fabric	2000	2000	2000	2000
Maximum # of member ports in a vLAG	64	64	64	64
Maximum # of nodes in a vLAG	8	8	8	8
Maximum # of member ports per vLAG per Node	16	16	16	16
Maximum # of Management ACL	256	256	256	256
Maximum # of ARP Entries *	16000	126000	72000	72000
Maximum # of OSPF areas	20	64	20	20
Maximum # of OSPF routers in a single area	64	200	64	64
Maximum # of OSPF adjacencies	100	200	100	100
Maximum # of OSPF routes *	8,000	64,000	10000	10000
# of OSPF Interfaces	100	1,000	100	100
# of OSPF enabled subnets	100	1,000	100	100
# of local subnets in a single area	100	1,000	100	100
Maximum # of OSPFv3 areas	9	9	9	9
Maximum # of OSPFv3 routers in a single area	64	200	64	64
Maximum # of OSPFv3 adjacencies	100	200	100	100
Maximum # of OSPFv3 routes *	1500	64000	1500	1500
# of OSPFv3 Interfaces	100	256	100	100
# of OSPFv3 enabled subnets	100	256	100	100
Maximum # of IPv4 routes in SW *	8000	280000	10000	10000
Maximum # of IPv6 routes in SW *	1500	64000	1500	1500
Maximum # of IPv4 static routes *	2000	40,000	2000	2000
Maximum # of IPv6 static routes *	500	20,000	500	500
Maximum # of VRRP instances per system	255	1024	512	512
Maximum # of VRRP v3 instances per system	255	1024	512	512

NOS v7.0.1 Scalability Numbers	VDX 6740, 6740T, 6740T- 1G	VDX 8770	VDX 6940- 36Q	VDX 6940- 144S
Maximum # of VRRP instances per interface	32	32	32	32
Maximum # of routers participating in a VRRP-E session	8	8	8	8
Maximum # of virtual IP addresses per VRRP instance	16	16	16	16
Maximum # of FVG instances per system	256	4096	1024	1024
Maximum # of FVG instances per interface	1	1	1	1
Maximum # of routers participating in a FVG session	32	32	32	32
Maximum # of Gateway IP addresses per FVG instance	1	1	1	1
Maximum # of IPv4 routes with ECMP supported *	8000	200000	10000	10000
Maximum # of IPv6 routes with ECMP supported *	1500	64000	1500	1500
Maximum # of L3 ECMP	16	32	32	32
Maximum # of IPv4 interfaces per system *(Ve intf)	2000	4000	2000	2000
Maximum # of IPv6 interfaces per system * (Ve intf)	512	4000	512	512
Maximum # of VRF per node	32	512	512	512
Maximum # of VRFs support protocols per node	32	128	128	128
Maximum # of I-BGP peers	256	512	256	256
Maximum # of E-BGP peers	256	256	256	256
Maximum # of IPv4 BGP routes in HW *	8000	200000	10000	10000
Maximum # of IPv6 BGP routes in HW *	1,500	64000	1500	1500
Maximum # of IPv4 RIB (IN + OUT) Routes *	110000	1300000	110000	110000
Maximum # of IPv6 RIB (IN + OUT) Routes *	110000	1300000	110000	110000
Maximum # BGP IPv4/IPv6 Peer Group	100	250	100	100
Maximum # of BFD sessions per node	100	100	100	100
Maximum # of UDLD enabled interfaces	64	384	144	108
Maximum # of PVLAN domain supported	1000	1000	1000	1000
Maximum # of Secondary vlans per PVLAN supported	24	24	24	24
Maximum # of primary vlans per PVLAN supported in promiscuous mode	24	24	24	24
DHCP IP Helper Addresses per interface	16	16	16	16
DHCP IP Helper VE interfaces	256	1,000	256	256
DHCP IP Helper physical ports	60	384	60	60
DHCP IP Relay Addresses per Node	2000	4000	2000	2000
DHCP IPv6 Relay Address per Node	2000	4000	2000	2000
Max Number of configurable PBR route maps	64	64	64	64
•			1	

NOS v7.0.1 Scalability Numbers	VDX 6740, 6740T, 6740T- 1G	VDX 8770	VDX 6940- 36Q	VDX 6940- 144S
Max Number of configurable PBR stanzas	1024	1024	1024	1024
Max Number of HW entries available for PBR	512	8192	512	512
Max Number of configurable next hops within a single PBR stanza	128	128	128	128
Max # of OpenFlow Active Connections	1	1	1	1
Max # of OpenFlow Passive Connections	1	1	1	1
Maximum # of OpenFlow L2 flows	1000	4000	879	879
Maximum # of OpenFlow L3 flows	1000	4000	879	879
Maximum # of Total OpenFlow GROUP	768	768	768	768
Maximun # of OpenFlow GROUP Type ALL	256	256	256	256
Maximun # of OpenFlow GROUP Type SELECT	256	256	256	256
Maximun # of OpenFlow GROUP Type INDIRECT	256	256	256	256
Max # of Buckets per GROUP ALL	16	16	16	16
Max # of Buckets per GROUP SELECT	8	8	8	8
Max # of Buckets per GROUP INDIRECT	1	1	1	1
Max # of ACTIONS per Bucket	3	3	3	3
Max # METERS	1024	4096	1024	1024
Maximum # of MAPS policy	10	10	10	10
Maximum # of MAPS rules	250	250	250	250
Maximum # of MAPS groups	64	64	64	64

<sup>\*</sup> Parameters mentioned are applicable on specific HW profiles. Please check the Network *OS Administrator's Guide* for the specific HW profiles.

# IP Fabric Scalability:

IP Fabric Scalability Numbers	VDX- 8770	VDX-6940		VDX 6940-144s		VDX 6740, VDX 6740T
	Spine	Spine	Leaf	Spine	Leaf	Leaf
VLANS extended with VxLANs (no. of tunnels * VLANs * ECMP)	NA	NA	16k	NA	16k	16k
Software MAC entries (CML)	NA	200k	200k	200k	200k	200k
Software ARP entries (Conversational ARP)	NA	100k	100k	100k	100k	100k
Software ND entries (Conversational-						
ND)	NA	50k	50k	50k	50k	50k
BGP eVPN IPv4 routes	200k	200k	200k	200k	200k	200k
BGP eVPN IPv6 routes	64k	2k	2k	2k	2k	2k

<sup>\*\*</sup>Please consult your Extreme SE for best practices when designing a 48-node VCS Fabric. In Hybrid cluster environment (a cluster involving various VDX platforms), the scalability limit of the cluster is determined by the scalability limit of the lowest denominator. For instance, in such a fabric, if the MAC scalability limit on one VDX platform is lower than the other, then the fabric supports the lower scale value.

BGP eVPN MAC-IP routes	100k	100k	100k	100k	100k	100k
BGP eVPN MAC routes	200k	200k	200k	200k	200k	200k
Max # of IP Unnumbered interface	384	36	36	144	144	52
Max # of IP Port channel interface	384	36	36	144	144	52
Max # of members per IP Port-Channel						
Interface	8	8	8	8	8	8
Max # of Leaf – Spine ECMP	16	16	16	16	16	16
Max # of SAG addresses per interface	32	32	32	32	32	32

# HW Profile and Platorm Specific Scale Numbers

# **Route Profile Scale:**

VDX 6740, 6740T, 6740T							
NOS v7.0.0 Scalability Numbers		F	OUTE PRFIL	.E			
	DEFAULT	IPV4- MAX- ROUTE	IPV4- MAX- ARP		IPV6-MAX- ROUTE	IPV6- MAX-ND	
Maximum # of IPv4 routes with ECMP supported *	4000	8000	8000	6000	2000	2000	
Maximum # of IPv6 routes with ECMP supported *	1000	0	0	500	1500	1500	
Maximum # of OSPF routes *	4000	8000	8000	6000	2000	2000	
Maximum # of OSPFv3 routes *	1000	0	0	500	1500	1500	
Maximum # of IPv4 BGP routes in HW *	4000	8000	8000	6000	2000	2000	
Maximum # of IPv6 BGP routes in HW *	1000	0	0	500	1500	1500	
Maximum # of IPv4 routes in SW *	4000	8000	8000	6000	2000	2000	
Maximum # of IPv6 routes in SW *	1000	0	0	500	1500	1500	
Maximum # of ARP Entries *	16000	16000	16000	16000	16000	16000	
Maximum # of IPv6 neighbor cache Entries *	4000	0	0	4000	4000	4000	

VDX 6940-36Q, VDX 6940-144S							
NOS v7.0.0 Scalability Numbers		RC	OUTE PRFILE				
	DEFAULT	IPV4- MAX- ROUTE	IPV4- MAX- ARP	IPV4- MIN-V6	IPV6-MAX- ROUTE	IPV6-MAX- ND	
Maximum # of IPv4 routes with ECMP supported *	6000	10000	10000	8000	2500	2500	
Maximum # of IPv6 routes with ECMP supported *	1000	0	0	500	2000	2000	
Maximum # of OSPF routes *	6000	10000	10000	8000	2500	2500	
Maximum # of OSPFv3 routes *	1000	0	0	500	2000	2000	
Maximum # of IPv4 BGP routes in HW *	6000	10000	10000	8000	2500	2500	
Maximum # of IPv6 BGP routes in HW *	1000	0	0	500	2000	2000	
Maximum # of IPv4 routes in SW *	6000	10000	10000	8000	2500	2500	
Maximum # of IPv6 routes in SW *	1000	0	0	500	2000	2000	
Maximum # of ARP Entries *	43000	49000	73000	49000	6000	6000	
Maximum # of IPv6 neighbor cache Entries *	12000	0	0	10000	30000	30000	

	VDX 8770						
NOS v7.0.0 Scalability Numbers		Р	ROFILE				
	DEFAULT	IPV4- MAX- ROUTE	IPV4- MAX- ARP	IPV4- MIN-V6	IPV6-MAX- ROUTE	IPV6-MAX- ND	
Maximum # of IPv4 routes with ECMP supported *	65000	280000	198000	163000	20000	12000	
Maximum # of IPv6 routes with ECMP supported *	16000	2000	2000	8000	64000	12000	
Maximum # of OSPF routes *	64,000	64,000	64,000	64,000	20000	12,000	
Maximum # of OSPFv3 routes *	16000	2000	2000	8000	64000	12000	
Maximum # of IPv4 BGP routes in HW *	65000	280000	198000	163000	20000	12000	
Maximum # of IPv6 BGP routes in HW *	16000	2000	2000	8000	64000	12000	
Maximum # of IPv4 routes in SW *	65000	280000	198000	163000	20000	12000	
Maximum # of IPv6 routes in SW *	16000	2000	2000	8000	64000	12000	
Maximum # of ARP Entries *	98000	40000	129000	98000	12000	20000	
Maximum # of IPv6 neighbor cache Entries *	28000	2000	2000	12000	12000	65000	

## **L2 L3 Multicast Scale :**

TCAM PROFILE DEFAULT,DYN-ARP-INS,OPENFLOW						
Maximum # of L2 (IGMP Snooping) multicast groups 1000(openflow) 6000 6000 6000						
Maximum # of MLD Groups	0	512	4000	4000		
# of L3 (S,G) forwarding Entries	2000	2,000	2000	2000		
# of L3 (*,G) forwarding Entries	256	256	256	256		

TCAM PROFILE IPV4-IPV6-MCAST						
Maximum # of L2 (IGMP Snooping) multicast groups	1000	6000 (16000)	6000	6000		
Maximum # of MLD Groups	500	4000 (8000)	4000	4000		
# of L3 (S,G) forwarding Entries	2,000	2,000	2000	2000		
# of L3 (*,G) forwarding Entries	256	256	256	256		

## **ACL Scale:**

VDX8770-4									
NOS v7.0.0 Scalability Numbers		TCAM PROFILES							
	DEFAULT	DNY- ARP- INSP	IPV4- ACL	IPV4- V6- MCAST	IPV4- V6- PBR	IPV4- V6- QOS	L2-ACL- QOS	L2-IPV4- ACL	OPEN FLOW
Maximum # of L2 ACL(ingress/egress) *	16000/ 2000	12000/ 2000	512/1016		500/ 1000	500/ 1000	32000/ 2000	16000/ 2000	12000/ 2000
Maximum # of L3 ACL ipv4 (ingress/egress) *	16000/ 2000	16000/ 2000	51000/ 2000		8000/ 2000	8000/ 2000	5000/ 2000	24500/ 2000	12000/ 2000
Maximum # of L3 ACL ipv6 (ingress/egress) *	500/2000	500/2000	0/2000		4000/ 2000	4000/ 2000	0/ 1000	0/ 2000	500/ 2000

VDX6940									
NOS v7.0.0 Scalability Numbers	TCAM PROFILES								
	DEFAULT	DNY- ARP- INSP	IPV4- ACL		V6-PBR		L2-ACL- QOS		OPENFLO W
Maximum # of L2 ACL(ingress/egress ) *	500/256	500/256	N A	500/25 6	0/0	0/0	3000/25 6	1500/25 6	500/256
Maximum # of L3 ACL ipv4 (ingress/egress) *	1000/25 6	1000/25 6	NA	500/25 6	500/25 6	500/25 6	1000/25 6	1500/25 6	500/256
Maximum # of L3 ACL ipv6 (ingress/egress) *	500/256	500/256	NA	500/25 6	500/25 6	500/25 6	0/256	500/256	0/256

VDX6740								
	TCAM PROFILES							
DEFAULT	DNY- ARP- INSP		V6-	V6-	V6-	ACL-	IPV4-	OPENFLOW
500/120	500/120	500/120	0/0	0/0				500/120
500/120	500/120	500/120	500/ 120	500/ 120		l '	1500/ 120	500/120
500/120	500/120	500/120	500/ 120	500/ 120		1	0/ 120	0/120
	500/120	ARP- INSP 500/120 500/120 500/120 500/120	TCAM PROFI DEFAULT DNY- ARP- INSP IPV4-ACL  500/120 500/120 500/120  500/120 500/120	TCAM PROFILES  DEFAULT DNY-ARP-INSP IPV4-ACL V6-MCAST  500/120 500/120 500/120 0/0  500/120 500/120 500/120 500/ 500/120 500/120 500/120 500/	TCAM PROFILES  DEFAULT DNY-ARP-INSP IPV4-ACL V6-NCAST PBR  500/120 500/120 500/120 0/0 0/0  500/120 500/120 500/120 500/ 120  500/120 500/120 500/120 500/ 500/	TCAM PROFILES  DEFAULT DNY- ARP- INSP INSP IPV4-ACL PV4- V6- MCAST PBR QOS  500/120 500/120 500/120 0/0 0/0 0/0  500/120 500/120 500/120 500/ 500/ 120 120 500/ 120 500/	TCAM PROFILES  DEFAULT DNY- ARP- INSP IPV4-ACL V6- V6- V6- V6- ACL- MCAST PBR QOS QOS  500/120 500/120 500/120 0/0 0/0 0/0 3000/ 120  500/120 500/120 500/120 500/ 500/ 500/ 0/ 120  500/120 500/120 500/120 500/ 500/ 500/ 0/	TCAM PROFILES  DEFAULT DNY- ARP- INSP PBR PROFILES  500/120 500/120 500/120 0/0 0/0 0/0 3000/ 1200 120 120 120 120 120 120 120 120 12

# Compatibility and Interoperability

The following tables list the devices tested for IP storage, FC/FCoE storage and host adapters for VDX as of Network OS v7.0.1. This is a representative list of devices, Network OS v7.0.1 supports all standards-based devices connected to it for these types of storage.

# IP Storage

Vendor	Storage Array Model	Protocol	Switch Model	Initiator
EMC	Isilon	NAS	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6
EMC	VG2	NAS	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6
EMC	VNX 5300	iSCSI	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6
EMC	VMAX 40K	iSCSI	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6
HDS	4060	NAS	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6
HDS	4060	iSCSI	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6
NetApp	3170	NAS	6740	Windows 2008 R2, Windows 2012 R2, ESXi
				5.5u2, RHEL 6.6

# FC/FCoE Storage

Vendor	Storage Array Model	Protocol	Switch Model	Initiator
Netapp	FAS3250-cdot	FC, FCoE	6740, 8770 (FCoE only)	Windows 2012, VMWare
HDS	R800	FC	6740	RHEL 6.5, 7.0, SLES 11sp3, 12, Windows 2012 R2, Windows 2008 R2 SP1
	R700	FC, FCoE	6740, 8770 (FCoE only)	RHEL 6.5, 7.0, SLES 11sp3, 12, Windows 2012 R2, Windows 2008 R2 SP1
	HUSVM	FC	6740	RHEL 6.5, 7.0, SLES 11sp3, 12, Windows 2012 R2, Windows 2008 R2 SP1
	DF850	FC	6740	RHEL 6.5, 7.0, SLES 11sp3, 12, Windows 2012 R2, Windows 2008 R2 SP1
	DF800	FC	6740	RHEL 6.5, 7.0, SLES 11sp3, 12, Windows 2012 R2, Windows 2008 R2 SP1
EMC	CX4-120	FC, FCoE	6740, 8770 (FCoE only)	RHEL 6.3, 6.5, Solaris 10, Windows 2008, Windows 2008 R2
	VMAX 40K	FC, FCoE	6740, 8770 (FCoE only)	RHEL 6.3, 6.5, Solaris 10, Windows 2008, Windows 2008 R2, Windows 2012
	VNX-5300	FC. FCoE	6740, 8770 (FCoE only)	RHEL 6.3, 6.5, Solaris 10, Windows 2008, Windows 2008 R2
	VNX-5500	FC, FCoE	6740, 8770 (FCoE only)	RHEL 6.3, 6.5, Solaris 10, Windows 2008, Windows 2008 R2, Windows 2012
	VSP	FC, FCoE	6740	RHEL 6.5, Windows 2012
IBM	DS8100	FC	6740/T	Windows 2012 R2
	Flash 840	FC	6740/T	Windows 2012 R2
	XIV	FC	6740/T	Windows 2012 R2
HP	MSA2040	FC	6740/T	RHEL 7.0, Windows 2012, Windows 2012 R2
	P10000	FC	6740/T	RHEL 7.0, Windows 2012, Windows 2012 R2
	P6500	FC	6740/T	RHEL 7.0, Windows 2012, Windows 2012 R2
	P6300	FC, FCoE	6740, 8770 (FCoE only)	RHEL 7.0, Windows 2012, Windows 2012 R2
	P4330	FC	6740/T	RHEL 7.0, Windows 2012, Windows 2012 R2
	P9500	FC, FCoE	6740/T	RHEL 7.0, Windows 2012, Windows 2012 R2

# Network Adapters

Vendor	Model	Protocol	Switch Model	OS
HP	526FLR	FCoE	6740	Windows 2012. SuSE 12
	554FLR	FCoE	6740	RHEL 7.0, Windows 2008 R2 SP1, RHEL 6.5
	CN1000E	FCoE	6740, 8770	RHEL 7.0, SuSE 12
	CN1000R	FCoE	6740, 8770	Windows 2012 R2, VMWare ESXi 5.5
	CN1000Q	FCoE	6740, 8770	Windows 2012, RHEL 6.6
	CN1100R	FCoE	6740	Windows 2012 R2,
	CN1000Q	FCoE	6740	Windows 2012, RHEL 5.1
	CN1000E	FCoE		RHEL 6.5
Emulex	OCe10102	FCoE	6740	RHEL 6.5
	LPe16002	FC	6740	RHEL 6.5, Windows 2008, Windows 2012
	LPe16202	FCoE	6740	RHEL 6.5
	90Y3556 (IBM)	FCoE	2740	Windows 2008 R2, Windows 2012 R2
	OCe14102	FCoE	6740	Windows 2012 R2, RHEL 6.5
	OCe11002-FM	FCoE	6740	Windows 2008 R2, RHEL 6.4
	90Y3556	FCoE	6740	Windows 2012 R2, Windows 2008 R2
Qlogic	1020	FCoE	6740	Windows 2012
	1860	FCoE	6740	RHEL 6.5, 6.3, SLES 11sp3, 12, Windows 2012 R2, Windows 2008 R2 SP1, Solaris 10
	2672	FC	6740	RHEL 6.5, Windows 2008
	8152	FCoE	6740	ESX 5.1
	8142	FCoE	6740	Windows 2012, RHEL 6.5
	2672	FC	6740	RHEL 6.5
	2762	FC	6740	RHEL 5.1, Windows 2012

# ADDITIONAL CONSIDERATIONS

## Limitations and Restrictions

#### Command Line Interface

- Break command is not supported. ctrl-c can be used as an alternative.
- Few commands may not display paginated output.
- For few clear and show commands "?" will not show all options for VRF. Tab completion will give all possible values.
- For certain commands (including "no" form with some commands), "?" shows unsupported additional options.
- Some CLI commands will generate an "Error: Access denied" message upon failure. This means the operation failed on the switch and may not be related to permissions.
- Tab completion and <ctrl>-c (cancel) does not work for some commands.
- Incorrect range might be displayed in the help text for some of the show commands.
- Range support is available for all the interfaces in Network OS v7.0.1. Following limitations are applicable:
  - Interface range command is supported on breakout ports of same connector. Range is not supported involving breakout ports of multiple connectors.
  - o Interface range command does not support mix of regular ports and breakout ports.
  - Range command is not supported across multiple slots of the chassis.
  - Range command for rbridge-id is not supported.
  - o In some instances, there could be a delay in starting of operation specified in the range command after being issued.
  - When range issued for very large subset (e.g 4k VLAN, 2k port-channels, etc.), timeout can occur or user may temporarily see switch being unresponsive or with high CPU utilization. Extreme recommends using range in smaller chunks. Especially, while configuring VLANs/VEs and Port-channels, Extreme recommends range to be less than 500.
  - Range prompt doesn't get updated when few or all of interface in that range are deleted. Therefore, user should exit from Range submode if few or all interfaces are deleted that are part of that range. New configuration performed on same range submode may give unpredictable results.
  - On a large VCS cluster, configurations performed on Range of physical interfaces and port-channels may spike high memory usage.
- System does not warn user on deleting the IP config when VRF is configured.
- If "switchport trunk allowed vlan all" is already configured on any interface, then VLAN creation using range command will be slow as each VLAN will get provisioned individually.
- Some unsupported debug commands may be seen in Network OS v7.0.1. Extreme recommends not to run them on switches:
  - Show confd-state –, for debugging purpose only.
  - Show parser dump –, for debugging purpose only.
  - Show notification stream –, for debugging purpose only.

- Autoupgrade command in config mode
- During "copy running-config startup-config" or "copy support" user might see occasional and temporary CPU spikes (up to ~30-40%).
- show mac-address-table command on console with include option can not be aborted with a break/ctrl-C. Use a telnet session for the same.
- Short form of MAC-Address is not supported as filter in "show running-config".
- For IP access lists, display filtering based on sequence number alone does not work as expected.
- Certain oscmd commands may not work or give a different output under admin login
- If an alias exactly matches a partial keyword anywhere in the command line, pressing the TAB key for CLI command completion will claim that the input is invalid, and pressing the ENTER key will first replace the partial keyword with the alias expansion string. To avoid this, make sure that any partial keywords are not an exact match for an alias name.
- The authentication mode with primary & secondary sources of authentication cannot be updated to a configuration containing only the primary source. For example, the authentication mode cannot be changed from "radius local or radius local-auth-fallback" to 'radius'. The workaround is to remove the existing configuration and then configure it to the required configuration.
- The "logging syslog server" command returns an error on the "secure" keyword. Use "secure port" to assign a nondefault port number.
- OSPFv3 on default VRF can be created without mentioning VRF name but while removing default VRF needs to be provided like "no ipv6 router ospf vrf default-vrf".

#### Platform

- After "chassis disable" it is recommended to wait for 60 seconds for VDX fixed-form switches and 300 seconds for VDX 87xx before performing the next "chassis enable".
- Chassis-name is limited to 15 characters.
- 1G copper SFPs do not support exchanging flow-control settings during the auto-negotiation process. It is recommended to configure static mode of configuration of flow-control on both the ends of the desired link.
- 1G Optical ports should use the same speed config (speed auto or speed 1000) on both sides of the link for a proper link up.
- The VDX6940-36Q and VDX6940-144S requires 40 seconds between the removal and insertion of the 100G QSFP28 optics in order to establish a stable link.
- System verification/ offline diagnostics tests need "chassis disable" before the test and "chassis enable" followed by immediate reboot.
- After "power-off line-card <x>" please wait for 120 seconds before doing the next "power-on line-card <x>" to avoid hitting a known defect where some interfaces might remain in administratively shut state.
- The speed on the management interface for VDX 8770 can be hardset to desired speed after configuring speed as auto. The speed on VDX 6740x and 6940x is supported only in auto mode.

- Multiple OIR (Online insertion and removal) of 40G LR optics when connected to ICX/FCX
  may cause link to remain down. Performing "shutdown" followed by "no shutdown" of the
  interface will recover the link.
- VDX 6740/6740T/6740T-1G/6940 platforms do not support IP fragmentation. MTU errors are reported in "show interface" as "Errors" under the "Transmit Statistics".
- When a switch fan or PSU is removed or is faulty, switch status LED will blink green on VDX6940-144S and amber-green on VDX6940-36Q and VDX6740.
- For 6940 platform family, if all ports in a given trunk-group are used as ISLs, it is recommended to configure only 1 lossless priority on the switch.
- Logical SAN is not supported in fabric cluster mode.

#### Line cards

- The VDX 8770 supports following line-cards only on Network OS v4.1.2 and above:
  - o LC48×10G
  - o LC12×40G
  - o LC48×10GT
  - o LC27×40G
  - LC6x100G
- It is required to upgrade the chassis to the line-card's supported Network OS version before plugging the line-card into the chassis.
- If there exists a configuration for a line-card on the slot of VDX8770, before inserting a new line-card of other type in the same slot, it is required to remove the configuration of the old line-card from that slot. The "no line-card" command should be used to remove the old line-card configuration from the slot where the new line-card is to be inserted. The new line card may be faulted with appropriate code if the new line-card is plugged into the slot which has configuration of a line card of other type.

#### **USB**

• Starting with Network OS v6.0.0, Extreme 4GB USB drive support is added. But, Extreme 2GB USB drives should still work as before.

#### Licensing

- On VDX platforms that have Flexport FC capable interfaces, enabling FibreChannel ports requires only the FCoE license to be installed and does not require any Port Upgrade license.
   The Port Upgrade license only controls Ethernet ports (number of ports or speed supported).
- An Integrated Routing license is NOT required on FOS-based SAN platforms running FOS 7.0.1
  or above for FCR interoperability connectivity with VCS fabrics and the VDX6740x. Please refer
  to the FOS v7.0.1 Admin Guide documentation on configuring FOS platforms for connectivity
  to VDX 674x switches and VCS fabrics.
- The Layer 3 license is required on VDX8770 switches to enable Layer 3 feature set including OSPF, VRRP, BGP, VRF etc. A separate Layer 3 license is not required on VDX fixed-form factor switches as Layer 3 features are included in the default license.
- The Advanced Services License provides a single upgrade option to enable Fibre Channel over Ethernet (FCoE) and Layer 3 features on VDX8770 switches.

#### **VCS**

- Loopback connection is not supported in VCS mode. If a loopback connection is done (either using loopback plugs or port to port connections on the same switch), those interfaces become ISL interfaces.
- A node with default configuration will not join a cluster if the intermediate nodes between the node being defaulted and rest of the cluster are also undergoing reload. If the node boots up earlier than the intermediate nodes, it will form its own VCS and not join the parent cluster. In such situations, reload the node that is required to join the cluster.
- Logical Chassis Cluster Mode:
  - When a new switch is added to an existing VCS Fabric and if the new switch takes the role of principal node, the other switches in the fabric will receive the configuration of the distributed features such as Virtual IP and VM-Aware Network Automation from the newly added switch. This will cause the existing distributed configuration to be overwritten by the newly added switch in the principal role. This can be avoided by following the new switch addition procedures in the Network OS Administrator's Guide.
  - After a cluster reboot, Extreme recommends to do both "show fabric all" and "show vcs" to ensure that cluster is entirely formed without any issue. User might see that 'show vcs' takes an additional 2-3 minutes to show all participating switches. This is an existing behavior and doesn't affect data path functionality in most cases.
- "show fabric isl" & "show fabric trunk" may show the interfaces in random order without sorting.
- The default-configuration behavior may be different depending on the default-configuration triggers.
- The snapshot restore feature in VCS should be used to restore the local configuration and not the global configurations.
- Usage of Rbridge-range option to configure Rbridge context specific configurations is not recommended.
- Fastboot option is not recommended as a preferred method of reloading the switch.
- VCS for NOSv7.0.1: Note the following results for the given actions.

Default-config trigger	Global Config (i.e. virtual-fabric)	Local Config (i.e. SFP breakout)
copy default-config startup-config	Preserved	Preserved
VCS-ID and/or Rbridge-ID change	Preserved	Removed
firmware download default-config	Removed	Removed
write-erase	Removed	Removed

# Logical Chassis

 Configurations are not auto preserved on mode transitions (between Fabric Cluster and Logical Chassis mode). Please follow the mode transition procedure as outlined in the Network OS Admin Guide. Non-default User Id/password will be lost when migrating from FC to LC.

- User should not make configuration change during Logical Chassis firmware upgrade or while ISL toggling to prevent the switch segmenting from the cluster due to configuration mis-match.
- Upon Node segmentation from the cluster, user should run "copy default start" or exercise the default-config boot feature on the segmented switch to bring it back to the cluster.
- For Netconf and SNMP, user has to poll using individual node Management IP.
- Creating a snapshot with "\" in snapshot-id creates the snapshot file with incorrect name.
- Config snapshot cannot be restored on pizza box platform when SW1 is active.
- There will not be any raslog to the user when replacement of a node fails.
- With large configs, while a switch is rejoining a fabric with default config, "%Error:Could not find Interface" may be printed temporarily. The switch will recover and join the fabric.
- Config changes during principal switch-overs are not supported and may segment the cluster.
- Disabling virtual-fabric may take up to 10 minutes depending on the number of ISLs and VLAN interfaces configured in the VCS.

#### **Brocade Trunks**

- The VDX 6740, VDX 6740T, VDX 2741 Brocade trunk (BTRUNK) can support up to 16 member links with a maximum throughput of 160G using 16x10G ports in the same trunk group. On these platforms traffic may not be distributed evenly across all member of a trunk at lower traffic rates.
- The VDX 6740, VDX 6740T, VDX 2741, VDX 2746 and VDX 6740T-1G Brocade trunk (BTRUNK) can support up to 2x40G member links in the same trunk group for a maximum throughput of 80G. The VDX 2746 can support 4x40G.
- The VDX 8770 Brocade trunk (BTRUNK) can support up to 8 member links with a maximum throughput of 80G using 8x10G ports in the same trunk group. Full link utilization of 8 ports in a trunk group is achievable with larger packet size (>128 Bytes).
- In the VDX 6940-36Q and VDX 6940-144s, only 63 port-channels are supported including LACP and Brocade PO.
- The VDX 6940-36Q Brocade trunk (BTRUNK) can support up to a maximum throughput of 120G using 3x40G or 120G using 12x10G breakout ports in the same trunk group.
- The VDX 6940-144S Brocade trunk (BTRUNK) can support a maximum throughput of 120G using 3x40G or 12x10G links in the same trunk group.
- In order for two 40G ports on VDX 8770 to form Brocade trunk, it is required that the ports be in breakout mode and in same trunk group. Breakout optics with a single QSFP optical cable must be used.
- Prior to Network OS v4.1.0, "fabric trunk enable" configuration on the 40G interfaces on VDX 8770 is allowed, however it does not provide non-breakout mode trunk capability to the ISLs.
- Upgrading from any version before Network OS v4.1.x will change the default configuration on 40G interfaces on VDX 8770 from "fabric trunk enable" to "no fabric trunk enable" to accurately indicate the capability. Configuring "fabric trunk enable" directly on the 40G interfaces is accordingly blocked.

## **Breakout Interfaces**

- VDX 8770 supports only static breakout of 40G ports. It is required to power OFF and ON linecard for the 40G ports on it to be converted into 10G breakout ports and vice versa.
- VDX 6940-36 and 6940-144S supports only static breakout of 40G ports. It is required to reboot the switch for the 40G ports on it to be converted into 10G breakout ports
- For VDX 6740, 6740T, 2741 and 6740T-1G platforms, the LED state for a breakout interface is deterministic. For all other supported platforms, the LED state for a breakout interface is nondeterministic.
- In breakout mode, the 'show media' CLI will display the same media information for all breakout interfaces, except for temperature, Tx voltage, Tx bias current and Rx power. These parameters would be displayed on per line basis. The TX Power Field in the show media command is not supported by the 40G optics.
- On 40G native mode Breakout configuration is not blocked. If configured on one side, other side of link won't able be identify peer port config is breakout and link won't be stable.
- On VDX 6740T/6740T-1G/2746, the breakout ports are FlexPort capable, and may be configured to connect to FC switches with 4x16G breakout supported cables and optics.
- On VDX6940-144S, breakout connection using non-breakout cable is not supported.

## **Dual-personality Ports**

- Interface can be brought up in 100GbE or 40GbE mode. This feature is supported on VDX 6940-144S.
- Only static configuration is supported, the switch need to be rebooted for the dual personality mode change to take effect.
- Configuring 40GbE dual personality interface in 100GbE mode would result in the other two 40GbE interface in the port-group being disabled.

#### 1G Mode

- RMON stats are calculated incorrectly for packet sizes 64-127 bytes.
- 1G ports cannot form ISL links. Only 10G ports can be used to form ISL links.
- Brocade Trunks cannot be formed with 1G. Brocade Trunks are only supported on 10G.
- A LAG cannot be created between 1G and 10G ports.
- FCoE configuration is NOT supported on 1G ports.
- DCBX configuration for FCoE is not supported on 1G ports.
- For 1G optics used in VDX6740 and VDX6940-144S, port speed should be set to Auto on both sides. If one side is speed 1000 and other side is Auto, link may not come online.

#### vI AG

- LAGs are created with default speed of 10G. Therefore Extreme recommends end user to set required speed manually based on member speed using "speed" command.
- When configuring LACP LAG between VDX and non-Extreme switches it is highly recommended to enable the vLAG ignore-split on the VDX. Ignore split option is enabled by default.
- The port-channel interface "load-balance" is not the same as "fabric port-channel <#> load-balance"
  - The port-channel interface "load-balance" command configures load-balancing on the actual vLAG member links (effective on Rbridges directly participating in the vLAG).
  - The "fabric port-channel <#> load-balance" configures load-balancing on Rbridges NOT participating in the vLAG, but connecting to neighboring vLAG participating Rbridges.

# Virtual IP Address Support

- A separate gateway cannot be configured for Virtual IP address. Default gateway will be the same as the gateway address for the management port of this switch.
- For VCS Virtual IP address to work correctly, the management port's IPv4 or IPv6 address should be assigned, functional and both address should be in same subnet.
- There is no Virtual MAC address associated with the Virtual IP address, physical MAC will be used.
- Chassis Virtual-IP is only supported on the VDX 8770.

# Security, Management ACLs, Authentication, Authorization

- Login authentication service (aaa authentication login cli):
  - With "local" option specified as secondary authentication service, local authentication will be tried only when the primary authentication service (TACACS+/RADIUS/LDAP) is either unreachable or not available.
  - Behavior of "local" option in pre-4.1.0 releases is changed to the "local-authfallback" option.
  - When login authentication configuration is modified, the user sessions are not logged out. All connected user sessions can be explicitly logged out using "clear sessions" CLI.
- ACLs are not supported for egress traffic flows on management interfaces.
- Configuring TACACS+ or RADIUS without a key is not supported. If no key is configured, the switch uses a default key of "sharedsecret". The use-vrf option should be used to enter any additional parameters such as retries, timeout or key.
- Same NTP server configuration with different vrf not supported.

- There is a possibility that locked user accounts will get unlocked after a reboot if the running-config (before reboot) is different from startup-config of user accounts.
- Encrypted text (taken from running-config of any user account password with encryption turned on) should not be used as input for clear-text password for the same user. This may result in login failure of the user subsequently.
- When the ACL is applied to a management interface, only the top 256 rules will be applied if the ACL contains more than 256 rules.
- It is advised to not to apply ACL with 12k rules to management interface.
- When more than 250 rules ACL's are configured (over supported scale), they may be partially installed & effective.
- Access to ONLY the following Active Directory (AD) servers is supported by Extreme LDAP client:
  - o Windows 2000
  - o Windows 2003
  - Windows 2008 AD
- IPv6 RA Guard feature is not supported on VDX 8770 although the CLIs are visible.

#### **SPAN & RSPAN**

- CPU-originated packets cannot be output spanned.
- If SPAN has to be supported to multiple locations, please use RSPAN on VLAN.
- On VDX 8770 and SPAN in VCS feature, ISL can be source port, but the destination has to be on the same RBridge.
- Spanning of LAG port is not supported. To span a LAG, user should individually enable spanning on all the member ports of the LAG. However flow based SPAN is supported on LAG port.
- A profiled port cannot be a SPAN destination.
- After ISSU upgrade on VDX 8770, Port Based SPAN may not work.
- SPAN destination port statistics will keep incrementing even when port is operational or admin down.

# MAC Learning Considerations in VCS

- Under rare circumstances, end user might see mac address sync up issues on few nodes of a cluster (where 1 or more MAC addresses might be missing in some nodes). Extreme recommends to do "clear mac-address-table dynamic" in such cases.
- Static mac addresses will be displayed even when interfaces are down. This may cause blackholing of the traffic.
- Under certain conditions, MAC addresses may not be learnt even though ARP's may be learnt for those same MAC addresses.
- Under certain conditions, multicast traffic destined for static multicast address will flood on to other VLANS.

#### **PVI AN**

- Following PVLAN features are not supported:
  - IGMP on PVLANs but there is no error message displayed if operator configures
     IGMP snooping on PVLAN
  - o ARP & Routing in PVLAN domain
  - Enabling Routing in Primary and Secondary Vlans.
  - CLI to enable Local Proxy ARP on primary VLAN.
  - IP Configuration on PVLANs
  - Ve Configuration on both Primary and Secondary Vlans
  - AMPP on PVLANs
  - In case of MSTP if a primary VLAN is added to the instance automatically secondary VLAN also added to the instance.
  - When the operator wants to delete the host association on a host port recommended to use "no switchport" rather than "no switchport private-VLAN host-association". This is applicable only when the host port is untagged. When the host port is tagged both the commands can be used.
  - Primary VLAN ID needs to be lower than the secondary VLAN IDs. If primary VLAN ID
    is greater than secondary there is an issue with config replay.
  - In Logical Chassis mode source macs may not learn on PVLAN configured ports, after deleting some of the secondary vlans for which the traffic is not flowing.

#### UDLD

- The UDLD protocol is not supported on the members of a Brocade trunk.
- The UDLD protocol is not compatible with Cisco's proprietary UDLD protocol.
- UDLD needs to use the higher timeout in Scale and Stress environment. UDLD may flap during HA failover and ISSU.

# STP/DiST

- VDX does not support tunneling non-standard BPDUs and thus IEEE BPDUs
   (0180:C200:0000) generated as tagged packets in STP/RSTP/MSTP modes may not be
   tunneled successfully across VCS Fabric. However, VDX supports tunneling standards' based
   BPDUs such as untagged IEEE BPDUs and tagged or untagged PVST BPDUs
   (0100:0CCC:CCCD). Post 3.0.1, the tagged IEEE BPDU can be tunneled across VCS fabric using
   command: "tunnel tagged-ieee-bpdu" under interface configuration.
- In Fabric Cluster mode, global spanning-tree configurations (STP enable, STP Vlan configurations, STP over vLAG configurations) have to be performed in all the switches in VCS at the same time. For example, to run spanning-tree, it has to be enabled on all the switches including switches that don't have any edge ports.
- By default global spanning-tree and interface level spanning-tree will be disabled, user has to explicitly enable on the desired ports. VLAN spanning-tree state is default enabled.
- BPDU tunnel configurations are permitted only when spanning-tree is disabled in VCS.

For cisco proprietary Per Vlan Spanning Tree protocols (PVST and RPVST) user needs to configure the Extreme switch to send BPDU on Cisco multicast destination mac address "0100.0ccc.cccd" for non-native VLANs. By default, NOS 6.0.1 software uses Extreme "0304.0800.0700" multicast mac to send BPDU's on non-native VLANs.

Since Cisco boxes use Cisco multicast mac address to send spanning tree BPDU on nonnative VLANs, this configuration is needed in VDX switches to interoperate. This is an interface specific configuration.

Below is the example to configure Cisco BPDU mac for PVST and RPVST under interface mode:

```
VDX 6740-VCS1# conf t

VDX 6740-VCS1(config)# protocol spanning-tree rpvst

VDX 6740-VCS1(config-rpvst)# exit

VDX 6740-VCS1(config)# interface Port-channel 100

VDX 6740-VCS1(config-Port-channel-100)# spanning-tree bpdu-mac ?

Possible completions:

0100.0ccc.cccd Cisco Control Mac

0304.0800.0700 Brocade Control Mac

VDX 6740-VCS1(config-Port-channel-100)# spanning-tree bpdu-mac 0100.0ccc.cccd

VDX 6740-VCS1(config-Port-channel-100)# exit

VDX 6740-VCS1(config)#
```

# Edge Loop Detection (ELD)

- ELD is supported on the edge ports that are connected either by end-hosts OR another switch OR another VCS.
- ELD is also supported for edge interfaces connected to hosts.
- ELD may not be enabled after line-card powercycle.
- The edge-loop-detection port-priority with the higher number takes priority for shutting down the loop interface. If the port-priority is the same, the highest interface ID followed by the highest Rbridge-ID are used as the deciding metric.

# Long Distance ISL Ports

- Long distance ISL configuration ("long-distance isl" command) is not allowed if CEE Map/fcoeport is configured on any edge ports in the same port group.
- CEE Map modification is not allowed when long distance ISL is configured.
- A maximum of three PFCs can be supported on a long distance ISL configured platform.
- When long distance ISL is configured on the switches, all ports in the port group will be bounced.
- Both side of long distance link should have long-distance-isl configuration. Otherwise end to end PFC might not work appropriately.
- For 10Km/Extended Range long distance configuration all other ISLs in the port group will be disabled.
- For 2Km/5 Km long distance configuration, one other ISL will be allowed to come online in the port group.
- For 2 km, 5 km and 10 km long-distance, use Extreme-supported Long Range (LR) optics for direct connectivity.
- For 30 km long-distance, use Extreme-supported Extended Range (ER) optics for direct connectivity.

- The "long-distance isl" command based extended fabrics are supported only on 10G interfaces.
- The 40G and 100G interfaces do not support "long-distance isl" command, however can extend distances for non-lossless traffic up to 40Km using standard ISLs.
- On standard ISLs, the 10G, 40G and 100G interfaces support lossless traffic up to 1Km.
- The "long-distance-isl" command will not be supported on the SO-10GE-ZR-CX, 10G-SFPP-ZR, and 10G-SFPP-ZRD-T 80km optics.
- The SO-10GE-ZR-CX, 10G-SFPP-ZR, and 10G-SFPP-ZRD-T 80km optics requires a minimum distance of 20km in order to successfully form a standard ISL connection

#### AMPP and Port-Profiles

- Port-profile status does not reflect the remote interface info in VCS fabric mode.
- Native VLAN support inside AMPP does not honor the global enable/disable flag.
- SPAN destination port cannot be a profiled port.
   Extreme recommends deleting all manually created port-profiles when migrating from a legacy AMPP environment to VM Aware Network Automation.
- Vmkernel related port-profiles removed/reapplied during HA operations may result in vmotion failures.
- MAC-based classification allowed only on access port-profile and C-tag classification allowed only on trunk port-profile.
- When a port becomes a profiled-port, all SERVICE VFs in that domain are provisioned on this port.
- "Switch trunk allow VLAN all" can only be present in one domain, it cannot co-exist with other c-tag based classifications in that domain.
- User is not allowed to edit/delete the default-profile-domain when Service VF is disabled.
- New port-profile is not auto added to the default domain when Service VF is enabled. It can only be explicitly added to or removed from the default profile-domain.
- On disabling Service VF UpgradedVlanProfile should be re-configured with "switchport trunk allowed VLAN all" in Default-profile-domain if it is removed /modified.
- Newly created port-profiles which is not part of any domain should be added to the default-profile-domain explicitly while disabling the Service VF.
- SERVICE VF classification cannot conflict across port-profiles in the same port-profile domain, but it can conflict across PP in different domains. i.e. a port-profile-domain cannot contain conflicting SERVICE VF classifications.

#### vCenter

- Receiving more than five vCenter events within a span of 30 seconds, results in asset discovery getting initiated. Post discovery cluster configuration will be in sync with vCenter.
- vCenter auto-profile is automatically added/deleted to the default port-profile-domain in Service VF enabled/disabled mode.
- Modifying/editing the auto port-profiles in the default-domain is not recommended, which may cause auto-pp application failure during vCenter operation and end up in traffic failure.

- Adding/removing the auto-port-profile to the user-created domain when Service VF is enabled is not recommended which may cause auto-pp application failure during vCenter operation and end up in traffic failure.
- vCenter auto-profile does not support SERVICE VF classification.
- Output of show vnetwork vss displays the vmnic against the vSwitch even after the removal
  of the vmnics from the vSwitch through vCenter. Recovery happens in the next autodiscovery cycle.

#### QoS

- LC27x40G and LC12x40G linecards do not respond to incoming Ethernet pause (802.3x) and PFC frames in native 40G interface mode. This does not impact throttling of incoming traffic in response to PFC or Pause frames transmitted by the linecards. In order for LC27x40G and LC12x40G linecards to respond to pause frames, it is required to configure the 40G interfaces in breakout mode and use 40G breakout optics with regular native 40G cables.
- It is recommended to use the same CoS tail-drop threshold on all members of a port-channel to avoid unpredictable behavior.
- In a hybrid logical-chassis, if a user configures a platform specific feature, it will be configured only on the rbridges which support that feature.
- Asymmetric pause is supported on 1G port interfaces.
- It is recommended to enable maximum 2 PFCs on edge interfaces on VDX 6740/6740T and 6940-36Q platforms. Flow control is disabled by default on all interfaces.
- Priority 7 is reserved for control traffic on VDX switches. User data traffic should use priorities
   0 through 6. Priority 3 is used for the FCoE lossless traffic by default.
- ExtremeSwitching VDX architecture prioritizes Unicast traffic over Broadcast or Multicast traffic under port congestion.
- The interface queues operate in Strict Priority mode when there are no ISLs online on the switch. This could result in potential starvation of the CPU queue if line-rate traffic flows through an interface.
- Byte count is not supported for match ACL statistics on the VDX 6740/6740-T and 6940-36Q.
- Byte count is not supported for RED statistics on either the VDX 8770 or the VDX 6740/6940-T and 6940-36Q.
- For 6940-36Q its not recommended to configure "log" option in ACL for Flow based QoS and System based QoS as it may lead to throughput issues with larger packet size.
- The "count log" option in ACL is not supported for Flow based QoS and SysFBQ.
- The CLI "qos trust cos" is not applicable in VCS mode. However, "show qos int" will show as cos is trusted on ports on which "cos-mutation" or "cee default" config is applied.
- Configuring an interface with a nondefault DSCP-to-traffic class-map is allowed. However, configuring an interface with a nondefault CoS-to-traffic class-map is not supported.

#### **FCoF**

• On switches shipped with NOS7.0.1, the default mode of operation is Access Gateway for the VDX 6740, 6740T-1G, VDX 2741, VDX 2746. The VDX 2741 was supported in 5.0.x (not supported in 6.0.x) and is upgradable to 7.0.1.

- Logical SANs have been supported since Network OS v6.0.0. If user needs to enable Fibre Channel Forwarder (FCF) mode, switch needs to be configured in FCF mode. If the switch is upgraded from a lower NOS version (pre 4.1.2 builds) to v7.0.1, it will be in FCF mode.
- FCoE logical SAN is not supported in an FC cluster.
- Extreme recommends not having FCoE ports and Long Distance ISL ports in the same portgroups. This configuration will NOT be prevented by the CLI; however it can result in unpredictable behavior for FCoE traffic.
- If the FCoE FCMAP is changed from default to non-default, user might see that FCoE login may not happen. Please toggle the interface using "shutdown" followed by "no shutdown" to work this around.
- When an RBridge is removed from VCS cluster, it does not need to be manually removed from fcoe fabric-map.
- MAC binding for remote SANs is not honored during config replay.
- In case the FIF is multiple hops away from the FCF, it is recommended that the interfaces of the intermediate switch shouldn't be configured with the same remote san as that of the FIF/FCF
- VLAN's which are reserved for FCoE may not be used for any other purpose. This is true for both Fabric Cluster and Logical Chassis modes.
- Extreme recommends that for all LAGs with FSB, the fcoeport config must be applied on the LAG itself. And for all LAGs with directly attached CNAs, the fcoeport config must be applied on the member ports.
- Binding an enode mac to FCoE interface is not allowed in range context, as only one enode mac can be bound to one FCoE interfac.e
- While providing range for FCoE interfaces, it's recommended to provide the range only in ascending order. For ex: interface fcoe 1/48/11-38 is recommended, interface fcoe 1/48/38-11 is not recommended.
- FCoE traffic may not be mirrored using RSPAN. Workaround is to use SPAN.
- In use cases with FSB, it is noticed that after converting dynamic port-channel to static, hosts and targets don't see each other.
- In NETWORK OS V6.0.1 and later, up to four FCoE Vlans are supported in VDX . But on a single VDX , All member ports in a LAG have to be configured with the same FCoE Vlan. Different LAG can be configured with different FCoE Vlan.
- In NETWORK OS V6.0.1 and later, it is recommended user define different fabric-map for Remote Logical SAN and Local Logical SAN configuration. If user configures a fabric-map to work on Remote Logical SAN first and then later change the same fabric-map to become Local Logical SAN, it may cause FCoE port continuously flapping.
- In NETWORK OS V6.0.1 and later, when FCoE CNA connect through VDX 6940-36Q/VDX 6940-144S to a Remote Logical SAN, if user performs certain operation in AG switch (e.g. N-port failover, VF-port remapping, fcmap change etc), FCoE CNA may fail to login. The workaround is to do shut and no shut on the FCoE port on which FCoE CNA is connected.
- LC27x40G and LC12x40G linecards do not respond to incoming Ethernet pause (802.3x) and PFC frames in native 40G interface mode. This does not impact throttling of incoming traffic in response to PFC or Pause frames transmitted by the linecards. In order for LC27x40G and LC12x40G linecards to respond to pause frames, it is required to configure the 40G interfaces in breakout mode and use 40G breakout optics with regular native 40G cables. This is required for FCoE traffic.

#### **FlexPorts**

- The port transceiver optic type must match the configured FlexPort type. If a port is configured as Fibre Channel then an appropriate FC SFP+ transceiver must be used; likewise when the port is configured as an Ethernet port then an appropriate Ethernet SFP+ transceiver must be used. The same applies to QSFP+ transceivers the transceiver type must match the configured Flexport type for the QSFP links.
- Only Extreme-branded FC SFPs are supported.
- Setting the connector-group speed to HighMixed allows only one FC port speed (16G) but the port speed configuration can still be set to auto.
- Changing the connector-group speed always disrupts any other active ports in the connector-group, independent of configured Flexport type.
- The FCoE Base license is required to enable any FibreChannel interface.

#### Fibre Channel

- F\_Port can support only 63 NPIV devices.
- Loop devices are not supported.
- Long distance is not supported on Fibre Channel ports.
- Proprietary features such as QoS, D-Port, FAPWWN are not supported on Fibre Channel ports.
- Credit Recovery is supported on Fibre Channel ports.
- FEC is supported on Fibre Channel E/Ex ports only (no support on F/N ports).
- Trunking is not supported on Fibre Channel ports running at 2G or 4G speeds.
- On the VDX 6740, VDX 6740T, VDX 6740T-1G, VDX 2741 and VDX 2746 platforms Fibre Channel trunks are limited to 2 FC trunks per port group.
- To configure a connector-group as Fibre channel need to have all the interfaces in the connector group as type Fibre channel.
- Fibre Channel trunks only form with ports running at the same speed.

# Access Gateway

- The switch can be operated as Fibre Channel Forwarder (FCF) by disabling Access Gateway mode.
- AG does not bridge the VCS and SAN fabrics because hosts connected to the AG switch are registered in the SAN name-server only. Therefore, all zoning operations for AG are done on the SAN fabric.
- At least one N-port must be online in order for FCoE devices to log in.
- After enabling Remote Logical SAN on AG switch, FCoE devices connected to AG switch will
  not login with "fcoeport default" provisioning and needs to be configured as "fcoeport
  <logical-san>".
- Cannot configure the default Logical SAN to the interfaces in the FCF-group switch.

#### IP Fabric

#### BGP eVPN:

- RD should be unique across the VLANs/VRFs and across the leaf nodes.
- If the leaf nodes are in different BGP AS, then ignore-as option should be specified to the route-target configuration under eVPN instance.
- BGP MAC route dampening is applicable only for frequent MAC moves across leaf nodes not part of vLAG pair.
- BGP neighbor next-hop-unchanged should be configured under eVPN address-family on all of the nodes in the IP fabric.
- On a vLAG pair, eVPN instance configuration should be symmetric.
- If the leaf nodes are in the same BGP AS, "allowas-in 1" should be configured.
- On VDX6740, part of a 2 node VCS, remote VTEP destination should not be reachable via another node in the VCS.
- For VRF extended using L3VNI over eVPN, at least one prefix should be advertised by both of the leaf nodes extending the VRF.
- It is recommended to configure different BGP AS numbers on each set of spine nodes when connecting 2 PoDs.
- Traffic tromboning is not supported for IPV6 in IP Fabric with /128 routes.
- In the scale environment with a large number of /32 routes, traffic disruption may be seen upon reload or HA failover.
- Tunnel creation is triggered by BGP NH installation resulting in creating more tunnels than configured which might be seen at the Border Leaf.

#### ARP/ND Suppression:

- ARP/ND suppression should be configured on the VLAN if IPv4/IPv6 Static Anycast Gateway is being configured.
- Upto 512 VLANs are supported with DAI hardware profile. Default hardware profile supports upto 32 VLANs.
- ARP/ND suppression feature is supported only on VDX 6740, 6940, 6940-144s platforms.

#### Conversational ARP:

• It is recommended to enable both Conversational-ARP and Conversational-MAC together.

#### Static Anycast Gateway:

- ARP/ND suppression should be configured on the VLAN if IPv4/IPv6 Static Anycast Gateway is being configured.
- Static Anycast Gateway address/static Anycast MAC configuration should be identical for a given VLAN across leaf nodes in IP Fabric.

- IP services/protocols cannot be enabled on an interface where only Static Anycast Gateway address is configured.
- VRRP/VRRP-E configuration should be identical for a given VLAN across leaf nodes in IP Fabric. But it is recommended to use Static Anycast Gateway.
- All VLANs having Static Anycast Gateway configuration should be extended into eVPN on a vLAG pair.

## ND/RA

Proxy ND is not supported.

#### IPv4

• IP Directed Broadcast is not supported under non-default VRF context. It is supported only in Default-VRf context.

#### **BFD**

- Static Route BFD, BGP BFD and OSPFv2/v3 BFD
  - For Single HOP BFD sessions configured with source IP as secondary IP is not supported, since significance of Source IP in BFD configuration is only to determine on which interface BFD session should be started and hence interfaces' Secondary IP is not used as source in BFD PDU.
  - o BFD is not supported on leaked routes.
  - BFD for multi-HOP BFD neighbor reachable via multiple paths with equal cost(ECMP) will not be supported since BFD requires BFD session to be created for the neighbor for each ECMP path.
  - o BFD is not supported for OSPFv2 & OSPFv3 virtual links.
  - For single hop BFD sessions, BFD will consider the interval values that are configured on interface, and not the non-default values that are configured within the global command.
- BFD for VxLAN tunnels
  - O BFD session may not come online or may flap if VCS cluster is in transient state during reload, vLAG failover, fabric split, chassis disable/enable and such scenarios. It is required to have a stable VCS cluster in order for BFD sessions on VxLAN tunnels to work as expected.
  - BFD parameters are not configurable on VCS VxLAN Gateway for Type NSX. The parameters are derived from NSX controller.

#### **VRRP**

- VRRP and VRRP-E cannot be enabled together on VDX 6740 and VDX 6740T platforms.
- IPv6 and IPv4 VRRP sessions cannot be configured with the same VRRP group-ID on the same Layer3 interface.
- If an IPv6 VRRP session is configured with only global VIP address without Link-Local VIP, VIP configuration will fail for that session during download of configuration from file.
- VRRP v4 or v6 can be enabled with VRRP-E v4 and v6 on the VDX 6940 family.
- VRRP v4 and v6 cannot be enabled together on an interface on the VDX 6940 family.
- "show vrrp summary" and "show ipv6 vrrp summary" will display all sessions in default vrf. In earlier NOS versions, these commands displayed sessions across all vrf.

#### Fabric Virtual Gateway (FVG)

- FVG co-existence with VRRP/VRRP-E in VDX 6740 and VDX 6740T
  - FVG ipv4 or FVG ipv6 with default global mac cannot be enabled with VRRP but can be enabled with VRRPE-E.
  - FVG ipv4 or FVG ipv6 with non-default global mac cannot be enabled either with VRRP or VRRPE-E.
- FVG co-existence with VRRP/VRRP-E in VDX 6940
  - FVG ipvx with non-default global mac: when the global gateway-mac-address is changed using the "gateway-mac-address" command to something other than the default mac. for eg. 0000.1111.2222.
  - There are two groups of protocols
    - Group 1:
      - VRRP ipv4
      - VRRP ipv6
      - FVG ipv4 with non-default global mac
      - FVG ipv6 with non-default global mac
    - Group 2:
      - VRRPE ipv4
      - VRRPE ipv6
      - FVG ipv4 with default global mac
      - FVG ipv6 with default global mac
    - A maximum of only two protocols from group 1 can be enabled at a time.
    - All protocols of group 2 can be enabled at a time.
    - If 2 protocols from group 1 are enabled, no protocol from group 2 can be enabled. While if only 1 of the group 1 protocols is enabled, all the group 2 protocols can be enable at the same time.
- Fabric Virtual Gateway (FVG) is not applicable in IP Fabric environment, Static Anycast Gateway to be used to achieve similar functionality.

#### OSPFv3

 OSPFv3 HA with Graceful restart is not supported but GR-helper mode functionality is supported. VRF-Lite-Capability CLI and support for Down bit handling is not available in OSPFv3 as in OSPFv2. When the BGP4+ route from the MPLS cloud is redistributed into OSPFv3 domain the redistributed route is always installed in the OSPFv3 routing table.

#### **BGP**

- Conditional advertisement of default-route using route-map match prefix not supported.
- Over a link-local eBGP session, updates are not carrying the new nexthop that is set using a route-map.

## Layer 2/Layer 3 Multicast

- The following PIM features are not supported in this release:
  - o IP version 6
  - o VRF
  - o Configuring the switch as the BSR (Bootstrap Router) candidate.
  - Configuring the switch as the Rendezvous Point or Rendezvous Point candidate. The RP must be configured outside the VCS cluster.
- In Fabric Cluster mode, IGMP Snooping must be enabled in all the switches in VCS Fabric Cluster mode
- Statistics for MLDv1 is done on a VLAN basis across VCS.
- Multiple IP subnetting support: PIM FHR and LHR operation are not supported on secondary subnets.

#### **VRF**

Under VRF submode there is a syntax change for the address-family ipv4 command.
 Old format: address-family ipv4 [max-route <value>]

New format:

address-family ipv4 unicast

max-route <value>

Note: "max-route" command is now moved to address-family submode.

- There is no provision to configure "max-routes" for default-vrf.
- There is no use case for "rd" configuration in VRF and this command will be deprecated in next release.
- On configuring VRF on an interface, all previous IP config on that interface will be deleted.
- Removing VRF address family on a non-default VRF will delete all relevant address-family configurations including the interface and protocol configuration for that VRF.

#### **BGP-VRF**

- Local-as <num> can be configured for particular VRF under "address-family ipv4 unicast vrf <vrfname>" and is not supported under "address-family ipv6 unicast vrf <vrf-name>".
- "maxas-limit in" can be configured for particular VRF under "address-family ipv4 unicast vrf <vrfname>" and is not supported under "address-family ipv6 unicast vrf <vrf-name>".
- When route-map is applied to BGP, and route-map has multiple 'set ip next-hop' statements in a single instance, BGP will consider the last 'set ip next-hop' in the route-map.

#### ACL

- L2 User ACL deny rule can prevent trapping of L3 control frames.
- IPv6 ACLs at ingress are not applicable for packets with Link local source address.
- ACL Logging at egress can impact forwarding traffic at high rates.
- Counters for hard-drop ACLs may not count accurately.
- Statistics are not supported for hard-drops at Egress.
- For VDX 8770, IPV6 Egress ACLs, Match on DSCP value compares only 4 LSBs instead of all 6 DSCP Bits.
- ACL with "Routed" keyword functions only for VE/Router Port MACs. It does not work for VRRP Routed.
  - Work-around: Apply default mode ACLs (No "routed" keyword).
- For Private VLANs, Egress ACLs on Primary VLAN is applied only for all traffic which ingresses primary VLAN i.e.
  - If the traffic ingresses from Primary VLAN but gets translated to Secondary VLAN at egress, ACL on primary VLAN at egress is still applicable to it.
  - If the traffic ingresses from Secondary VLAN but gets translated to Primary VLAN at egress, ACL on primary VLAN at egress is still not applicable to it.

# Policy-based Routing (PBR)

• If a PBR route-map is applied to an interface that is actively participating in a control protocol and the ACL specified in the route-map also matches the control protocol traffic the control protocol traffic will be trapped to the local processor and not be forwarded according to the route-map.

# Inter-VRF Leaking (Static)

- S+ symbol routes indicates leaked routes.
- VRF route leak cascading is not supported—only one level of indirection.
- User should avoid making Static, dynamic and connected route conflict with routes in target VRF when configuring route leak.
- For bidirectional traffic with router leak, user needs to configure route leak in both direction separately.
- Route leak configuration to next hop IP on the same box on different VRF is not a valid configuration, but CLI will be accepted.
- Precaution needs to be taken when leaking default routes this can result in routing loops.

• Switch management from non-management VRF by leaking route from non-management to management VRF is not supported.

# DHCP IP Helper

- There is no HA support for DHCP relay statistics. When a switchover happens, the statistics will not be replicated to the new active MM.
- Clients may not converge in some IP Fabric environment. Care should be taken to not configure DHCP IP helper and Static Anycast Gateway on the same interface.
- Two DHCP OFFER per one DHCP DISCOVER and two DHCP ACK for single DHCP request seen
   IP fabric setup

# Dynamic ARP Inspection (DAI)

- The ARPs learnt on trusted ports would be deleted when DAI is enabled or DAI filter changed.
- Static ARPs not permitted by DAI filter would be promoted to active state. Administrator is responsible for configuring static ARPs in sync with DAI ACLs.
- ARP packets more than 190 bytes on a DAI enabled VLAN will be dropped.
- ARP access-list with longer names is not effective (greater than 20 characters)

# DHCP-based Firmware Download (DAD – DHCP Automatic Deployment)

- In order for successful version upgrade using DAD method, switch should undergo 2 reloads. For switch in factory default, there is additional reboot to cancel bare metal mode.
- If firmware download is skipped only config download is allowed.
- For dual MM chassis, dual MM must be in sync for DAD to function.
- DAD is a disruptive. ISSU is not supported.
- In FIPS mode, DAD is not supported.
- Cluster principal node failover is not supported.
- DAD over in-band is not supported. Virtual Fabrics is not supported with DAD. You must disable Virtual Fabrics before starting the DAD process in the global configuration file or in the script.
- DAD must complete and succeed on Principal node alone before turn on power for all secondary nodes.
- When the switch is in Factory default, DAD is enabled upon power up the switch
- DAD executes only if the switch configuration is the default configuration. If the configuration on the switch is not the default configuration, DAD exits.
- If the switch is in the default configuration before DAD is triggered, DHCP will remain enabled after the deployment completes. However, this setting can be overwritten by the switch-specific configuration file or the dad.py script.
- You must enable DHCP in the DCMD default configuration to ensure that the switch receives its IP address from the preconfigured DHCP server.
- The factory default DAD runs only once in a DHCP-enabled environment. Irrespective of
  whether this process is a success or failure, DAD will not be triggered again after a reboot or
  power off. You can run DAD manually using the dhcp auto-deployment enable command if
  required.
- Must set ztp=0 in dad configuration file since ZTP (Zero Touch Provisioning) is enabled by default.

- The "vcsmode" value in dad.conf MUST be set to "LC" regardless of whether the existing cluster is in LC or FC mode. If "vcsmode" set to "FC" value in dad.conf, the DAD request can fail
- DAD is enabled automatically upon switch reboot when you use NOSCLI "write erase" command.

#### **Zero Touch Provisioning (ZTP) consideration**

DAD supports up to two nodes for IP fabric in logical chassis mode All nodes can either be powered up at the same time or enabled from the CLI. This is the key difference vs regular DAD process.

# Link State Tracking

- The "track enable/disable" command can only be used to enable or disable the tracking. In order to remove tracking configuration from internal database for a given interface "track remove all" command must be used.
- When there are no uplink interfaces configured, the track disable command will remove tracking configuration from internal database and this behavior is applicable only in 6.0.1a patch and not in prior releases.
- If track min-link number is greater than the number of uplinks, then the downlink will be shutdown with a warning message.
- After toggling the line card using "power-off / on", LC related interfaces that are configured as uplink interfaces are not seen in "show track summary" cli output.

# OpenFlow

- Interoperability support only with Extreme Controller aka. BVC/BSC.
- Once an interface becomes OpenFlow enabled, very limited set of conventional commands are allowed which includes some of the QoS related configuration commands. For complete list of allowed commands please refer to "NETWORK OS V6.0.1 SDN Configuration Guide"
- Priority-tagged frames are not supported.
- L3 Generic flows (incoming port as "wildcard") are not supported.
- PUSH/POP operations can only be associated with action type OFPAT\_OUTPUT inside a flow-mod.
- Type of an existing GROUP cannot be changed.
- Existing "clear counter all" command applies to OpenFlow ports as well.
- As part of ISSU, all controller driven configurations will be lost. Controller is expected to reprogram after re-connection.
- Uncontrolled Line-Card failover would need power-cycle to recover hardware resources which were in use for the feature to continue to work.
- Uncontrolled failover on 6740 and 6940 would need power-cycle to recover hardware resources for the feature to continue to work.
- Pre-provisioned flow-mods will not be replayed to a new slot coming online. GROUP and METER configurations will be always replayed.
- On the ExtremeSwitching VDX 8770, queue statistics should be interpreted as wire-vlan (COS) priority statistics.

- Actual number of supported flow-mods (L2/L3) may be less since MAX scale values include
  per port default miss entries, and single LLDP entry is needed for topology discovery. This
  applies to all supported platforms.
- For layer 3 rules, switch can't differentiate between tagged and untagged flows when matching against rules. This applies to all supported platforms.
- Filtering options are not supported for show openflow CLIs. Show openflow commands with filter option show the complete output.
- For the port based flow mod, if the ivid reference is active, egress tagging is not cleared. The
  new flow mod will not be installed If the previous flow mod has created the egress tagging
  behavior. This case has to be handled by work-around flow mods or take the port off from
  openflow and bring it back.
- With default rcv-queue and after coldboot, group select traffic may not be correct, need to do shut/no shut on the interface. This issue is not there with non-default rcv-queue.
- With large number of flows, "show openflow flow <>" may take 20 seconds to display packet counts.
- "Module Unknown" is shown for CLI "show open resources" in VDX 6940-144S.
- Openflow is not supported on Lag/vlag or port-channel interface.

# Layer 2 and Layer 3 ISSU on VDX 6740x

The ISSU functionality on the VDX 6740x (and derivatives) has been added in Network OS 5.0.1. This functionality leverages the HA model that has been delivered on the VDX 8770. It involves running dual-Network OS images on the multi-core control processor. This allows for non-disruptive (to Layer 2, Layer 3, and FCoE traffic) upgrade/downgrade of Network OS 5.0.1 and subsequent minor releases/patches.

ISSU functionality on the VDX 6740x (and derivatives) covers forwarding of Layer 2, Layer 3, and FCoE traffic through the VDX device. Protocols that involve the sending and receiving of Layer 2 and Layer 3 control packets on the VDX device itself are not covered by ISSU. For example, ISSU covers the forwarding of control packets for protocols such as VRRP and OSPF sent by hosts other than the VDX. ISSU allows for non-disruptive upgrades when the VDX is forwarding control packets for other hosts. ISSU does not currently allow for non-disruptive upgrades when the VDX itself is configured for protocols such as VRRP and OSPF and is sending and receiving control packets.

The implementation is based on a type-1 hypervisor.

# Vyatta Controller

- Controller does not update the config database based on the flow rejected notification/group rejected notification/meter rejected notification/delete notification/hard timeout aging notification from switch. Workaround: User needs to delete the flow from the config database and program the correct flow.
- In rare scenario, Controller sends the asynchronous messages leading to flow rejections e.g. flow-mods (associated with group/meter) are rejected after reconnection due to flow-mods being programmed before group/meter config. Work around is that the user needs to delete the group/meter/flow from the config database and program them again.
- In scale scenario, few flow-mods are not programmed after reconnection. Work around is that the user needs to delete the missing flow-mods and program them again.

- Topology/Change of interface states are not reflected correctly on BVC.
- Topology with multiple links are not reflected on BVC. BVC shows only single link between the switches.
- Refer to BVC 1.3.0 release noted for all the known issues/workaround.
- Limitations while configuring flows using BVC:
  - 1.) MAC addresses- Mac addresses needs to be in uppercase. Public bug (https://bugs.opendaylight.org/show\_bug.cgi?id=2949)
  - 2.) Ip addresses should have mask if it is just host say 10.19.18.20 it should be like 10.19.18.20/32 Public bug (https://bugs.opendaylight.org/show\_bug.cgi?id=2950)
  - 3.) Os in Ipv6 addresses are rounded ,eg 0000:0000:0000 is rounded to :: . But this is failing in comparison logic and both are treated differently. So use 0000:0000 where :: is there.
  - 4.) There are some default values ,eg: max\_length=0 . They should be set , even though they are 0.
  - 5.) "vlanid-present" in vlan based flows is one field . If you put true, config vs operational will be out of sync (that means flows will have different ids). If you put false or remove the field, flow will not be configured.

## Auto QoS for NAS

• From Network OS v5.0.1 onwards, 'nas auto-qos' configuration appears below 'cee-map' configurations in running-config. In earlier versions, it was the other way round.

As a result of this, if file replay is done using the Network OS v6.0.0 config (with auto-nas configuration) on any previous version (say, Network OS v4.1.0), 'nas auto-qos' configuration will be lost.

User will have to reconfigure 'nas auto-qos' configuration manually.

#### REST API

- REST configuration for startup-config datastore is not supported.
- Only one command can be configured with one REST request. Configuring multiple commands in a single request is not supported.
- Versioning in API is not supported
- Pagination and Range is not supported.
- Higher level of resource can be obtained with the header "-H "Resource-Depth: x".
- Action related operational commands are not supported.
- Maximum 30 sessions are supported.
- An FCoE Base license is required for the FCoE device to log in. Each FCoE device must have a VF port to log in.

#### NetConf

- Netconf configuration for startup-config datastore is not supported
- Configuring multiple commands in a single request is supported for configuration/deletion of vlan, switch port, trunk port, VE and rules under IP ACL only.
- Range is not supported.
- On a large cluster (of 32 nodes or more) and with scaled up configuration, it is recommended to query configuration using rBridge ID filter. In extreme scenario, querying cluster wide configuration without specifying rbridge ID filter might cause switch to run out of memory.
- Maximum 16 sessions supported.

# VXLAN Gateway for VMware NSX

- VCS VXLAN Gateway for NSX-MH/NSX-V, is supported only on VDX 6740, VDX 6740T,VDX 6740T-1G, VDX 6940-36Q and VDX 6940-144S
- VCS VXLAN Gateway for NSX-MH/NSX-V, is supported only in the VCS Logical Chassis mode.
- A maximum of 4 RBridges are supported in a VXLAN enabled VCS Cluster. VXLAN Gateway should be enabled on all the RBbridges of the VCS Cluster.
- Only 1 VTEP Gateway is supported in a VXLAN enabled VCS Cluster.
- VxLAN GW for VMware NSX-MH/NSX-V, and VF Extension cannot be enabled in the same VCS fabric.
- VMware NSX-MH vSwitch with vSphere version 5.5 (ESXi 5.5), and KVM on Ubuntu 12.04 are supported as hypervisors.
- Only one-to-one VLAN to VNI mapping is supported.
- Service and Transport VF cannot be attached to VxLAN GW.
- Tunnel interfaces cannot be used as SPAN (Switch port Analyzer) destination.
- Only Ingress ACL can be applied on tunnels.
- Ingress/Egress QoS policies cannot be applied to tunnels.
- Unicast/Multicast routing between VXLAN and VLAN/VXLAN is not supported.
- BFD should be enabled for all Service node tunnels.
- ALL the VE interfaces should run VRRP-E with the same VRID and same virtual-mac to terminate the incoming packets on other VLANs.
- Tunnels egressing/ingressing through an ISL port is supported only on VDX 6940-36Q and VDX 6940-144S.
- Fabric-Virtual-Gateway (FVG) based VTEP is not supported. CLIs for configuring FVG as VTEP are available under overlay-gateway, however these CLIs should not be used as the functionality is not available in this release.
- We certified with NSX 6.3.0 for NSX-V cert using defect 628238.

# VF Extension using VxLAN

- VF Extension overlay-gateway (VTEP) is supported only on the VDX 6740, VDX 6740T, VDX 6740T-1G, VDX 6940-36Q, and VDX 6940-144S.
- VF Extension overlay-gateway is supported only in the VCS Logical Chassis mode.
- VDX 8770 can be in the same VCS fabric where VF-Extension functionality is enabled.
- VxLAN Tunnels are supported over ISL links.
- VF Extension overlay-gateway can be enabled on maximum 4 Rbridges in a VCS Cluster.
- VxLAN GW for VMware NSX and VF Extension cannot be enabled in the same VCS fabric.
- Only 1 VF Extension overlay-gateway is supported in a VCS Cluster.
- Only one-to-one VLAN to VNI mapping is supported.
- Tunnel interfaces cannot be used as SPAN (Switch Port ANalyzer) destination.
- Only Ingress ACLs can be applied to tunnels.
- Ingress/Egress QoS policies cannot be applied to tunnels.
- Multicast routing between VXLAN and VLAN/VXLAN is not supported.
- L3 routing protocols and static routes over tunnels are not supported.
- Connected subnet L3 forwarding is supported over tunnels.
- Tunnels egressing/ingressing through an ISL port is supported only on VDX 6940 as a VTEP beginning with NOS v6.0.1. Such topologies and configuration must be removed before downgrading to any version below NOS 6.0.1.
- Fabric-Virtual-Gateway (FVG) based VTEP is not supported. CLIs for configuring FVG as VTEP are available under overlay-gateway, however these CLIs should not be used as the functionality is not available in this release.

# **TCAM Profiles**

- The TCAM profiles the user can create may not match the max scale numbers due to reserved routes/entries which are created for internal use.
- Use count field is added to show the number of entries currently in use.

# Management VRF

Layer 3 protocols such as OSPF/BGP/PIM/VRRP/VRRPe are not supported on Management VRF. The following are not supported on in-band ports when they are part of Management VRF:

- DHCP Client functionality
- Auto-config address
- Out-of-band management ports can only be part of Management VRF.
- Switch cannot be managed from leaked routes pointing to Management-VRF.
- Address family on Management VRF cannot be removed.

# Conversational MAC Learning

• Conversational MAC Learning and 'Disable Source MAC Learning' cannot be enabled simultaneously on VDX 674x platform.

# System level Flowbased QoS

- System Flow based QOS is not supported on the Egress direction.
- QoS can operate on either of three modes MLS, CEE and MQC. Hence once service-policy is configured, the interface will be assumed to be in MQC mode and existing MLS and CEE commands will not be supported on the same interface. Un-configuring the policy will put the interface back to default mode which is MLS.
- For Policer, aggregation is possible only within a single chip. Hence when policer is applied on port- channel interface, multi-chip aggregation is not expected.
- SFLOW as action is not supported on Port-Channel interface.
- Any ACL that is used in Flowbased QoS class-map as a match criterion is considered as "QoS ACL" and is special in nature. Hence behavior in some aspects may differ from that of regular "User ACL".
- System based QoS is not supported in egress direction.

### Port level Flowbased QoS

- Policer action or SPAN action or both can be applied in egress direction for Port Level Flowbased QoS.
- No other QoS actions are supported in egress direction for port level flowbased QoS.

# Non-trivial Merge

- Non-trivial merge is not supported for global configuration. There are a few exceptions in local
  configuration as well which are not supported for non-trivial merge. This is because these
  configurations modify global configuration indirectly.
- Modifying the local configurations listed below will result in both a local and global configuration change thereby causing configuration mismatch when ISLs are brought up during fabric formation resulting in node segmentation.

Command (Local Configuration)	Description
/hardware/flexport <interface tuple="">/type fibre-channel</interface>	Converting an Ethernet interface to Fibre-Channel causes global configuration changes because the Ethernet interface can have configurations in these global configs L2Sys, SPAN, IGMPs, MLDs.
/rbridge-id <#>/vrf <name></name>	The creation of a VRF on an RBridge will internally create a global partition object which is not visible to the user and used to track the same VRFs created across rbridges in the cluster.

• The Element Manager GUI is intended for use with the VDX 2741 and VDX 2746 platforms only, and may not be used with any other VDX platform.

#### HA on TOR switches

 HA failover is supported when a user-space daemon is terminated. However, HA failover is not supported on kernel panic. When kernel panic happens, the entire switch will be rebooted for recovery.

# Logical Chassis HA

- HA failover and unplanned failover is supported on VDX 8770 only.
- When the principal switch in the VCS cluster undergoing MM failover, it will remain as the
  principal switch after the MM failover. All the secondary nodes will first disconnect from it
  when the MM failover starts and then rejoin as the VCS cluster is reformed. At the fabric level,
  the cluster will remain intact and there will be no traffic disruption.
- When the secondary switch undergoing MM failover, the switch will disconnect and rejoin
  the VCS cluster after reestablishing connection with the principal switch and the rest of the
  cluster will stay intact. At the fabric level, the cluster will remain intact and there will be no
  traffic disruption.
- RMON HA is not supported.
- vMotion during HA failover is not supported.
- If UDLD is enabled, HA is supported with a higher range for the UDLD hello time ( > ow1 sec)
- HA is not supported for OpenFlow feature, however, system level ISSU is supported. For
  ISSU, it is recommended that the controller is disconnected first, all flows are cleared using
  "clear OpenFlow all" command and then perform the upgrade.

# Interoperability

- In a VPC environment where the ExtremeSwitching VDX side has the active LACP settings and the Cisco side has the passive settings on the vLAG, the port-channel takes over 30 seconds to come up.
  - **Workaround:** Reverse the settings and have the ExtremeSwitching VDX LACP settings passive and the Cisco side set as active. The port channel will then restore after about 10 seconds.
- VDX interop with Cisco Nexus switch with 'peer-switch' enabled on VPC is not supported.
- When interoperating with a Brocade 8000, it is recommended to set the *mac-aging* time to 0 on the VDX switch to prevent any adverse impact caused by certain errors generated by the Brocade 8000.
- ADX HA Sync packets use UDLD PDU's which may be dropped by VDX. To enable forwarding, we recommend configuring dot1q tagging to treat UDLD packets as datapackets to be forwarded across VCS. Virtual Fabric.
- PIM-SM is not supported on Virtual Fabric on VDX8770.
- For frames forwarded on a transport fabric, ingress CTAG tagging is preserved at the egress port regardless of the egress tagging classification.
- Default-VLAN can only be configured using TRANSPORT VF IDs.
- The "no vcs virtual-fabric enable" command execution time is dependent on the number of ISLs and VLANs in the VCS.
- The virtual-fabric resource allocation are platform dependent as follows:
  - VDX 8770 no limitation
  - VDX 6740/6740T/6740T-1G uses TCAM table
  - VDX 6940-36Q virtual-fabric transport and service VLANs use TCAM and EXM table respectively.

#### MAPS

- BNA version 14.0.1 is supported with NOS7.0.1
- MAPS is supported on VDX 2741, 2746, 6740, 6940 and 8770 platforms.
- MAPS port level alerting in NOS V7.0.1 is not available for Flex Ports configured in Fiber Channel mode.
- RX\_SYM\_ERR MAPS messages are displayed when breakout cable is connected on a 40G interface that is not configured for breakout.
- When line card on the remote end of the link is powered off, MAPS generates
   Insertion/Removal notification for the SFPs on the local side. These can be ignored.
- 100G SFP threshold monitoring is not supported on VDX6940-144s.

#### Maintenance Mode

- Port-channel configuration changes while a node is in maintenance-mode is not supported.
- Configuration replay of a saved configuration file or snapshot containing both maintenance-mode and port-channels is not supported.

#### BNA

Recommendations to customer when the cluster size is 32 or more nodes

- Make sure the lazy polling period is 60 minutes.
- Disable event based polling in such large clusters. Essentially this means there will not be any update from the cluster for BNA till the lazy period is elapsed.

# Miscellaneous

- ExtremeSwitching VDX switches load balance internal and external traffic based on hash functions using standard network headers as keys. Due to this implementation, users may experience traffic imbalance depending upon application flow definition.
- Packet drops will be seen for a short duration due to routing changes with link flaps and/or node failovers.
- On both ISL and Edge ports, sFlow sampling is supported only in inbound direction.
- Sflow collectors are not queried in snmp v1, v2 & v3 versions.
- L2 packets may not be sampled on line-card power OFF & ON.
- If multiple VLANs are configured on a switch, then in order to enable certain features such as IGMP or PVST it is recommended that specific features be enabled on a per-VLAN basis instead of enabling them globally.
- The VLANs 4087-4095 and 1002 are reserved and used for internal cluster operations.
- "Clear ip route all" need to be issued once the maximum number of routes supported by a router is exceeded.
- SNMP supports 2k OCTET-STRING size for MIB objects.
- Snmpwalk operation on TCP MIB (RFC 4022) may become very slow and timeouts may happen on all VDX platforms. The snmpwalk timeout should be set to at least 3 seconds while walking the TCP MIB.

- Under rare conditions, the switch may bootup with the default configuration upon power-cycling the switch.
- Firmware downgrade is not blocked if the scale configured would not be supported in the downgraded release.
- Under rare conditions, after disabling keepalive timeout followed by shut & no shut of the port-channel link may prevent FCoE logins through that port-channel.
- On rare instances of HA failover, SFM may turn faulty. Workaround is to manually reseat the card.
- On rare instances of ISSU, HA failover, line-card may turn faulty. Workaround is to reset the line-card.
- PCAP utility is not supported on standby MM on VDX 8770.
- Please make sure to not have large no of unreachable tacacs+ accounting server configured, else it might cause unit to reboot. This issue is hit only with large config (4K VLAN etc and 20K lines or config).
- Configuration of more than one In-band management port on a single switch is not recommended.
- Under certain stress conditions the 'copy support' command might time out for some modules. In such cases, it is recommended to retry 'copy support' with a higher timeout multiplier value.
- It is highly recommended to copy the configuration file to running-config and then save the running-config to startup-config, instead of directly copying the external configuration file to startup-config, especially when using fabric distributed features such as Zoning, VM Aware Network Automation and Virtual IP.

# **Defects**

# TSBs - Critical Issues to Consider Prior to Installing This NOS Release

Technical Support Bulletins (TSBs) are produced to provide detailed information about high priority defects or issues present in NOS releases. The following sections specify all current TSBs that have been identified as being a risk to or resolved with this specific version of Extreme Network OS. Please review carefully and refer to the complete TSB for relevant issues prior to migrating to this version of code. TSBs can be found at <a href="https://extremeportal.force.com/">https://extremeportal.force.com/</a> (note that TSBs are generated for all Extreme platforms and products, so not all TSBs apply to this release).

# TSB Issues Resolved in Network OS v7.0.1

TSB	Summary
	A component within the 10G Base-T power circuitry can overheat causing the switch to power off and be unusable.
	Only 6740-T switches configured with "Port Side Exhaust" (-R fan direction) are at risk to this specific component overheating condition. VDX 6740-T switches with "Port Side Intake" provide sufficient airflow over the specific component to prevent overheating.
	The number of failures observed in the field have been very low. The number of total failures of VDX 6740-T switches, counting all reasons including this specific failure, are well below the predicted failure rate for this HW platform. Switch will power down and become unusable.
TSB 2016-236-A	The switch may power down due to a detected thermal event or it may power down due to loss of an internal voltage. There may not be any log recorded ahead of the power down.
	A SW solution to increase the nominal fan speed to ensure sufficient airflow over the circuitry to prevent any overheating of the specific component has been developed.
	Upgrading to one of the specified firmware versions or any higher version of the Extreme Network OS will provide an increased fan speed and airflow to prevent any overheating. The nominal power consumption of the switch will only be increased by 20W with this change, and the maximum power consumption is not affected by this change.

## Network OS v7.0.2a Caveats

None

Network OS v7.0.2 Caveats

None

Network OS v7.0.1c Caveats

None

# Network OS v7.0.1b Caveats

SSH

Shutting down SSH server does not close all existing SSH login sessions. Shutdown SSH server.

#### **IP Fabric**

• ISSU upgrade to NOS7.0.1a can cause 19 seconds of traffic loss if BFD is configured. Please disable BFD.

#### VLAN - Virtual LAN

 Packets are flooded to all the vlan member interfaces of the remote node even though Staticmac blinding is configured. When Multicast mac address is used and Vlan member interfaces are present in the remote nodes of the cluster

#### **DHCP - Dynamic Host Configuration Protocol**

 PV4 DHCP relay statistics does not display the count for DHCP offer and DHCP Ack packets relayed by switch from the DHCP server to DHCP client. Execution of "show vlan brief" CLI after reload.

#### Monitoring

• Multiple FFDC and Core files seen on firmware downgrade. When 8770-8 chassis running six new version line-cards 6x100G, 27x40G, 48x10G-T with three or more of type 6x100G is downgraded from 7.0.1b version to lower version.

#### **OSPF**

When overlapping routes (such as routes with same network address, but different mask/prefix-length) are redistributed into NSSA area, withdrawal of more specific route inadvertently results into the withdrawal of less specific route.

OSPFv3 - IPv6 Open Shortest Path First

• After doing HA failover on M4, HA is not in SYNC and observed ONM crash. HA failover and timing issue can trigger the issue, very rare to occur.

CLI

 After setting the default RA interval using "ipv6 nd ra-interval 600" the line does not disappear from config anymore. There is no work-around.

## Network OS v7.0.1a Caveats

None

# Network OS v7.0.1 Caveats

**BFD** 

Although the BFD timer values are allowed to be configured below default values of 200 ms (VDX8770) and below 500 ms (VDX6740, 6940), only default values and above are recommended.

#### **VxLAN**

For VXLAN tunnel packets, the IP MTU check on egress is bypassed to allow larger size packets.
 Any fragmentation occurring on the underlay transit nodes will result in failure of VxLAN
 termination at the destination VTEP. So, if a packet of size greater than configured L3 MTU of
 9018 Bytes is forwarded through the tunnel, the packet will pass through and the transit node
 shall fragment or discard the packet based on the fragmentation support on the node and the
 DF bit set on the packet.

#### Note:

DF bit is set on VDX6940 and not set on packets originating from VDX6740

Packet Fragmentation is supported on VDX8770 and not supported on VDX6740 and 6940 platforms.

- On occurrence of events that may bring down the tunnel on an R-Bridge, there could be few seconds of traffic interruption due to a default de-bounce-timer which is set to 2 secs, this could delay the fail-over of the traffic to redundant path. A debug command "show system internal tnlmgr de-bounce-timer 0 0" can be utilized to reduce the traffic impact, however, the command settings are not persistent across reloads.
- On sending IGMP queries over VF\_Extension Tunnel with VLAG as underlay, packets might loop over the tunnel .Queries come back from the same tunnel interface from which its egressed out.

- "show ip igmp groups interface tunnel <tunnel\_id>" cli shows all IGMP interfaces instead of just the tunnel interface.
- Adding and Removing RBridges under overlay-gatway may take longer than expected time if large number of VLANs are configured in the fabric.

#### Long Distance ISL

- The "long-distance-isl" functionality on an interface will not be preserved although "long-distance-isl" configuration is displayed in running-config when the following actions are performed:
  - 1. Configuring "long-distance-isl" on an "administratively down" ISL interface.
  - 2. VCS or switch reload/Chassis disable-enable/interface shut-no shut/Firmware download with "coldboot" option
- It is recommended the user configure any "long-distance-isl" configuration while the ISL interface is in the "administratively up" state.
- If the "long-distance-isl" persistent issue is encountered, the user can recover by manually removing the "long-distance-isl" configuration and reconfigure.

#### Loopback interfaces

• On topologies where same IP address is configured on loopback interfaces on multiple nodes in a cluster, performing admin down of loopback interfaces may result in ping issues.

#### Route distribution

 When redistribute bgp metric command is unconfigured, the configuration is not completely removed. It is required to configure redistribution without metric and then unconfigure again to unconfigure it completely.

#### FCoE/Access Gateway

• If a node with FCoE interfaces configured with local logical SAN is reloaded, the FCoE logins may fail to come online. In order to recover, remove and configure the respective local logical SAN fabric-map.

#### BNA/NetConf/REST

- Special character '\$' under the custom RPC "bna-config-cmd" cannot be used for Netconf and REST API for performing copy operation.
- REST API deletion on the main resource will remove all the sub-resources under it. For Example, REST API delete Operation without specifying ACL name will remove all the ACLs in the system.
   Specify the ACL name in the request in order to delete particular ACL from the config.
- For large scale VCS fabrics with more than 4000 ports, querying the cluster with BNA/REST APIs may result in switch software exception. For this purpose it is not recommended to enable BNA monitoring or querying with REST APIs for large VCS fabrics.

#### **AAA Configuration**

• The number of user accounts is limited to 60. Adding any additional accounts and performing add/remove user operations may result in a Switch Software Exception.

#### Sync Failure Error

• If an error "CRITICAL, VDX8770-4, FSS Error on service component [ethsw1:eswc]: sync-failure: -994" is observed when DHCP IP helper functionality is enabled between 2 different VRFs please contact Extreme Support for defect confirmation and recovery steps.

#### Mac Loop Detect Feature:

- "Loop detection may not take action of shutting down the interfaces in a high scale environment with greater than 20K macs flapping at a time".
- "MAC-move detect feature may shutdown the Server port under certain conditions".

#### Port Channel Scalability:

- Under certain circumstances, port-channel configured with Brocade protocol, may limit the maximum scale number to a lower value.
- Port-channel vLAG/LAG may not re-establish after issuing "no vlag-commit-mode disable". User may require to delete and re-configure the port-channel interface and member links.

#### AMPP/vCenter:

- Event notification is not received for the second host move, when more than one host is moved from one data-center to another in vCenter 6.0.0. The hosts would still be part of old data-center and workaround is to initiate a manual discovery
- Event notification is not received when the VLAN of two identical port-groups are modified and the running config doesn't change. Workaround is to initiate a manual discovery.
- Output of show vnetwork vmpolicy command is not displaying the VM name and datacenter-id for a cloned VM. Workaround is to initiate a manual discovery.

#### OpenFlow:

- With default rcv-queue and after coldboot group select traffic may not be correct, need to do shut/no shut on the interface. This is not observed with non-default rcv-queue.
- With large number of flows, "show openflow flow <>" may take 20 seconds to display packet counts
- Filtering options (e.g. show | include ) will not work for show openflow commands. show commands will display the complete output.
- "Module Unknown" is shown for CLI "show open resources" in VDX 6940-144S.

### • Hardware Profile:

• When modifying the route-table profile type and maximum-path using the hardware-profile command, the user should only change one parameter at a time. Otherwise the maximum-path setting will be incorrect. If the issue already occurred, the user can re-run the command to set the maximum-path with the correct value.

# • Copy Config command:

• In VDX6940-144S, 100G mode configuration replay can fail when executing "copy <file> running-config" if DPOD license is not reserved. To work around this issue, the user can manually reserve the license and then run "copy <file> running-config".

### Syslog:

• Syslog server configured with same IP across the VRFs in inband will not receive the messages.

# Closed with code changes for NOS v7.0.2a

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of July 31, 2018 in Network OS v7.0.2a.

Defect ID:	DEFECT000609232		
Technical Severity:	High	Probability:	High
Product:	Extreme Network OS	Technology Group:	Logical Chassis
Reported In Release:	NOS7.1.0	Technology:	VCS
Symptom:	1. Compact Flash grows	s and disk full issue can o	occur.
	2. Unexpected DCMd d	laemon termination.	
Condition:	No special condition or	configuration required	to hit this issue.
Workaround:	workaround: Please comment below and reread config file fi should stop all those IC is working fine after the before we try on custo /etc/syslog-ng/syslog-r /etc/syslog-ng/syslog-r #destination df_kern {	ng.template pipe("/var/log/kmsg");    } er(f_kern);    destination(c	onfig & template files mmand [killall]. It verify that syslog utility make sure all is fine ment.
Recovery:		log file if it is growing be	yond 1 Mb.

Defect ID:	DEFECT000633219		
Technical Severity:	Medium	Probability:	High
Product:	Extreme Network OS	Technology Group:	VRRPv3 - Virtual
			Router Redundancy
			Protocol Version 3
Reported In Release:	NOS7.1.0	Technology:	Layer 3
			Routing/Network
			Layer
Symptom:	VDX experience unexpected reload due to DCMd daemon		
	termination.		
Condition:	Execution of CLI:		
	sw0(config-vrrp-extended-group-1)#track network 0.0.0.0/0 priority		
	50.		

Defect ID:	DEFECT000645906		
Technical Severity:	Medium	Probability:	Low
Product:	Extreme Network OS	Technology Group:	FCoE - Fibre Channel
			over Ethernet
Reported In Release:	NOS5.0.2	Technology:	Layer 2 Switching
Symptom:	FCOE flapping on some FCOE devices until reloaded server after		
	adding new VDX into VCS		
Condition:	Cluster disturbance		
Recovery:	RecoveryApply "shut/noshut" on problematic physical		
	interfaces		

Defect ID:	DEFECT000646316		
Technical Severity:	Medium	Probability:	Low
Product:	Extreme Network OS	Technology Group:	ARP - Address
			Resolution Protocol
Reported In Release:	NOS6.0.2	Technology:	Layer 3
			Routing/Network
			Layer
Symptom:	Unexpected reload of switch.		
Condition:	Removing L3 configs (in specific IPv4 addresses) and defaulting the		
	config for VDX.		

Defect ID:	DEFECT000646540			
Technical Severity:	High	Probability:	High	
Product:	Extreme Network OS	Technology Group:	OSPFv3 - IPv6 Open	
			Shortest Path First	
Reported In Release:	NOS7.1.0 <b>Technology:</b> Layer 3			
			Routing/Network	
			Layer	
Symptom:	Message generic error at CLI console			
Condition:	While removing OSPFv	3 configuration		

Defect ID:	DEFECT000647282		
Technical Severity:	Medium	Probability:	Low
Product:	Extreme Network OS	Technology Group:	Hardware Monitoring
Reported In Release:	NOS7.0.1	Technology:	Monitoring
Symptom:	1G port link flapped in VDX6740-T.		
Condition:	On VDX6740-T if the peer end is connected to Intel NIC, auto		
	negotiation will fail, res	sulting in flapping of 1G	port.

Defect ID:	DEFECT000647840		
Technical Severity:	Medium Probability: Low		
Product:	Extreme Network OS	Technology Group:	Logical Chassis
Reported In Release:	NOS6.0.2	Technology:	VCS
Symptom:	System may undergo unexpected reload		
Condition:	Media removal while media data is reading		
Workaround:	shut/ no shut media removed interface		

Defect ID:	DEFECT000647847		
Technical Severity:	High <b>Probability:</b> Medium		
Product:	Extreme Network OS	Technology Group:	LAG - Link
			Aggregation Group
Reported In Release:	NOS6.0.2	Technology:	Layer 2 Switching
Symptom:	Unexpected reload		
Condition:	In rare a case, DB corruption happens at the time of port-channel		
	deletion.		

Defect ID:	DEFECT000648291		
<b>Technical Severity:</b>	High	Probability:	Medium
Product:	Extreme Network OS	Technology Group:	CLI - Command Line
			Interface
Reported In Release:	NOS7.0.1	Technology:	Management
Symptom:	Help string update for SSH related CLIs. Keyword "etc" got removed.		
Condition:	For the below CLIs		
	sw0(config-rbridge-id-1)# ssh server key-exchange?		
	ssh server cipher		
	ssh server mac		
	ssh client key-exchange		
	ssh client cipher		
	ssh client mac		

Defect ID:	DEFECT000651850		
Technical Severity:	Medium	Probability:	Low
Product:	Extreme Network OS	Technology Group:	SNMP - Simple
			Network
			Management
			Protocol
Reported In Release:	NOS7.2.0	Technology:	Management
Symptom:	SNMP sysName query returns hostname instead of FQDN.		
Condition:	When SNMP sysName OID is queried.		

Defect ID:	DEFECT000652192			
Technical Severity:	Medium	Probability:	Medium	
Product:	Extreme Network OS	Technology Group:	OSPF - IPv4 Open	
			Shortest Path First	
Reported In Release:	NOS7.0.1	Technology:	Layer 3	
	Routing/Network			
			Layer	
Symptom:	"OSPF-1003 - Received Invalid LS packet" RASLOGs get flooded.			
Condition:	Unexpected reload of the switch.			

Defect ID:	DEFECT000654900		
Technical Severity:	High <b>Probability:</b> High		
Product:	Extreme Network OS	Technology Group:	OpenStack
			Integration
Reported In Release:	NOS7.1.0	Technology:	Network Automation
			and Orchestration
Symptom:	1G Port won't come online.		
Condition:	Connected 1G with 10G at other end.		

Defect ID:	DEFECT000655619			
<b>Technical Severity:</b>	Medium	Probability:	Low	
Product:	Extreme Network OS	Technology Group:	Management GUI	
Reported In Release:	NOS7.0.1	Technology:	Management	
Symptom:	BNA hangs on VDX logical chassis firmware downgrade from 7.0.1c to			
	7.0.1b or 6.0.1f to 6.0.1e			
Condition:	VDX logical chassis firmware downgrade using BNA.			
Workaround:	Use NOS CLI for firmwa	Use NOS CLI for firmware downgrade rather than BNA.		

Defect ID:	DEFECT000656869		
Technical Severity:	Medium	Probability:	Low
Product:	Extreme Network OS	Technology Group:	Logical Chassis
Reported In Release:	NOS7.1.0	Technology:	Data Center Fabric
Symptom:	Port does not came online on VDX 6740-T platform		
Condition:	Port didn't came online when the peer server is CentOS was rebooted		
	multiple times.		

Defect ID:	DEFECT000657045		
Technical Severity:	High	Probability:	High
Product:	Extreme Network OS	Technology Group:	HTTP/HTTPS
Reported In Release:	NOS7.0.2	Technology:	Security
Symptom:	HTTPS will be enabled if expired TLS certificate and key is imported to device using scpuser credentials. HTTPs should not be enabled if the certificate is expired.		
Condition:	When expired TLS certificate is imported to device using scpuser credentials, HTTPS can be enabled even with expired TLS certificate.		
Workaround:	Expired TLS certificate should not be imported to device.		
Recovery:	Import valid TLS certificate.		

Defect ID:	DEFECT000657950		
Technical Severity:	Medium	Probability:	High
Product:	Extreme Network OS	Technology Group:	Syslog
Reported In Release:	NOS7.0.1	Technology:	Monitoring
Symptom:	After adding a VDX to an existing VCS using "vcs replace", the newly added VDX is unable to send messages to a remote syslog server.		
Condition:	The newly added or reconnected VDX will be able to see "logging syslog-server" settings in "show run", but it will not be able to send syslog messages to that remote server		
Workaround:	After this issue has occurred on a newly added non-principal, it is possible to recover by removing and re-applying the "logging syslog-server" setting on the VCS principal rbridge.		

Defect ID:	DEFECT000658011		
<b>Technical Severity:</b>	High	Probability:	Medium
Product:	Extreme Network OS	Technology Group:	TACACS & TACACS+
Reported In Release:	NOS7.1.0	Technology:	Security
Symptom:	Tacacs accounting functionality does not work properly.		
Condition:	In VCS cluster node rejoin operation can cause this issue.		

Defect ID:	DEFECT000658079		
Technical Severity:	Low	Probability:	Medium
Product:	Extreme Network OS	Technology Group:	OSPF - IPv4 Open
			Shortest Path First
Reported In Release:	NOS7.0.1	Technology:	Layer 3
			Routing/Network
			Layer
Symptom:	Route summarization does not happen even after configuring it on		
	the device.		
Condition:	This issue is seen when configured route summarization prefix		
	triggers OSPF Appendix	E calculation with the e	existing Type 3 LSAs.

Defect ID:	DEFECT000658974		
Technical Severity:	Medium	Probability:	Medium
Product:	Extreme Network OS	Technology Group:	Configuration
			Fundamentals
Reported In Release:	NOS7.2.0	Technology:	Management
Symptom:	Default-config operations [copy default-config startup-config, FWDL with default-config, netInstall] does not preserve the DHCP configuration on management interface		
Condition:	Performing default-config operations [copy default-config startup-config, FWDL with default-config, netInstall].		

Defect ID:	DEFECT000659778		
Technical Severity:	Medium	Probability:	Medium
Product:	Extreme Network OS	Technology Group:	Logical Chassis
Reported In Release:	NOS6.0.2	Technology:	VCS
Symptom:	For VDX 6740 and VDX	6740-T, during the firm	ware upgrade,
	customer experienced Compact Flash card issue with the following		
	scenario:		
	- Rolling reboot		
	- Console log message of ?SCSI_REQ_SENSE failed cmd 0x03 returned		
	0x70 0x06 0x28 0x00? and/or ?Hypervisor Reset Flush?		
Condition:	Un-correctable internal errors occurred on the Compact Flash card		
	that used to store programs and data.		
Workaround:	Recovery using netinstall is possible, but some units fail again after		
	some time even after a netinstall procedure has recovered the		
	system.		

Defect ID:	DEFECT000659781		
Technical Severity:	Medium	Probability:	High
Product:	Extreme Network OS	Technology Group:	Logical Chassis
Reported In Release:	NOS6.0.2	Technology:	VCS
Symptom:	For VDX 6740 and VDX	6740-T, during the firm	ware upgrade,
	customer experienced	Compact Flash card issu	e with the following
	scenario:		
	- Rolling reboot		
	- Console log message of ?SCSI_REQ_SENSE failed cmd 0x03 returned		
	0x70 0x06 0x28 0x00? and/or ?Hypervisor Reset Flush?		
Condition:	Un-correctable internal errors occurred on the Compact Flash card		
	used to store programs and data.		
Workaround:	Recovery using netinstall is possible, but some units fail again after		
	some time even after a	netinstall has recovered	d the system.

Defect ID:	DEFECT000660553		
Technical Severity:	Medium	Probability:	Medium
Product:	Extreme Network OS	Technology Group:	Logical Chassis
Reported In Release:	NOS7.0.1	Technology:	Data Center Fabric
Symptom:	Cannot configure IPv6 (/126) address on VIP for VRRP-E.		
Condition:	Configuring IPv6 address (/126) for VRRP-E		

Defect ID:	DEFECT000660697		
Technical Severity:	Medium Probability: Low		
Product:	Extreme Network OS		
Reported In Release:	NOS7.0.1 <b>Technology:</b> Data Center Fabric		
Symptom:	unexpected core files fills up disk.		
Condition:	"show logging raslog rbridge-id" CLI execution for multiple rbridge at		
	the same time.		

Defect ID:	DEFECT000661476		
Technical Severity:	High	Probability:	High
Product:	Extreme Network OS	Technology Group:	CLI - Command Line
			Interface
Reported In Release:	NOS7.2.0	Technology:	Management
Symptom:	"Please check the valid CLI format, host IP address, and the		
	permission and space left on the remote directory." Error message		
	comes on terminal.		
Condition:	Change in RSA host key of the management server.		

Defect ID:	DEFECT000661527		
<b>Technical Severity:</b>	Medium Probability: Low		
Product:	Extreme Network OS	Technology Group:	Software Installation
			& Upgrade
Reported In Release:	NOS7.0.2 <b>Technology:</b> Management		
Symptom:	Lost configuration during upgrade tsd terminated with core dump		
Condition:	Upgrade from 6.0.2e to 7.0.2		

Defect ID:	DEFECT000661579		
Technical Severity:	Critical	Probability:	High
Product:	Extreme Network OS	Technology Group:	Management GUI
Reported In Release:	NOS6.0.2 <b>Technology:</b> Management		Management
Symptom:	"write erase" removes /var/spool/cron/root crontab config file and as a result all crontab functionality is impacted.  Ex: /var/log/syslog.log file can grow beyond 100k as log rotation doesn't work.		
Condition:	execute "write erase" .		

Defect ID:	DEFECT000661695		
Technical Severity:	High	Probability:	High
Product:	Extreme Network OS	Technology Group:	LAG - Link
			Aggregation Group
Reported In Release:	NOS6.0.2 <b>Technology:</b> Layer 2 Switching		
Symptom:	Traffic disruption in the cluster due to unresponsive rbridge		
Condition:	In rare conditions, the ISLs stay up on an unresponsive rbridge.		

Defect ID:	DEFECT000661782			
Technical Severity:	Medium	Probability:	Low	
Product:	Extreme Network OS	Technology Group:	Hardware Monitoring	
Reported In Release:	NOS6.0.2 <b>Technology:</b> Monitoring			
Symptom:	Slow kernel memory leak due to 'aapl_malloc+0x38/0x8c			
	[dce_blade_module]'. Leak is 4MB per day.			
Condition:	Memory leak of 4MB per day due to 'aapl_malloc+0x38/0x8c			
	[dce_blade_module]'			

Defect ID:	DEFECT000662522		
Technical Severity:	Critical Probability: High		
Product:	Extreme Network OS		
Reported In Release:	NOS6.0.2 <b>Technology:</b> Layer 2 Switching		
Symptom:	Traffic impact or packet loss between directly connected hosts.		
Condition:	Traffic impact or packet loss between directly connected hosts.		

Defect ID:	DEFECT000663071		
Technical Severity:	High	Probability:	High
Product:	Extreme Network OS	Technology Group:	Hardware Monitoring
Reported In Release:	NOS6.0.2 <b>Technology:</b> Monitoring		
Symptom:	No asic parity error messages in RASlog.		
Condition:	Switch did not go to faulty state even though there were parity		
	errors.		

# Closed with code changes for NOS v7.0.2

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as November 22, 2017 in Network OS v7.0.2.

Defect ID: DEFECT000550982		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS5.0.1	<b>Technology:</b> SNMP - Simple Network Management Protocol	
<b>Symptom:</b> Switch management port does not generate a ColdStart trap if a Management port is configured to acquire the IP address via DHCP.		
<b>Condition:</b> when switch is configured to acquire IP address via DHCP, then we will observe this issue.		
Workaround: If IP is configured statically, the issue will not happen.		

Defect ID: DEFECT000579904		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS5.0.2	<b>Technology:</b> AAA - Authentication, Authorization, and Accounting	
Symptom: Command set field on the Window	ws based TACACS server is empty	
Condition: 1. When TACACS server is winded 2. Accounting is enabled	ows based	

Defect ID: DEFECT000600591		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface	
<b>Symptom:</b> Logs are dumped on the screen, when there is a read failure on SFPs connected to the port.		
<b>Condition:</b> Accessing information about the SFPs inserted in the ports.		
Recovery: Disable the port and re-enable it.		

Defect ID: DEFECT000619425			
Technical Severity: High	Probability: High		
Product: Extreme Network OS	Technology Group: Layer 2 Switching		
Reported In Release: NOS7.1.0	Technology: VXLAN - Virtual Extensible LAN		
Symptom: Traffic loss on Port-channel interface			
<b>Condition:</b> If Global MTU is smaller than Port-channel MTU or Global MTU is configured and un-configured, user may see traffic loss on port-channel interface.			
Workaround: Configure MTU same as port-channel on Port-channel member interfaces			

Defect ID: DEFECT000623805		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.2	<b>Technology:</b> RAS - Reliability, Availability, and Serviceability	
Symptom: 12traceroute request failure via REST API		
Condition: After 1000 successful l2traceroute request, any subsequent request for l2traceroute will fail.		
Recovery: Reload of the switch recovers from this state		

Defect ID: DEFECT000628230		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: VLAN - Virtual LAN	
<b>Symptom:</b> member interface of a port-channel fails to learn source MAC addresses resulting in flooding.		
Condition: port-channel member interface is configured as fcoeport after port-channel is configured as switch		
port.		

Defect ID: DEFECT000631176		
Technical Severity: Low	Probability: High	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.1.0	Technology: CLI - Command Line Interface	
Symptom: Ambiguity in IP MTU field of "show interface" output. Cosmetic issue, no functional impact.		
Condition: L3 Interface is configured back to L2.		

Defect ID: DEFECT000634769		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.2	Technology: Configuration Fundamentals	
Symptom: SCP file transfer fails		
Condition: Using double quotes ("") for file names with spaces causes SCP to fail on certain servers.		
Workaround: Use file names without spaces		

<b>Defect ID:</b> DEFECT000636143	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS6.0.2	Technology: LAG - Link Aggregation Group

Symptom: Cosmetic issue. some of fields (actor system id, Receive link count, Transmit link count, Individual

and ready ) won't display properly at "show port-channel detail | nomore" output.

**Condition:** Rare scenario. Execution of "show port-channel detail | nomore".

**Defect ID:** DEFECT000637104 Technical Severity: High Probability: High **Product:** Extreme Network OS **Technology Group:** Layer 2 Switching **Technology:** VLAN - Virtual LAN **Reported In Release:** NOS7.1.0 Symptom: Switch does not allow user to configure L2 configuration on physical interface after config and

unconfig of "ip directed broadcast" cli.

Condition: After config and unconfig of "ip directed broadcast" cli

Defect ID: DEFECT000637684 Technical Severity: Medium Probability: Low **Product:** Extreme Network OS **Technology Group:** Data Center Fabric **Reported In Release:** NOS5.0.2 Technology: Logical Chassis Symptom: Unexpected reload **Condition:** Deleting the zone member entry in upper case which is configured as upper case. Workaround: Use lower case letters only to delete the zone member entry.

Defect ID: DEFECT000637797		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	Technology Group: Network Automation and Orchestration	
Reported In Release: NOS6.0.2	Technology: NETCONF - Network Configuration Protocol	
<b>Symptom:</b> DHCP Auto Deployment upgrade from NOS 6.0.2x to NOS 7.0.1x fails.		
Condition: DHCP Auto Deployment upgrade from NOS 6.0.2x to NOS 7.0.1x.		

Defect ID: DEFECT000638197		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol	
Symptom: peer-group configuration may not exist after the firmware upgrade		
Condition: This happens when the peer-group has only the BFD configuration		
Workaround: Reconfigure the peer-group		

Defect ID:	DEFECT000639403	
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Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.2	Technology: Port Mirroring	
Symptom: Monitor traffic may not appear on the monitor ports		
<b>Condition:</b> Two monitor sessions are created with same destination but different source and first monitor session is removed.		

Defect ID: DEFECT000640057		
Technical Severity: High	Probability: Medium	
Product: Extreme Network OS	Technology Group: Network Automation and Orchestration	
Reported In Release: NOS7.2.0	Technology: OpenStack Integration	
<b>Symptom:</b> VDX6940-36Q and -144S may cause FFDC (First Failure Data Capture) on 4x10g breakout ports 1:1, 17:1, and 18:1.		
<b>Condition:</b> When VDX reloads unexpectedly, it might fail over to new active GOS (e.g., SW1) then VDX is vulnerable to this issue.		
<b>Recovery:</b> Use NOSCLI command "HA Failover" to manually failover (e.g., back to SW0).		

Defect ID: DEFECT000640567		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.1	Technology: IP Fabric	
<b>Symptom:</b> Displaying routes with detail option asterisk are shown on all routes returned. This should only be on the selected route.		
Condition: Execution of "show ip route detail"	"CLI	

<b>Defect ID:</b> DEFECT000641485		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
<b>Symptom:</b> Management cluster/VCS goes offline when ISL between two nodes goes down even though the connectivity could have been established through the other nodes' ISL.		
<b>Condition:</b> It happens rarely when the new link/connectivity happens slowly.		

Defect ID: DEFECT000642278	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.2	<b>Technology:</b> SNMP - Simple Network Management Protocol
Symptom: Snmpwalk of in-band Ve interfaces fails with timeout error.	

**Condition:** SNMP packets are discarded when the ingress interface differs from the egress interface.

Defect ID: DEFECT000642884		
Technical S	Severity: Medium	Probability: Low
Product: 1	Extreme Network OS	Technology Group: Monitoring
Reported I	n Release: NOS7.0.0	Technology: Hardware Monitoring
Symptom:	mptom: The following warning will be logged on some interfaces which are installed with 'SR' SFP+ The mentioned threshold in the logs looks like a 10G LR threshold even though the installed SFP+ is 'SR 'Sfp Current for port x/0/y, is below low boundary(High=85, Low=15). Current value is Z mA' on 10G SR SFP+'	
Condition:	Condition: This will occur only on interfaces where already inserted 10G 'LR' SFP+. are replaced with a 10G 'SR' SFP+ and the link is up	

Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Network Automation and Orchestration	
Reported In Release: NOS7.2.0	Technology: OpenStack Integration	
<b>Symptom:</b> VDX 6740 or 6940 40g port connected to SLX 9xxx 40g port, and then rebooting or power-cycling the SLX switch. Upon reboot, the 40g link may not come online		
Condition: VDX 6740 or 6940 40g port connected to SLX 9xxx 40g port, and then rebooting or power-cycling the SLX switch. Upon reboot, the 40g link may not come online		
Workaround: Try NOSCLI shut / no shut on VDX and or SLX switch.		

Defect ID: DEFECT000643696		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> OSPFv3 - IPv6 Open Shortest Path First	
<b>Symptom:</b> Occasionally in a VCS consisting of two VDX running as ASBR., a few type7 LSAs are not generated on one of the RBridge after reloading VDXs at times.		
<b>Condition:</b> A VCS cluster with 2 VDXs and distributing 127 routes their own VE interfaces into OSPF Area 21 (NSSA).		

Defect ID: DEFECT000644087		
Technical Severity: Low	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.0	Technology: Software Installation & Upgrade	
<b>Symptom:</b> VDX6940-2U with new DRAM may encounter machine-checks errors during or after FWDL and can cause unexpected switch reload.		
Condition: VDX6940-2U with new HW component [ DRAM ]		

Workaround: When a newer HW component has been detected, firmware download is being blocked by preinstall script to avoid degrading the system performance of BR-VDX6940-144S platform. **Recovery:** Perform FWDL to a newer NOS version where new uboot change does exist.

Defect ID: DEFECT000644227		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.1.0	Technology: ARP - Address Resolution Protocol	
Symptom: mac learning stops after ARP limit is exceeded and then ARP entries are cleared with "clear arp"		
Condition: Scaling ARP to limit		

Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.2.0	<b>Technology:</b> SNMP - Simple Network Management Protocol	
Symptom: ifInErrors counter does not increment when CRC errors are seen on interface.		

Defect ID: DEFECT000645982	
Technical Severity: High	Probability: Low
Product: Extreme Network OS	Technology Group: Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	Technology: ICMP - Internet Control Message
	Protocol
Symptom: Packet Loss in IP Fabric topology.	
<b>Condition:</b> ARP/IP moves from one mac to another.	

Defect ID: DEFECT000646528		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
Symptom: Unexpected reload		
Condition: In rare scenarios, MAC address age out results in corrupt data.		

Defect ID: DEFECT000647389	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2	Technology: IP Addressing

**Symptom:** CLI prohibits user from adding multiple /31 subnets under L3 interfaces.

**Condition:** Configuring multiple /31 subnets under L3 interfaces.

Defect ID: DEFECT000647398	
Technical Severity: Medium	Probability: Low
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS4.1.3	Technology: VCS Fabric
Symptom: Unexpected reload.	
Condition: Rare scenario. During the cluster:	formation.

Defect ID: DEFECT000647433		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.1.0	Technology: IP Fabric	
<b>Symptom:</b> L2 VNI and tunnel IP value in the BGP route update is set to "zero".		
<b>Condition:</b> In IP fabric topology, when a route-map with set condition is applied to evpn peer.		

Defect ID: DEFECT000648098		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	Technology Group: VPN	
Reported In Release: NOS7.1.0	Technology: EVPN - Ethernet VPN	
<b>Symptom:</b> GARP Doesn't flood to hosts to updated their ARP cache irrespective of whether ARP suppression is enabled/disabled.		
Condition: Ipfabric environment where L2VPN is enabled.		

Defect ID: DEFECT000648655		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.2	Technology: CLI - Command Line Interface	
Symptom: Displaying generic error message.		
Condition: When scp fails displaying common error message.		

Defect ID: DEFECT000648729	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	Technology Group: Layer 3 Routing/Network Layer
Reported In Release: NOS7.2.0	Technology: OSPF - IPv4 Open Shortest Path First

**Symptom:** OSPF vulnerabilities CVE-2017-3224, CVE-2017-3752, CVE-2017-6770

**Condition:** Existing code has above vulnerabilities in OSPF.

Defect ID: DEFECT000649012

Technical Severity: High
Product: Extreme Network OS
Reported In Release: NOS7.2.0

Symptom: Unexpected reload

Condition: Dampening configuration under BGP

Defect ID: DEFECT000651945		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.2	Technology: Hardware Monitoring	
Symptom: Unexpected reload.		
Condition: Rare scenario. Internal polling of memory statistics.		

Defect ID: DEFECT000651956		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.1.0	<b>Technology:</b> SNMP - Simple Network Management Protocol	
<b>Symptom:</b> SNMP traps will not be seen.		
Condition: Chassis IP and VCS IP not configured.		

Defect ID: DEFECT000652746		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Network Automation and Orchestration	
Reported In Release: NOS6.0.2	Technology: OpenStack Integration	
Symptom: Mac learning won't happen for some of the ports on VDX 6740T-1G platform.		
Condition: Interface configured with 100MB speed. Seen when connected to certain power-tower units via 100mb interface, or to Avaya CLAN 100mb. May occur on other non-VDX 100mb link partners as well.		
Workaround: No workaround for 100mb. May try 1gb if link partner supports it.		
<b>Recovery:</b> May try 1gb if link partner supports it. Recommend upgrade VDX firmware for fix.		

Defect ID:	DEFECT000652894
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Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
Symptom: Unexpected reload.		
Condition: Execution of CLI(vcs replace rbridge-id) during the cluster re-join.		
Workaround: Avoid the CLI during cluster re-join		

Defect ID: DEFECT000655163		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS7.0.2	Technology: RADIUS	
<b>Symptom:</b> Unable to import TLS server certificate and keys without trust point association and use these two to establish TLS connection.		
<b>Condition:</b> This is a feature enhancement. So customer will hit this scenario every time when they try to import TLS certificate and key without trust point.		
<b>Workaround:</b> Use crypto functionality (which uses trust point association) to import TLS certificate and key and establish TLS connection.		
Recovery: N/A		

# Closed with code changes for NOS v7.0.1c

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change in Network OS v7.0.1c.

Defect ID: DEFECT000564498		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS4.1.3	Technology: Port Mirroring	
<b>Symptom:</b> "show interface status" command shows incorrect status for internal VDX ports in the switch.		
<b>Condition:</b> If we have internal embedded ports in the VDX switch, then we will observe this issue.		

Defect ID: DEFECT000592902	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.2	Technology: SNMP - Simple Network Management
	Protocol
<b>Symptom:</b> False SNMP traps observed for link status of	management interface.
Condition: Very rare scenario to hit this false status traps	
Recovery: Restart SNMP process.	

Defect ID: DEFECT000601293	
Technical Severity: Medium	Probability: High

Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.0.0	<b>Technology:</b> VXLAN - Virtual Extensible LAN	
Symptom: COS Priority tag frames egressed as Untagged frames		
Condition: Over VxLAN tunnel COS Priority tag frames are egressed as untagged frames.		

<b>Defect ID:</b> DEFECT000603775	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
Symptom: VDX picks up global MTU value instead of local MTU after VDX reboot, when global MTU is	
configured and some interfaces has default/l	ocal MTU configured,
Condition: VDX reload can hit the issue when global MTU is configured and some interfaces has default/local	
MTU configured,	

Defect ID: DEFECT000611018	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS7.1.0	Technology: Logical Chassis
Symptom: VDX is not able to join cluster and stuck at "Awaiting Rejoin" state after reload.	
Condition: VDX reload can hit the issue in VCS cluster.	

Defect ID: DEFECT000611303	
Technical Severity: Medium	Probability: Low
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS5.0.1	Technology: AMPP - Automatic Migration of Port
	Profiles
Symptom: Unexpected reload.	
Condition: After configuring vCenter and enabling CDP on ESXi vSwitch, due to very mild memory leak.	

<b>Defect ID:</b> DEFECT000612699	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS6.0.2	Technology: LAG - Link Aggregation Group
Symptom: Unexpected reload of VDX	
<b>Condition:</b> In rare cases, deleting PO or reload of LC may cause the VDX to for an abrupt reload due to software	
daemon termination.	

Defect ID: DEFECT000612967		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS7.1.0	Technology: Security Vulnerability	
Symptom: Shutting down SSH server does not close all existing SSH login sessions		
Condition: Shutdown SSH server		
<b>Recovery:</b> Close all existing login sessions using "clear sessions" command, please note this command will close		
telnet sessions as well.		

Defect ID: DEFECT000613368	
Technical Severity: Low	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.2	Technology: CLI - Command Line Interface
<b>Symptom:</b> No Single CLI to clear the system wide counters. Added the same as enhancement.	
Condition: Single CLI to clear system wide counter.	

Defect ID: DEFECT000614007		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.1.0	Technology: IP Fabric	
<b>Symptom:</b> VE ip address is advertised as /32 route through EVPN to remote leaf.		
<b>Condition:</b> When VE interface is in shutdown state, VE ip address is advertised as /32 route through EVPN to		
remote leaf.		

<b>Defect ID:</b> DEFECT000617887	·	
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.1	Technology: IP Fabric	
<b>Symptom:</b> On upgrade from 6.x to 7.x, one of the pythor	CLI libraries may not be carried forward with all the	
changes & might impact some of the python scripts.		
Condition: Under certain unknown condition, when upgrading from 6.x to 7.x.		
<b>Recovery:</b> Copy CLI.py file manually to restore the script function.		
After restoration, test using below CLI & it should appear as below with "splitlines()" instead of "split()":		
<pre>sw0:FID128:root&gt; grep -A 2 get_output /etc/fabos/Dcmd/python/CLI.py   def get_output(self):     return (self.output.splitlines())</pre>		

Defect ID: DEFECT000618373		
Technical Severity: Low	Probability: Medium	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.1.0	Technology: CLI - Command Line Interface	
Symptom: MTU values get changed to global MTU value.		
Condition: User configured default MTU values are not shown in running config. Due to this copy running to		
any file is not storing MTU values of such interfaces. After downloading the save configuration back		
to VDX, VDX MTU values get changed to global MTU value.		

Defect ID: DEFECT000625751		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
Symptom: Rolling reboot of VDX after firmware download.		
<b>Condition:</b> Firmware download in cluster. Odd nodes has upgraded from NOS 4.1.3x to NOS 5.x and then to		
NOS 6.x while Even nodes were still in NOS 4.1.3x.		
<b>Workaround:</b> Perform firmware download from NOS 4.1.3x to NOS 5.x for Odd nodes and then Even nodes.		
Once first phase is done please upgrade from NOS 5.x to NOS 6.x for Odd nodes and then Even		
nodes.		

Defect ID: DEFECT000626037		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.1.0 Technology: VLAN - Virtual LAN		
Symptom: VLAN creation fails along with "Error: VLAN creation failed due to lack of sufficient resources"		
error.		
Condition: When GVLAN is configured along with "switchport trunk allowed vlan all" on more that 64		
interface.		

**Workaround:** Disabling GVLAN or removing "switchport trunk allowed vlan all" from some interface to make it less than 64 interface.

Defect ID: DEFECT000629138		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	<b>Technology:</b> LLDP - Link Layer Discovery Protocol	
Symptom: VDX experience unexpected reload due to onmd process termination.		
Condition: VDX can experience unexpected reload due to onmd process termination when it is connected with		
ESX servers / VMware VMs and any lldp operation occur.		

Defect ID: DEFECT000630676	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.2	Technology: Software Installation & Upgrade
Symptom: NOS BNA 14.0.1 and 14.0.2 throws the error	"Firmware image download reboot operation has timed
out", even the FW downgrade was successful.	
Condition: Firmware Download through BNA on VDX running in FC Cluster mode.	

<b>Defect ID:</b> DEFECT000631440	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2	Technology: ARP - Address Resolution Protocol
<b>Symptom:</b> ARP is not learnt from the incoming packet on the source interface when /31 addressing is used.	
<b>Condition:</b> ARP learning when /31 addressing is used	

Defect ID: DEFECT000631591		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS5.0.1	<b>Technology:</b> AAA - Authentication, Authorization,	
	and Accounting	
Symptom: Unable to log into VDX after password change		
<b>Condition:</b> Some alpha numeric passwords having more than 24 character length will not allow the user to log on		
with the new password.		
<b>Workaround:</b> Create passwords with length less than 24 character.		

Defect ID: DEFECT000632115		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.2.0	Technology: Logical Chassis	
Symptom: Node cluster rejoin operation fails with VCS-1006 error.		
VCS-1006, ERROR, , Event: VCS node rejoin, Coordinator IP: <ip>, VCS ID: <id>, Status: rBridge</id></ip>		
ID <id> failed to rejoin VCS cluster, Reason: Remote Location is not available.</id>		
Condition: Cluster rejoin operation.		

<b>Defect ID:</b> DEFECT000632419	
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS7.0.0	<b>Technology:</b> xSTP - Spanning Tree Protocols
Symptom: MSTP 'FORWARD-DELAY' lost configured	d non-default value and become default value after VDX
reload.	
Condition: VDX reload.	

Defect ID: DEFECT000633384	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First
Symptom: Unexpected reload due to OSPF daemon termination.	
Condition: When same external LSA is received from multiple ASBRs.	

<b>Defect ID:</b> DEFECT000633831		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS5.0.2	<b>Technology:</b> FCoE - Fibre Channel over Ethernet	
Symptom: When a VCS cluster reformation happens, existing FCOE hosts gets logged out.		
Condition: Adding/removing an ISL or adding/removing a switch from cluster that results in the fabric		
reformation.		
<b>Recovery:</b> Execute the CLIs "shutdown" and "no shutdown" on the respective interfaces from which FCOE hosts		
logged out.		

Defect ID: DEFECT000634094	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.1	Technology: IP Fabric
Symptom: short traffic outage while shut/no shut best BGP router.	
Condition: Having two adjacent BGP evpn router and shut/no shut one of the best BGP router.	

Defect ID: DEFECT000634129		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.1.0	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
Symptom: Route filtering using distribution list will not happen after HA failover.		
Condition: If distance for inter area route is not configured to non-default value and HA failover occurs.		

Defect ID: DEFECT000634192	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.1	Technology: IP Fabric
<b>Symptom:</b> Tunnel terminated packets that generate the ARP's may keep looping across VCS nodes in the same	
VCS	
<b>Condition:</b> VDX puts incorrect source information cause the issue	

Defect ID: DEFECT000634366		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.1.0	Technology: CLI - Command Line Interface	
<b>Symptom:</b> There is no option to view the ACL log buffers for VE interfaces.		
Condition: 'show access-list-log buffer interface' does not have option for VE interfaces.		
Workaround: Can check the ACL logging packet in phy interface as well		

<b>Defect ID:</b> DEFECT000634370	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.1.0	Technology: Configuration Fundamentals

Symptom: show running-config rbr route-map output is being sorted based on the action (permit or deny) and then the sequence number instead of just sequence number.

Condition: Execution of "show running-config rbr route-map" CLI.

Defect ID: DEFECT000634372	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.1.0	Technology: CLI - Command Line Interface
Symptom: route map is allowing to change the existing action without any warning/error.	
Condition: Modifying route map action.	

Defect ID: DEFECT000634673	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: VPN
Reported In Release: NOS7.0.1	Technology: EVPN - Ethernet VPN
Symptom: Frames on udp port 4789 are wrongly treated as vxlan packets and not subjected to tunnel source	
suppression in transit nodes	
<b>Condition:</b> Using of UDP port 4789	

Defect ID: DEFECT000634766	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	<b>Technology:</b> Software Installation & Upgrade
Symptom: "no system-mode maintenance" CLI fails with operation failed.	
Condition: "no system-mode maintenance" CLI execution.	

Defect ID: DEFECT000635078	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface
Symptom: Rbridge-range command is not functioning properly.	
Condition: Execution of Rbridge-range command	

<b>Defect ID:</b> DEFECT000635101	
Technical Severity: Low	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: IP Multicast
Reported In Release: NOS6.0.1	Technology: IGMP - Internet Group Management
_	Protocol
Symptom: Memory leak in igmpd.	
Condition: When debug igmpd command is enabled and leads to error condition "Illegal multicast group	
address"	

Defect ID: DEFECT000635328	
Technical Severity: Low	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.1.0	<b>Technology:</b> SNMP - Simple Network Management
	Protocol
Symptom: Cannot find module message appears during installing and compiling FOUNDRY-SN-	
NOTIFICATION.mib file.	
Condition: Installing and compiling FOUNDRY-SN-NOTIFICATION.mib file.	

Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
Symptom: Routing Administrative distance not honored on 6940 border leaf using EVPN and BGP	
Condition: Routing Protocol running on 6940 border leaf using EVPN and BGP.	

<b>Defect ID:</b> DEFECT000635440	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	Technology: IP Addressing
<b>Symptom:</b> "show ip route <pre>cyrefix&gt;/<mask> longer</mask></pre> is not showing the expected results.	
Condition: When we have more than 500 entries	

Defect ID: DEFECT000635844	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS4.1.3	Technology: VLAN - Virtual LAN
Symptom: Newly added VLAN is showing up in RPVST disabled/discarding state on vLAG members.	
<b>Condition:</b> When STP is enabled on a PO interfaces, it is enabled only for vports and not for main physical/po	
interfaces for PVST/RPVST.	
In this scenario whenever a RBridge leaves cluster, STP module runs State Machine to re compute	
the topology and it can hit the issue.	

Defect ID: DEFECT000636084	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS6.0.2	Technology: Logical Chassis
<b>Symptom:</b> "unqualified SFP transceiver" error appears on VDX for Brocade optic part number 33210-100.	
<b>Condition:</b> Inserting Brocade optic with part number 33210-100 on VDX running can hit the error.	

Defect ID: DEFECT000636497		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
Symptom: VDX experience unexpected reload due to DCMd daemon termination.		
Condition: No system-mode maintenance activity can cause the issue.		

Defect ID: DEFECT000636649		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: LAG - Link Aggregation Group	
Symptom: Unable to reach to end host when VDX is routing packets.		
Condition: VDX put Incorrect Router Source MAC addresses.		
Workaround: Reload the switch		

<b>Defect ID:</b> DEFECT000637538	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.1.0	Technology: IP Fabric
<b>Symptom:</b> In a IP fabric topology, the leaf (or border leaf) does not forward L3 packets (e.g. ICMP) destined to	
hosts on to peer leaf nodes. This causes the	end to end L3 traffic between leaf nodes to fail

Condition: The prefix route learnt over evpn-bgp was incorrectly programed in Linux kernel, thereby forwarding traffic to wrong destination.

Recovery: Issuing following command at NOS should help to recover from the problem state. clear arp no-refresh vrf <vrf-name>

Defect ID: DEFECT000637753	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.1.0	Technology: Configuration Fundamentals
<b>Symptom:</b> VDX returns " <html><body><h1>401 authentication needed</h1></body></html> " response.	
<b>Condition:</b> Proxied REST configuration request using persistent connection Authentication-Token.	

Defect ID: DEFECT000637857			
Technical Severity: High	Probability: Low		
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching		
Reported In Release: NOS6.0.2	Technology: VLAN - Virtual LAN		
<b>Symptom:</b> VDX do not learn MAC addresses.			
Condition: VDX stops learning MAC addresses when spo	ecific configuration exist and it has reached to certain		
number of lines in configuration.	number of lines in configuration.		
Workaround: 1. configure "mac-address-table consistency-check suppress"			
2. reload the affected switches			
or			
1. configure dummy vlan			
2. Assign it to interface/Po			
3. reload			
<b>Recovery:</b> The same above steps works we may expect unexpected reloads during this			

Defect ID: DEFECT000638990		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.1	Technology: Logical Chassis	
Symptom: VDX is not able to join cluster and stuck at "Awaiting Rejoin" state after reload.		
Condition: VDX has "switchport port-security" configuration and reload occur in VCS cluster.		

Defect ID: DEFECT000639081		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.2	Technology: Software Installation & Upgrade	
Symptom: vLAG/Po interface flaps for several seconds during firmware upgrade.		
Condition: vLag/PO has an inactive link while upgrade.		

Defect ID: DEFECT000640567	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.1	Technology: IP Fabric
<b>Symptom:</b> Displaying routes with detail option asterisk are shown on all routes returned. This should only be on	
the selected route.	
Condition: Execution of "show ip route detail" CLI	

<b>Defect ID:</b> DEFECT000642711	
Technical Severity: Critical	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer

Reported In Release: NOS5.0.2	Technology: BFD - BiDirectional Forwarding
	Detection
<b>Symptom:</b> BGP & BFD is not working as expected.	
Condition: Bringing down the loopback interface and V	DX has "bfd interval 300 min-rx 300 multiplier 3"
configuration under interface.	

Defect ID: DEFECT000642983	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.1.0	Technology: IP Fabric
<b>Symptom:</b> BFD goes down and BGP does not goes down during unnumbered interface shutdown.	
Condition: Unnumbered interface shutdown, when ECMP paths exist.	

Defect ID: DEFECT000643646		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.1.0	Technology: IP Fabric	
<b>Symptom:</b> BFD (Bi-directional forwarding detection) state may remain in INIT state on the leaf switch after		
shut/no shut of L3 port channel to the spine switch.		
Condition: BFD session remains in INIT state which makes longer time to converge for protocols registered with		
BFD.		

Defect ID: DEFECT000643924		
	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.1	Technology: IP Fabric	
<b>Symptom:</b> Reachability from border leaf switches to multi homed hosts behind leaf switches will be affected		
under the following condition.		
- leaf switches have a static route configured to multi homed hosts		
network and next hop as one of its connected networks.		
<b>Condition:</b> Connectivity between border leaf switches to multi homed hosts behind leaf switches will be affected.		
Workaround: Deleting and adding static route programmed in leaf switches should be done per rbridge basis.		

## Closed with code changes for NOS v7.0.1b

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as January 30, 2017 in Network OS v7.0.1b.

Defect ID: DEFECT000550177		
Technical S	everity: High	Probability: High
<b>Product:</b> E	xtreme Network OS	Technology Group: VCS
Reported In	Release: NOS5.0.1	Technology: Metro VCS
Symptom:	mptom: A host will experience lost connectivity when a separate host in a separate VLAN uses the same IP	
	address and sends a gratuitous ARP from that IP address. The VDX will learn from that gratuitous	
	ARP an ARP entry for the IP address on a ve interface that doesn't have an address in the same	
	subnet.	
<b>Condition:</b>	Condition: This issue seems to happen when the wrong host in the wrong VLAN is trying to use an IP address	
	already in use by another host in the correct VLAN for the IP address of the subnet.	

Defect ID: DEFECT000555460	
Technical Severity: Low	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.1	Technology: IP Addressing
Symptom: 'ICMP unreachables are always sent' displayed in the configuration even when disabled in the	
configuration	
Condition: Default ICMP unreachable is not set	

Defect ID: DEFECT000562722		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Traffic Management	
Reported In Release: NOS5.0.2	Technology: Rate Limiting and Shaping	
Symptom: ipv6 icmpv6 rate-limiting does not work per interface		
Condition: The above situation occurs under two conditions		
1. More than one ipv6 interface		
2. Different rate-limiting value configured		

When both of the above conditions met, then the recently configured rate-limiting value applied to all interfaces

Defect ID: DEFECT000583274	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS5.0.1	Technology: Logical Chassis
Symptom: Port-group configuration fails	
<b>Condition:</b> Inserting the new Linecard OR power off/on with out removing the existing port-group configuration.	

<b>Defect ID:</b> DEFECT000587135		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS5.0.2	<b>Technology:</b> TRILL - Transparent Interconnection of	
	Lots of Links	
Symptom: Unexpected reload on standby MM in rare scenario.		
Condition: While changing VCS.		

<b>Defect ID:</b> DEFECT000593537	
Technical Severity: High	Probability: Low

<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2	Technology: IP Addressing	
<b>Symptom:</b> Host ARP is learnt even when host IP subnet does not match to VE IP subnet.		
<b>Condition:</b> Host is connected to a VLAN where the Ve IP subnet is different than the host IP subnet.		
Workaround: Disable proxy ARP on VE		

<b>1</b>		
Defect ID: DEFECT000596720		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.2	Technology: CLI - Command Line Interface	
<b>Symptom:</b> When IPv6 nd prefix is configured with a prefix flag(no-autoconfig/no-onlink/offlink) enabled and if		
the same prefix is updated later with different lifetime values, then the already configured prefix flag		
will not be present in the running configurat	ion of that prefix.	
<b>Condition:</b> This issue happens when an IPv6 prefix configuration is updated with lifetime values provided a		
prefix flag(no-autoconfig/no-onlink/offlink) was already configured.		
Workaround: NA		

Defect ID: DEFECT000597104		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
<b>Symptom:</b> Under rare scenarios of leaking routes between VRF's, the switch may get reloaded due to		
"termination of process ribmgr"		
<b>Condition:</b> When leaking routes from one VRF to another & presence of those same routes in target VRF as		
connected routes.		
Workaround: Reconfigure to avoid leaking routes between VRF's OR ensure that the leaked routes are not		
present in target VRF as local routes.		

Defect ID: DEFECT000598878		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: Configuration Fundamentals	
Symptom: A stale default-route gets applied in the running configuration of the secondary nodes in cluster		
environment during configuration replay.		
<b>Condition:</b> The issue arises when secondary nodes disconnect and re-join the cluster provided DHCP is enabled.		

Defect ID: DEFECT000599306		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface	
<b>Symptom:</b> Vrf information is missing for some interfaces while displaying output of "show ip interface brief"		
command.		
<b>Condition:</b> This issue is seen, then "show ip interface brid	ef" is executed repeatedly in multiple terminals.	
Workaround: If "show ip interface brief" executed from multiple terminals, then it not should be executed too		
quickly. Let the command output display completed on one terminal before starting on other		
terminal.		

Defect ID: DEFECT000602062	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.2	Technology: Access Gateway
Symptom: Console logs appear when snmpwalk is performed.	
Condition: When snmpwalk is performed for community/user associated with IPv6 ACL.	

<b>Defect ID:</b> DEFECT000602861		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS5.0.1	Technology: Logical Chassis	
Symptom: High disk usage that ended up out of space.		
Condition: Postgres log file(Dcmd.Linux.powerpc.pg_ctl.log) unconditionally growing		
<b>Recovery:</b> Delete Dcmd.Linux.powerpc.pg_ctl.log file.		

<b>Defect ID:</b> DEFECT000604049	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.1	Technology: VCS Fabric

**Symptom:** Potential for Name Server fail-over and recovery to the Standby Control Processor if the overall scale of the VCS cluster exceeds the limit described within the "Conditions for Publication" section.

**Condition:** The maximum number of elements within a cluster cannot exceed 32,767 prior to having this modification to increase scale to 80,000. Entities that contribute to this count are:

- RBridges
- Ports (physical and virtual)
- Devices that appear in the Name Server

The maximum assignable port indexes are listed here by platform type:

Chassis-based systems (Director class) : 1800 VDX 6740/VDX 6740T/VDX 6740T-1G : 1200 VDX 6940 : 1312

For example, one Director-class RBridge accounts for 1 (for the RBridge itself) + 1800 (maximum assignable port indexes) + <FC/FCoE device count>. Thus, if we have 500 devices, this would translate to 1+1800+500=2301 (of the total allowable 32767). Here are some sample combinations in terms of RBridge composition within a cluster, where a cluster-wide FC/FCoE device count is presumed to be 3000:

- 16 Directors
- 14 Directors + 3 VDX 6940/ 3 VDX 6740
- 12 Directors + 5 VDX 6940 / 6 VDX 6740
- 8 Directors + 11 VDX 6940

**Workaround:** Limit cluster composition in a manner compliant with the maximum values described within the "Conditions for Publication" section.

**Recovery:** Limit cluster composition in a manner compliant with the maximum values described within the "Conditions for Publication" section.

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Defect ID: DEFECT000604131	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	Technology: Multi-VRF
<b>Symptom:</b> If local route exists from a route source and a leaked route is added from the same route source for	
the prefix, the routing table is updated with the new leaked route.	
Condition: Issue is seen if dynamic route leak is configured with prefixes matching the local prefixes.	
Workaround: There should not be overlap between local and leaked prefixes	

## **Defect ID:** DEFECT000604338

Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS7.0.0	<b>Technology:</b> xSTP - Spanning Tree Protocols
<b>Symptom:</b> After the VDX switch was reloaded, the confi	igured MSTP hello time was ignored and uses default
value of 2 seconds. The value configured in the system does not change, NOS simply ignores it and	
uses default value.	
<b>Condition:</b> The configured the MSTP hello time is not persistent after VDX switch was reloaded.	
<b>Recovery:</b> The configured MSTP hello-time is persistent after the VDX switch was reloaded. That is if MSTP	
hello-time was configured for example set to '	5 The value was applied after the VDX was reloaded

Defect ID: DEFECT000605042		
Technical Severity: Low	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface	
<b>Symptom:</b> 'snmp-server' command doesn't update the values of 3 input parameters.		
<b>Condition:</b> Inputting all the 3 parameters contact, location and sys-descr on a single line of execution.		
Workaround: Configure each of the input parameter separately.		

Defect ID: DEFECT000605923		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.0.1	<b>Technology:</b> FCoE - Fibre Channel over Ethernet	
Symptom: FCoE VLAN creation and subsequent fabric map may fail.  Also customer can experience "%% Error: VLAN creation failed due to lack of sufficient resources" error while creating VLAN.		
<b>Condition:</b> When more than 64 ports are configured with 'switchport trunk allowed vlan all' configuration and tried to create VLAN or FCoE VLAN.		
Workaround: Do not configure more than 64 ports with 'swtchport trunk allowed vlan all' configuration.		
<b>Recovery:</b> Remove 'switchport trunk allowed vlan all' configuration if it is configured on more than 64 interfaces and try creating VLAN or FCoE VLAN and fabric map.		

D.f4 ID. DEFECTION (05000		
Defect ID: DEFECT000605998		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS5.0.2	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
Symptom: just once "clear ip ospf all" is done in RB01, a tremendous "LSA flush rcvd Type:5" message lasted		
to pop up forever and network got unstable.		
Condition: In huge scale OSPF setups when there are more than 10 neighbors and OSPF peer has to retransmit an		
LSA to all these neighbors this issue is seen as each neighbor is added to retransmit queue multiple		
times		
Workaround: Decrease the number of LSAs and neighbors		

Defect ID: DEFECT000610510		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS5.0.1	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
<b>Symptom:</b> OSPF routes are uninstalled from one or more VRF's, causing traffic disruption. Router LSA's do not refresh.		
<b>Condition:</b> Occurs when there are many OSPF session across many VRF's, with total OSPF routes exceeding 1500.		
Recovery: Flap OSPF neighbor sessions.		

Defect ID: DEFECT000610816	į
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Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS5.0.2	Technology: LAG - Link Aggregation Group	
Symptom: VDX throws FVCS-1005 RASLOG message	followed by an unexpected reboot.	
<b>Condition:</b> The user may experience this issue when attempting to change or undo the active Port Channel in a		
Redundancy Group using the 'no port-channel <portchannel id=""> active' command.</portchannel>		
<b>Workaround:</b> When changing the active Port Channel in a Redundancy Group, it is best to avoid using the 'no		
port-channel <portchannel id=""> active' command. It is advisable to delete the Redundancy Group</portchannel>		
and recreate it when wanting to change the Active Port Channel in a Redundancy Group.		

Defect ID: DEFECT000610873	
Technical Severity: Low	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2	<b>Technology:</b> Static Routing (IPv4)
<b>Symptom:</b> The secondary node running configuration has default route applied to the default-vrf when joining	
the cluster.	
<b>Condition:</b> This issue occurs whenever the user tries to add a node to the cluster.	

<b>Defect ID:</b> DEFECT000611149	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: VPN
Reported In Release: NOS7.1.0	Technology: EVPN - Ethernet VPN
<b>Symptom:</b> Tunnel extension is not getting removed.	
Condition: L2VNI IMR route removed	

Defect ID: DEFECT000611400		
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Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Traffic Management	
Reported In Release: NOS7.1.0	<b>Technology:</b> Rate Limiting and Shaping	
Symptom: Switch can go for a reboot when the slot values are provided well outside the permissible range in the		
'bp-rate-limit command'. Permissible range for slot is '0-16'		
<b>Condition:</b> The issue is seen only when the command is executed by providing the slot values well outside the		
permissible range.		
Workaround: Ensure that slot values are provided only in the valid range '0-16'		
<b>Recovery:</b> Remove any of the slot values provided outside the permissible range of '0-16'		

Defect ID: DEFECT000611688		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS7.1.0	Technology: Hardware Monitoring	
<b>Symptom:</b> VDX 6940 and 6940-144S may show CRC errors on ports cabled with QSFP 40 GbE active copper transceiver cables.		
Condition: VDX 6940 and 6940-144S may show CRC errors on ports cabled with QSFP 40 GbE active copper transceiver cables.		
<b>Workaround:</b> Replace QSFP 40 GbE active copper transceiver cables with optical QSFP transceivers. Then reboot the switch.		
<b>Recovery:</b> Replace QSFP 40 GbE active copper transceiver cables with optical QSFP transceivers. Then reboot the switch.		

Defect ID: DEFECT000612821	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer

Reported In Release: NOS6.0.2	Technology: VRRPv2 - Virtual Router Redundancy
	Protocol Version 2
<b>Symptom:</b> VRRP-1002 raslog message is not displayed.	
Condition: When Master to backup change happens.	

Defect ID: DEFECT000613594		
Technical Severity: Low	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS5.0.2	Technology: Logical Chassis	
Symptom: show commands couldn't be accepted due to "application communication failure".		
<b>Condition:</b> Deletion of snmp-community config after ISSU upgrade from NOS 502a to NOS 502b1, can cause		
the issue of show command.		
Workaround: Remove the snmp community config before the upgrades and apply it back		

Defect ID: DEFECT000613895	
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Traffic Management
Reported In Release: NOS7.1.0	Technology: Rate Limiting and Shaping
Symptom: Pizza box should accept only module id "0" in the "bp-rate-limit heavy module add" config. But the	
pizza box is accepting non-existent module	d.
<b>Condition:</b> The configuration command "bp-rate-limit heavy module add" can accept module id other than "0"	
on the pizza box.	
<b>Recovery:</b> The configuration command "bp-rate-limit heavy module add" can accept module id "0" on the	
pizza box.	

Defect ID: DEFECT000614000	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS4.1.3	Technology: Logical Chassis
Symptom: After invoke "copy support" CLI, the CLI will block, not return to user prompt for more than 2 hours,	
then the switch will go reboot.	
<b>Condition:</b> The failure shows on early NOS release, and is very rare to happen. So far it never failure the same in	
the field.r	

Defect ID: DEFECT000614390	
Technical Severity: Critical	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.1	Technology: ICMP - Internet Control Message
	Protocol
<b>Symptom:</b> Very rarely we could see 5% of the ICMP replies are dropped in software and random interval.	
<b>Condition:</b> The issue can be happened when we have ARP requests from 1000 different hosts at the rate of 25	
ARP's/sec, and at the same time pinging VE or VRRP IP on the same SVI at 1 ICMP/sec	

Defect ID: DEFECT000614988		
Technical Severity: High	Probability: Medium	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	Technology: IPv6 Addressing	
Symptom: "ipv6 nd prefix" CLI command displays incorrect default value for lifetime and preferred lifetime		
parameter.		
<b>Condition:</b> Execution of "ipv6 nd prefix" CLI.		

Defect ID: DEFECT000615165	
Technical Severity: High	Probability: Medium

<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> IPv6 Addressing	
Symptom: "ipv6 nd prefix <ipv6> no-autoconfig" config can get lost.</ipv6>		
Condition: Config-replay from backup configuration file when "ipv6 nd prefix <ipv6> no-autoconfig" is</ipv6>		
configured with valid and preferred life time default values.		

Defect ID: DEFECT000615176		
Technical Severity: Medium	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS5.0.2	Technology: CLI - Command Line Interface	
<b>Symptom:</b> CLI command "show support" will not show few core files from system daemon crash on usual place		
which is /core_files		
Condition: When there is crash by one of management daemon then core file doesn't get saved on regular system		
path /core files		

Defect ID: DEFECT000615242		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.2	<b>Technology:</b> AMPP - Automatic Migration of Port	
	Profiles	
<b>Symptom:</b> MACs on Linux Virtual Machines with VMWare Tools installed may not get programmed on VDX.		
Condition: When VMWare Tools are installed on Virtual Machines, Both IPV4 and IPV6 address gets reported		
from Vmware to VDX. VDX is unable to handle very long IP Strings and ignores such vnics(MACs)		
Workaround: Either disable IPV6 on the Virtual Machines or don't install VMware tools on the Virtual		
Machines		
<b>Recovery:</b> Disable IPV6 on Virtual Machines or remove VMware tools and re-run the discovery cycle		

Defect ID: DEFECT000615380		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS5.0.2	Technology: DHCP - Dynamic Host Configuration	
	Protocol	
Symptom: DHCP packets will be dropped in the box where DHCP Relay is configured.		
Condition: DHCP Relay listens on standard well-known BOOTPS and BOOTPC ports (i.e. 67 and 68). If any		
other ports are used for communication between DHCP Client and DHCP Server can cause the issue.		
Workaround: As a workaround, use standard BOOTPS and BOOTPC (i.e. 67 and 68) UDP ports for		
communication between DHCP Relay and DHCP Server.		
<b>Recovery:</b> Use of standard BOOTPS and BOOTPC (i.e. 67 and 68) UDP ports for communication between		
DHCP Relay and DHCP Server will recover the system.		

Defect ID: DEFECT000615564		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: LAG - Link Aggregation Group	
<b>Symptom:</b> If a port channel interface is configured as tracking interface for an interface which exists before this		
port channel interface in output of "show running-config" then during replay of this configuration file		
will cause the issue. It throws the error that it can not find particular port channel interface.		
<b>Condition:</b> This issue can occur during configuration file replay in which a port channel can be configured as		
tracking interface.		

Defect ID: DEFECT000615646	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer

Reported In Release: NOS7.0.1	Technology: IPv6 Addressing	
Symptom: Prefix is advertised in the IPv6 RA messages	s even though it is configured with "no-advertise" option.	
Condition: Prefix is configured using "ipv6 nd prefix" with "no-advertise"		
Workaround: Do not configure prefix if it should not be present in IPv6 RA messages.		

Defect ID: DEFECT000615651		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	Technology: IPv6 Addressing	
Symptom: ipv6 nd prefix <pre>prefix&gt; with "off-link" option does not work.</pre>		
Condition: execution of ipv6 nd prefix <pre>cprefix&gt; CLI with "off-link" option</pre>		
Workaround: NA		

D. 4 ID. DEFECTION (1.520.)		
<b>Defect ID:</b> DEFECT000616334		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.1.0	Technology: IP Fabric	
Symptom: L3 traffics are not forwarded correctly.		
Condition: The environment have lots of flows which generate more than 3K hash results and some hash values		
are shared by 2 or more flows.		
Workaround: Reduce the total flows or consider re-arrange the private subnet prefix if there are private subnet.		
<b>Recovery:</b> Clear the host table.		

Defect ID: DEFECT000616998	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4+ - IPv6 Border Gateway Protocol
Symptom: ipv6 routes are not installed in RIB when next hop is link local address.	
Condition: ipv6 bgp route	

<b>Defect ID:</b> DEFECT000617049		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: VLAN - Virtual LAN	
<b>Symptom:</b> Static-MACfor multicast-mac address floods the packet after removing static-ARP and static-MAC		
entry and re-configuring.		
Condition: Static multicast MAC configured as static ARP.		

Defect ID: DEFECT000617399	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2	<b>Technology:</b> BGP4+ - IPv6 Border Gateway Protocol
Symptom: When VDX receives a BGP update message with duplicate path attribute, It does not send an error	
message back to neighbor about malformed packet.	
Condition: Handling of malformed BGP packets received by VDX.	

Defect ID: DEFECT000617886	
Technical Severity: Critical	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS6.0.1	Technology: VLAN - Virtual LAN
Symptom: VDX experience unexpected reload due to Out-Of-Memory condition.	
Also some of the ports are unable to transmit.	

**Condition:** Known to happen with 10G ports that have copper-pigtail connector. And the link-partner is not a Brocade device.

Defect ID: DEFECT000618254	
Technical Severity: Medium	Probability: Low
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS6.0.1	Technology: Logical Chassis
Symptom: Unable to use REST API to configure prefix-list out for router bgp.	
Condition: REST API to configure prefix-list out for router bgp.	

Defect ID: DEFECT000618268	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: High Availability
Symptom: HA Sync failure after ISSU upgrade	
Condition: With 6X100G LC in chassis during ISSU upgrade	

Defect ID: DEFECT000618317		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS7.1.0	Technology: RAS - Reliability, Availability, and	
	Serviceability	
<b>Symptom:</b> Termination of raslogd process after upgrading from 7.0.1 to 7.1.0		
Condition: In cluster environment after updating firmware.		
Recovery: Raslogd will restart automatically.		

Defect ID: DEFECT000618691	
	Probability: Low
Technical Severity: Medium	Fronaumty: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.2	Technology: DHCP - Dynamic Host Configuration
	Protocol
<b>Symptom:</b> Customer will notice that the direct unicast D	HCP packets between Client and Server are also getting
trapped.	
Condition: When number of DHCP packets getting exchanged between Server and Client are huge (say 1000 pps	
rate), other protocols like OSPF will have impact.	

Defect ID: DEFECT000618713		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS7.1.0	Technology: OpenStack Integration	
<b>Symptom:</b> The VDX6940-144S 10G passive cable (1m and 3m) interfaces do not display the interface "link		
down" RASLOG message when the corresponding 10G interface on the remote end is shut down		
<b>Condition:</b> Shutting down 10G interfaces when remote switch is a VDX6940-144S connected with 10G passive		
cables (1m and 3m)		
Workaround: Shut the 10G interface on the local interface		
<b>Recovery:</b> Shut the 10G interface on the local interface		

<b>Defect ID:</b> DEFECT000619405	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: Network Automation and Orchestration

Reported In Release: NOS6.0.2	Technology: OpenStack Integration	
<b>Symptom:</b> CRC errors when using 40g DAC (direct attach copper) cable with VDX6940		
Condition: 40g DAC (direct attach copper) cable with VDX6940		

Defect ID: DEFECT000619719		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS7.0.1	Technology: SSH - Secure Shell	
<b>Symptom:</b> Telnet/ssh for default-vrf enables though user configured as disabled.		
Condition: If node disconnected and re-joined to the fabric after "no telnet server use-vrf default-vrf" OR "no		
ssh server use-vrf default-vrf'		
Workaround: Disable Telnet/ssh using "telnet server use-vrf default-vrf shutdown" or "ssh server use-vrf		
default-vrf shutdown".		
<b>Recovery:</b> After node rejoins the fabric, to disable the telnet/ssh, execute the CLIs "telnet server use-vrf default-		
vrf shutdown" or "no telnet server use-vrf default-vrf" for telnet and "ssh server use-vrf default-vrf		
shutdown" or "no ssh server use-vrf default-vrf".		

Defect ID: DEFECT000619807	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VPN
Reported In Release: NOS7.0.1	<b>Technology:</b> EVPN - Ethernet VPN
<b>Symptom:</b> Tunnel membership vlans will get deleted.	
Condition: HA failover.	
Workaround: Avoid HA failover.	

Defect ID: DEFECT000620197		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
<b>Symptom:</b> Configuration of OSPF authentication key is not applied when done using config-replay.		
<b>Condition:</b> The issue is observed for below sequence of steps:		
1. Configure OSPF authentication key on interface using CLI.		
2. Save running configuration using command: copy running-config flash:// <file-name></file-name>		
3. Remove configured OSPF authentication key using CLI.		
4. Replay saved configuration by using command: copy flash:// <file-name> running-config</file-name>		
It is observed that OSPF authentication key is not applied after step-4 though it was expected to be		

applied on the interface.

Workaround: After config-replay fails to configure OSPF authentication key on the interface, it is possible to configure authentication key using CLI.

Defect ID: DEFECT000620617	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS7.0.1	<b>Technology:</b> xSTP - Spanning Tree Protocols
Symptom: VDX6940 device may see traffic loss if HA failover or ISSU operation is performed from nos7.0.1 to	
nos7.0.1a release.	
Condition: 1) RSTP is configured	
2) HA failover or ISSU is performed	
<b>Recovery:</b> Disable/enable spanning-tree protocol on the i	nterface

<b>Defect ID:</b> DEFECT000621402	
Technical Severity: High	Probability: High

<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: Inband Management	
Symptom: Telnet access to VDX is blocked via default-VRF and user defined VRF.		
Condition: Firmware install with "no-activate" option.		
Workaround: Activate the firmware which was installed with "no-activate" option.		

Defect ID: DEFECT000621408		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS7.0.1	Technology: Security Vulnerability	
<b>Symptom:</b> Though telnet service on MGMT-VRF is shutdown, telnet access to VDX is allowed via MGMT-		
VRF.		
Condition: 1. Shutdown telnet service on MGMT-VRF		
2. Firmware install with "no-activate" option		
3. Recover the firmware using "firmware recover"		
<b>Recovery:</b> Activate the partially installed firmware.		

Defect ID: DEFECT000622750	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	Technology: IPv6 Addressing
<b>Symptom:</b> When the user updates an IPv6 prefix with preferred lifetime alone, valid lifetime changes to default	
value.	
<b>Condition:</b> The issue happens only when the user updates the preferred lifetime value to an already configured	
IPv6 prefix with valid and preferred lifetime.	

Defect ID: DEFECT000623309	D 1 1994 II'.1	
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Network Automation and	
	Orchestration	
Reported In Release: NOS6.0.1	Technology: OpenStack Integration	
<b>Symptom:</b> CRCs occur on VDX 6940-36Q when DAC (direct attached copper) cable is used with DELL NIC		
server, and DELL NIC server is running traffic towards VDX 6940-36Q while the VDX switch is		
booting up.		
<b>Condition:</b> CRCs occur on VDX 6940-36Q when DAC (direct attached copper) cable is used with DELL NIC		
server, and DELL NIC server is running traffic towards VDX 6940-36Q while the VDX switch is		
booting up.		
Workaround: Reboot VDX switch, with DAC cabled ports administratively down state (save port configuration		
as "no shut", then reboot); or stop all traffic coming into DAC cabled ports from DELL NIC		
servers.		
<b>Recovery:</b> Reboot VDX switch, with DAC cabled ports administratively down state (save port configuration as		
"no shut", then reboot); or stop all traffic coming into DAC cabled ports from DELL NIC servers.		

Defect ID: DEFECT000623618		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.0	Technology: IP Fabric	
Symptom: Host ARP is learnt even when host IP subnet does not match to VE IP subnet.		
Condition: Host is connected to a VLAN where the Ve IP subnet is different than the host IP subnet.		
Workaround: Disable proxy ARP on VE		

<b>Defect ID:</b> DEFECT000623711	
Technical Severity: High	Probability: High

Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.1.0	Technology: VCS Fabric	
Symptom: Any packet transmitted from CPU gets dropped on FC port.		
<b>Condition:</b> Can happen only on FC port.		

<b>Defect ID:</b> DEFECT000624388	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS7.0.1	Technology: RAS - Reliability, Availability, and
	Serviceability
Symptom: This is the debug enhancement to capture the VxLAN packet at RTE tool	
Condition: Debugging tool enhancement	

<b>Defect ID:</b> DEFECT000624394	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS7.1.0	Technology: VLAN - Virtual LAN
<b>Symptom:</b> Continuous ASIC errors causes chip fault.	
Condition: Heavy ASIC activity can cause the issue.	

<b>Defect ID:</b> DEFECT000624621		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: IP Multicast	
Reported In Release: NOS7.0.1	<b>Technology:</b> PIM - Protocol-Independent Multicast	
Symptom: Multicast functionality daemon "PIMd" goes down with memory leak.		
<b>Condition:</b> On enabling PIM, for every 60 seconds there is a memory leak of 5K bytes. The leak will be observed		
even if PIM is not enabled on router, but standby becomes as active node.		
Workaround: Do not enable PIM on router.		
Do not trigger HA failover		
<b>Recovery:</b> Disable PIM on router and reboot the router. Do not enable PIM after reboot.		
Do not trigger HA failover after reboot.		

Defect ID: DEFECT000624701	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS6.0.0	Technology: Security Vulnerability
Symptom: NOS/SLX kernel (NOS/Host/TPVM) are all vulnerable. User can overwrite the etc/password with	
root access.	
<b>Condition:</b> CVE-2016-5195 - kernel > 2.6.22 can hit this Dirty COW issue.	

Defect ID: DEFECT000624805		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.1.0	Technology: IP Addressing	
Symptom: Show command is not showing "ip icmp unreachable" under physical interface.		
Condition: After configuring the "ip icmp unreachable" under physical interface.		
Workaround: This is a cosmetic issue and can be ignored.		

Defect ID: DEFECT000625243	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	<b>Technology:</b> IP Addressing

**Symptom:** "show ip in ve <>" does not show "ip icmp address mask" enabled/disabled status. **Condition:** Execution of "show ip in ve <>" CLI.

Defect ID: DEFECT000625527		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: IP Multicast	
Reported In Release: NOS7.1.0	Technology: PIM - Protocol-Independent Multicast	
Symptom: Multicast functionality daemon "PIMd" goes down with memory leak.		
<b>Condition:</b> On enabling PIM, for every 60 seconds there is a memory leak of 5K bytes.		
Workaround: Do not enable PIM on router.		
<b>Recovery:</b> Disable PIM on router and reboot the router. Do not enable PIM after reboot.		

Defect ID: DEFECT000625982		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: IP Multicast	
Reported In Release: NOS7.0.1	Technology: IPv4 Multicast Routing	
Symptom: Multicast functionality daemon "PIMd" goes down with memory leak.		
Condition: On enabling PIM, for every 60 seconds there is a memory leak of 5K bytes. The leak will be observed		
even if PIM is not enabled on router, but standby becomes as active node.		
Workaround: Do not enable PIM on router.		
Do not trigger HA failover		
<b>Recovery:</b> Disable PIM on router and reboot the router. Do not enable PIM after reboot.		
Do not trigger HA failover after reboot.		

Defect ID: DEFECT000626555	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: IP Multicast
Reported In Release: NOS7.1.0	Technology: PIM - Protocol-Independent Multicast
Symptom: Multicast functionality daemon "PIMd" goes down with memory leak	
Condition: PIM enable configuration.	

Defect ID: DEFECT000626886		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
<b>Symptom:</b> When a VCS cluster reformation happens, existing FCOE hosts gets logged out.		
Condition: Adding/removing an ISL or adding/removing a switch from cluster that results in the fabric		
reformation.		
<b>Recovery:</b> Execute the CLIs "shutdown" and "no shutdown" on the respective interfaces from which FCOE hosts		
logged out.		

Defect ID: DEFECT000628198		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.1.0	Technology: Configuration Fundamentals	
Symptom: Firmware install ftp using prompted path comes up in Fabric Cluster.		
Condition: Firmware install execution		

Defect ID: DEFECT000628238	
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS7.2.0	Technology: VXLAN - Virtual Extensible LAN

Symptom: VDX does not connect to NSX6.3.0 EA controllers.

Condition: VDX to NSX6.3.0 EA controllers connection.

Defect ID: DEFECT000628474	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Network Automation and
	Orchestration
Reported In Release: NOS7.0.1	<b>Technology:</b> NETCONF - Network Configuration
	Protocol
Symptom: "RD auto" configuration failing under evpn ir	nstance for primary node in vcs when configured through
netconf.	
<b>Condition:</b> "RD auto" configuration through netconf.	

Defect ID: DEFECT000629513		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.2.0	Technology: Logical Chassis	
Symptom: Very rare scenario, MAC is not learned on port-channel		
Condition: Create and add vlans to port-channel after HA failover		
Recovery: Enable and disable STP on interface.		

<b>Defect ID:</b> DEFECT000630071	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals
<b>Symptom:</b> VDX comes up with default config.	
Condition: execution of "write erase" in past.	

Defect ID: DEFECT000630310	
Technical Severity: High	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	Technology: DHCP - Dynamic Host Configuration
	Protocol
Symptom: After unconfiguring and configuring dhcp rela	ay address, DHCP offer is not forwarded to client from
VDX.	
Condition: DHCP relay	

<b>Defect ID:</b> DEFECT000630819		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS7.0.1	Technology: LAG - Link Aggregation Group	
<b>Symptom:</b> Execution of "show ip interface brief" CLI has missing default vrf status for port-channel		
Condition: Execution of "show ip interface brief" CLI		

<b>Defect ID:</b> DEFECT000630999		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.1.0	Technology: LAG - Link Aggregation Group	
Symptom: 1G SFP [SN 57-1000042-01] does not come online with fix speed		
Condition: SFP SN- 57-1000042-01: Remove cable, Remove SFP, Insert SFP,		

Defect ID:	DEFECT000631332
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Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS4.0.0	Technology: Syslog	
<b>Symptom:</b> Some Internal RAS log [Ex: BL-5282] are important and good to monitor those, but we don;t display		
internal RAS log on Console and we also don;t redirect them to syslog server.		
Condition: RAS log monitoring through Console or syslog.		

## Closed with code changes for NOS v7.0.1a

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as September 9th, 2016 in Network OS v7.0.1a.

Defect ID: DEFECT000543303		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS4.1.3	Technology: OpenStack Integration	
Symptom: VDX can experience unexpected reload due to a daemon termination.		
<b>Condition:</b> When any telnet session is in middle of some CLI through pipe option and stays there for 7 days,		
VDX daemon will terminate all existing socket sessions and try to reconnect. Distributed module is		
not able to clear the stuck session and reconne	ect fails as a result after 1 hrs it will get terminated.	

Defect ID: DEFECT000559340		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.1	Technology: Syslog	
<b>Symptom:</b> if we configure two syslog server (one with mgmt-vrf and another one with default-vrf ) then first log		
message fails to send to syslog server.		
Condition: Recently we have introduced VRF support for syslog and enhancing all corner cases.		

Defect ID: DEFECT000562737		
Technical Severity: Low	Probability: Low	
Product: Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS4.0.1	Technology: OpenStack Integration	
Symptom: SNMP trap of topology change will be sen	n: SNMP trap of topology change will be sent from the switch, when switchport configuration is done	
on an interface where spanning-tree is shut	down.	
Condition: Topology change trap will be observed, wh	ndition: Topology change trap will be observed, when switchport configuration is done on an interface in	
spanning-tree shutdown state.		

Defect ID: DEFECT000579138	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS6.0.1	Technology: Logical Chassis
<b>Symptom:</b> Very rare case chassis name set CLI fails.	
<b>Condition:</b> After upgrade to 6.0.1	
Recovery: Reload and re-apply the CLI	

Defect ID: DEFECT000581797	
Technical Severity: Medium	Probability: Low
Product: Extreme Network OS	Technology Group: VCS

Reported I	n Release: NOS4.1.3 Technology: Logical Chassis
Symptom:	"waiting for pending actions to exit" warning message appears on console session and eventually
	VDX experience unexpected reload.
<b>Condition:</b>	When any session is in middle of some CLI through pipe option and stays there for 7 days, VDX
	throws "waiting for pending actions to exist" error message and DCM gets terminated eventually.

Defect ID: DEFECT000584668		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2	Technology: IP Addressing	
<b>Symptom:</b> The access-list configured for the interface with "Routed" keyword may not act upon the traffic flows		
on ingress destined towards the VRRP-E VIF	).	
Condition: Applicable for the traffic destined to VRRP-E Virtual-mac coming on ingress & access-list using		
"Routed" keyword.		
Workaround: The traffic flows destined towards VE MAC will not be impacted & thus hosts can be configured		
to point to VE IP address as default gateway. Alternatively, remove the "routed" keyword in the		
access-list.		

Defect ID: DEFECT000584733		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS5.0.1	Technology: Management GUI	
<b>Symptom:</b> Firmware downgrade from NOS6.x to NOS5.x using BNA display below error in BNA even though firmware download process is successful on VDX.		
Download Failed: (Unknow Error Code: 1) Other Errors: Firmware Image download reboot operation has timed out		
Condition: Firmware downgrade from NOS6.x to NOS	on: Firmware downgrade from NOS6.x to NOS5.x using BNA cause the issue.	

Defect ID: DEFECT000586577		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	Technology: Multi-VRF	
Symptom: VDX switch can go for unexpected reload after configuring no vrf.		
Condition: If static route leaks exist in system and we configure "no vrf" command.		

Defect ID: DEFECT000589286		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: UDLD - Uni-Directional Link Detection	
Symptom: Link of 1G Copper SFP comes up too early during the power-cycle on VDX 6940-144S		
Condition: Power-cycle on VDX 6940-144S with 1G Copper SFP		

Defect ID: DEFECT000590465		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals	
<b>Symptom:</b> channel-group configurations for port-channel member interfaces are lost upon reload.		
Condition: VDX replays configuration through file [startup-config] when configuration has been defaulted and it		
causes channel-group configuration lost.		

Defect ID: DEFECT000592597	
Technical Severity: Medium	Probability: Medium

Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	<b>Technology:</b> Software Installation & Upgrade
Symptom: Allowing for N+2 version upgrade with default config.	
<b>Condition:</b> It's a RFE to allow upgrade of N+2 version.	

Defect ID: DEFECT000592647		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS5.0.1	Technology: NTP - Network Time Protocol	
Symptom: Timezone set might fail		
<b>Condition:</b> Particular timezone related files got corrupted. It is very rare scenario to hit.		
<b>Recovery:</b> Delete the failed timezone file under /usr/share/zoneinfo/.		
Configure the timezone.		

Defect ID: DEFECT000592874	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS6.0.1	Technology: Hardware Monitoring
Symptom: In very rare scenario they can observe interface flap	
Condition: Due to excessive symbol errors	

Defect ID: DEFECT000595754	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2	Technology: IPv6 Addressing
Symptom: Disabling autoconfig (autonomous address-configuration flag) for an IPv6 prefix in NOS 6.0.2 has no	
impact on router-advertisement.	
Condition: Disabling autoconfig	

Defect ID: DEFECT000596280	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.2	Technology: IP Addressing
Symptom: Unable to delete an ACL.	
Condition: When ACL is associated to the management interface of one or more switches in the VCS and the	
switch gets removed from VCS.	

Defect ID: DEFECT000596781	
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2	Technology: IPv6 Addressing
<b>Symptom:</b> Lifetime configuration value of VE interface IPv6 nd prefix is reset to infinite.	
Condition: Doing "shutdown" and "no shutdown" configuration on the VE interface	

Defect ID: DEFECT000596932	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS5.0.1	Technology: LAG - Link Aggregation Group
<b>Symptom:</b> Interfaces may not join into Dynamic LAG.	
Condition: Static lag creation before dynamic LAG.	
Workaround: Configuring dynamic LAG first and then static	
<b>Recovery:</b> Delete the static LAGs and re-add the same.	

Defect ID: DEFECT000597053		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS5.0.1	Technology: VCS Fabric	
<b>Symptom:</b> In rare scenario, VDX can send packets with TTL=0. Which can cause the connectivity issues.		
Condition: VxLAN packets terminated on VDX6940 & BUM forwarder on other ISL partner.		
<b>Recovery:</b> Configure static MAC address for the specific IP address.		

Defect ID: DEFECT000598345	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	Technology Group: Traffic Management
Reported In Release: NOS5.0.0	Technology: Rate Limiting and Shaping
Symptom: slow learning of hosts ARP entries in 6740 platform	
<b>Condition:</b> In rare scenarios when there is a sudden burst of routed traffic.	

Defect ID: DEFECT000598524	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	Technology Group: Traffic Management
Reported In Release: NOS6.0.2	Technology: Rate Limiting and Shaping
Symptom: rte_cap_acl debug tool won't work for 6940 platforms	
Condition: Enable the rte_cap_acl tool support for 6940 platforms	

<b>Defect ID:</b> DEFECT000598657	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS5.0.1	Technology: SSH - Secure Shell
Symptom: Unexpected reload.	
Condition: Rare scenario where remote host IP becomes NULL.	

Defect ID: DEFECT000598663		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS5.0.2	Technology: RAS - Reliability, Availability, and	
	Serviceability	
Symptom: DCMd daemon terminated and sudden reload occurred.		
<b>Condition:</b> If customer has big cluster and actively executing CLI commands through script or monitoring tools		
[BNA] then Principal node receives too many message to handle and it hit this issue.		
Workaround: Please reduce any command execution frequency.		

Defect ID: DEFECT000600169		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol	
Symptom: IP MTU configuration is not working for VE interface when IP address or L3 VNI association is not		
present.		
<b>Condition:</b> When IP MTU is configured, it is not applied on the VE interface.		
Workaround: Configure IP MTU followed by the configuration of the IP address.		

Defect ID: DEFECT000600482	
Technical Severity: High	Probability: Low
Product: Extreme Network OS	Technology Group: Layer 3 Routing/Network Layer

Reported In Release: NOS6.0.2	Technology: ARP - Address Resolution Protocol
<b>Symptom:</b> Inter-VLAN traffic that is routed on VDX is failing for specific end hosts.	
Condition: Frequent ARP addition/deletion, topology changes, high CPU bound ARP/L3 traffic	
Recovery: 'clear arp no-refresh' command	

Defect ID: DEFECT000601715	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: CLI - Command Line Interface
Symptom: When copying files to/from VDX switch to TFTP server we are seeing errors when 'use-vrf' option is	
specified.	
Condition: Copying files to/from VDX switch to TFTF	server.

Defect ID: DEFECT000601917	
Technical Severity: High	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	Technology: Multi-VRF
<b>Symptom:</b> change of MAC address of a host connected to VCS is not updated across user defined vrfs in ARP	
table.	
Condition: Incorrect MAC address will be replied for an ARP request.	

Defect ID: DEFECT000601985		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.0.0	<b>Technology:</b> xSTP - Spanning Tree Protocols	
<b>Symptom:</b> VDX switches running in a VCS cluster may encounter CIST Spanning-tree interoperability problem with certain Juniper switches where BPDU's sourced by the VDX may be dropped by the partner.		
Condition: When VDX running in VCS cluster running distributed CIST spanning-tree & VDX switches are		
configured as spanning-tree root.		
Workaround: Change the spanning-tree root to partner switch.		

Defect ID: DEFECT000602227	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: SNMP - Simple Network Management
	Protocol
Symptom: SNMP OID 1.3.6.1.2.1.17.1.3 displays 'No such instance' in output	
Condition: snmpwalk for SNMP OID 1.3.6.1.2.1.17.1.3	

Defect ID: DEFECT000602239		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS5.0.2	Technology: ACLs - Access Control Lists	
Symptom: VDX experience unexpected reload after configuring permit statement on standard ACL applied to		
management interface.		
Condition: Configuration of permit statement on standard ACL applied to management interface.		
Workaround: NA		

Defect ID: DEFECT000602751	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS7.0.0	<b>Technology:</b> xSTP - Spanning Tree Protocols

**Symptom:** User tries firmware downgrade and will hit error message as, User need to clean the config and then only downgrade can be done.

**Condition:** When "system-oui" configuration is done under "protocol spanning-tree" configuration mode and subsequently, a downgrade is done.

**Workaround:** User needs to remove the config with "no system-oui" command under "protocol spanning-tree" mode.

Defect ID: DEFECT000602764	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS7.0.0	<b>Technology:</b> xSTP - Spanning Tree Protocols
<b>Symptom:</b> After spanning tree system OUI feature enabled and then disabled, the firmware download is failed.	
Condition: Doing spanning tree system OUI enable and disable. Then performing the firmware download.	

Defect ID: DEFECT000603443	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS6.0.1	Technology: LAG - Link Aggregation Group
<b>Symptom:</b> Changing LACP timeout option in VDX can cause LACP PDUs to be sent at short intervals when	
neighboring device is cisco Nexus 7k. Changing LACP timeout option from long to short and again to	
long in both the devices can cause this behavior.	
<b>Condition:</b> LACP timeout option in VDX internally remains as short though configuration is shown as long.	

Defect ID: DEFECT000603778	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.2 Technology: IPv6 Addressing	
Symptom: When both "IPv6 vrrp-suppress-interface-ra" and "IPv6 VRRP VIP" are configured the IPv6 RA	
response to the IPv6 RS contains link-local address instead of the VIP address.	
Condition: Configure both "IPv6 vrrp-suppress-interface-ra" and "IPv6 VRRP VIP"	

Defect ID: DEFECT000604054	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.1.0	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
Symptom: Loopback interfaces are showing bogus IP MTU value, when global MTU is configured.	
Condition: Execution of "show ip interface lo <id>" when global MTU is configured.</id>	

Defect ID: DEFECT000605476	
Technical Severity: Low	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
<b>Symptom:</b> The route advertised by eBGP peer is not installed in the routing table.	
<b>Condition:</b> This issue occurs only in the self-referencing scenario i.e. when route prefix overlaps with the prefix	
of next hop from where the route is received.	
Workaround: Isolate the bgp peering in a different subnet so that their prefix does not overlap with the routes	
being advertised between them	

<b>Defect ID:</b> DEFECT000605776	
Technical Severity: Low	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.2	Technology: CLI - Command Line Interface

Symptom: N	New script will help to clear all the counters with single command
Condition: It	t is an enhancement
Workaround	: Use the individual commands to clear the counters

<b>Defect ID:</b> DEFECT000608446	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS7.0.1	Technology: Logical Chassis
Symptom: VDX generates FFDC core file and throws Software 'verify' error on console.	
Condition: Execution of copy default-config startup-config from VCS primary node.	
Workaround: NA	
Recovery: LC gets automatically recovered.	

Defect ID: DEFECT000608838	D 1 . 1. 214 III I
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Management
Reported In Release: NOS7.0.1	<b>Technology:</b> SNMP - Simple Network Management
•	Protocol
Symptom: SFP Interface goes into administratively down state.	
Ex: [NSM-1028], 5673/2457, SW/0   Active   DCE, ERROR, < hostname>, Incompatible SFP	
transceiver for interface TenGigabitEthernet 1/0/45 is detected	
Condition: Execution of "[no] snmp trap link-status" command on an un-tunable SFP interface.	
Workaround: Please do not disable "snmp trap link-status" which is enabled by default on all interface.	
<b>Recovery:</b> Enable tunable-optics configuration and then disable it on impacted interface as below:	
tunable-optics sfpp channel 1	
no tunable-optics sfpp channel	
Make interface up again:	
no shutdown	

Defect ID: DEFECT000608995	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
<b>Reported In Release:</b> NOS7.0.1 <b>Technology:</b> ARP - Address Resolution Proto	
<b>Symptom:</b> Traffic to/from dhcp host is not routed when the dhcp IP is assigned to a new host.	
The ARP for such host does not age out when age out timer expires.	
<b>Condition:</b> DHCP Server is sending ACK packets to relay agent even when the client address is known. Mostly	
seen with Windows dhcp server.	
<b>Workaround:</b> Modify DHCP server settings so that it will send reply directly to dhcp client when client IP is	
present in the received dhcp message.	

Defect ID: DEFECT000610937	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.1	Technology: DHCP - Dynamic Host Configuration
	Protocol
<b>Symptom:</b> Gateway for default route obtained through DHCP remains in running configuration under mgmt-vrf	
even after deleting DHCP config and reloading the switch.	
Condition: Invalid gateway for default route may appear after reloading the switch.	

Defect	ID.	DEFECT000611059
Detect	ш.	

Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS7.1.0	Technology: Logical Chassis
Symptom: VDX experience unexpected reload due to DCMd daemon termination.	
Condition: When Principal fail-over occurs, secondary nodes DB transaction cleanup fails on standby partition	
due to timing condition.	

Defect ID: DEFECT000611576	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: VCS
Reported In Release: NOS5.0.2	Technology: Logical Chassis
<b>Symptom:</b> Getting "% Error: VLAN string length(1139) is more than maximum length 1023" on reboot.	
Condition: VDX with allowed vlan configuration string length more than 1023 can hit the issue at boot up &	
configuration replay time.	

Defect ID: DEFECT000613777		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2	Technology: DHCP - Dynamic Host Configuration	
	Protocol	
<b>Symptom:</b> DHCP request packets are dropped on VDX, and are not relayed to DCHP server(s).		
<b>Condition:</b> This affects only DHCP request packets with option-82. For example, an intermediate layer 2 node		
may have inserted option 82 in the packet and then forwarded to the VDX.		
Workaround: A workaround script is available to disable option-82 check on VDX		
<b>Recovery:</b> A workaround script can be used to recover from this issue		

Defect ID: DEFECT000614353	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS7.0.1	Technology: Hardware Monitoring
<b>Symptom:</b> After inserting a media 'SFP transceiver for interface XYZ is inserted' RASLOG is missing.	
Condition: a media/SFP insertion	

Defect ID: DEFECT000615075	
Technical Severity: Low	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.2	Technology: Licensing
<b>Symptom:</b> LED on unlicensed and shutdown VDX 40G ports are slow blinking amber after boot. Expected	
behavior is off since it is unlicensed.	
Condition: After reload, the single QSFP amber LED should only blink slow amber when all the 4 internal	
links/ports are offline and the port has a 40G Port Upgrade license reservation; otherwise it should be	
turned off (ie, no color/black).	

Defect ID: DEFECT000615168	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.1	<b>Technology:</b> CLI - Command Line Interface
<b>Symptom:</b> User may not be able to login to VDX switch after ISSU upgrade from NOS7.0.0 to NOS7.0.1 with	
no activation option. Existing telnet sessions will not be impacted. Cold boot upgrades are not	
impacted	
Condition: ISSU upgrade from NOS7.0.0 to NOS7.0.1 with no activation option	
Workaround: Perform ISSU firmware Install with auto activation. (Don't install firmware on a single node VDX	
running NOS7.0.0 to NOS7.0.1 with "noactivate" option. In case "logical-chassis" keyword used,	

don't install firmware on single or multiple nodes in cluster running NOS7.0.0 to NOS7.0.1 without "auto-activate" option.)

Existing open telnet sessions will not be impacted. Thus if you really want to perform ISSU firmware install without activation, then keep principal node telnet/ssh/console session open with infinite terminal time out using "terminal timeout 0". This will allow to perform "firmware activate" to recover from the impacted state

**Recovery:** The user may login using another node in the VCS that is not yet upgraded and carry out principal switchover to make that VDX a Principal switch. Once done, execute "firmware activate".

Alternatively, add a new switch to VCS cluster, make it principal and run command "firmware activate" which would recover all switches in VCS cluster

Defect ID: DEFECT000616987	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	Technology: BFD - BiDirectional Forwarding
	Detection
Symptom: BFD session is not switched over to other ava	ilable links if existing BFD session is deleted and added
back.	
Condition: BFD session remains in INIT state thus causing registered protocols with BFD to converge in longer	
duration.	

<b>Defect ID:</b> DEFECT000617919	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	Technology: IPv6 Addressing
Symptom: Unable to configure update-source for ipv6 interface, it throws	
syntax error: "xx/x/101" is an invalid value.	
<b>Condition:</b> Configure update-source for ipv6 interface which is greater than 99.	

Defect ID: DEFECT000619467		
Technical Severity: Low	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: Inband Management	
<b>Symptom:</b> ZR optics are undetected and shows data access errors when connected to edge ports other than $xx/x/1$		
Condition: ZR optic connected to edge ports other than xx/x/1		
Workaround: Connect ZR optic on first interface.		
<b>Recovery:</b> Connect ZR optic on first interface and reseat the other interface ZR optic.		

Closed with code changes for NOS 7.0.1

## Closed with code changes for NOS v7.0.1

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as May 25, 2016 in Network OS v7.0.1.

Defect ID: DEFECT000556411	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS6.0.1	<b>Technology:</b> FCoE - Fibre Channel over Ethernet
<b>Symptom:</b> The RASLOG FCPH-1003 generated on console wrongly shows interface type as "Fi" instead of	
"Fcoe" with wrong tuple information. Functionality is not broken, only port type in raslog is printed	
wrongly.	
Condition: When logins with Duplicate WWN are attempted on multiple ports at same time with Ethernet port	
being the port on which second login is attempted.	

Defect ID: DEFECT000562543	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.2	Technology: SNMP - Simple Network Management
	Protocol
Symptom: IP ACL for SNMP community and v3 user config lost after loading the config back to running-config	
from back-up config	
Condition: When we do config upload of running configuration with SNMP IP ACL's applied on SNMP	
community/ v3 users.	

Defect ID: DEFECT000567339	
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	Technology: ARP - Address Resolution Protocol
Symptom: debug arp packet output shows destination mac address of ARP request as ffff:ffff; fifff, instead of	
0000:0000:0000	
Condition: debug arp packet command is executed	

Defect ID: DEFECT000573107		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS6.0.1	Technology: ACLs - Access Control Lists	
Symptom: When we applied IP ACL on SNMP community/user configuration, then wildcard subnet mask on IP		
ACL is not working on SNMP. But subnet mask on IP ACL is working fine on SNMP.		
Condition: When we have wildcard subnet mask on IP ACL applied for SNMP configuration, then we will		
observe this issue.		

Defect ID: DEFECT000576391	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: SNMP - Simple Network Management
	Protocol

Symptom: The HA failover start trap may not be seen for the HA fail over event, for user defined VRF in VDX-6740 platforms.

Condition: The HA failover start trap may not be seen for user defined VRF, for the HA fail over event.

<b>Defect ID:</b> DEFECT000577171		
Defect ID: DEFECT00037/17/1		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS7.0.0	Technology: OpenStack Integration	
<b>Symptom:</b> The NOSCLI command "show openflow interface" does not reflect the actual operating speed of the		
OpenFlow interface		
Condition: If the interface speed has been manually changed to something else which is not same as suggested		
via interface name		

Defect ID: DEFECT000577822		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS5.0.1	Technology: OpenStack Integration	
Symptom: Errors [crc, encoding] on 8G links.		
<b>Condition:</b> The issue is only seen on 8G links to 3Par storage devices using 16G SFPs		
Workaround: Changing the SFP to 8G SFP and running at 8G speed the issue was not seen.		

Defect ID: DEFECT000577928		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS7.0.0	Technology: MAPS - Monitoring and Alerting Policy	
	Suite	
<b>Symptom:</b> Slot number need to be verified while creating groups on VDX8770.		
<b>Condition:</b> Currently the API which converts slot/port to port index doesn't throw error while creating group on		
VDX8770.		

Defect ID: DEFECT000578258		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.0	Technology: IP Fabric	
<b>Symptom:</b> Traffic loss may be observed for destination subnets under non-default VRF advertised over BGP-		
EVPN using L3VNI.		
Condition: Leaf nodes extending the VRF over BGP-EVPN are not advertising any prefix route.		
Workaround: One of following options may be chosen:		
(1) Redistribute connected routes under VRF into BGP VRF.		
(2) Configure static IP route and redistribute into BGP VRF.		
(3) Configure network or static-network under BGP VRF instance.		

Defect ID: DEFECT000579234		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.0.0	Technology: VLAN - Virtual LAN	
<b>Symptom:</b> Multicast traffic destined for static multicast address, will flood, if the mac is configured on remote node of VCS.		
<b>Condition:</b> Static multicast MAC is configured in a remote node within a VCS, with no local interface part of the		
group.		

Defect ID: DEFECT000580478	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS7.0.0	Technology: VLAN - Virtual LAN
<b>Symptom:</b> Sometimes, SFP removal messages are displayed incorrectly even though the media is present, when	
a chassis disable is executed after failover or ISSU.	
Condition: Media presence check is incorrect on the new active partition after failover or ISSU	
<b>Recovery:</b> 'no shut' on the interface would make the correct Media presence state consistent.	

Defect ID: DEFECT000581205		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.0	Technology: SNMP - Simple Network Management	
	Protocol	
<b>Symptom:</b> In rare case, snmpv3 traps will not be received when any host is configured as SNMPv3 trap recipient under rbridge mode.		
Condition: Configure snmpv3 host under rbridge mode.		
<b>Recovery:</b> reconfigure the specific v3host config under rbridge mode.		

Defect ID: DEFECT000581259		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.0	Technology: IP Fabric	
<b>Symptom:</b> Even though overlay-gateway configuration is deactivated, BGP discovered dynamic tunnels are still		
present. Traffic loss will be observed if remote Leaf nodes send traffic over dynamic tunnels.		
Condition: Overlay-gateway configuration is deactivated using "no activate" command.		
Workaround: Avoid deactivating the overlay-gateway using "no activate" command. Instead detach the RBridge		
from overlay gateway configuration.		

Defect ID: DEFECT000582010	
Technical Severity: Medium	Probability: Low
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.2	<b>Technology:</b> ARP - Address Resolution Protocol
<b>Symptom:</b> Under rare conditions, some of the hosts may lost IP connectivity with the VDX switch acting as a	
layer-3 gateway.	
<b>Condition:</b> This would occur if the MAC to the IP association of a VDX learnt ARP changes. ie. For the same IP	
address, the MAC changes from say MAc1 to Mac2.	
<b>Recovery:</b> "clear arp no-refresh" would clean the ARP table and recover from the problem state.	

Defect ID: DEFECT000582119	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: IP Multicast
Reported In Release: NOS7.0.0	Technology: IGMP - Internet Group Management
	Protocol
<b>Symptom:</b> The tunnel terminated IGMP frames sent to other nodes can loop back to the source node. The CPU	
generated IGMP frames are not getting source suppressed in active-active gateway.	
Condition: This happens in specific tunnel topology with multicast root rbridge and BUM forwarder.	
The tunnel terminated IGMP frames sent to other nodes are trapped and flood back on the vlan by	
control path. These packets can loop back to source node.	
Recovery: Shut down the tunnel	

Defect ID: DEFECT000583123	
Technical Severity: Low	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS5.0.2	Technology: Logical Chassis
<b>Symptom:</b> There is a time delay(debounce-timer delay)	of approx 1sec between underlay network down and
tunnel down because of which traffic impact	may occur for this debounce-timer duration.
Condition: The above mentioned time delay happens wh	enever tunnel goes down. Now customer is provided
with the following knob to suppress the debounce-timer delay.	
[no] system tunnel suppress-debounce	

Defect ID: DEFECT000584215	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS5.0.2	<b>Technology:</b> xSTP - Spanning Tree Protocols
Symptom: IEEE BPDU packets are flooded from one VF to another, in the absence of "spanning-tree ieee-bpdu	
limit-vlan-flood" configuration.	
Condition: IEEE BPDU packet are received at the ingress port of a switch configured with VFs.	

Defect ID: DEFECT000584364	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS7.0.0	Technology: Syslog
Symptom: User can configure the user defined vrf in cl	uster, though the user defined vrf is not configured on
all the rbridge's.	
Condition: In cluster though the vrf is not configured on all the rbridge's, it is allowing to configure syslog-	
server on user defined vrf.	

<b>Defect ID:</b> DEFECT000584709		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS7.0.0	Technology: VLAN - Virtual LAN	
Symptom: Physical or port-channel is not added back to normal VLAN in a particular sequence.		
Condition: Physical or port-channel is not added back to normal VLAN after changing a private VLAN to a		
normal VLAN on a primary VLAN		
<b>Workaround:</b> Delete private VLAN and create the same again instead of changing the type on a private VLAN.		
Recovery:		

Defect ID: DEFECT000585043	
Technical Severity: Medium	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	<b>Technology:</b> BGP4+ - IPv6 Border Gateway Protocol
Symptom: when multi-hop BFD session is created, default BFD interval will be shown for loopback interface in	
show bfd output	
Condition: Default BFD interval will be shown for loop	back interface in show bfd output

Defect ID: DEFECT000585392	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: CLI - Command Line Interface
<b>Symptom:</b> BNA unable to discover NOS switch, when NOS switch is connected to a FCR.	

**Condition:** 1. Have a setup with VCS connected to FCR

2. Install BNA 14.0.1 3. Shift to IP tab.

4. In Discovery dialog, add IP of one of the VCS switches and click ok.5. Observe the device is not discovered and shows "Discovery Failed" mesage.

Defect ID: DEFECT000585445		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.0	Technology: Logical Chassis	
Symptom: Some 40 GbE ports on VDX 6940-144S may not come online after cold boot.		
Condition: Some 40 GbE ports on VDX 6940-144S may not come online after cold boot.		
<b>Workaround:</b> Execute noscli command shut / no shut on the 40 GbE port to bring it online.		
<b>Recovery:</b> Execute noscli command shut / no shut on the 40 GbE port to bring it online.		

Defect ID: DEFECT000585723	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: SNMP - Simple Network Management
	Protocol
Symptom: MIB walk for IP Forwarding MIB will return	with an error with unnumbered interfaces.
Condition: MIB walk of IP Forwarding MIB and has ECMP routes with unnumbered/L3 VNI interfaces will lead	
to error.	

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Defect ID: DEFECT000585903		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS7.0.0	<b>Technology:</b> MAPS - Monitoring and Alerting Policy	
	Suite	
Symptom: IPMAPS Custom policy modifications are not reflected.		
Condition: IPMAPS Custom policy modifications are not dynamically reflected.		
Workaround: Revert to default policy, and then reapply custom policy.		
Run CLI "enable policy <policy_name> actions <actions_list>" then we can re-enable the same policy to reflect the changes made.  Here actions_list can be same as what was already configured.</actions_list></policy_name>		

Defect ID: DEFECT000585927		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.1	Technology: Port Mirroring	
<b>Symptom:</b> Mirrored VXLAN packets outer header was	Symptom: Mirrored VXLAN packets outer header was getting removed while going out on destination mirror	
port. This gives misleading information whe	port. This gives misleading information when validating the VXLAN mirroring. The data path traffic	
goes out properly but mirrored copy has the	outer header stripped only in VXLAN frames.	
ondition: The VXLAN packets outer header is not handled properly and causing the stripped packet to go out		
on destination mirror port		
<b>Recovery:</b> This is not functional data path issue, but mirrored information shows wrong details.		

<b>Defect ID:</b> DEFECT000585960	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.0	Technology: VCS Fabric

Symptom:	40G Interface is administratively (or) protocol down with FFDC raslogs
<b>Condition:</b>	Admin operations on 40G Interface.
Recovery:	Shut/no-shut both interfaces on either side of the link

Defect ID: DEFECT000585970		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.0	<b>Technology:</b> VRRPv2 - Virtual Router Redundancy	
	Protocol Version 2	
<b>Symptom:</b> On VDX 8770 switch, maximum VRRPv2 and VRRPv3 sessions supported on an interface are 16 in		
NOS6.0.x. This limit got increased to 32 in NOS7.0.0. Firmware downgrade from NOS7.0.0 to		
NOS6.0.x need to be blocked in case if more that 16 sessions are present on an interface.		
Condition: Issue can be seen if more that 16 VRRPv2 and VRRPv3 sessions are configured on an interface and		
firmware is downgraded from NOS7.0.0 to NOS6.0.x. In this case only 16 sessions will get enabled		
and rest will be disabled.		
Workaround: As a workaround user should delete/unconfigure more than 16 VRRPv2/VRRPv3 sessions present		
on an interface in NOS7.0.0 before downgrading it to NOS6.0.x.		

Defect ID: DEFECT000586001		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.0	Technology: ARP - Address Resolution Protocol	
Symptom: IPv4 DHCP relay packets forwarded through a VxLAN tunnel is trapped but not forwarded unless		
ARP is forcefully resolved.		
Condition: Running DHCP Relay in IP Fabric EVPN.		
Workaround: Resolve ARP forcefully.	_	

Defect ID: DEFECT000586178		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.0	Technology: Logical Chassis	
Symptom: Non-existent port-channel shows up in "show fcoe interface ethernet"		
Condition: 1. Create a port-channel		
2. Add members to it and make it fcoe-provisioned		
3. Delete the port-channel		
Workaround: Remove FCOE provisioning from port-channel before deleting it		

Defect ID: DEFECT000586252		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.0	Technology: Configuration Fundamentals	
Symptom: Physical or port-channel is not added back to normal VLAN in a particular sequence.		
Condition: Physical or port-channel is not added back to normal VLAN after changing a private VLAN to a		
normal VLAN on a primary VLAN.		
<b>Workaround:</b> Delete private VLAN and create the same again instead of changing the type on a private VLAN.		

Defect ID: DEFECT000586338	
Technical Severity: High	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.0	Technology: Logical Chassis

Symptom: IN VDX 6940-144S, link flap occurs on 40 G ISL ports if breakout configuration mis-matched with any adjacent ports.

Condition: In VDX 6940-144S, a 40 G Port with breakout QSFP is not configured as breakout may cause adjacent 40 G port to flap, whereas its peer port is configured as 40G breakout.

Workaround: In VDX 6940-144S, configure 40 G port as breakout if the peer port is configured as 40G breakout. After that, the link flap on the port will stop.

Defect ID: DEFECT000586856	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	<b>Technology:</b> BGP4+ - IPv6 Border Gateway Protocol
Symptom: BGP add path is not showing up all the 4 available paths.	
<b>Condition:</b> Sometimes when the RR is reloaded the BGP add path is not showing up all the 4 available paths.	

Defect ID: DEFECT000586973	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS7.0.0	Technology: LDAP - Lightweight Directory Access
	Protocol
Symptom: LDAP authentication is not working	
Condition: LDAP authenticaion is not working via inband deafult and non-deafult-vrf	

<b>Defect ID:</b> DEFECT000587170	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS6.0.1	Technology: Logical Chassis
Symptom: Continuous occurrence of ECC correctable errors	
<b>Condition:</b> This is very rare scenario to occur.	

Defect ID: DEFECT000587276	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS6.0.2	Technology: Hardware Monitoring
Symptom: Blocked or stopped fan units may not show up as faulty.	
<b>Condition:</b> This was a defect in the original release of this product.	

<b>Defect ID:</b> DEFECT000587419	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS7.0.0	Technology: Syslog
Symptom: Ipv6 syslog-server not working via inband de	ef-vrf and user-vrf. When multiple server configured as
default-vrf or user-defined vrf.	
<b>Condition:</b> Was deferred from 7.0.0 but fixed in 7.0.1.	

Defect ID: DEFECT000587615	
Technical Severity: High	Probability: Medium
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: SNMP - Simple Network Management
	Protocol
<b>Symptom:</b> The SNMP V3 traps may not be re	eceived for the SNMP v3 host recipients configured under rbridge
mode	

Condition: The trap may not be received after upgrade from NOS6.0.1a to NOS7.0.0 with cold boot option

Defect ID: DEFECT000587617	
Technical Severity: High	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
<b>Symptom:</b> Static leaked VRF route can not be imported in	into BGP RIB-IN and can't advertise via eBGP/iBGP
using network/static command.	
<b>Condition:</b> Advertise static leaked VRF route via BGP.	
Workaround: Use "redistribute static" command to leak	the static VRF route into BGP RIB-IN and then can
advertise it via eBGP/iBGP.	

<b>Defect ID:</b> DEFECT000587637		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS7.0.0	Technology: NETCONF - Network Configuration	
	Protocol	
Symptom: Netconf RPC "get-interface-detail" does not provide physical interfaces details. It provides only port-		
channel details.		
Condition: This issue will happen only when numb	per of port-channels configured are equal to or more than 70. If	
number of port-channels are less than 7	0, this issue will not be encountered.	
Workaround: Total number of port-channels configured should be less than 70.		
Recovery: If total number of port-channels configu	red are exceeding 70, delete few port-channels to reduce the	
total count to be less than 70.	•	

Defect ID: DEFECT000587654		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.0	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
<b>Symptom:</b> The ECMP configuration in the hardware profile shows incorrect values.		
<b>Condition:</b> This will only happen when a user changes both route-table profile type and maximum-path at the		
same time using the hardware-profile command		
Workaround: The user can change the route-table profile type and maximum-path one at a time.		
<b>Recovery:</b> The user can re-run the hardware-profile command to set the maximum-path with the correct value.		

D.C. 4 ID. DEFECTO00507767	
<b>Defect ID:</b> DEFECT000587767	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: VCS
Reported In Release: NOS7.0.0	Technology: Logical Chassis
<b>Symptom:</b> Possible for Edge port interfaces to stay inactive after chassis enable command.	
<b>Condition:</b> This issue can occur in releases prior to NOS 7.0. If multiple attempts to issue the chassis enable	
command is failed and the command is retried, it is possible that the configuration replay will be	
blocked after the chassis enable succeeds.	
<b>Recovery:</b> Issue chassis disable then chassis enable.	

<b>Defect ID:</b> DEFECT000587804	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS7.0.0	Technology: IP Fabric

Symptom:	Even though there are no matching EVPN import route-targets configured under VRF, imported
	EVPN routes are present in BGP VRF table.
<b>Condition:</b>	EVPN import route-target(s) is/are removed while matching routes are present in BGP-EVPN and
	imported into BGP VRF table.
Workaroui	nd: Issuing "clear bgp evpn neighbors all soft in" command should cleanup the routes which are still
	imported in BGP VRF instance after matching EVPN import route-targets are removed.

Defect ID: DEFECT000587925		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS5.0.2	<b>Technology:</b> FCoE - Fibre Channel over Ethernet	
<b>Symptom:</b> Syslog daemon generates a silent core file as it is restarted to reload configuration. There is no crash or loss of traffic in this case.		
<b>Condition:</b> Defect exists in previous releases of NOS. Cosyslog instead of SIGHUP.	re file is generated due to SIGTERM signal received by	

Defect ID: DEFECT000588001		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.0	<b>Technology:</b> AMPP - Automatic Migration of Port	
	Profiles	
Symptom: Traffic may flood though the source mac was seen behind profiled port		
<b>Condition:</b> Port-profile is configured on a vlag and 'clear-mac-address table' command is executed more than 10		
times in short interval.		

Defect ID: DEFECT000588178	
Technical Severity: High	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Network Automation and Orchestration
Reported In Release: NOS7.0.0	Technology: OpenStack Integration
Symptom: Interface remains protocol down after speed change	
Condition: speed change config performed on an interface which is not in protocol up state.	
Recovery: shut/no-shut the interface	

Defect ID: DEFECT000588190		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.0	Technology: IP Fabric	
<b>Symptom:</b> Aggregate route(s) configured under BGP VRF instance are not exported into BGP-EVPN.		
Condition: BGP VRF address-family is removed and added back.		
Workaround: Remove the aggregate route configuration under BGP VRF instance and configure it again.		

Defect ID: DEFECT000588238		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.0	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol	
<b>Symptom:</b> 'Invalid value' error is thrown for 'vni add' command under 'rbridge-id evpn-instance' mode.		
Condition: Configure 'vni add' command under 'rbridge-id evpn-instance' mode. If the value falls in 10000000-		
15999999 range.		
Workaround: 1. Use a VNI range in 'vni add' command that is less than 10000000-15999999.		
2. Use 'vni <vni-number>' CLI under 'rbridge-id evpn-instance' mode.</vni-number>		

<b>Defect ID:</b> DEFECT000588451	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
Symptom: IPv6 traffic may not forward when it received on tunnel	
Condition: When bigger VNI like 10000000 configured as 13vni	

Defect ID: DEFECT000588519		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS6.0.1	Technology: VXLAN - Virtual Extensible LAN	
<b>Symptom:</b> When the RBridge responsible for Multicast distribution over VXLAN Tunnels is powered off, there		
is a multi-second delay before the multicast stream changes to the standby RBridge.		
Condition: Issue when the RBridge responsible for multicast distribution is powered off or the ISL cables are		
physically disconnected.		

Defect ID: DEFECT000588730		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS6.0.2	d In Release: NOS6.0.2 Technology: NETCONF - Network Configuration	
	Protocol	
Symptom: When querying the VDX netconf server an invalid yang model "ietf-netconf-notifications-ann" is		
advertised.	advertised.	
Condition: This issue will show up when trying to vie	dition: This issue will show up when trying to view the mounted netconf capabilities for a VDX mounted	
with Brocade SDN Controller (BSC).	with Brocade SDN Controller (BSC).	

Defect ID: DEFECT000588822	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS6.0.1	Technology: TRILL - Transparent Interconnection of
	Lots of Links
Symptom: An ISL (Inter Switch Link) flap is seen on VDX6940.	
Condition: This can be seen due to un-handled internal memory parity error interrupts.	

Defect ID: DEFECT000588918	
Technical Severity: High	Probability: High
Product: Extreme Network OS	Technology Group: Data Center Fabric
Reported In Release: NOS6.0.1	Technology: VCS Fabric
NSPL-RTR-049, Login information: Login si A.B.C.D.2016/02/16-01:03:13, [SEC-3022], NSPL-RTR-049, Event: logout, Status: succe 06:38:11, [HSL-1012], 795598, INFO, VDX [HSL-1012], 795599, INFO, VDX6740T-1C 1012], 795600, INFO, VDX6740T-1G, Inter 795601, INFO, VDX6740T-1G, Processor re	5596, SW/0   Active, INFO, NINMUM03-DC1-R107-uccessful via TELNET/SSH/RSH. IP Addr: 795597, SW/0   Active, INFO, NINMUM03-DC1-R107-ss, Info: Successful logout by user [admin].2016/02/16-6740T-1G, Interface lo is link up2016/02/16-06:38:11, G, Interface eth0 is link up2016/02/16-06:38:11, [HSL-face eth1 is link up2016/02/16-06:38:11, [HASM-1004], eloaded - Software Fault:Kernel Panic.2016/02/16-IG, VDX6740T-1G, The last reboot is due to Kernel Feb 16 09:25:17 IST

**Condition:** When high rate of TFTP ip\_directed broadcast packets are sent destined to known subnets.

Defect ID: DEFECT000589893	
Technical Severity: High	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS6.0.1	Technology: Hardware Monitoring
<b>Symptom:</b> Request for Enhancement to optimize the fan speed to achieve better temperature distribution for the	
VDX 6740T & VDX6740T-1G switches	
<b>Condition:</b> Applies only to the VDX6740-T-R & VDX6740T-1G-R switches running port-side exhaust fans	

Defect ID: DEFECT000589911		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS5.0.2	Technology: VCS Fabric	
<b>Symptom:</b> Data loss is seen when an ISL port is flapped in a VCS that is employing VXLAN to connect to the		
remote data center VCS fabric.		
Condition: Flapping ISL link in a VCS fabric connecting to remote data center network using VXLAN/VTEP		
technology, would incur 1 to 2 seconds of data loss.		

Defect ID: DEFECT000589967			
Technical Severity: High	Probability: High		
Product: Extreme Network OS	Technology Group: IP Multicast		
Reported In Release: NOS7.0.0	Technology: IGMP - Internet Group Management		
	Protocol		
<b>Symptom:</b> error message seen on console while trying to configure Query-Interval on L3 physical interface Or			
PO. The queries will be generated at default time interval = 125 sec.			
<b>Condition:</b> This issue is seen when user try to configure Query-Interval on PO/Physical interface being in shut			
state. The config will not be applied as long as interface is in "protocol-down state"			
Workaround: Customer should bring the interface in "protocol up" state before applying Query-Interval config.			
Once the interface is up. Config will succe	Once the interface is up. Config will succeed.		

Defect ID: DEFECT000590478		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: IP Multicast	
Reported In Release: NOS5.0.2	Technology: IPv4 Multicast Routing	
Symptom: mcasgt process termination		
<b>Condition:</b> The issue is seen when multicast routes are added and deleted from the system, which leaves some		
amount of memory leak, which grows over time and causes a system crash.		
Workaround: Yes		

Defect ID: DEFECT000590808		
Technical S	Severity: Medium	Probability: Low
Product: E	Extreme Network OS	Technology Group: Management
Reported I	Reported In Release: NOS7.0.1 Technology: CLI - Command Line Interface	
Symptom: Hidden commands under debug and foscmd hide group were not shown as part of show running config even after unhiding and configuring them. Even the copy running to file was not having the configuration after copy command was executed after unhiding.		
Condition: Config commands under hide group "debug" and "foscmd" have to be executed after unhiding respective hide group. Post this, executing "show running config" will not show these unhiden configurations.		

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Technical Severity: High	Probability: Low		
Product: Extreme Network OS	Technology Group: Management		
Reported In Release: NOS6.0.1	Technology: SNMP - Simple Network Management		
	Protocol		
<b>Symptom:</b> This is an enhancement that introduces a	<b>ptom:</b> This is an enhancement that introduces a new CLI under rbridge-id sub-mode to configure the		
behaviour of some IF-MIB attributes: ifN	behaviour of some IF-MIB attributes: ifName and ifDescr. If this knob is configured to 3-tuple, then		
the above 2 objects will be of 3-tuple format. Else, they will be of 2-tuple format. These 2 attributes			
will also be in the same format during Link Up/Down Trap generation.			
<b>Condition:</b> This is applicable only for ifName and ifDescr attributes of IF MIB and the linkUp/Down traps.			

<b>Defect ID:</b> DEFECT000591225	
Technical Severity: Medium	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS6.0.1	Technology: RAS - Reliability, Availability, and
	Serviceability
<b>Symptom:</b> SNMP IP ACL config mismatch between the Frontend & Backend database.	
<b>Condition:</b> Reload with default config will retain the IP ACL data for SNMP community string.	

Defect ID: DEFECT000591700		
Technical Severity: Medium	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Traffic Management	
Reported In Release: NOS6.0.1 Technology: QoS - Quality of Service		
Symptom: BUM traffic has higher latency compare to data traffic.		
Condition: BUM traffic use store and forward method and data traffic use cut through method.		

Defect ID: DEFECT000592128		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1 Technology: IP Addressing		
Symptom: Software Fault: A rare memory corruption issue in the tty driver caused Kernel Panic and rebooting of		
the switch.		
<b>Condition:</b> The issue was introduced in the 2.6.34 kernel and the same was addressed by a open source fix in the		
tty driver.		

Defect ID: DEFECT000592398			
Technical S	Severity: Medium	Probability: Medium	
Product: 1	Extreme Network OS	Technology Group: VCS	
Reported I	In Release: NOS7.0.0	Technology: Logical Chassis	
<b>Symptom:</b>	During multi-cast tree formation, a rbridge wi	th a configured root priority level may not take effect	
	for the tree's formation. Instead, the configured rbridge behaves as though it has a default or lowest		
	priority configuration. However, when displaying the running configuration, it shows the expected		
	tree root priority configuration.		
<b>Condition:</b>	Following an operation where a rbridge boots up with a default configuration, and then downloads it's		
	configuration from the active cluster, a non-default setting for the rbridge's multi-cast root priority		
	may not take affect. This may happen such as after a 'vcs replace' operation.		
<b>Recovery:</b>	Rebooting the affected node forces it to refresh the effective priority value for the multi-cast tree root		
	priority. Alternatively, explicitly changing the priority to a different value and then setting it back to		
	the original desired value causes the priority to be updated. However, setting the root priority to a		
	different value may affect the multi-cast tree for	ormation depending on the temporary priority specified.	

Defect ID: DEFECT000592617	
Technical Severity: Medium	Probability: Medium

<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS5.0.2	<b>Technology:</b> xSTP - Spanning Tree Protocols	
Symptom: IEEE BPDU Local VLAN tunnel CLI allowed to be configured when protocol spanning tree is		
already configured or vice versa.		
<b>Condition:</b> When both STP protocol and IEEE BPDU Local VLAN tunnel CLI are enabled at the same time.		

Defect ID: DEFECT000593092		
Technical Severity: Low	Probability: Low	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS7.0.1	Technology: Security Vulnerability	
Symptom: Security vulnerabilities.		
Condition: Unix open source code [openssh & openssl] is vulnerable. Please take a look into Brocade CVE [Common Vulnerabilities and Exposures] list to get detail of which CVE is fixed in which NOS release.		

Defect ID: DEFECT000593245		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2	Technology: Multi-VRF	
<b>Symptom:</b> Ping Round-Trip-Times fluctuate between 4 and 16 ms.		
Condition: Happens in 6.0.2a and later releases.		

Defect ID: DEFECT000593960		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1 Technology: SNMP - Simple Network Manager		
	Protocol	
Symptom: With 3-tuple format configured for ifDescr and ifName, the linkUp/Down traps generated still contain		
ifDescr var-bind in 2-tuple format.		
<b>Condition:</b> This is related to ifDescr var-bind in the linkUp/Down trap only.		

Defect ID: DEFECT000594223		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: Software Installation & Upgrade	
<b>Symptom:</b> TFTP server/service was enabled by default.		
Condition: Any device from outside can try to connect VDX using TFTP and VDX burn its resources		
unnecessary.		

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Defect ID: DEFECT000594815			
Technical Severity: High	Probability: Low		
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching		
Reported In Release: NOS6.0.1	Technology: VLAN - Virtual LAN		
<b>Symptom:</b> The execution of command "show vlan brief"	<b>Symptom:</b> The execution of command "show vlan brief" will cause the box to reboot.		
<b>Condition:</b> This issue may be seen when all the following conditions are met.			
1. There are more than 40 nodes in a Logical Chassis.			
2. VFAB is enabled on the cluster.			
3. There are 10 vlans configured.			
4. There are more than 1000 ports configured on each vlan.			
5. show-vlan-brief was executed.			
<b>Workaround:</b> Instead of "show vlan brief", the user can execute "show interface trunk" to check the vlan-port			
configurations.			

Defect ID: DEFECT000595226		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS7.0.1	Technology: Syslog	
<b>Symptom:</b> IPv4 and IPv6 syslog servers were not working when configured together as default/non-default VRF.		
Condition: Defect exists in 7.0.0 also.		

Defect ID: DEFECT000595395		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2	Technology: DHCP - Dynamic Host Configuration	
	Protocol	
Symptom: IP DHCP Relay is not working properly when enabled on VRRP-E master interface		
Condition: Operating IP DHCP Relay together with VRRP-E		
Workaround: toggle the VE interface		

Defect ID: DEFECT000595980		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
<b>Symptom:</b> When tunnel tagged-ieee-bpdu is enabled on any of the interface, protocol spanning-tree is allowed to		
be configured.		
Condition: Tunnel tagged-ieee-bpdu configured before configuring protocol spanning tree.		

<b>Defect ID:</b> DEFECT000596257		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.2	Technology: Software Installation & Upgrade	
<b>Symptom:</b> After reload, though the uplink interface is down, the downlink tracking interface is still up.		
<b>Condition:</b> All the downlinks interface are brought up, irrespective of the uplink interface state after reboot.		

<b>Defect ID:</b> DEFECT000596496		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.2	Technology: Logical Chassis	
<b>Symptom:</b> Protocol spanning-tree configuration will not be allowed even after removing the "spanning-tree ieee-		
bpdu limit-vlan-flood" and "tunnel tagged-ieee-bpdu" configuration.		
<b>Condition:</b> When all the switches in the VCS are configured with "spanning-tree ieee-bpdu limit-vlan-flood" and		
one or more switches are removed from VCS.		
<b>Recovery:</b> Copy running configuration to remote. Reload the switch with default configuration and copy back the		
running configuration.		

Defect ID: DEFECT000597782		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: VLAN - Virtual LAN	
Symptom: The management MAC and one of the VE MACs may conflict.		
<b>Condition:</b> This is a software defect that has affected the VDX6940-36Q and VDX6940-144S since their release.		

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Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol	
Symptom: When EVPN related configuration is done in RBridge range mode, the nodes might reboot		
Condition: When EVPN related configuration is done in RBridge range mode		
Workaround: Instead of using RBridge range mode, use RBridge mode to configure the individual rbridges		
<b>Recovery:</b> If issue is encountered, reboot the RBridges to recover		

### Closed without code changes for Network OS v7.0.2

This section lists software defects with Critical, High, and Medium Technical Severity closed without a code change as of November 20, 2017 in Network OS v7.0.2.

None

#### Closed without code changes for Network OS v7.0.1c

This section lists software defects with Critical, High, and Medium Technical Severity closed without a code change in Network OS v7.0.1c.

None

#### Closed without code changes for Network OS v7.0.1b

This section lists software defects with Critical, High, and Medium Technical Severity closed without a code change as of January 30, 2017 in Network OS v7.0.1b.

None

# Closed without code changes for Network OS v7.0.1a

This section lists software defects with Critical, High, and Medium Technical Severity closed without a code change as of September 9th, 2016 in Network OS v7.0.1a

Defect ID: DEFECT000564498	Technical Severity: High		
Reason Code: Not Reproducible	Probability: Medium		
Product: Extreme Network OS	Technology Group: Monitoring		
Reported In Release: NOS4.1.3	Technology: Port Monitoring		
<b>Symptom:</b> VDX Ports are showing up as spfabsent as status in "show interface status"			
<b>Condition:</b> We have verified the code changes done for displaying "show interface status" between 4.1.2a and			
4.1.3.	4.1.3.		
In 4.1.2a, we have the changes as per defect xxxxxx. Hence it works fine in 4.1.2x release.			
But in 4.1.3, we have modified the code to address a defect which corrects display status for copper			
ports, in which we have missed to handle the code to display correct status for these internal ports in			
the switch.			
Workaround: None			

# Closed without code changes for Network OS v7.0.1

This section lists software defects with Critical, High, and Medium Technical Severity closed without a code change as of May 25, 2016 in Network OS v7.0.1.

Defect ID: DEFECT000552520	Technical Severity: High	
Reason Code: Not Reproducible	Probability: High	
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	<b>Technology:</b> Static Routing (IPv4)	
Symptom: Memory leak observed with repeated addition/deletion of VRFs using an automated script		
Condition: Adding and deleting VRFs repetitively		
Workaround: Remove routes before deleting the VRF		

Defect ID: DEFECT000556025	Technical Severity: Low	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals	
Symptom: On port channel, Fabric Watch provides incorrect message SFP is absent when link is shut and SFP		
is not removed.		
Condition: On Chassis VDX switches, SFP info from Fabric Watch may mislead when port is shut.		

Defect ID: DEFECT000558216	Technical Severity: High	
Reason Code: Design Limitation	Probability: Low	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	<b>Technology:</b> VRRPv2 - Virtual Router Redundancy	
	Protocol Version 2	
Symptom: Attaching VE interface to another rbridge is taking more time.		
<b>Condition:</b> With more than 2K VE interfaces created, attaching a VE interface to another rbridge takes more 1		
sec for each VE interface.		

<b>Defect ID:</b> DEFECT000579176	Technical Severity: High
Reason Code: Not Reproducible	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.0	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First
Symptom: BFD may not work over Layer 3 Port Channels when the gateway address and nexthop pointing to	
port channel overlap	
<b>Condition:</b> Running BFD with Layer 3 Port Channels	

Defect ID: DEFECT000581124	Technical Severity: High
Reason Code: Design Limitation	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and
	Orchestration
Reported In Release: NOS7.0.0	Technology: OpenStack Integration
<b>Symptom:</b> 40G Interface is either protocol down (or) administratively down after "no shut" operation.	
Condition: Breakout Config operation performed on 40G Interface connected to a 40G Interface	

Defect ID: DEFECT000583324	Technical Severity: High
Reason Code: Not Reproducible	Probability: Medium

<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching
Reported In Release: NOS7.0.0	<b>Technology:</b> FCoE - Fibre Channel over Ethernet
<b>Symptom:</b> ISL fails to come up due to Trunking Error	
Condition: When port is enabled between VDX8770 LC	48x10G and VDX 6940 4x10G breakout interfaces
<b>Recovery:</b> Issue shut followed by no shut on the port.	

Defect ID: DEFECT000585015	Technical Severity: High	
Reason Code: Not Reproducible	Probability: Low	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.0	<b>Technology:</b> AMPP - Automatic Migration of Port	
	Profiles	
<b>Symptom:</b> traffic may flood for the non-profiled macs even if the global knob is disabled.		
Condition: 'no allow non-profiled-macs' is configured.		
Workaround: configure and remove 'allow non-profiled-macs' again.		

Defect ID: DEFECT000586205	Technical Severity: High
Reason Code: Not Reproducible	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS7.0.0	Technology: Syslog
<b>Symptom:</b> Syslog server not working via inband under def-vrf, mgmtvrf and user-vrf, all having different ip	
address	
<b>Condition:</b> Was deferred from 7.0.0 and fixed in 7.0.1.	

Defect ID: DEFECT000587880	Technical Severity: High	
Reason Code: Not Reproducible	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.0	Technology: IPv6 Addressing	
Symptom: IPv6 DHCP relay SOLICIT packets are not getting intercepted after coldbooot upgrade.		
Condition: Running DHCP relay in a IP Fabric EVPN environment sometimes.		
Workaround: Delete and re-configure the same L3 interface where relay config is present.		

<b>Defect ID:</b> DEFECT000591172	Technical Severity: Medium	
Reason Code: Not Reproducible	Probability: Low	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	Technology: IP Addressing	
<b>Symptom:</b> It is seen that configuration of global VE interface is missing in output of" show running-cofig".		
Configuration of same global VE was already present in protocol daemon, hence configuration of		
global VE again is not allowed.		
Condition: In a rare scenario during global VE configuration.		

<b>Defect ID:</b> DEFECT000592812	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.1	Technology: VCS Fabric	
Symptom: The Dcmd process may terminate and cause an MM to failover.		
<b>Condition:</b> Given a large node cluster with 4,000 tengigabit ethernet interfaces or more, a NETCONF get-config request can cause the Dcmd process to hit an out of memory condition and cause it to terminate.		
Workaround: Use the vcs-rbridge-context NETCONF RPC to set an rbridge filter prior to issuing the NETCONF get-config request. This will limit the get-config results to the rbridge context set and reduce memory usage of the Dcmd process.		

# Closed without code changes for Network OS v7.0.0

This section lists software defects with Critical, High, and Medium Technical Severity closed without a code change as of May 3, 2016 in Network OS v7.0.0

Defect ID: DEFECT000393266	Technical Severity: Low	
Reason Code: Will Not Fix	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS3.0.0	Technology: Configuration Fundamentals	
<b>Symptom:</b> "fcsp auth-secret dhchap" command with incorrect node field fails with in appropriate error message.		
Condition: "fcsp auth-secret dhchap" command with incorrect node field		

Defect ID: DEFECT000396994	Technical Severity: Low	
Reason Code: Will Not Fix	Probability: Medium	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS3.0.0	Technology: SSH - Secure Shell	
Symptom: Garbled characters may be seen on SSH session during login		
Condition: SSH login to the management interface, mostly seen after changing the user password.		

Defect ID: DEFECT000409067	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS3.0.0	Technology: ACLs - Access Control Lists	
<b>Symptom:</b> Command "show access-list" is displaying rules attached on the management interface with the wrong		
protocol information. In the case where protocol is "0", it is showing protocol as "ip".		
Condition: Adding ACL rule with "0" as protocol number.		
Workaround: Explicitly use "4" or "ip" while applying IP protocol to ACL rule rather than using the protocol		
number "0".		

Defect ID: DEFECT000482263	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS4.1.0	Technology: VLAN - Virtual LAN	
Symptom: Spanning tree does not converge properly and can lead to traffic loop.		
Condition: Issue is seen when PVST or RPVST is configured and spanning tree is enabled on few switchports		
with VLAN-MAC classification.		
Workaround: Do not enable spanning tree on switchports having VLAN-MAC classification.		
<b>Recovery:</b> Disable spanning tree on all switchports having VLAN-MAC classification.		

Defect ID: DEFECT000489529	Technical Severity: Low
Reason Code: Will Not Fix	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS3.0.1	Technology: AAA - Authentication, Authorization,
	and Accounting
Symptom: Admin cannot create a user-role which would dis-allow `show running-config' command	
Condition: When configuring AAA service for authorization using RBAC model.	

Defect ID: DEFECT000491044	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS4.0.1	Technology: LAG - Link Aggregation Group	
<b>Symptom:</b> When port-channel is either admin down or operationally down, the command "show interface status"		
shows the interface status to be 'not connected'		
Condition: When 'shutdown' command is issued on the port-channel or when the member ports are brought		
operationally down.		

<b>Defect ID:</b> DEFECT000491465	Technical Severity: Medium	
Reason Code: Not Reproducible	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS4.0.1	Technology: VMWare	
<b>Symptom:</b> On upgrade from 3.x with vCenter configured we may see some Vcenter configuration changes not		
getting updated on one of the nodes in the cluster.		
Condition: On upgrade from 3.x to higher releases with vCenter configuration.		
Workaround: Remove the vCenter configuration before upgrade. And on successful upgrade re-configure the		
vCenter. This work-around may result in traffic loss.		
<b>Recovery:</b> In case of facing the issue, vCenter configuration should be removed and re-applied.		

<b>Defect ID:</b> DEFECT000492196	Technical Severity: High
Reason Code: Feature/Function Not Supported	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS4.1.0	Technology: Configuration Fundamentals
Symptom: The show media output may report varying power levels for various optics in the same switch. This	
difference may be ignored.	
<b>Condition:</b> This may be seen on 10G optics.	

Defect ID: DEFECT000492427	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS4.1.0	Technology: Configuration Fundamentals	
Symptom: NETCONF "get-config" response will be slower based on the configuration.		
Condition: Retrieving running configuration through NETCONF will be slower and the response time will		
increase substantially if the configuration is large.		
Workaround: Use sub-tree filtering in the get-config which will be faster.		

Defect ID: DEFECT000503858	Technical Severity: High	
Reason Code: Design Limitation	Probability: Medium	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS5.0.0	Technology: VCS Fabric	
<b>Symptom:</b> In case of errors during config file download, there is no reference to the line number which caused		
the error		
Condition: Observed when the user downloads a config file onto the switch		

<b>Defect ID:</b> DEFECT000515693	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS5.0.0	Technology: Fabric Authentication	
<b>Symptom:</b> Ethernet LED does not glow green when a port is enabled. This is applicable to Lenovo VDX		
embedded platforms.		
Condition: No loss of system functionality. Useful data for Lenovo embedded VDX customers.		

<b>Defect ID:</b> DEFECT000517443	Technical Severity: Medium
Reason Code: Will Not Fix	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.0	Technology: Configuration Fundamentals
<b>Symptom:</b> Browser level login box will be displayed. Element manager will not login If credentials entered in	
the box.	
Condition: The defects will be seen in following conditions:	
1. When invalid credentials are entered in NOS Element Manager login page	
2. When element manager gets timed out	
<b>Recovery:</b> Click 'Cancel' on the browser level login bo	x and login using the Element Manager login page

Defect ID: DEFECT000521284	Technical Severity: High	
Reason Code: Not Reproducible	Probability: Low	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS5.0.0	Technology: Configuration Fundamentals	
Symptom: A bad sfm might cause a panic while diags test is running on it.		
Condition: Detection of a Bad SFM Card after a chassis reboot.		

<b>Defect ID:</b> DEFECT000527393	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS5.0.1	Technology: Configuration Fundamentals	
Symptom: Web Element Manager hardware view doesn't match with the Physical hardware view		
Condition: This condition occurs when port and link is up in the Switch module		

Defect ID: DEFECT000527401	Technical Severity: High
Reason Code: Will Not Fix	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.1	Technology: Configuration Fundamentals
<b>Symptom:</b> Web Element manager doesn't report session expiry and doesn't report current status on removing the	
management module from the switch.	
Condition: This condition occurs when the management module is removed from the switch	
Workaround: Management module should be removed after exiting the active web element manager session	
<b>Recovery:</b> Exiting or logging out of the Web element manager session manually	

Defect ID: DEFECT000528475	Technical Severity: Medium
Reason Code: Feature/Function Not Supported	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS5.0.1	Technology: Fabric Authentication
Symptom: On configuring OUI based port security on the port and sending traffic with a different OUI could	
lead to traffic loss.	
Condition: If customer is planning to use OUI based port security on ports.	

Defect ID: DEFECT000529660	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.0	Technology: Configuration Fundamentals	
Symptom: Web Element Manager session gets logged out before 30 minutes.		
<b>Condition:</b> Web Element Manager session will be logged out before 30 minutes in the following conditions:		
1) If there is an unauthorized request sent to switch (or)		
2) Internal bad server error		

Defect ID: DEFECT000531718	Technical Severity: High
Reason Code: Will Not Fix	Probability: High
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.1	Technology: Configuration Fundamentals
<b>Symptom:</b> The command may take upto 1.5 minutes to throw an error when trying to configure non-existing	
interface.	
Condition: Occurs only in large cluster with high scale implemented.	

<b>Defect ID:</b> DEFECT000538035	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.0	Technology: Configuration Fundamentals	
<b>Symptom:</b> Browser level message will be displayed for user notification in Network OS Element manager. For		
e.g. If there are any error condition, the message will be append with unwanted characters and lines		
Condition: User performing invalid configuration in Network OS Element manager.		
For e.g.		
Trying to set a role which doesn't exists in the device		

<b>Defect ID:</b> DEFECT000546734	Technical Severity: Medium
Reason Code: Will Not Fix	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS6.0.1	Technology: RA Guard - Router Advertisement Guard
<b>Symptom:</b> Router Advertisement packets will be accepted even though RA Guard is configured on LAG and	
vLAG interfaces.	
Condition: 1) Configure Port Channel	
2) Enable RA Guard	
3) Router Advertisement packets will still be accepted	
Workaround: Shut/no shut Port Channel	

<b>Defect ID:</b> DEFECT000546936	Technical Severity: Low
Reason Code: Will Not Fix	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and
	Orchestration
Reported In Release: NOS5.0.1	Technology: OpenStack Integration
Symptom: show arp is not supported on interfaces instantiated in management VRF	
Condition: executing show arp on interfaces instantiated in management VRF	

<b>Defect ID:</b> DEFECT000549648	Technical Severity: High
Reason Code: Already Fixed in Release	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.2	Technology: Software Installation & Upgrade
<b>Symptom:</b> When doing a firmware downgrade from 5.x to 4.x, the messages appearing on the screen are	
requested to be re-worded for easier understanding.	
<b>Condition:</b> When doing a firmware downgrade from 5.x to 4.x.	

Defect ID: DEFECT000552701	Technical Severity: High
Reason Code: Will Not Fix	Probability: Medium
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS6.0.1	Technology: FCoE - Fibre Channel over Ethernet
Symptom: In a Remote Logical SAN configuration, aft	er a FCoE device logout, later when the same FCOE
device try to login, occasionally the login m	ay fail.
<b>Condition:</b> Shutting the FCOE interface for a Remote Logical SAN login can result in a FIP Clear Virtual Link	
(CVL) to be sent from FCF through FIF to the FCoE CNA When FCoE CNA receives CVL, FCoE	
CNA normally will initiate the FIP Discovery and then follow with FLOGI. But sometime FCoE	
CNA does not initiate FIP Discovery but sends FLOGI directly which then causes login failure.	
<b>Recovery:</b> Toggle the interface port connected to the FCoE Converged Network Adapter(CNA) to re-initiate the	
FIP Discovery.	

<b>Defect ID:</b> DEFECT000553496	Technical Severity: Medium
Reason Code: Already Fixed in Release	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.1	Technology: ICMP - Internet Control Message
	Protocol
<b>Symptom:</b> When numeric option is not specified in the ping command, the output does not display the host name in a string format.	
Condition: When numeric option is not specified in the ping command.	

Defect ID: DEFECT000553915	Technical Severity: High	
Reason Code: Feature/Function Not Supported	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS4.0.0	Technology: Configuration Fundamentals	
Symptom: Command "supportsave" does not support TFTP protocol.		
Condition: Specifying the TFTP as transfer protocol isn't allowed.		
Workaround: To invoke command "supportsave", valid transfer protocol values are: File transfer protocol		
(FTP), Secure copy (SCP), or Secure FTP (SFTP).		

<b>Defect ID:</b> DEFECT000554573	Technical Severity: High	
Reason Code: Will Not Fix	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS5.0.1	<b>Technology:</b> FCoE - Fibre Channel over Ethernet	
<b>Symptom:</b> When two hosts with same WWN login, the switch can undergo a series on unexpected reboots.		
The Duplicate WWN feature is currently not supported on NOS AG.		
Condition: Two hosts with the same WWN try to login		
Workaround: Please make sure there are no two hosts with same WWN.		

Defect ID: DEFECT000555171	Technical Severity: High	
Reason Code: Not Reproducible	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.1	Technology: Hardware Monitoring	
Symptom: VDX 40Gb port may go administratively down after reboot, or reboot of partner VDX switch.		
Condition: When VDX switch is rebooted, or partner VDX switch is rebooted.		
Workaround: Shut/no shut the port		
Recovery: Shut/no shut the port		

Defect ID: DEFECT000556146	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS6.0.1	Technology: AMPP - Automatic Migration of Port	
	Profiles	
<b>Symptom:</b> Shut on one of the members of the VLAG makes the source MAC addresses learnt on other members		
of the VLAG disappear.		
Condition: Conflicting type of traffic is received simultaneously on multiple links of VLAG		
Recovery: No port-profile-port followed by port-profile-port.		

Defect ID: DEFECT000556823	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	Technology: BFD - BiDirectional Forwarding	
	Detection	
Symptom: static route BFD session is not coming UP.		
Condition: When User configures Static route single/Multi BFD with neighbor who has this neighbor IP		
configured on remote interface. Topology where BFD packets will be sent on interface which does		
not have reachability to destination.		
Workaround: symmetric source/destination pair with static route BFD.		

Defect ID: DEFECT000557278	Technical Severity: High	
Reason Code: Not Reproducible	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.1	Technology: Port Mirroring	
Symptom: MAPS RASLOGs for RX_SYM - RX Symbol Errors - are seen when PO is "shut"		
Condition: MAPS needs to be enabled and PO needs to be shut.		

<b>Defect ID:</b> DEFECT000557518	Technical Severity: High	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.1	Technology: Virtual Fabrics	
<b>Symptom:</b> In virtual-fabric enabled mode, port-profile-port configuration on an interface can take upto 5 minutes only the first time.		
<b>Condition:</b> If the system is in virtual-fabric enabled mode, first time configuration of "port-profile-port" or "port-profile-port domain <domainname>", provided the port-profile-domain has "switchport trunk allowed vlan all" config</domainname>		
Workaround: No workaround		

Defect ID: DEFECT000558057	Technical Severity: Medium
Reason Code: Not Reproducible	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring
Reported In Release: NOS6.0.1	Technology: Port Mirroring
<b>Symptom:</b> When chassis disable command is executed on VDX 6940-144S the following Fabric watch	
RASLOG's may be observed: [FW-1038], 3196, SW/0   Active, WARNING, sw0, Sfp RX power for	
port $x/x/x$ , is below low boundary	
<b>Condition:</b> There is no functionality loss. User can ignore the additional RASLOGs.	

Defect ID: DEFECT000558616	Technical Severity: High	
Reason Code: Design Limitation	Probability: High	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS5.0.2	Technology: Hardware Monitoring	
<b>Symptom:</b> When VDX switches uses DC power supply, the output of "show environment power" OR "show		
chassis" does not display the serial number.		
Condition: When DC power supply is used with VDX switches.		

Defect ID: DEFECT000558687	Technical Severity: High	
Reason Code: Not Reproducible	Probability: Medium	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS6.0.1	Technology: VCS Fabric	
Symptom: The following error is thrown:		
"%%Error: Platform hardware limitation or resource limit reached."		
<b>Condition:</b> In Fabric Cluster mode, when 4K vlans are configured and user tries to configure vlans beyond 4K,		
the above error is thrown. However, there are no issues till 4K vlans are configured.		
<b>Recovery:</b> Reload the system when this issue is observed.		

Defect ID: DEFECT000558898	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS4.0.1	Technology: LAG - Link Aggregation Group	
<b>Symptom:</b> Primary port of a VLAG may send back the BUM traffic to same VLAG member.		
Condition: When the "no channel-group" command is issued to the VLAG member that is the last port in a port-		
group		
Workaround: Re-configuring the port-channel on all member ports of a VLAG		

<b>Defect ID:</b> DEFECT000559516	Technical Severity: Medium	
Reason Code: Not Reproducible	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals	
Symptom: Extended ACL rules with protocol IPv6 does not take effect on traffic on management interface		
Condition: Extended ACL rule with protocol as IPv6		
Workaround: Create two separate rules for protocols TCP and UDP instead of a single IPv6 rule		

Defect ID: DEFECT000559589	Technical Severity: High	
Reason Code: Not Reproducible	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS6.0.1	Technology: Hardware Monitoring	
<b>Symptom:</b> 10Gb port may be stuck in offline state.		
<b>Condition:</b> After power cycle or reboot of VDX switch, 10Gb port may be stuck in offline state.		
<b>Recovery:</b> Shut/no shut the port.		

<b>Defect ID:</b> DEFECT000559631	Technical Severity: High
Reason Code: Will Not Fix	Probability: Low
Product: Extreme Network OS	Technology Group: Layer 2 Switching
Reported In Release: NOS6.0.1	<b>Technology:</b> FCoE - Fibre Channel over Ethernet
Symptom: FCoE login does not work	
Condition: On changing the LAG config from local SAN to remote SAN on LAG.	

Defect ID: DEFECT000559741	Technical Severity: High
Reason Code: Not Reproducible	Probability: Low
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.1	Technology: Access Gateway
Symptom: FCoE logins won't come through LAG.	
Condition: Changing LAG from Local SAN to Remote SAN.	

Defect ID: DEFECT000559806	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS6.0.1	Technology: OpenStack Integration	
Symptom: "show openflow flow" does not display Flowids in sorted order.		
Condition: User tries to view flow-mods installed in the switch.		

Defect ID: DEFECT000559907	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS6.0.1	Technology: VXLAN - Virtual Extensible LAN	
Symptom: Copying configuration from file takes long time.		
Condition: The configuration file contains overlay-gateway with more than 1000 "map vlan" and 500 "site"		
configurations.	·	

<b>Defect ID:</b> DEFECT000560127	Technical Severity: High	
Reason Code: Feature/Function Not Supported	Probability: Medium	
Product: Extreme Network OS	Technology Group: Network Automation and	
	Orchestration	
Reported In Release: NOS5.0.1	Technology: OpenStack Integration	
Symptom: Traffic loss can be observed between linecards going from one LC to another.		
Condition: Traffic loss can be observed between linecards [Ex: LC # 2] with another linecard [LC #1] being		
installed.		

Defect ID: DEFECT000560280	Technical Severity: High	
Reason Code: Will Not Fix	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	Technology: Multi-VRF	
Symptom: Under conditions of VRF scale and operation, sometimes Address Family may not be instantiated on		
creating a VRF		
Condition: Configuring a VRF in complex network topologies		

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<b>Defect ID:</b> DEFECT000560607	Technical Severity: Medium
Reason Code: Not Reproducible	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.1	Technology: DHCP - Dynamic Host Configuration
	Protocol
Symptom: DHCP client binding does not happen on one	of the VDX 6740s in the cluster, when clients are
configured on a tagged vlan. DHCP Relay sta	atistics show that discover packets are not received at the
relay.	
<b>Condition:</b> DHCP Clients configured on tagged vlan.	

Defect ID: DEFECT000560620	Technical Severity: Medium
Reason Code: Not Reproducible	Probability: Medium
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.1	Technology: IP Addressing
Symptom: Ping fail between VDX 6940 and VDX 8770.	
Condition: Executing ping command	
Workaround: Atleast one L3 interface needs to be enabled in a VRF for a route to be added in the kernel or stack	

Defect ID: DEFECT000560681	Technical Severity: High	
Reason Code: Design Limitation	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS6.0.1	<b>Technology:</b> FCoE - Fibre Channel over Ethernet	
<b>Symptom:</b> FCoE Host in a Local Logical SAN may not be able to see the FC Target when VDX 6740 where the		
FC Target is connected to, is dynamically changed from the Remote Logical SAN to the Local		
Logical SAN configuration.		
<b>Condition:</b> When a VDX6740 is reconfigured from a Remote Logical SAN to a Local Logical SAN, FC Target		
connected through the VDX6740 will become un-accessible in VCS.		
<b>Workaround:</b> Reboot the VDX6740 that has been moving from Remote Logical SAN to Local Logical SAN.		
<b>Recovery:</b> To prevent hitting this issue, user can do delete fcf-group, change VDX6740 from AG mode to non-		
AG mode, and reboot VDX6740. Then proceed on modifying the fabric-map configuration from		
Remote Logical SAN to Local Logical SAN.		

<b>Defect ID:</b> DEFECT000560802	Technical Severity: Medium	
Reason Code: Already Fixed in Release	Probability: Low	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS6.0.1	Technology: FCoE - Fibre Channel over Ethernet	
<b>Symptom:</b> The switch may accept the new fibrechannel or FCoE logins even if there is Duplicate WWN		
detection. This fabric login policy for Duplica	ate WWN is not supported in NOS6.0.0.	
Condition: When the firmware downgrade from NOS6.0.1 to NOS6.0.0 happens with the non-default fabric		
login policy i.e new-login for DuplicateWWN is configured on the switch.		
Workaround: move the fabric login policy to old-login for Duplicate WWN (default mode) and then downgrade		
the switch to NOS6.0.0		

<b>Defect ID:</b> DEFECT000560931	Technical Severity: High	
Reason Code: Not Reproducible	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.1	<b>Technology:</b> OSPF - IPv4 Open Shortest Path First	
<b>Symptom:</b> Delay in OSPF session establishment in VDX6940 144S on IP address delete and reconfigure.		
Condition: Running OSPF after IP address reconfiguration		

<b>Defect ID:</b> DEFECT000561037	Technical Severity: Medium
Reason Code: Will Not Fix	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and
	Orchestration
Reported In Release: NOS6.0.1	Technology: OpenStack Integration
Symptom: Openflow related hardware resources may no	t get de-allocated in a clean manner resulting in
inconsistent behavior in data-path forwarding	. New configurations may also fail to get programmed
and failures will not be reported back to contr	oller.
Condition: If ISSU was performed with controller driven flows installed in the system.	
Workaround: Controller needs to be disconnected first, clear all installed flows using "clear openflow all"	
command and then trigger ISSU.	

Defect ID: DEFECT000561046	Technical Severity: Medium
Reason Code: Will Not Fix	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals
<b>Symptom:</b> Internal Server Error is returned as the status even though the intended functionality works fine when	
the rbridge-id is changed through REST reque	est.
Condition: When the rbridge-id is modified through REST request.	
Workaround: Modify the rbridge-id through CLI.	

Defect ID: DEFECT000561179	Technical Severity: High	
Reason Code: Will Not Fix	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Traffic Management	
Reported In Release: NOS6.0.1	Technology: QoS - Quality of Service	
Symptom: Modular QoS CLI (MQC) policy config will be lost on a port in downgrade from NOS6.0.1 to		
NOS5.0.1 if MQC has shaper config on lossless priority.		
Condition: Per port scheduler configuration (i.e MQC policy having scheduler and shaper configuration applied		
in egress direction on a port).		
Workaround: Before downgrading to NOS5.0.1, make sure that active MQC policy should not have shaper		
config on lossless priority.		
Recovery: Remove shaper config lossless priority in MQC policy.		

<b>Defect ID:</b> DEFECT000561210	Technical Severity: High
Reason Code: Design Limitation	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals
<b>Symptom:</b> Unsupported features are getting configured on 100 MB interface if the link comes up with 100 MB using autonegotiation.	
Please check the NOS 6.0.1 Release Notes for features that are supported with 100MB	
Condition: When speed is configured as an 'auto' on an interface which is connected to an 100 MB peer link.	

Defect ID: DEFECT000561274	Technical Severity: High
Reason Code: Will Not Fix	Probability: High
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS6.0.1	Technology: Static Routing (IPv4)
<b>Symptom:</b> Under conditions of scale (512 VRFs), few routes may go missing in VDX 6940-144S after an ISSU	
upgrade.	
Condition: ISSU in VDX 6940 144S	

Defect ID: DEFECT000561304	Technical Severity: High	
Reason Code: Not Reproducible	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS6.0.1	Technology: VCS Fabric	
Symptom: VDX 6940 platforms in FC mode may undergo an unexpected reload during firmware upgrade or		
downgrade operations if there is security related configuration - tacacs server, radius sever ip, aaa		
Condition: Switch is in FC mode, Security Configuration (tacacs server, radius sever ip, aaa) is present and Switch		
undergoes a firmware upgrade/downgrade.		
Workaround: Remove "tacacs server, radius sever ip, aaa" on all the vcs nodes.		
<b>Recovery:</b> Powercycle will recover the Switch.		

Defect ID: DEFECT000561506	Technical Severity: High
Reason Code: Already Fixed in Release	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS6.0.1	Technology: Configuration Fundamentals
<b>Symptom:</b> VDX6940 and VDX6740 may take longer to boot up in 6.0.1 than in 6.0.0. (the delay is about 1	
minute with default configuration).	
<b>Condition:</b> When the reload command is executed.	

<b>Defect ID:</b> DEFECT000561605	Technical Severity: High	
Reason Code: Already Fixed in Release	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS4.1.3	Technology: NTP - Network Time Protocol	
Symptom: tsd module termination and VDX abrupt reload		
Condition: Fail to reach NTP server due to network reachability issue		
Recovery: Fix NTP server reachability issue.		

Defect ID: DEFECT000561706	Technical Severity: High	
Reason Code: Already Fixed in Release	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS5.0.1	Technology: VLAN - Virtual LAN	
Symptom: If static MAC is configured for mulicast MAC address, the packets destined to the MAC address will		
be flooded to all member ports in VLAN		
Condition: Configuring a static muticast MAC address will result in this issue.		

Defect ID: DEFECT000561713	Technical Severity: High	
Reason Code: Will Not Fix	Probability: Medium	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.1	Technology: SNMP - Simple Network Management	
	Protocol	
<b>Symptom:</b> When snmpwalk operation is done on TCP MIB (RFC 4022), the operation may become very slow		
and may experience timeouts.		
Condition: This issue is seen when snmpwalk is done only on TCP MIB.		
<b>Workaround:</b> The snmpwalk should be done with a timeout set to at least 3 seconds. This will help in avoiding		
the timeout during the snmpwalk operation on the TCP MIB.		

Defect ID: DEFECT000562896	Technical Severity: Medium	
Reason Code: Feature/Function Not Supported	Probability: Medium	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS5.0.1	Technology: Logical Chassis	
<b>Symptom:</b> "no fabric isl enable" and " no fabric trunk enable" configurations on ports 0/33 to 0/48 got reverted		
back to "fabric isl enable" and " fabric trunk enable"		
Condition: Upgrade from no4.1.2a1 to nos5.0.1d		
Workaround: 1. Before upgrade, save the running config to a file		
2. Upgrade to 5.0.1d		
3. Copy default to startup		
4. Replay saved config from the file		
<b>Recovery:</b> After upgrade, manually configure "fabric isl enable" and "fabric trunk enable" on ports 0/33 to 0/48		

<b>Defect ID:</b> DEFECT000562941	Technical Severity: Medium	
Reason Code: Feature/Function Not Supported	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS5.0.2	Technology: AAA - Authentication, Authorization,	
	and Accounting	
<b>Symptom:</b> when upgrading from 4.1.2a to 5.0.2 with tacacs-server config		
<b>Condition:</b> This happens only upgrades from 4.x to 5.x with tacacs-server configuration		
Workaround: copy the config before upgrade, upgrade with default-config and replay the config		

Defect ID:	DEFECT000563273	Technical Severity: High
Reason Code	e: Feature/Function Not Supported	Probability: Medium
Product: Ex	treme Network OS	Technology Group: Management
Reported In	Release: NOS4.1.3	Technology: Configuration Fundamentals
<b>Symptom:</b> High CPU usage is seen on 6730 platform.		
Condition: High memory usage due to memory leak which eventually result in CPU stuck at 100%.		
Recovery: 1. Login into Switch as root		
2	2. Capture the "top" output	
3	3. Run: echo 10240 > /proc/sys/vm/min_free_kbytes	
4	4. Issue command: sysctl -q -p /etc/sysctl.conf	

<b>Defect ID:</b> DEFECT000563673	Technical Severity: High	
Reason Code: Feature/Function Not Supported	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS3.0.1	Technology: Configuration Fundamentals	
Symptom: We will observe unexpected reload of VDX 6720 platform switch.		
Condition: In 6720 platform switch, when packet size greater than 1536 is received on the management port, then		
we will observe this issue.		
<b>Workaround:</b> Setting MTU size of eth0 as 9512 will avoid this issue. But it should be set after every reload of		
switch, as MTU change is not persisted after reload.		

<b>Defect ID:</b> DEFECT000564101	Technical Severity: Medium	
Reason Code: Will Not Fix	Probability: Medium	
Product: Extreme Network OS	Technology Group: Security	
Reported In Release: NOS5.0.0	Technology: Security Vulnerability	
<b>Symptom:</b> Using restrict_ssh script on VDX 6740x platforms will not do a GOS sync for the SSHd config file.		
Condition: Using restrict_ssh on VDX 6740s platforms will have a GOS sync issue.		

<b>Defect ID:</b> DEFECT000564347	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
Product: Extreme Network OS	Technology Group: Traffic Management	
Reported In Release: NOS5.0.2 Technology: Rate Limiting and Shaping		
<b>Symptom:</b> After upgrade to 5.0.2a-bld-02, we may observe some traffic forwarding issue with 1Gigabit		
connections on 8770 platform		
<b>Condition:</b> When we have 8770 platform with 1Gigabit connections, we will observe this issue.		

Defect ID: DEFECT000564498	Technical Severity: Medium	
Reason Code: Not Reproducible	Probability: Medium	
Product: Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS4.1.3	Technology: Port Mirroring	
<b>Symptom:</b> "show interface status" command shows incorrect status for internal VDX ports in the switch.		
<b>Condition:</b> If we have internal embedded ports in the VDX switch, then we will observe this issue.		

Defect ID: DEFECT000565415	Technical Severity: Medium
Reason Code: Will Not Fix	Probability: Low
Product: Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.0	Technology: SNMP - Simple Network Management
	Protocol
<b>Symptom:</b> Added new enums in Fruclass to indicate the	slotnames correctly
87 sfm(12),	
88 lineCard(13),	
89 managementModule(14)	
90 }	
<b>Condition:</b> The slotnames are not insync with CLI slotna	nmes

Defect ID: DEFECT000565954	Technical Severity: Medium	
Reason Code: Not Reproducible	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.1	Technology: Logical Chassis	
<b>Symptom:</b> Principal node of a logical cluster will not reach 'ready' state to accept any configuration commands.		
When any configuration command is issued, i	t displays error as 'Cluster formation is in progress'.	
<b>Condition:</b> Cluster reformation is triggered due to node joining or leaving the fabric or due to firmware upgrade.		
Cluster formation might not complete due to underlying communication issues.		
<b>Recovery:</b> Remove the node from the cluster either by issuing reload command or by issuing 'chassis disable'		
command. This will trigger some other node in the cluster to become principal. Once the cluster is		
stable, bring back this switch to the cluster by issuing 'chassis enable'.		

<b>Defect ID:</b> DEFECT000569750	Technical Severity: High
Reason Code: Will Not Fix	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS5.0.2	Technology: Software Installation & Upgrade
<b>Symptom:</b> When upgrading VDX switches from 5.0.2x to 6.0.1x, certain rules configured for the RBAC feature,	
would change to a different set of commands.	
<b>Condition:</b> When upgrading switches from 5.0.x to 6.0.x & RBAC rules are configured.	
<b>Workaround:</b> It is recommended to take a backup of the rules before the upgrade to 6.x from 5.x so that it can be	
restored after upgrade.	

Defect ID: DEFECT000577381	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS4.1.3	Technology: VRRPv3 - Virtual Router Redundancy	
	Protocol Version 3	
<b>Symptom:</b> Under rare conditions, certain hosts lose IP connectivity with selected few devices when hosts		
connected on VDX6710/20/30 configured as	Layer-3 gateways for the host.	
<b>Condition:</b> Usually when the set of MAC addresses are toggled between one interface to another on the switch.		
<b>Recovery:</b> Clearing the ARP on the VDX switches restores the connectivity.		

<b>Defect ID:</b> DEFECT000578967	Technical Severity: High	
Reason Code: Will Not Fix	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: IP Multicast	
Reported In Release: NOS6.0.2	<b>Technology:</b> PIM - Protocol-Independent Multicast	
<b>Symptom:</b> On rare occassion, there might be stale S,G entries seen on starting the multicast traffic		
Condition: Not known		
Workaround: Not known		
Recovery: Clear ip pim mcache cleanup the stale entries		

<b>Defect ID:</b> DEFECT000585841	Technical Severity: High	
Reason Code: Already Fixed in Release	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 2 Switching	
Reported In Release: NOS5.0.2	Technology: VXLAN - Virtual Extensible LAN	
<b>Symptom:</b> Customer uses pVLAG between VDX 6740 and third party vendor switch for underlay of L2		
extension tunnel. After pVLAG member PO's go through fail over, the L2 extension traffic drops for		
upto 10 seconds.		
Condition: The issue occurs when the primary member port-channel of a port-channel group goes through a fail		
over. Under such circumstances, a 10 second tunnel traffic is lost.		

This section lists open software defects with Critical, High, and Medium Technical Severity as of November 20, 2017 in Network OS v7.0.2.

Defect ID: DEFECT000554319		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
eported In Release: NOS5.0.1 Technology: SNMP - Simple Network Manage		
	Protocol	
<b>Symptom:</b> Switch does not generate a ColdStart trap on the VE interface configured in mgmt-vrf.		
<b>Condition:</b> When switch is configured with VE interface in mgmt-vrf, then we will observe this issue.		

Defect ID: DEFECT000619146		
Technical Severity: High	Probability: Medium	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.1 Technology: IP Fabric		
<b>Symptom:</b> ISSU upgrade from 7.0.1 to NOS7.0.1a can cause some traffic loss if BFD is configured.		
Condition: ISSU upgrade to NOS7.0.1a when BFD is configured		
Workaround: BFD can be disabled during upgrade.		

Defect ID: DEFECT000646180		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS6.0.2 Technology: IPv6 Addressing		
Symptom: Unexpected reload		
Condition: Bulk (L3anycast) configuration through NETCONF		
Workaround: Single configuration in one query should be done.		

Defect ID: DEFECT000646908		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Monitoring	
Reported In Release: NOS7.1.0 Technology: Hardware Monitoring		
Symptom: The source IP for SNMP traps is not deterministic.		
Condition: When VCS virtual IP address is configured and SNMP traps are enabled.		

<b>Defect ID:</b> DEFECT000647847		
Technical Severity: High	Probability: Medium	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS6.0.2	Technology: LAG - Link Aggregation Group	
Symptom: Unexpected reload		
Condition: In rare a case, DB corruption happens at the time of port-channel deletion.		

<b>Defect ID:</b> DEFECT000648164		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS6.0.2	Technology: SNMP - Simple Network Management	
	Protocol	
Symptom: SNMP responding on VCS IPv6 instead of management IPv6 address.		
Condition: Both MM/Chassis IPv6 and virtual vcs IPv6 addresses are configured.		

**Workaround:** Have the management IPv6 configured latest

#### Known Issues for Network OS v7.0.1c

This section lists open software defects with Critical, High, and Medium Technical Severity in Network OS v7.0.1c.

Defect ID: DEFECT000619425		
Technical Severity: High	Probabilitty: High	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported in Release: NOS7.1.0	Technology: VXLAN - Virtual Extensible LAN	
Symptoms: Traffic loss on Port-channel interface.		
Condition: If Global MTU is smaller than Port-channel MTU or Global MTU is configured and unconfigured, user may see traffic loss on port-channel interface.		
Workaround: Configure MTU same as port-channel on Port-channel member interfaces.		

Defect ID: DEFECT000641475		
Technical Severity: High	Probabilitty: Low	
Product: Extreme Network OS	Technology Group: Security	
Reported in Release: NOS7.0.1	Technology: User Accounts & Passwords	
Symptoms: Configuration of invalid encrypted password for existing user with encryption level as 7 it is getting accepted without throwing error.		
Condition: VDX switch allows to change password as invalid encrypted password for existing user.		

#### Known Issues for Network OS v7.0.1b

This section lists open software defects with Critical, High, and Medium Technical Severity as of February 17<sup>th</sup>, 2017 in Network OS v7.0.1b.

Defect ID: DEFECT000612967		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Security	
Reported in Release: NOS7.1.0	Technology: Security Vulnerability	
Symptoms: Shutting down SSH server does not close all existing SSH login sessions		
Condition: Shutdown SSH server		

Defect	ID.	DEEE	CTOOO	610116	
Defect	ID:	DEFE	. I UUU	019140	

Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported in Release: NOS7.0.1	Technology: IP Fabric	
Symptoms: ISSU upgrade to NOS7.0.1a can cause 19 seconds of traffic loss if BFD is configured.		
Condition: ISSU upgrade to NOS7.0.1a when BFD is configured		
Workaround: Please disable BFD.		

Defect ID: DEFECT000628176		
Technical Severity: High	Probability: Medium	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported in Release: NOS7.0.1	Technology: VLAN - Virtual LAN	
Symptoms: Packets are flooded to all the vlan member interfaces of the remote node even though Static-mac blinding is configured.		
Condition: When Multicast mac address is used and Vlan member interfaces are present in the remote nodes of the cluster		

Defect ID: DEFECT000629678		
Technical Severity: Medium	Probability: Medium	
Product: Extreme Network OS Technology Group: Layer 3 Routing/Network Layer		
Reported in Release: NOS7.0.1	Technology: DHCP - Dynamic Host Configuration Protocol	
Symptoms: IPV4 DHCP relay statistics does not display the count for DHCP offer and DHCP Ack packets relayed by switch from the DHCP server to DHCP client		
Condition: when DHCP client and DHCP server are present in different VRF		

Defect ID: DEFECT000626331		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported in Release: NOS7.0.1	Technology: VLAN - Virtual LAN	
Symptoms: User configured Vlan names are not displayed after reload of cluster in "show vlan br". It changes to default Vlan name		
Condition: Execution of "show vlan brief" CLI after reload.		

Defect ID: DEFECT000627922		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Hardware Monitoring	
Reported in Release: NOS7.0.1	Technology: Monitoring	
Symptoms: Multiple FFDC and Core files seen on firmware downgrade.		
Condition: When 8770-8 chassis running six new version line-cards 6x100G, 27x40G, 48x10G-T with three or more of type 6x100G is downgraded from 7.0.1b version to lower version.		

Defect ID: DEFECT000630802		
Technical Severity: High Probability: Low		
Product: Extreme Network OS Technology Group: Layer 3 Routing/Network Layer		
Reported in Release: NOS7.0.1 Technology: OSPFv3 - IPv6 Open Shortest Path First		
Symptoms: After doing HA failover on M4, HA is not in SYNC and observed ONM carsh.		
Condition: HA failover and timing issue can trigger the issue, very rare to occur.		

Defect ID: DEFECT000596775		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Layer 3 Routing/Network Layer	
Reported in Release: NOS7.0.1	Technology: OSPFv3 - IPv6 Open Shortest Path First	
Symptoms: When the user configures IPv6 RA interval with the default value 600, the running-config shows the default RA value without suppressing it.		
Condition: The issue is seen by the user every time the RA interval is configured with the default value.		

This section lists open software defects with Critical, High, and Medium Technical Severity as of September 9th, 2016 in Network OS v7.0.1a.

None

This section lists open software defects with Critical, High, and Medium Technical Severity as of May 25, 2016 in Network OS v7.0.1.

Defect ID: DEFECT000590114		
Technical Severity: Medium	Probability: High	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.1	<b>Technology:</b> AMPP - Automatic Migration of Port	
	Profiles	
<b>Symptom:</b> If user configures two AMPP port-profiles	<b>nptom:</b> If user configures two AMPP port-profiles, one of them configured with access VLAN x and other	
configured with trunk VLAN x, Then ,In t	configured with trunk VLAN x, Then ,In that case , It will not be shown as conflicting in "show port-	
profile name <pp1-name> name <pp2-name> validate" command output.</pp2-name></pp1-name>		
<b>Condition:</b> When user creates 2 port-profiles, one port-profile with access VLAN x and other port-profile with		
trunk VLAN x and executes "show port-profile name <pp1-name> name <pp2-name> validate" CLI.</pp2-name></pp1-name>		

Defect ID: DEFECT000591616		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface	
Symptom: Switch goes for an unexpected reload with the REST request.		
Condition: When the switch is pounded with the REST requests from multiple concurrent sessions		
simultaneously and continuously over a long period of time.		
Workaround: As far as possible, send REST requests to configure the switch from one session only. Multiple		
sessions can be used for retrieving information from the switch with GET requests.		

Defect ID: DEFECT000592879		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: Configuration Fundamentals	
<b>Symptom:</b> After LC power on/off in VDX8770, uplink interfaces from the LC are missing on show track summary output.		
Condition: When Link State Tracking (LST) configuration is present on a linecard, after slot power off/on the		
uplink configuration will be lost.		
Workaround: Uplinks need to be reconfigured again after slot power on.		

Defect ID: DEFECT000594276		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS6.0.1	Technology: Logical Chassis	
<b>Symptom:</b> Under a high scale of VCS nodes, the configuration applied for a range of interfaces across the VDX		
nodes may cause principal node to encounter an unexpected reload.		
<b>Condition:</b> When issuing a configuration command under an interface range in a large cluster (32+ nodes)		
<b>Workaround:</b> Avoid using interface range option in large clusters (32+ nodes) & instead configure the interfaces		
individually.		

Defect ID: DEFECT000594793	
Technical Severity: Medium	Probability: Medium
<b>Product:</b> Extreme Network OS	Technology Group: Management
Reported In Release: NOS7.0.1	<b>Technology:</b> Software Installation & Upgrade
Symptom: System may display:	

"qman\_recovery\_exit\_local: DEBUG: the FQID 516 has dest\_wq as chaqman\_recovery\_exit\_local: DEBUG: the WQ lengths for pool channel of portal 1 on cpu1 are: 0:0:0:0:0:0:0:0:0:0:0

Condition: This bug appears when partitions are switched with heavy traffic.

Recovery: Reboot the system.

Defect ID: DEFECT000595709		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.1	Technology: Logical Chassis	
Symptom: System reloads on VDX8770.		
<b>Condition:</b> This occurs with 512 or more VRRP sessions enabled and "debug vrrp packets" is turned on.		
Workaround: "debug vrrp packets" should not be turned on in a scaled environment.		

Defect ID: DEFECT000596280	
Technical Severity: Medium	Probability: Medium
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS5.0.2	Technology: IP Addressing
Symptom: Unable to delete an ACL.	
<b>Condition:</b> When ACL is associated to the management interface of one or more switches in the VCS and the	
switch gets removed from VCS.	

Defect ID: DEFECT000596480		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: Configuration Fundamentals	
Symptom: On execution of CLI "track remove all" complete Link State Tracking (LST) configuration should get		
removed from a port. In case of port-channel interface protocol daemon is not clearing the LST		
configuration hence it is displayed in output of show command.		
Condition: Execution of "track remove all" CLI for a port-channel interface for which Link State Tracking (LST)		
configuration is present.		
<b>Workaround:</b> As a workaround user can remove the configuration one by one by executing respective 'no' CLIs.		

<b>Defect ID:</b> DEFECT000596868		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface	
Symptom: The global MTU value cannot be deleted through REST API.		
<b>Condition:</b> Issue happens when the user tries to delete the global mtu using the DELETE request through the		
REST interface.		
<b>Workaround:</b> Using the PATCH request with the default value as a work around. The effect of this is same as		
deleting the config.		

Defect ID: DEFECT000598965		
Technical Severity: Medium	Probability: Medium	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol	
<b>Symptom:</b> Local configuration related to global configuration may not restore on "config snapshot restore".		
Condition: Customer using snapshot feature may see issues when running "attached rbridge-id add 1" missing		
from running-config after "vcs config snapshot restore rbridge-id <rb-id> snapshot-id <snapshot-id>.</snapshot-id></rb-id>		
Workaround: Customer should configure the missing configurations again.		

Defect ID: DEFECT000598972		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	<b>Technology:</b> CLI - Command Line Interface	
<b>Symptom:</b> Switch might go for an unexpected reload when any configuration update is performed on a range of		
interfaces.		
Condition: On a large cluster with scaled up configurations, performing any configuration on a range of		
interfaces by entering into interface range sub-mode might cause switch to run out of memory and		
thereby causing it to reload.		
Workaround: Required configuration update can be made on individual interfaces one at a time instead of		
performing it on a range of interfaces. Configuration update on multiple interfaces can still be		
performed by using comma (,) as separators instead of hyphen (-) when specifying the range.		
For ex, to shutdown interfaces 1 to 5, use "interface te 1,2,3,4,5" instead of "interface te 1-5".		

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Defect ID: DEFECT000599203		
Technical Severity: High	Probability: Medium	
Product: Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: SNMP - Simple Network Management	
	Protocol	
<b>Symptom:</b> The SNMP IPV4 traps may not be received through in-band interface.		
<b>Condition:</b> The SNMP traps may not be received through in-band interface after upgrade from 6.0.1 to 7.0.1.		
Workaround: Configure source-interface in the SNMP host / v3host recipients.		

Defect ID: DEFECT000599289	
Technical Severity: High	Probability: High
<b>Product:</b> Extreme Network OS	Technology Group: Security
Reported In Release: NOS7.0.1	Technology: ACLs - Access Control Lists
<b>Symptom:</b> Applying Access Control List (ACL's) with 12K rules on management interface takes more than 3 minutes to enforce it.	
Condition: When Access Control List (ACL's) is configured with 12K rules.	

Defect ID: DEFECT000599778		
Technical Severity: High	Probability: Medium	
<b>Product:</b> Extreme Network OS	Technology Group: Security	
Reported In Release: NOS7.0.1	Technology: TACACS & TACACS+	
<b>Symptom:</b> LDAP/RADIUS/TACACS+ server configurations are not displayed in the same order in which they		
were added.		
Condition: 1. Configure multiple TACACS+/RADIUS/LDAP servers(max 5)		
2. Remove few server entries		
3. Add those servers entries back		
Workaround: Remove all Server entries and configure those servers back in the desired order.		

Defect ID: DEFECT000600022		
Technical Severity: High	Probability: Low	
<b>Product:</b> Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.1	Technology: Metro VCS	
<b>Symptom:</b> When VDX 8770 is in chassis-disabled state, the far-end 100 GbE link partners using QSFP28 optics		
may see intermittent link flaps. After VDX 8770 is chassis-enabled, there is a low probability that the		
100 GbE port may not come online.		
<b>Condition:</b> When VDX 8770 is in chassis-disabled state, the far-end 100 GbE link partners using QSFP28 optics		
may see intermittent link flaps. After VDX 8770 is chassis-enabled, there is a low probability that the		
100 GbE port may not come online.		

**Recovery:** Execute "shut" on 100 GbE link partner port connected to VDX 8770 to stop the port from flapping intermittently. After the VDX 8770 is chassis-enabled, execute "no shut" on the 100 GbE link partner to re-enable the port.

<b>Defect ID:</b> DEFECT000600057		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: VCS	
Reported In Release: NOS7.0.1	Technology: Logical Chassis	
Symptom: Switch might not rejoin the cluster when reloaded using 'fastboot' command.		
Condition: Reloading switch using 'fastboot' command on VDX6940 and VDX6740 platforms when SW1		
partition is active might lead to this issue.		
Workaround: Reload the switch using 'reload' command which is more graceful way of reloading.		
Recovery: Bring the switch which failed to join the cluster to default configuration using command 'copy default-		
config startup-config'. On reload, switch rejoins the cluster and regains older configuration.		

<b>Defect ID:</b> DEFECT000600066	
Technical Severity: High	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer
Reported In Release: NOS7.0.1	Technology: DHCP - Dynamic Host Configuration
	Protocol
Symptom: DHCP IPv4 Relay forwarded DISCOVER packet is not getting forwarded through remote leaf node	
in BGP-EVPN IP Fabric.	
Condition: While deploying DHCP Relay in BGP-EVPN IP Fabric.	
<b>Recovery:</b> Disable "conversational-arp".	

Defect ID: DEFECT000600169		
Technical Severity: High	Probability: High	
<b>Product:</b> Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer	
Reported In Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol	
Symptom: IP MTU configuration is not working for VE interface when IP address or L3 VNI association is not		
present.		
Condition: When IP MTU is configured, it is not applied on the VE interface.		
Workaround: Configure IP MTU followed by the configuration of the IP address.		

Defect ID: DEFECT000600185			
Technical Severity: Medium	Probability: High		
<b>Product:</b> Extreme Network OS	Technology Group: Network Automation and		
	Orchestration		
Reported In Release: NOS7.0.1	Technology: OpenStack Integration		
<b>Symptom:</b> When VDX-8770 is in chassis-disable state, the "show media" command will not show 100 GbE			
ports.	ports.		
<b>Condition:</b> When VDX-8770 is in chassis-disable state, the "show media" command will not show 100 GbE			
ports.			
Workaround: After the chassis is enabled using "chassis enable" command, "show media" will show the 100			
GbE ports.			
<b>Recovery:</b> After the chassis is enabled using "chassis enable" command, "show media" will show the 100 GbE			
ports.			

<b>Defect ID:</b> DEFECT000600197	
Technical Severity: Medium	Probability: High
Product: Extreme Network OS	<b>Technology Group:</b> Layer 3 Routing/Network Layer

Reported I	n Release: NOS7.0.1	<b>Technology:</b> BGP4 - IPv4 Border Gateway Protocol
Symptom:	"show running-config overlay-gateway <name> vlan <vlan number="">" throws error "% No entries</vlan></name>	
	found " even when VLAN is present.	
<b>Condition:</b>	Condition: This happens only when a filter is specified after "overlay-gateway <name>". Otherwise command</name>	
	works fine when no filter is specified.	
Workaround: Instead of using the filter, use the "   include <string>" for filters like following:</string>		
"show running-config overlay-gateway <name>   include "vlan <vlan-number>"</vlan-number></name>		

Defect ID: DEFECT000600230		
Technical Severity: High	Probability: High	
Product: Extreme Network OS	Technology Group: Data Center Fabric	
Reported In Release: NOS7.0.1	Technology: IP Fabric	
Symptom: "show running-config rbridge-id evpn-instance <vni -name=""> vni add <vni-range>" throws an error</vni-range></vni>		
message.		
Condition: Customer doing show running configuration with VNI range in EVPN instance.		
Workaround: Use the following command: "show running-config rbridge-id evpn-instance vni add".		

Defect ID: DEFECT000600377			
Technical Severity: High	Probability: Low		
<b>Product:</b> Extreme Network OS	Technology Group: Management		
Reported In Release: NOS7.0.1	Technology: SNMP - Simple Network Management		
	Protocol		
<b>Symptom:</b> The SNMP walk may fail and SNMPV3 trap may not be received for the user configured under			
RBridge.	RBridge.		
Condition: The SNMP walk may fail and SNMPV3 trap may not be received only for the SNMPV3 user			
configured under rbridge after upgrade from 7.0.0 to 7.0.1.			
<b>Recovery:</b> Reconfigure the user under RBridge after the successful upgrade from 7.0.0 to 7.0.1.			

Defect ID: DEFECT000600385		
Technical Severity: High	Probability: Low	
Product: Extreme Network OS	Technology Group: Layer 2 Switching	
Reported In Release: NOS7.0.0	Technology: VLAN - Virtual LAN	
Symptom: Duplicate ARP entries are observed.		
Condition: This can happen after an ISSU upgrade and a new IP address is alllocated via DHCP for a connected		
host.		
Workaround: Execute "clear arp ip <ip address="">" for the old IP address of host.</ip>		
<b>Recovery:</b> Execute "clear arp ip <ip address="">" for the old IP address of host.</ip>		

Defect ID: DEFECT000600591		
Technical Severity: Medium	Probability: High	
<b>Product:</b> Extreme Network OS	Technology Group: Management	
Reported In Release: NOS7.0.1	Technology: CLI - Command Line Interface	
<b>Symptom:</b> Logs are dumped on the screen, when there is a read failure on SFPs connected to the port.		
Condition: Accessing information about the SFPs inserted in the ports.		
Recovery: Disable the port and re-enable it.		