NetIron OS 6.3.00j for ExtremeRouting MLX Series Devices

Release Notes 1.0

9036123-08 Rev AA

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Document History

Version	Summary of changes	Publication date
1.0	Initial release	March 2024

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: www.extremenetworks.com/support/contact.
- 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 https://www.extremenetworks.com/support/documentation/ .

Document feedback

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You can provide feedback in two ways:

- Use our short online feedback form at https://www.extremenetworks.com/documentation-feedback/

- Email us at documentation@extremenetworks.com

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

Overview

NetIron OS Release 6.3.00 enhances the capabilities of ExtremeRouting MLX Series, and ExtremeRouting CER 2000 Series in the following areas:

* BGP services,

* Network Packet Broker functionality

In addition, this release also has further enhancements to manageability and troubleshooting functions to enable efficient network operations.

With these features, the MLX Series Router continues as the leading platform for converged data center and service provider network services.

Behavior changes

Behavior changes in release NetIron 6.3.00j

There are no behavior changes in release NetIron 6.3.00j.

Behavior changes in release NetIron 6.3.00h

There are no behavior changes in release NetIron 6.3.00h.

Behavior changes in release NetIron 6.3.00g

There are no behavior changes in release NetIron 6.3.00g.

Behavior changes in release NetIron 6.3.00f

There are no behavior changes in release NetIron 6.3.00f.

Behavior changes in release NetIron 6.3.00e

There are no behavior changes in release NetIron 6.3.00e.

Behavior changes in release NetIron 6.3.00d

There are no behavior changes in release NetIron 6.3.00d.

Behavior changes in release NetIron 6.3.00c

There are no behavior changes in release NetIron 6.3.00c.

Behavior changes in release NetIron 6.3.00a1

There are no behavior changes in release NetIron 6.3.00a1.

Software Features

NOTE: The NetIron 6.3.00 release (the image files and the documentation) is no longer available from the Extreme Portal. New software features introduced in release 6.3.00 are included in release 6.3.00a.

New software features introduced in R6.3.00j

No new software features are introduced in NetIron 6.3.00j release.

New software features introduced in R6.3.00h

No new software features are introduced in NetIron 6.3.00h release.

New software features introduced in R6.3.00g

No new software features are introduced in NetIron 6.3.00g release.

New software features introduced in R6.3.00f

No new software features are introduced in NetIron 6.3.00f release.

New software features introduced in R6.3.00e

No new software features are introduced in NetIron 6.3.00e release.

New software features introduced in R6.3.00d

The following software features are introduced in NetIron 6.3.00d release.

- Support was added for nested DHCPv6 headers.

New software features introduced in R6.3.00c

The following software features are introduced in NetIron 6.3.00c release.

Management features and enhancements

- New CAM profiles: This feature adds two new CAM profiles which is an extension from the existing profiles to increase the size of IP-VPN partition (Multiservice-7) and IPv4 (IPv4-extended).

Monitoring

- CAM error monitoring and recovery: This feature is an addition of NP memory registers CAM1 ERR STATUS1 REGISTER and CAM3 ERR STATUS1 REGISTER into CAM error monitoring and takes necessary recovery action.

New software features introduced in R6.3.00

The following software features are introduced in NetIron 6.3.00 release.

Management features and enhancements

- **SSH server management**: This feature configures the SSH server to allow incoming SSH connection requests from ports that belong to any VRF and from the out-of-band management port when the management VRF is configured.
- **Increase maximum telnet session number from 5 to 10:** The maximum telnet session is increased from 5 to 10.

Security

- **Regular expression support in RADIUS command authorization**: The Extreme-specific RADIUS attribute `foundry-command-string` now supports specifying a range of data for a CLI command.

IP Routing

- **BGP Large Communities:** RFC8092 BGP Large Communities attribute is supported. All routes with this attribute belong to the communities specified in the attribute.
- **Increase number of loopback interfaces in NetIron to 1024:** The number of supported loopback interfaces is increased to 1024.

Monitoring

- Beginning with Extreme NetIron Release 6.3.00a, the Network Processor (NP) error monitoring and recovery feature is supported on Extreme NetIron 8x10G, 2x100G, 20x10G, 2x100G-CFP2 and 4x10G-IPSEC line card modules for ExtremeRouting XMR/MLX Series.

Network Packet Broker

- The maximum TVF LAG FID group size (system-max tvf-lag-lb-fid-group) is increased to 32.

CLI commands

New CLI commands in NetIron R6.3.00j

- None

New CLI commands in NetIron R6.3.00h

- None

New CLI commands in NetIron R6.3.00g

- None

New CLI commands in NetIron R6.3.00f

- kill tftp 1
  NOTE: The 'kill tftp <session-id>' command resets the tftp.current_operation value back to 0 from non-zero value so that new TFTP/SCP sessions can be created.
  The valid value for <session-id> is 1.
- show ip ssh tftp

  This command display output as below.
  mlx#sh ip ssh tftp
  Jun 9 18:32:18.223 TFTP: cli_show_tftp_read: tftp.current_operation = 0

New CLI commands in NetIron R6.3.00e

- None

New CLI commands in NetIron R6.3.00d

- None

New CLI commands in NetIron R6.3.00c

- None

New CLI commands in NetIron R6.3.00

- ip large-community-list extended
- ip large-community-list standard
- ip ssh include-all-vrf
- match large-community-list
- set large-community
- set large-community-list
- system-max loopback-interface
- show default values
- show ip bgp routes large-community
- show ip bgp routes large-community-access-list
- show ip bgp routes large-community-regex
- show ip bgp routes detail large-community
- show ip bgp routes detail large-community-access-list
- show ip bgp routes detail large-community-regex

Modified CLI commands in NetIron R6.3.00d

- show ip bgp vrf vrf-all tags
- show ipv6 bgp vrf vrf-all tags

Modified commands

- ip ssh strict-management-vrf
- neighbor send-community
- show ip ssh config
- show who
- system-max tvf-lag-lb-fid-group

Deprecated commands in NetIron R6.3.00d

- None

Deprecated commands

There are no deprecated commands in this release.

Reinstated commands in NetIron R6.3.00e

The following LP debug commands are reinstated which were removed in NetIron R6.3.00d.

- access-list
- alarm-monitoring
- all
- arp-guard
- bfd
- cfm
- cluster
- destination
- dot1x-mka
- erp
- filters
- gtp-de-encapsulation
- gvrp
- HQOS
- Ikev2
- Ip
- Ipsec
- Iptunnel
- Ipv6
- Lacp

- link-keepalive
- link-oam
- LLDP
- Loopdetect
- Mac
- Match-payload-len
- Mmrp
- Mport
- Mrp
- Mvrp
- Openflow
- packet-encap-proc
- packet-timestamp
- pos
- profile
- source-port-label
- statistics
- trace-l2
- tvf-domain
- Vlan
- Vlan-translation
- Vll
- Vpls
- Vsrp
- Y1731

MIBs and messages

MIBs

New MIB Objects in 6.3.00j

No MIB objects were introduced in release NetIron 6.3.00j

New MIB Objects in 6.3.00h

No MIB objects were introduced in release NetIron 6.3.00h

New MIB Objects in 6.3.00g

No MIB objects were introduced in release NetIron 6.3.00g

New MIB Objects in 6.3.00f

No MIB objects were introduced in release NetIron 6.3.00f

New MIB Objects in 6.3.00e

No MIB objects were introduced in release NetIron 6.3.00e

New MIB Objects in 6.3.00d

No MIB objects were introduced in release NetIron 6.3.00d

Modified MIBs in 6.3.00c

The following MIBs have been modified for this release: Not Applicable

Deprecated MIBs in 6.3.00c

The following MIBs have been deprecated beginning with this release: Not Applicable

New MIB Objects in 6.3.00c

No MIB objects were introduced in release NetIron 6.3.00c

Modified MIBs

The following MIBs have been modified for this release: Not Applicable

Deprecated MIBs

The following MIBs have been deprecated beginning with this release: Not Applicable

Messages

New Messages

The following messages are new in this release: Not Applicable

Modified Messages

The following messages have been modified for this release: Not Applicable

Deprecated Messages

The following messages have been deprecated beginning with this release:

- Not Applicable

RFCs and standards

The following new RFC is supported in this release.

- RFC8092 -- BGP Large Communities Attribute

Hardware support

Supported Devices

The following devices are supported in this release:

NOTE: Beginning with NetIron OS 6.3.00a and later, the ExtremeSwitching CES 2000 Series devices are not supported. Refer to the End of Sale and End of Support page for additional information.

ExtremeRouting XMR Series	ExtremeRouting MLX Series	ExtremeRouting CER 2000 Series
XMR 4000	MLX-4	CER-RT 2024C-4X
XMR 8000	MLX-8	CER-RT 2024F-4X
XMR 16000	MLX-16	CER 2024C
XMR 32000	MLX-32	CER-RT 2024C
	MLXe-4	CER 2024F
	MLXe-8	CER-RT 2024F
	MLXe-16	CER 2048C
	MLXe-32	CER-RT 2048C
		CER 2048CX
		CER-RT 2048CX
		CER 2048F
		CER-RT 2048F
		CER 2048FX
		CER-RT 2048FX

Supported devices for Network Packet Broker R6.3.00a

XMR Series	MLX Series
XMR 4000	MLX-4
XMR 8000	MLX-8
XMR 16000	MLX-16
XMR 32000	MLX-32
	MLXe-4
	MLXe-8
	MLXe-16
	MLXe-32

Supported Modules

The following interface modules are supported in this release:

Module	Description	Compatible devices		Generation
		MLXe with MLX or MR2-M mgmt. module	MLXe with XMR or MR2-X mgmt. module	
BR-MLX-10GX4-IPSEC-M	MLX 4-port 10 GbE/1 GbE combo and 4-port 1 GbE (-M) IPsec module with 512,000 IPv4 routes or 240,000 IPv6 routes in hardware	Yes	Yes	3
BR-MLX-10GX20-X2	MLX 20-port 10 GbE/1 GbE (X2) SFP+ and SFP combo module with extended route table support for up to 2.4 million IPv4 or 1.8 million IPv6 routes in hardware. Integrated hardware-enabled MACsec.	Yes	Yes	3
BR-MLX-10GX20-M	MLX 20-port 10 GbE/1 GbE (M) combo module. Supports SFP+ and SFP with up to 512,000 IPv4 routes or 240,000 IPv6 routes in FIB. Integrated hardware-enabled MACsec.	Yes	Yes	3
BR-MLX-1GCX24-X-ML	MLX 24-port (X) 10/100/1,000 copper (RJ-45) module with IPv4/IPv6/MPLS hardware support. Supports 512,000 IPv4 routes in FIB. License upgradable to "X" scalability (1 million IPv4 routes in hardware).	Yes	No	1.1

Module	Description	Compatible devices		Generation
		MLXe with MLX or MR2-M mgmt. module	MLXe with XMR or MR2-X mgmt. module	
BR-MLX-100GX2-CFP2-M	MLX 2-port 100 GbE (M) CFP2 module. Supports 512,000 IPv4 routes in FIB.	Yes	Yes	3
BR-MLX-100GX2-CFP2-X2	MLX 2-port 100 GbE (X2) CFP2 module with extended route table support for up to 2.4 million IPv4 or 1.8 million IPv6 routes in hardware.	Yes	Yes	3
BR-MLX-10GX8-X	MLX Series 8-port 10 GbE (X) module with IPv4/IPv6/MPLS hardware support—requires SFP optics. Supports up to 1 million IPv4 routes in FIB. Requires high-speed switch fabric modules.	Yes	Yes	2
BR-MLX-1GCX24-X	MLX 24-port (X) 10/100/1,000 copper (RJ-45) module with IPv4/IPv6/MPLS hardware support. Supports 1 million IPv4 routes in hardware.	Yes	Yes	1.1

Module	Description	Compatible devices		Generation
		MLXe with MLX or MR2-M mgmt. module	MLXe with XMR or MR2-X mgmt. module	
BR-MLX-40GX4-M	MLX Series 4-port 40 GbE (M) module with IPv4/IPv6/MPLS hardware support and support for QSFP+ optics, including both LR and SR versions. Supports up to 512,000 IPv4 routes or 128,000 IPv6 routes. Requires high-speed switch fabric modules.	Yes	Yes	3
BR-MLX-10GX4-X	MLX Series 4-port 10 GbE (X) module with IPv4/IPv6/MPLS hardware support—requires XFP optics. Supports 1 million IPv4 routes in hardware.	Yes	Yes	1.1
BR-MLX-10GX4-X-ML	MLX/MLXe 4-port 10 GbE (ML) module with IPv4/IPv6/MPLS hardware support—requires XFP optics. Supports 512,000 IPv4 routes in FIB. License upgradable to "X" scalability (1 million IPv4 routes in hardware).	Yes	No	1.1
NI-MLX-10GX8-M	MLX Series 8-port 10 GbE (M) module with IPv4/IPv6/MPLS hardware support and up to 512,000 IPv4 routes—requires SFP+ optics and high-speed switch fabric modules.	Yes	No	2

Module	Description	Compatible devices		Generation
		MLXe with MLX or MR2-M mgmt. module	MLXe with XMR or MR2-X mgmt. module	
BR-MLX-1GFX24-X	MLX Series 24-port FE/GbE (SFP) module, with IPv4/IPv6/MPLS hardware support. Supports 1 million IPv4 routes in hardware.	Yes	Yes	1.1
BR-MLX-1GFX24-X-ML	MLX Series 24-port FE/GbE (SFP) module, with IPv4/IPv6/MPLS hardware support. Supports 512,000 IPv4 routes in FIB. License upgradable to "X" scalability (1 million IPv4 routes in hardware).	Yes	No	1.1
BR-MLX-10GX24-DM	MLXe 24-port 10 GbE module with IPv4/IPv6/MPLS hardware support—requires SFP optics. Supports 256,000 IPv4 routes in FIB.	Yes	No	3a
NI-MLX-10GX8-D	MLX Series 8-port 10-GbE (D) module with IPv4/IPv6 hardware support - requires SFPP optics. Supports 256K IPv4 routes in FIB. Does not support MPLS. Requires high speed switch fabric modules.	Yes	No	2

Module	Description	Compatible devices		Generation
		MLXe with MLX or MR2-M mgmt. module	MLXe with XMR or MR2-X mgmt. module	
BR-MLX-10GX10-X2	MLX 10-port 10-Gbe/1Gbe (X2) SFP+ and SFP combo module with extended route table support up to 2M IPv4 and 800K IPv6 routes in hardware. MACsec enabled. Upgradeable to 20X10G-X2 using additional software license.	Yes	Yes	3
BR-MLX-1GX20-U10G-M	MLXe twenty (20)-port 1-GBE/1-GBE (M) module with IPv4/IPv6/MPLS hardware support. Requires SFP optics. Supports 512K IPv4 routes in FIB. Requires high speed switch fabric modules. Upgradeable to 10G, with BR-MLX-1GX20-U10G-MUPG license.	Yes	Yes	3

Module	Description	Compatible devices		Generation
		MLXe with MLX or MR2-M mgmt. module	MLXe with XMR or MR2-X mgmt. module	
BR-MLX-1GX20-U10G-X2	MLXe twenty (20)-port 1-GBE (X2) module with IPv4/IPv6/MPLS hardware support. Requires SFP optics. Supports simultaneous 2M IPv4 and 0.8M IPv6, or 1.5M IPv4 and 1M IPv6 routes in FIB. Requires hSFM. Upgradeable to 10G with extra license.	Yes	Yes	3

- Depending on your router model, you can install up to 32 single-slot interface modules, or 16 double-slot interface modules.
- Interface modules are hot-swappable. Interface modules can be removed and replaced without powering down the system.
- Gen 3 - X2 modules with an MR2-M module will only support 512M routes.

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
BR-MLXE-ACPWR-1800	1800W power supply.	16-, 8- and 4-slot MLXe and 16 and 8-Slot XMR/MLX AC
BR-MLXE-DCPWR-1800	1800W power supply.	16-, 8- and 4-slot MLXe and 16 and 8-Slot XMR/MLX DC
NI-X-ACPWR	1200W power supply.	16-, 8- and 4-slot MLXe and 16 and 8-Slot XMR/MLX AC
NI-X-DCPWR	1200W power supply.	16-, 8- and 4-slot MLXe and 16 and 8-Slot XMR/MLX DC
NI-X-ACPWR-A	1200W power supply.	4-Slot XMR/MLX AC
NI-X-DCPWR-A	1200W power supply.	4-Slot XMR/MLX DC
BR-MLXE-32-ACPWR-3000	AC 3000W power supply.	32-slot MLXe/XMR/MLX
BR-MLXE-32-DCPWR-3000	DC 3000W power supply.	32-slot MLXe/XMR/MLX
NIBI-32-ACPWR-A	AC 2400W power supply.	32-Slot MLXe/XMR/MLX
NIBI-32-DCPWR	2400W power supply.	32-Slot MLXe/XMR/MLX DC

Supported Optics

Extreme-branded Top Level SKU	Description
10301	ASSY, SR SFP+ SHIPPING
10302	ASSY, LR SFP+ SHIPPING
10310	ZR SFP+ module
10051H	1000BASE-SX SFP, Hi
10052H	1000BASE-LX SFP, Hi
10056H	1000BASE-BX-D BiDi SFP, Hi
10057H	1000BASE-BX-U BiDi SFP, Hi
10070H	10/100/1000BASE-T SFP, Hi
100G-ADPT-CFP2-QSFP	100G CFP2 to QSFP28 adapter
100G-CWDM4-QSFP2KM	100G CWDM4 QSFP28 2km
100G-LR4-QSFP10KM	100G LR4 QSFP28 10km
100G-SR4-QSFP100M	100G SR4 QSFP28 100m
10G-ER-SFP40KM-ET	10G ER SFP+ 40km Ext.Temp
10G-LR-SFP10KM-ET	10G LR SFP+ 10km Ext.Temp
10G-SR-SFP300M-ET	10G SR SFP+ 300m Ext.Temp
10G-USR-SFP100M	10G USR SFP+ 100m Hight Rx Sens 8pack
40G-AOC-QSFP100M	40G AOC QSFP+ 100m
40G-AOC-QSFP10M	40G AOC QSFP+ 10m
40G-AOC-QSFP20M	40G AOC QSFP+ 20m
40G-AOC-QSFP5M	40G AOC QSFP+ 5m
40G-BDSR-QSFP150M	40G BiDi SR QSFP+ 150m
40G-DACA-QSFP1M	40G Active DAC QSFP+ 1m
40G-DACA-QSFP5M	40G Active DAC QSFP+ 5m
40G-DACP-QSFP1M	40G Passive DAC QSFP+ 1m
40G-DACP-QSFP3M	40G Passive DAC QSFP+ 3m
40G-DACP-QSFP5M	40G Passive DAC QSFP+ 5m
40G-DACP-QSFPZ5M	40G Passive DAC QSFP+ 0.5m
40G-ESR4-QSFP400M-NT	40G ESR4 QSFP+ 400m 10G-SR interop.
40G-LM4-QSFP160M	40G LM4 QSFP+ 160m 160m MMF. 1km SMF
40G-LR4-QSFP10KM	40G LR4 QSFP+ 10km
40G-SR4-QSFP150M	40G SR4 QSFP+ 150m
MGBIC-LC01-G	1GB SX MM, SFP, TAA

Software upgrade and downgrade

Image file names

Download the following images from www.extremenetworks.com.

NOTE: Beginning with NetIron OS 6.3.00a and later, the ExtremeSwitching CES 2000 Series devices are not supported. Refer to the End of Sale and End of Support page for additional information.

NOTE: Hitless upgrade is not supported from version 6.3.00a onwards.

Upgrading MLX Series and NetIron XMR devices

NOTE: When upgrading MLX Series and XMR Series devices, follow the manifest upgrade to ensure all required files are upgraded. Boot upgrade is not part of the manifest upgrade. If the boot image is R05.6.00 or older, upgrade the boot image.

Required images for R6.3.00j MLX Series/XMR software upgrade

```
# Copyright 1996-2018 Extreme Networks

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# Manifest File for XMR/MLX Release 06.3.00


-NETIRON_IRONWARE_VER XMR-MLXV6.3.00j


#====================================================================


-DIRECTORY /Boot/InterfaceModule


xmlprm05900.bin

-DIRECTORY /Boot/ManagementModule


xmprm05900.bin

#  Application Images


-DIRECTORY /Combined/FPGA


lpfpga06300j.bin
```

```
-DIRECTORY /Combined/Application


xm06300j.bin

-DIRECTORY /Monitor/InterfaceModule


xmlb06200.bin

-DIRECTORY /Monitor/ManagementModule


xmb06200.bin

-DIRECTORY /Application/ManagementModule


xmr06300j.bin

-DIRECTORY /Application/InterfaceModule


xmlp06300j.bin

-DIRECTORY /FPGA/InterfaceModule


pbif4x40_06300j.bin 2.11
pbif8x10_06300j.bin 2.24
pbifmrj_06300j.bin 4.04
pbifsp2_06300j.bin 4.02
statsmrj_06300j.bin 0.09
xgmacsp2_06300j.bin 0.17
xpp2x100_06300j.bin 1.06
xpp4x40_06300j.bin 6.20
xpp4x10g3_06300j.bin 0.00
xpp8x10_06300j.bin 1.10
xppmrj_06300j.bin 1.03
xppsp2_06300j.bin 1.01
xppxsp2_06300j.bin 1.01
pbif-ber-g3_06300j.bin 2.11
xpp20x10g3_06300j.bin 0.01
xpp2x100g3_06300j.bin 0.01

-DIRECTORY /FPGA/ManagementModule


mbridge32_06300j.xsvf 36
mbridge_06300j.xsvf 37
sbridge_06300j.mcs 6
hsbridge_06300j.mcs 17
```

```
-END_OF_IMAGES

-DIRECTORY /Signatures


xmlprm05900.sig
xmprm05900.sig
xmlb06200.sig
xmb06200.sig
xmr06300j.sig
xmlp06300j.sig
lpfpga06300j.sig
hsbridge_06300j.sig
mbridge_06300j.sig
mbridge32_06300j.sig
sbridge_06300j.sig
pbif4x40_06300j.sig
pbif8x10_06300j.sig
pbifmrj_06300j.sig
pbifsp2_06300j.sig
pbif-ber-g3_06300j.sig
statsmrj_06300j.sig
xgmacsp2_06300j.sig
xpp2x100_06300j.sig
xpp20x10g3_06300j.sig
xpp2x100g3_06300j.sig
xpp4x40_06300j.sig
xpp4x10g3_06300j.sig
xpp8x10_06300j.sig
xppmrj_06300j.sig
xppsp2_06300j.sig
xppxsp2_06300j.sig
xmlprm05900.sha256
xmprm05900.sha256
xmlb06200.sha256
xmb06200.sha256
xmr06300j.sha256
xmlp06300j.sha256
lpfpga06300j.sha256
hsbridge_06300j.sha256
mbridge_06300j.sha256
mbridge32_06300j.sha256
sbridge_06300j.sha256
pbif4x40_06300j.sha256
pbif8x10_06300j.sha256
pbifmrj_06300j.sha256
pbifsp2_06300j.sha256
pbif-ber-g3_06300j.sha256
statsmrj_06300j.sha256
xgmacsp2_06300j.sha256
xpp2x100_06300j.sha256
xpp20x10g3_06300j.sha256
```

```
xpp2x100g3_06300j.sha256
xpp4x40_06300j.sha256
xpp4x10g3_06300j.sha256
xpp8x10_06300j.sha256
xppmrj_06300j.sha256
xppsp2_06300j.sha256
xppxsp2_06300j.sha256

#  MIBS:


-DIRECTORY /MIBS


xmr06300j.mib
xmr06300j_std.mib

-DIRECTORY /Yang


ExampleXML.txt
common-defs.yang
interface-config.yang
interface-statedata.yang
mpls-config.yang
mpls-statedata.yang
netiron-config.yang
netiron-statedata.yang
version-statedata.yang
vlan-config.yang
vlan-statedata.yang

-DIRECTORY /Tools


sbsupgrd.zip

-DIRECTORY


MLX06300j_Manifest.txt
MLX06300j_Manifest.sig
MLX06300j_Manifest.sha256

-DIRECTORY /Manuals
```

FPGA file names and supported modules

File Name	Supported Modules
pbif4x40_06300a1.bin	4x40G modules
pbif8x10_06300a1.bin	8x10G modules
pbifmrj_06300a1.bin	24x1G and 48x1G modules
pbifsp2_06300a1.bin	2x10G, 4x10G, 4x10G-x and 20x1G modules
statsmrj_06300a1.bin	24x1G and 48x1G modules
xgmacsp2_06300a1.bin	2x10G, 4x10G-x and 4x10G modules
xpp2x100_06300a1.bin	2x100G modules (double-wide CFP-based module)
xpp4x40_06300a1.bin	4x40G modules
xpp4x10g3_06300a1.bin	4x10G modules
xpp8x10_06300a1.bin	8x10G modules
xppmrj_06300a1.bin	24x1G and 48x1G modules
xppsp2_06300a1.bin	2x10G, 4x10G, and 20x1G modules
xppxsp2_06300a1.bin	4x10G-x
pbif-ber-g3_06300a1.bin	20x10G and 2x100G modules (-M and –X2)
xpp20x10g3_06300a1.bin	20x10G modules
xpp2x100g3_06300a1.bin	2x100G modules (half-slot CFP2-based module)
mbridge32_06300a1.xsvf	MBRIDGE32
mbridge_06300a1.xsvf	MBRIDGE
sbridge_06300a1.mcs	Switch fabric modules
hsbridge_06300a1.mcs	High speed switch fabric modules

Upgrading CER 2000 Series devices

When upgrading CER 2000 Series devices, follow the manifest upgrade to ensure all required files are upgraded. Boot upgrade is not part of the manifest upgrade. If the boot image is R05.5.00 or older, upgrade the boot image.

Required images for R6.3.00j CER 2000 software upgrade

```
# Copyright 1996-2018 Extreme Networks
#              All rights reserved.

# Manifest File for XMR/MLX Release 06.3.00
```

```
-NETIRON_IRONWARE_VER CES-CERV6.3.00j

#=======================================================================


-DIRECTORY /Boot


ceb06000.bin

-DIRECTORY /Application


ce06300j.bin

-DIRECTORY /FPGA


pbifmetro_06300j.bin

-END_OF_IMAGES

-DIRECTORY /Signatures


ceb06000.sig
ce06300j.sig
pbifmetro_06300j.sig
ceb06000.sha256
ce06300j.sha256
pbifmetro_06300j.sha256

-DIRECTORY /MIBS


ce06300j.mib
ce06300j_std.mib

-DIRECTORY /Yang


ExampleXML.txt
common-defs.yang
interface-config.yang
interface-statedata.yang
mpls-config.yang
mpls-statedata.yang
netiron-config.yang
netiron-statedata.yang
version-statedata.yang
vlan-config.yang
vlan-statedata.yang
```

```
-DIRECTORY


CES-CER06300j_Manifest.txt
CES-CER06300j_Manifest.sig
CES-CER06300j_Manifest.sha256

-DIRECTORY /Manuals
```

Upgrading Network Packet Broker devices

NOTE: When upgrading MLX Series and XMR Series devices, follow the manifest upgrade to ensure all required files are upgraded. Boot upgrade is not part of the manifest upgrade. If the boot image is R05.6.00 or older, upgrade the boot image.

Required images for Network Packet Broker R6.3.00j software upgrade

```
# Copyright 1996-2018 Extreme Networks
#              All rights reserved.

# Manifest File for XMR/MLX Release 06.3.00

-NETIRON_IRONWARE_VER XMR-MLXV6.3.00j

#====================================================================

-DIRECTORY /Boot/InterfaceModule

xmlprm05900.bin
-DIRECTORY /Boot/ManagementModule

xmprm05900.bin
#  Application Images

-DIRECTORY /Combined/FPGA

lpfpga_npb_06300j.bin
-DIRECTORY /Combined/Application

xm06300j.bin
-DIRECTORY /Monitor/InterfaceModule

xmlb06200.bin
-DIRECTORY /Monitor/ManagementModule
```

```
xmb06200.bin

-DIRECTORY /Application/ManagementModule


xmr06300j.bin

-DIRECTORY /Application/InterfaceModule


xmlp06300j.bin

-DIRECTORY /FPGA/InterfaceModule


pbif4x40_06300j.bin 2.11
pbif8x10_06300j.bin 2.24
pbifmrj_06300j.bin 4.04
pbifsp2_06300j.bin 4.02
statsmrj_06300j.bin 0.09
xgmacsp2_06300j.bin 0.17
xpp2x100_06300j.bin 1.06
xpp4x40_06300j.bin 6.20
xpp4x10g3_06300j.bin 0.00
xpp8x10_06300j.bin 1.10
xppmrj_06300j.bin 1.03
xppsp2_06300j.bin 1.01
xppxsp2_06300j.bin 1.01
pbif-ber-g3_06300j.bin 2.11
xpp20x10g3_npb_06300j.bin 0.10
xpp2x100g3_npb_06300j.bin 0.10

-DIRECTORY /FPGA/ManagementModule


mbridge32_06300j.xsvf 36
mbridge_06300j.xsvf 37
sbridge_06300j.mcs 6
hsbridge_06300j.mcs 17

-END_OF_IMAGES

-DIRECTORY /Signatures


xmlprm05900.sig
xmprm05900.sig
xmlb06200.sig
xmb06200.sig
xmr06300j.sig
xmlp06300j.sig
lpfpga_npb_06300j.sig
hsbridge_06300j.sig
```

```
mbridge_06300j.sig
mbridge32_06300j.sig
sbridge_06300j.sig
pbif4x40_06300j.sig
pbif8x10_06300j.sig
pbifmrj_06300j.sig
pbifsp2_06300j.sig
pbif-ber-g3_06300j.sig
statsmrj_06300j.sig
xgmacsp2_06300j.sig
xpp2x100_06300j.sig
xpp20x10g3_npb_06300j.sig
xpp2x100g3_npb_06300j.sig
xpp4x40_06300j.sig
xpp4x10g3_06300j.sig
xpp8x10_06300j.sig
xppmrj_06300j.sig
xppsp2_06300j.sig
xppxsp2_06300j.sig
xmlprm05900.sha256
xmprm05900.sha256
xmlb06200.sha256
xmb06200.sha256
xmr06300j.sha256
xmlp06300j.sha256
lpfpga_npb_06300j.sha256
hsbridge_06300j.sha256
mbridge_06300j.sha256
mbridge32_06300j.sha256
sbridge_06300j.sha256
pbif4x40_06300j.sha256
pbif8x10_06300j.sha256
pbifmrj_06300j.sha256
pbifsp2_06300j.sha256
pbif-ber-g3_06300j.sha256
statsmrj_06300j.sha256
xgmacsp2_06300j.sha256
xpp2x100_06300j.sha256
xpp20x10g3_npb_06300j.sha256
xpp2x100g3_npb_06300j.sha256
xpp4x40_06300j.sha256
xpp4x10g3_06300j.sha256
xpp8x10_06300j.sha256
xppmrj_06300j.sha256
xppsp2_06300j.sha256
xppxsp2_06300j.sha256

#  MIBS:


-DIRECTORY /MIBS
```

```
xmr06300j.mib
xmr06300j_std.mib

-DIRECTORY /Yang


ExampleXML.txt
common-defs.yang
interface-config.yang
interface-statedata.yang
mpls-config.yang
mpls-statedata.yang
netiron-config.yang
netiron-statedata.yang
version-statedata.yang
vlan-config.yang
vlan-statedata.yang

-DIRECTORY /Tools


sbsupgrd.zip

-DIRECTORY


MLX_npb_06300j_Manifest.txt
MLX_npb_06300j_Manifest.sig
MLX_npb_06300j_Manifest.sha256

-DIRECTORY /Manuals
```

FPGA file names for NPB and supported modules

File Name	Supported Modules
xpp20x10g3_npb_06300a1.bin	20x10G modules FPGA for NPB
xpp2x100g3_npb_06300a1.bin	2x100G modules (half-slot CFP2-based module) FPGA to NPB

Migration path

To establish an appropriate migration path from your current release of Extreme NetIron, consult your Extreme TAC representative (see the Preface of this document).

Upgrade and downgrade considerations

To upgrade to NetIron 6.3.00a1 and later releases, a multiple step upgrade process is required. The multiple step upgrade process is not required for CER or CES.

Scenario 1

Customers running releases 05.9.00a, 05.6.00ga, 05.6.00h, 05.8.00e, 05.7.00e or subsequent releases can directly upgrade to NetIron 6.3.00a1 and later releases.

NOTE: If you are not running one of the releases listed above, you CANNOT directly upgrade to 6.3.00a1 or later releases.

Scenario 2

To upgrade from 05.6.00c or any later release (other than the images mentioned in Scenario 1), a two-step approach is required.

1. Upgrade to 05.9.00a or any of the following releases: 05.6.00ga, 05.6.00h, 05.8.00e, 05.7.00e or subsequent patch releases and reload the device.

2. Upgrade to NetIron 6.3.00a1 (and later releases). Reload the device.

Scenario 3

To upgrade to NetIron 6.3.00a1 and later releases from releases prior to R05.6.00c, a multiple step approach is required.

1. Upgrade to 5.9.00a or any of the following releases: 05.6.00ga, 05.6.00h, 05.8.00e or 05.7.00e and reload the device.

2. Upgrade again to the same image which was used in step 1 and reload the device again. This ensures that the device will have the SHA256 signatures on the device if they are needed, for example for LP Auto-upgrade.

3. Upgrade to NetIron 6.3.00a1 or later releases and reload the device.

Scenario 4

Use Scenario 4 if you want to use the following features specific to the NPB FPGA.

- VxLAN header stripping
- GTP de-encapsulation
- Packet Timestamping
- Source port labeling
- NVGRE stripping
    - NetIron 6.3.00a1 UDA Enhancements

1. Upgrade to NetIron 6.3.00a1 and later releases using any of above scenarios based on the image from which the upgrade is being performed.
2. Reload the device again and verify that the system is up with NetIron 6.3.00a1 or later releases.
3. Configure the **fpga-mode-npb** command and save the configuration.
4. Upgrade to the NetIron 6.3.00a1 or later NPB image using MLX_npb_06300a1_Manifest.txt and reload the device.
5. Make sure BR-MLX-10Gx20 and BR-MLX-100Gx2-CFP2 have NPB XPP images.
6. Verify the system. Check the output of the **show version** command and the **show flash** command to make sure the image versions are correct. Check the output of the **show module** command to make sure the line cards are not in Interactive state due to FPGA mismatch. Interactive state is an error state due to FPGA mismatch.

Show output examples

The following examples provide excerpts of the command output.

Output examples for the show version command

MLX show version command output:

```
telnet@163902_MLXe4#sh ver
System Mode: MLX
Chassis: MLXe 4-slot (Serial #: BGD2521H00G,  Part #: 40-1000363-04)
NI-X-HSF Switch Fabric Module 1 (Serial #: BEW0419H010,  Part #: 60-1001512-10)
FE 1: Type fe600,  Version 1
Switch Fabric Module 1 Up Time is 58 minutes 19 seconds
NI-X-HSF Switch Fabric Module 2 (Serial #: BEW0419H012,  Part #: 60-1001512-10)
FE 1: Type fe600,  Version 1
Switch Fabric Module 2 Up Time is 58 minutes 19 seconds
==========================================================================
SL M2: BR-MLX-MR2-M Management Module Active (Serial #: BVP0403J00A, Part #: 60-1002374-06):
Boot     : Version 5.9.0T165 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 19 2015 at 03:16:46 labeled as xmprm05900
 (521771 bytes) from boot flash
Monitor  : Version 6.2.0T165 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Feb 11 2021 at 08:07:34 labeled as xmb06200
 (547993 bytes) from code flash
```

IronWare : Version 6.3.0jT163 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 06:58:34 labeled as xmr06300j
(10716929 bytes) from Primary
Board ID : 00 MBRIDGE Revision : 37
1666 MHz Power PC processor 7448 (version 8004/0202) 166 MHz bus
512 KB Boot Flash (MX29LV040C), 128 MB Code Flash (MT28F256J3)
4096 MB DRAM INSTALLED
4096 MB DRAM ADDRESSABLE
Active Management uptime is 58 minutes 19 seconds
==========
SL M1: BR-MLX-MR2-M Management Module Standby (Serial #: BVP0422J016, Part #: 60-1002374-07):
Boot : Version 5.9.0T165 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 19 2015 at 03:16:46 labeled as xmprm05900
(521771 bytes) from boot flash
Monitor : Version 6.2.0T165 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Feb 11 2021 at 08:07:34 labeled as xmb06200
(547993 bytes) from code flash
IronWare : Version 6.3.0jT163 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 06:58:34 labeled as xmr06300j
(10716929 bytes) from Primary
Board ID : 00 MBRIDGE Revision : 37
1666 MHz Power PC processor 7448 (version 8004/0202) 166 MHz bus
512 KB Boot Flash (MX29LV040C), 128 MB Code Flash (MT28F256J3)
4096 MB DRAM INSTALLED
4096 MB DRAM ADDRESSABLE
Standby Management uptime is 57 minutes 31 seconds
==========
SL 1: BR-MLX-40Gx4-M 4-port 40GbE Module (Serial #: CHF0418J004, Part #: 60-1002559-01)
Boot : Version 5.9.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
(449576 bytes) from boot flash
Monitor : Version 6.2.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
(574086 bytes) from code flash
IronWare : Version 6.3.0jT177 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
(9590085 bytes) from Primary
FPGA versions:
Valid PBIF Version = 2.11, Build Time = 8/22/2016 9:47:00

Valid XPP Version = 6.20, Build Time = 12/7/2016 13:13:00

MACXPP80G 0
MACXPP80G 1
1333 MHz MPC MPC8548 (version 8021/0022) 533 MHz bus
512 KB Boot Flash (MX29LV040C), 64 MB Code Flash (MT28F256J3)
2048 MB DRAM, 8 KB SRAM
LP Slot 1 uptime is 57 minutes 32 seconds

```
==========================================================================
SL 2: BR-MLX-10Gx8-X 8-port 10GbE (X) Module (Serial #: BQQ0433G066, Part #: 60-1002031-08)
(LID: dssFJIIiFLL)
Boot     : Version 5.9.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
 (449576 bytes) from boot flash
Monitor  : Version 6.2.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
 (574086 bytes) from code flash
IronWare : Version 6.3.0jT177 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
 (9590085 bytes) from Primary
FPGA versions:
Valid PBIF Version = 2.24, Build Time = 4/7/2016 14:16:00

Valid XPP Version = 1.10, Build Time = 2/7/2017 10:41:00

MACXPP40G 0
MACXPP40G 1
1333 MHz MPC MPC8548 (version 8021/0022) 533 MHz bus
512 KB Boot Flash (MX29LV040C), 64 MB Code Flash (MT28F256J3)
2048 MB DRAM, 8 KB SRAM
LP Slot 2 uptime is 57 minutes 32 seconds
==========================================================================
SL 3: BR-MLX-1GCx24-X 24-port 10/100/1000Base-T Copper Module (Serial #: BNA0445F02L, Part #: 60-
1001878-07)
License:  (LID: dpcFJJKhFHn)
Boot     : Version 5.9.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
 (449576 bytes) from boot flash
Monitor  : Version 6.2.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
 (574086 bytes) from code flash
IronWare : Version 6.3.0jT177 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
 (9590085 bytes) from Primary
FPGA versions:
Valid PBIF Version = 4.04, Build Time = 11/10/2014 22:10:00

Valid XPP Version = 1.03, Build Time = 6/30/2016 10:37:00

Valid STATS Version = 0.09, Build Time = 11/21/2010 14:52:00

BCM56512GMAC 0
BCM56512GMAC 1
666 MHz MPC MPC8541E (version 8020/0020) 333 MHz bus
512 KB Boot Flash (MX29LV040C), 16 MB Code Flash (MT28F128J3)
1024 MB DRAM, 8 KB SRAM
```

LP Slot 3 uptime is 57 minutes 33 seconds
==
SL 4: BR-MLX-10Gx20 20-port 1/10GbE Module (Serial #: CWB0406L01G, Part #: 60-1002946-12)
License: 20x10GbE-X2-Scaling-UPG (LID: eydFJFLnFGi)
Boot : Version 5.9.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
(449576 bytes) from boot flash
Monitor : Version 6.2.0T175 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
(574086 bytes) from code flash
IronWare : Version 6.3.0jT177 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
(9590085 bytes) from Primary
FPGA versions:
Valid PBIF Version = 2.11, Build Time = 8/19/2016 14:54:00

Valid XPP Version = 0.01, Build Time = 11/2/2026 14:05:00

MACXPP100G 0
MACXPP100G 1
1199 MHz MPC P2010 (version 8021/1051) 599 MHz bus
512 KB Boot Flash (MX29LV040C), 66846720 Bytes (~64 MB) Code Flash (MT28F256J3)
3072 MB DRAM, 8 KB SRAM
LP Slot 4 uptime is 57 minutes 32 seconds
==
All show version done
telnet@163902_MLXe4#

CER show version command output

180832_CER2048CX#sh ver
System: NetIron CER (Serial #: 1V0530G0A3, Part #: 40-1000620-02)
License: RT_SCALE, ADV_SVCS_PREM (LID: GxFKIFiFcI)
Boot : Version 6.0.0T185 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Jun 7 2016 at 16:10:10 labeled as ceb06000
(465568 bytes) from boot flash
Monitor : Version 6.0.0T185 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Jun 7 2016 at 16:10:10 labeled as ceb06000
(465568 bytes) from code flash
IronWare : Version 6.3.0jT183 Copyright (c) 2017-2019 Extreme Networks, Inc.
Compiled on Mar 26 2024 at 07:49:38 labeled as ce06300j
(18587483 bytes) from Primary
CPLD Version: 0x00000010
Micro-Controller Version: 0x0000000d
Extended route scalability
PBIF Version: 0x0162
800 MHz Power PC processor 8544 (version 8021/0022) 400 MHz bus
512 KB Boot Flash (MX29LV040C), 64 MB Code Flash (MT28F256J3)
2048 MB DRAM

```
System uptime is 1 hours 31 seconds
180832_CER2048CX#
********************************************************************************************
**********************************
```

Output example for the show flash command

MLX show flash command output

```
telnet@163902_MLXe4#sh flash
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Active Management Module (Right Slot)
Code Flash - Type MT28F256J3, Size 128 MB
  o IronWare Image (Primary)
    Version 6.3.0jT163, Size 10716929 bytes, Check Sum 287c
    Compiled on Mar 26 2024 at 06:58:34 labeled as xmr06300j
  o LP Kernel Image (Monitor for LP Image Type 0)
    Version 6.2.0T175, Size 574086 bytes, Check Sum 57d3
    Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
  o LP IronWare Image (Primary for LP Image Type 0)
    Version 6.3.0jT177, Size 9590085 bytes, Check Sum bffe
    Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
  o Monitor Image
    Version 6.2.0T165, Size 547993 bytes, Check Sum 1422
    Compiled on Feb 11 2021 at 08:07:34 labeled as xmb06200
  o Startup Configuration
    Size 3095 bytes, Check Sum 624e
    Modified on 00:00:52 GMT+00 Fri Mar 29 2024

Boot Flash - Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 5.9.0T165, Size 521771 bytes, Check Sum 4fb8
    Compiled on Mar 19 2015 at 03:16:46 labeled as xmprm05900
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Standby Management Module (Left Slot)
Code Flash: Type MT28F256J3, Size 128 MB
  o IronWare Image (Primary)
    Version 6.3.0jT163, Size 10716929 bytes, Check Sum 287c
    Compiled on Mar 26 2024 at 06:58:34 labeled as xmr06300j
  o LP Kernel Image (Monitor for LP Image Type 0)
    Version 6.2.0T175, Size 574086 bytes, Check Sum 57d3
    Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
  o LP IronWare Image (Primary for LP Image Type 0)
    Version 6.3.0jT177, Size 9590085 bytes, Check Sum bffe
    Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
  o Monitor Image
    Version 6.2.0T165, Size 547993 bytes, Check Sum 1422
    Compiled on Feb 11 2021 at 08:07:34 labeled as xmb06200
  o Startup Configuration
    Size 3095 bytes, Check Sum 624e
```

```
   Modified on 00:00:53 GMT+00 Fri Mar 29 2024

Boot Flash: Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 5.9.0T165, Size 521771 bytes, Check Sum 4fb8
    Compiled on Mar 19 2015 at 03:16:46 labeled as xmprm05900
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Line Card Slot 1
Code Flash: Type MT28F256J3, Size 64 MB
  o IronWare Image (Primary)
    Version 6.3.0jT177, Size 9590085 bytes, Check Sum bffe
    Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
  o Monitor Image
    Version 6.2.0T175, Size 574086 bytes, Check Sum 57d3
    Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
Boot Flash: Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 5.9.0T175, Size 449576 bytes, Check Sum 3bc9
    Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
FPGA Version (Stored In Flash):
 PBIF Version = 2.11, Build Time = 8/22/2016 9:47:00

 XPP Version = 6.20, Build Time = 12/7/2016 13:13:00

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Line Card Slot 2
Code Flash: Type MT28F256J3, Size 64 MB
  o IronWare Image (Primary)
    Version 6.3.0jT177, Size 9590085 bytes, Check Sum bffe
    Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
  o IronWare Image (Secondary)
    Version 5.3.0T177, Size 6667504 bytes, Check Sum 7401
    Compiled on Jan 13 2012 at 18:00:50 labeled as xmlp05300
  o Monitor Image
    Version 6.2.0T175, Size 574086 bytes, Check Sum 57d3
    Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
Boot Flash: Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 5.9.0T175, Size 449576 bytes, Check Sum 3bc9
    Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
FPGA Version (Stored In Flash):
 PBIF Version = 2.24, Build Time = 4/7/2016 14:16:00

 XPP Version = 1.10, Build Time = 2/7/2017 10:41:00

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Line Card Slot 3
Code Flash: Type MT28F128J3, Size 16 MB
```

```
  o IronWare Image (Primary)
    Version 6.3.0jT177, Size 9590085 bytes, Check Sum bffe
    Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
  o Monitor Image
    Version 6.2.0T175, Size 574086 bytes, Check Sum 57d3
    Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
Boot Flash: Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 5.9.0T175, Size 449576 bytes, Check Sum 3bc9
    Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
FPGA Version (Stored In Flash):
 PBIF Version = 4.04, Build Time = 11/10/2014 22:10:00

 XPP Version = 1.03, Build Time = 6/30/2016 10:37:00

 STATS Version = 0.09, Build Time = 11/21/2010 14:52:00

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Line Card Slot 4
Code Flash: Type MT28F256J3, Size 66846720 Bytes (~64 MB)
  o IronWare Image (Primary)
    Version 6.3.0jT177, Size 9590085 bytes, Check Sum bffe
    Compiled on Mar 26 2024 at 07:15:20 labeled as xmlp06300j
  o Monitor Image
    Version 6.2.0T175, Size 574086 bytes, Check Sum 57d3
    Compiled on Feb 11 2021 at 08:11:50 labeled as xmlb06200
Boot Flash: Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 5.9.0T175, Size 449576 bytes, Check Sum 3bc9
    Compiled on Mar 19 2015 at 03:17:00 labeled as xmlprm05900
FPGA Version (Stored In Flash):
 PBIF Version = 2.11, Build Time = 8/19/2016 14:54:00

 XPP Version = 0.01, Build Time = 11/2/2026 14:05:00

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
All show flash done
telnet@163902_MLXe4#
```

CER show flash command output

```
180832_CER2048CX#sh flash
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Code Flash - Type MT28F256J3, Size 64 MB
  o IronWare Image (Primary)
    Version 6.3.0jT183, Size 18587483 bytes, Check Sum 44d2
    Compiled on Mar 26 2024 at 07:49:38 labeled as ce06300j
  o Monitor Image
    Version 6.0.0T185, Size 465568 bytes, Check Sum d5b7
```

```
   Compiled on Jun  7 2016 at 16:10:10 labeled as ceb06000
  o Startup Configuration
    Size 2615 bytes, Check Sum 1159
    Modified on 09:07:51 GMT+00 Thu Mar 28 2024

Boot Flash - Type MX29LV040C, Size 512 KB
  o Boot Image
    Version 6.0.0T185, Size 465568 bytes, Check Sum d5b7
    Compiled on Jun  7 2016 at 16:10:10 labeled as ceb06000
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
180832_CER2048CX#
```

OpenFlow upgrade and downgrade

When downgrading the system from NetIron 6.3.00a1 (and later releases) to NetIron 05.8.00, if there are any VRF interfaces which are enabled with OpenFlow, some unexpected IFL entries will be seen after moving to R05.8.00. These unexpected IFL entries may affect the L3VPN/6VPE traffic.

Extreme recommends removing OpenFlow from the VRF interfaces before downgrading the router to R05.8.00. For upgrade and migration considerations, refer to the latest version of the Extreme NetIron Software Upgrade Guide.

Hitless upgrade support

Hitless upgrade is not supported from version 6.3.00a onwards

Limitations and restrictions

Important notes

Hitless upgrade is not supported from version 6.3.00a onwards.

Saving system information to flash

- This feature is not supported on Gen1 LPs.

Support for Management IP as snmp trap-source

- IPV6 support is not present currently for trap source addresses.

ACL/PBR co-existence with Openflow on same port

- PBR/ACL is not supported on L23 openflow hybrid port.
- L2 PBR/ACL is not supported on L3 openflow hybrid port.
- L3 PBR/ACL is not supported on L2 openflow hybrid port.
- L2 ACL Deny logging is not supported openflow hybrid port.

RADIUS Over Transport Layer Security (TLS)

- Dot1x accounting is not supported over RADSEC/TLS.

IPv6 ACL based rate limit for CES/CER

- ACL based rate limit is supported only on physical interface.

SCP based simplified upgrade

- This is not supported on CES/CER devices.
- This feature is supported on MR2 management modules.
- Feature is supported from 5.7 and above version.
- The signature verification is performed when the firmware version is 6.1.
- Verification supported only when pre-upgrade version on device is NetIron 6.1 and above.

OpenFlow group table

- The only action allowed in action bucket is output port.
- Each action bucket can have only one output port.
- Maximum of 8 buckets are allowed in an OpenFlow group with logical ports.
- Group types All, Indirect and Fast-Failover are not supported for logical port groups. Only SELECT group type will be supported.
- Bucket statistics is not supported.
- Group cannot have physical port and logical port in the buckets. Either physical ports or logical ports should be present.
- Modification of a group with all physical ports to all logical ports in the buckets and vice versa are not supported.

- Generic OpenFlow rule with action logical port group is not supported.
- This feature is not supported in CES/R.

- Logical port group along with actions other than L2VPN/L3VPN label in flow action are not supported.

VLAN modification in MPLS egress

- Pop VLAN action is limited to OpenFlow hybrid ports as output in action.
- In a dual tagged packet, only modification of outer VLAN is supported and addition/deletion of outer VLAN he inner VLAN modification/addition/deletion are not supported.

SCP checksum, firmware integrity

- The signature verification is not performed for copying LP application, monitor to specific slot using TFTP , Slot1/Slot2 and LP boot using from Slot1/Slot2

IPv6 ACL Scaling 4k Enhancement is supported only on XMR /MLX Series·

LDP interface transport address

- LDP interface transport address should not be enabled when there are multiple parallel adjacencies (interfaces) present between the LDP routers. If user wishes to enable this feature then they should remove the additional adjacencies. If a user enables this feature with multiple adjacencies to a peer then it is possible that the interface transport address may not be used and/or the session would be torn down due to role conflict.
- Pre-requisites: Enabling LDP interface transport address feature on the interface (adjacency) will cause any existing session to flap and come back up with interface IP address as transport address (only in cases where there is a single adjacency between the peers). This can be service impacting and something the user should be well aware of before executing the command.

Defects

TSBs—Critical issues to consider prior to installing this release

Technical Support Bulletins (TSBs) provide detailed information about high

priority defects or issues present in a release. The following sections specify all current TSBs that have been identified as being a risk to or resolved with this specific release. 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 https://extremeportal.force.com/ (note that TSBs are generated for all Extreme platforms and products, so not all TSBs apply to this release).

TSB issues resolved in NI 6.3.00h

TSB	Summary
None	

TSB issues outstanding in NI 6.3.00h

TSB	Summary
None	

Open Defects in NI6.3.00j

There are no open defects in NetIron OS 6.3.00j as of March 2024

Open Defects in NI 6.3.00h

There are no open defects in NetIron OS 6.3.00h as of July 2023.

Open Defects in NI6.3.00g

There are no open defects in NetIron OS 6.3.00g as of March 2023.

Open Defects in NI6.3.00f

This section lists software defects with Critical, High, and Medium Technical Severity unresolved as of July 2022 in NetIron OS 6.3.00f.

Parent Defect ID:	NI-17372	**Issue ID:**	NI-17420
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00gd
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Router LSA links may stuck in STUB type with OSPF neighbors in FULL or LOADING state		
Condition:	1.The OSPF ABR upgraded to 6.0gd 2.ABR has at least 3 neighbors including 1 or 2 in non-backbone areas and originates more than 2000 Summary LSAs		
Recovery:	Clear ip ospf neighbor <neighbor ip address>		

Parent Defect ID:	NI-14748	**Issue ID:**	NI-22477
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00a
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	IPv6 Addressing
Symptom:	IPv6 neighborship may not be established		
Condition:	When IPv6 neighbor solicitation request is received from the peer with source address same as configured interface IPV6 address		

Parent Defect ID:	NI-9750	**Issue ID:**	NI-22479
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4+ - IPv6 Border Gateway Protocol
Symptom:	BGP multipaths are not happened properly for BGP IPv6 routes that are learned in VRF		
Condition:	1. iBGP neigborship established with 2 neighbors in VRF2. BGP multipaths are enabled3. The same route is advertised from both the neighbors with the same local_pref, MED, ORIGIN, weight		

Workaround:	Configure "always-compare-med" in 'router bgp'

Parent Defect ID:	NI-9732	**Issue ID:**	NI-22483
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Following error messages may be observed on MLX in Line card console:- kbp_duplicate_entry_IPVPN[0] idx : 0x00200bee tbl_id : 32 vpn_id = 4099, pfx : x.y.0.0/32		
Condition:	On the reception of route update message for /32 prefix which matches local IP's network part		

Parent Defect ID:	NI-9731	**Issue ID:**	NI-22484
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	Multi-VRF
Symptom:	Line card module may go high with the following error message on Line card console:- kbp_duplicate_entry_IPDAVC[0] idx : 0x002b198f tbl_id : 48 vc_label = 500010, pfx : x.y.0.0/16		
Condition:	1. SA learning enabled for routed packets2. Connected VRF route is leaked into another VRF for which label redistribution is blocked by BGP route map		

Parent Defect ID:	NI-9114	**Issue ID:**	NI-22535
Severity:	S3 – Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	DHCP - Dynamic Host Configuration Protocol
Symptom:	High CPU may be observed on CER		
Condition:	Processed high rate of fragmented DHCP protocol packets		

Closed with code changes NI6.3.00j

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of March 2024 in NetIron OS 6.3.00j.

Parent Defect ID:	NI-22641	**Issue ID:**	NI-22641
Severity:	S3 – Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00f

Technology Group:	Layer 3 Routing/Network Layer - ARP - Address Resolution Protocol	**Technology:**	ARP - Address Resolution Protocol
Symptom:	Mac-IP mapping is not added to the ARP table on GARP packet received.		
Condition:	Sending GARP request or reply packet to any L3 interface of MLX.		

Parent Defect ID:	NI-22617	**Issue ID:**	NI-22617
Severity:	S3 – Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00a
Technology Group:	MPLS	**Technology:**	MPLS VPLS - Virtual Private LAN Services
Symptom:	LDP session drops on MLX acting as PE.		
Condition:	1. MLX and CISCO are PEs in the MPLS domain. 2. VPLS peering exists between these PEs. 3. The link on CISCO connected towards its CE(VPLS endpoint) flaps.		

Parent Defect ID:	NI-22625	**Issue ID:**	NI-22625
Severity:	S2 – Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4+ - IPv6 Border Gateway Protocol
Symptom:	Some of the ipv6 routes are lost on EBGP peer.		
Condition:	1. There is a EBGP sessions between two of middle bgp peers to two of the downsteam external ebgp peers which are also cross-connected. 2. There is another EBGP session between middle bgp peers to the upstream bgp peer. 3. From downstream EBGP peers send routes and same are learnt on the upsteam bgp peer. 4. Withdraw sent routes from the first downstream bgp peer from where routes are initially sent.		

Parent Defect ID:	NI-22608	**Issue ID:**	NI-22608
Severity:	S3 – Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00e
Technology Group:	Other	**Technology:**	Other
Symptom:	Unable to display Extreme branded 10Base ZR optic properly.		
Condition:	just connect the extreme branded ZR optic to two MLXs back to back.		

Closed with code changes NI6.3.00h

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of July 2023 in NetIron OS 6.3.00h.

Parent Defect ID:	NI-22603	**Issue ID:**	NI-22603
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00g
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	1. OSPF database overflow 2. Missing connected routes from the ASBR		
Condition:	1. OSPF is running on MLX and neighborship is established with it's peers. 2. ASBR device in the network and sent type-5 LSAs of connected routes.		

Closed with code changes NI6.3.00g

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of March 2023 in NetIron OS 6.3.00g.

Parent Defect ID:	NI-22381	**Issue ID:**	NI-22381
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00ea
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	VRRPv3 - Virtual Router Redundancy Protocol Version 3
Symptom:	ipv6 ping does not work for the VIP address.		
Condition:	1. ipv6 VRRP should be configured between atleast two router's ports on the same broadcast domain. 2. configure "no activate" on the Master VRRP interface. 3. configure "activate" on the same router on which step 2 is performed.		
Workaround:	By re-configuring VIP address, ping will start working.		

Parent Defect ID:	NI-22546	**Issue ID:**	NI-22546
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00cc
Technology Group:	Monitoring	**Technology:**	Syslog
Symptom:	In MLX systems where line cards have been replaced after NP memory parity errors, executing certain commands like "show sysmon logs" can trigger the recording of rapid false parity error messages in syslog.		
Condition:	1. MLX having LP cards running into NP memory parity errors. 2. These problematic LP cards are hot-swapped with good working cards without reloading the entire chassis. 3. Execute the "show sysmon logs".		

Parent Defect ID:	NI-22563	**Issue ID:**	NI-22563
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	OSPF Not Redistributing Connected Subnets		
Condition:	1. OSPF is configured and learned a route with a certain prefix and installed into the routing table. 2. configure the same more specific address on MLX interfaces. 3. "Redistribute connected" is configured.		

Parent Defect ID:	NI-22564	**Issue ID:**	NI-22564
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00f
Technology Group:	IP Multicast	**Technology:**	PIM - Protocol-Independent Multicast
Symptom:	When multicast TTL=1 packets are received, High LP CPU is observed.		
Condition:	1. In a certain multicast topology MLX is connected to multicast source with another intermediate router(say SLX/CER/CES) by VE interfaces. 2. And this MLX has a group joined through IGMP report from some end stations where another source also sends the traffic to the same group. 3. From the first source send the multicast traffic with TTL = 2 .		

Parent Defect ID:	NI-22569	**Issue ID:**	NI-22569
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	DHCP - Dynamic Host Configuration Protocol
Symptom:	The crash happened with EXCEPTION 1100, DTLB Load Task: dhcp6		
Condition:	On reception of some weird dhcpv6 attacker packets with destination ipv6 address as a multicast address.		

Parent Defect ID:	NI-22573	**Issue ID:**	NI-22573
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00e
Technology Group:	Management	**Technology:**	CLI - Command Line Interface
Symptom:	Chassis had reloaded itself on task ssh-1 with the below call stack on performing "show running-config". Possible Stack Trace (function call return address list) 20025398: write_runConfig_to_terminal(pc)		

	2002537c: write_runConfig_to_terminal(lr) 202f2330: call_action_func 202f2e28: parse_node 202f28a4: parse_node_recurse 202f30fc: parse_node 202f136c: parser 203671fc: parse_input 20abdbe0: ssh_event_handler 20ad0fbc: ProcessChannelData 20ace5e8: ShProcessMessage 20ad7978: ProcessClientInputData 20ad7110: ShFiniteStateMachine 209d9680: HandleProtocolAction 209d9460: HandleConnectionTask 20abc7b0: ssh_connection_task 20abcefc: ssh_socket_control 20abfb98: ssh_receive_data_ready 20abfbdc: ssh_tcp_receive_data_ready_callback 20bbfd9c: itc_process_msgs_internal 20bc0248: itc_process_msgs 20ab7e6c: ssh_in_task 00005e18: sys_end_task
Condition:	Executing the "show running-config" on SSH terminal for a random number of times.

Parent Defect ID:	NI-22581	**Issue ID:**	NI-22581
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Management	**Technology:**	NTP - Network Time Protocol
Symptom:	LP Cards rebooted with the 'CARD_DOWN_REASON_FID_DISTRIBUTION_FAILED' error in syslog.		
Condition:	1. NTP should be configured in MLX and the time should be synced between MLX and NTP server. 2. configure "clock summer-time" in MP config mode.		

Parent Defect ID:	NI-22523	**Issue ID:**	NI-22590
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	IP Multicast	**Technology:**	IGMP - Internet Group Management Protocol
Symptom:	Random Multicast passive S,G groups disappear from 3x10 dynamic LAG		
Condition:	1. In a certain multicast topology MLX is connected to multicast source with another intermediate router(say SLX/CER/CES) by a LAG with at least two ports. 2. And this MLX has a group joined through IGMP report from some		

	end stations. 3. Disable/enable is performed a random number of times on the primary port of the LAG between MLX and its neighboring router.

Parent Defect ID:	NI-22570	**Issue ID:**	NI-22592
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00g
Technology Group:	Data Center Fabric	**Technology:**	Logical Chassis
Symptom:	system crashed with exception 0000 softCheck due to task:fid_mgr with the below stack trace. Possible Stack Trace (function call return address list) 20cb9414: fid_mgr_queue_active(pc) 20cb9414: fid_mgr_queue_active(lr) 20cbbc78: fid_mgr_timeout 20ba3af4: itc_process_msgs_internal 20ba3fa0: itc_process_msgs 20cb7070: fid_mgr_task 00005e18: sys_end_task		
Condition:	After the crash, when the system is coming up and the system is heavily loaded with FIDs processing is happening.		

Parent Defect ID:	NI-22520	**Issue ID:**	NI-22593
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00ca
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Active MP reset unexpectedly in ospf task and failed over to standby with the below stack trace. Possible Stack Trace (function call return address list) 2111f3b0: ospf_process_age_lsdb_entry(pc) 2111f710: ospf_process_age_lsdb_entry(lr) 2111e858: ospf_router_timer 210e63c4: ospf_timer_callback 20bc16d8: itc_process_msgs_internal 20bc1b84: itc_process_msgs 210e6738: ospf_task 00005e18: sys_end_task		
Condition:	1. In a certain area (say area 0) 6 MLX routers are present in the topology. 2. duplicate IP addresses are configured on 3 of the MLX routers with varying masks. 3. "Redistribute connected" is configured.		

Closed with code changes NI6.3.00f

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code

change as of July 2022 in NetIron OS 6.3.00f.

Parent Defect ID:	NI-9583	**Issue ID:**	NI-10863
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00d
Technology Group:	MPLS	**Technology:**	MPLS Traffic Engineering
Symptom:	FRR Facility backup LSP is not up		
Condition:	When "ip ospf passive" is configured on interface, there is no notification sent to MPLS deamon to cause TE flush or RSVP IGP sync reaction.		

Parent Defect ID:	NI-9531	**Issue ID:**	NI-10955
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00
Technology Group:	Management	**Technology:**	CLI - Command Line Interface
Symptom:	LAG creation through EVM shows successful even though it is failed in device with the following error message :- LAG test deployment failed!		
Condition:	LAG creation through EVM with participating LAG member ports do not have similar properties		

Parent Defect ID:	NI-8808	**Issue ID:**	NI-13602
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00ec
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Standby Management Module may unexpectedly reload with the following stack trace:- Possible Stack Trace (function call return address list) 20ec94d4: bgp_check_for_fwd_address(pc) 20ec93ec: bgp_check_for_fwd_address(lr) 20efbd18: bgp_RIB_in_delete_route 20f7952c: bgp_check_for_aggrgation 20effd40: bgp_remove_route_advertisement 20efbdf4: bgp_RIB_in_delete_route 20efda08: bgp_vrf_RIB_in_delete_all_self_nlris 20eb4e88: bgp_clear_all_vrf_neighbors 20f57744: bgp_clear_neighbor_itc_request_callback 20b14584: itc_process_msgs_internal 20b14a24: itc_process_msgs 20f73ed8: bgp_task 00005e18: sys_end_task		
Condition:	Execution of "clear ip bgp neighbor all" command		

Parent Defect ID:	NI-9959	**Issue ID:**	NI-14642

Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	MPLS	**Technology:**	LDP - Label Distribution Protocol
Symptom:	Ping may fail from non-default VRF to default VRF over MPLS		
Condition:	Route towards the destination is learnt on MPLS entry interface which is under default-VRF		

Parent Defect ID:	NI-21976	**Issue ID:**	NI-21976
Severity:	S1 - Critical		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00hc
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	"Unexpected reload of MP due to BGP dampening crash with the following stack trace: Possible Stack Trace (function call return address list) 20ebbd78: debug_assert(pc) 20fa6bf4: bgp_RIB_out_delete_NLRI(lr) 20fa6bf4: bgp_RIB_out_delete_NLRI 20fb4f68: bgp_remove_route_advertisement 20fbd2e8: bgp_check_and_update_bgp_route_in_ip_table_as_necessary 20ff91f8: bgp_route_damping_timer_event 20fdbdec: bgp_timer 20fd7340: bgp_timeout_func 20ba6ea4: itc_process_msgs_internal 20ba7350: itc_process_msgs 2102c6fc: bgp_task 00005e18: sys_end_task "		
Condition:	"1. BGP is configured on MLX with dampening configured 2. Few routes are being advertised and withdrawn continuously from the peer BGP router."		

Parent Defect ID:	NI-21999	**Issue ID:**	NI-21999
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00f
Technology Group:	Layer 2 Switching	**Technology:**	LAG - Link Aggregation Group
Symptom:	LAG Ports are in LACP Blocked state		
Condition:	Dynamic LAG configured on MLX device with 2 or more ports involved.		

Parent Defect ID:	NI-22057	**Issue ID:**	NI-22057
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00

Technology Group:	Security	**Technology:**	ACLs - Access Control Lists
Symptom:	"Active MM module may be reloaded unexpectedly with the below stack trace. Possible Stack Trace (function call return address list) 206a7554: cli_check_if_acl(pc) 206a86c4: cli_update_name_acl(lr) 206a86c4: cli_update_name_acl 2069e72c: wr_config_acl_ext 206a8970: retrieve_acl_config 201259ac: retrieve_running_config 20ac6204: ssh_parse_scp_cmd_out 20abec28: ssh_event_handler 20ad217c: ProcessChannelData 20acf7a8: ShProcessMessage 20ad8b38: ProcessClientInputData 20ad82d0: ShFiniteStateMachine 209da7dc: HandleProtocolAction 209da5bc: HandleConnectionTask 20abd948: ssh_connection_task 20abe094: ssh_socket_control 20ac0d58: ssh_receive_data_ready 20ac0d9c: ssh_tcp_receive_data_ready_callback 20bc0788: itc_process_msgs_internal 20bc0c34: itc_process_msgs 20ab8ffc: ssh_in_task 00005e18: sys_end_task"		
Condition:	"1. Having Large number of ipv4 access-list with so many rules under each policy. 2. when try to save the configuration with write-memory."		

Parent Defect ID:	NI-22061	**Issue ID:**	NI-22061
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00bc
Technology Group:	Monitoring	**Technology:**	Hardware Monitoring
Symptom:	Ports remain down after the remote device reloaded		
Condition:	"1. Connect two MLX devices back-to-back through the passive TAP 2. On one MLX flap the interface connected to the other MLX or upgrade or downgrade the MLX"		

Parent Defect ID:	NI-22069	**Issue ID:**	NI-22069
Severity:	S1 - Critical		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00hc
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Intermittently generating BGP updates with Malformed Attribute List		

Condition:	"1. Connect two MLX devices running 6.0he image 2. configure BGP and bring up the neighborship 3. Send BGP updates in a jumbo packet which is more than 1500 bytes"

Parent Defect ID:	NI-22087	**Issue ID:**	NI-22087
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00bc
Technology Group:	Security	**Technology:**	ACLs - Access Control Lists
Symptom:	"Active MM module may be reloaded unexpectedly with the below stack trace. Possible Stack Trace (function call return address list) 202f852c: l4_port_to_name(pc) 21256d14: wr_config_ip6_acl_filter(lr) 21256d14: wr_config_ip6_acl_filter 212579ec: wr_config_ip6_acl 201259a4: retrieve_running_config 20ac6204: ssh_parse_scp_cmd_out 20abec28: ssh_event_handler 20ad217c: ProcessChannelData 20acf7a8: ShProcessMessage 20ad8b38: ProcessClientInputData 20ad82d0: ShFiniteStateMachine 209da7dc: HandleProtocolAction 209da5bc: HandleConnectionTask 20abd948: ssh_connection_task 20abe094: ssh_socket_control 20ac0d58: ssh_receive_data_ready 20ac0d9c: ssh_tcp_receive_data_ready_callback 20bc0788: itc_process_msgs_internal 20bc0c34: itc_process_msgs 20ab8ffc: ssh_in_task 00005e18: sys_end_task"		
Condition:	"1. Having Large number of ipv6 access-list with so many rules under each policy. 2. when try to save the configuration with write-memory."		

Parent Defect ID:	NI-22349	**Issue ID:**	NI-22349
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00f
Technology Group:	SDN	**Technology:**	OpenFlow
Symptom:	"MLXe-4 crashed while runing 'show tech' following SW upgrade from 06000j > 06200f with below stack trace Possible Stack Trace (function call return address list) 22684a50: strstr(pc) 223ef4d4: openflow_show_groups_range(lr) 20038888: show_tech_support		

	20364f38: timer_callback_wrapper 20bc1714: itc_process_msgs_internal 20bc1bc0: itc_process_msgs 20ab9428: ssh_in_task 00005e18: sys_end_task "
Condition:	"1. Openflow has been configured in MLX device which has 6.0j image. 2. Upgrade to 6.3e or lower image"

Parent Defect ID:	NI-22376	**Issue ID:**	NI-22376
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Layer 2 Switching	**Technology:**	MCT - Multi-Chassis Trunking
Symptom:	VPLS forwarding issues when MCT peer has CCEP ports		
Condition:	"1. Connect two MCT peers back-to-back (i.e dual MCT configuration) with ICL link between them is configured using psedo-wire 2. disable the LAG connected towards Active PE, so that the CCEP traffic goes only towards standby PE 3. Issue ping or send traffic from the CCEP device to the remote CCEP port on the other side of dual MCT topology"		

Parent Defect ID:	NI-22378	**Issue ID:**	NI-22378
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00g
Technology Group:	MPLS	**Technology:**	IPv6 over MPLS
Symptom:	When pinging an IPv6 Ve/VPLS interface, intermittent packet loss is observed		
Condition:	"1. VEoVPLS interface is configured on the PE router on which IPv6 address is configured 2. Issue ping from CE device, which is connected to the VPLS end-point of the above PE device "		

Parent Defect ID:	NI-22393	**Issue ID:**	NI-22393
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	DHCP - Dynamic Host Configuration Protocol
Symptom:	DHCPv6 release-reply message not reaching the client.		
Condition:	Linux is used as the dhcpv6 server application.		

Parent Defect ID:	NI-22424	**Issue ID:**	NI-22424
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00bc
Technology Group:	Security	**Technology:**	SSH - Secure Shell

Symptom:	Keep getting "Another TFTP/SCP session is in progress" error message in syslog.
Condition:	"1. Open two ssh/telnet sessions 2. Upload or download on one of the SSH/Telnet session 3. Try upload or download on the other SSH/Telnet session"

Parent Defect ID:	NI-22458	**Issue ID:**	NI-22458
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00ca
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	GRE - Generic Routing Encapsulation
Symptom:	Incorrect Error being displayed while configuring VRF in an IP GRE tunnel, hence unable to configure VRF forwarding under the tunnel		
Condition:	"1. Configure multiple ip addresses on the physical interface which is the source interface of the GRE tunnel to be configured 2. Try to add such a GRE tunnel into non-default VRF"		

Parent Defect ID:	NI-22462	**Issue ID:**	NI-22462
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Type5 LSA gets max aged 3,600 and the network becomes unstable.		
Condition:	1. There are two ABRs connecting area 0 and NSSA area. 2. The address configured on NSSA internal router and the static address configured on NSSA ABRs are in the same subnet. 3. Redistribute connected on NSSA internal routers and redistribute static on NSSA ABR.		

Parent Defect ID:	NI-22463	**Issue ID:**	NI-22463
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Paging for "show ip bgp vrf vrf-all tags" is not working if the number of routes in any of the multiple vrfs is more than 22 lines		
Condition:	"1. BGP is enabled on multiple (two or more) vrfs 2. Atleast one of the VRFs have more than 22 routes to display"		

Parent Defect ID:	NI-22465	**Issue ID:**	NI-22465
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d

Technology Group:	IP Multicast	**Technology:**	IGMP - Internet Group Management Protocol
Symptom:	MLX LAG in one-arm routing scenario loops back multicast RTCP control traffic		
Condition:	"1. A Router is configured with L3 multicast with PIM as the control protocol 2. This router is one-arm routing scenario where the ingress (VLAN) and egress (VLAN) traffic have the same physical interface 3. Try to IGMP join in the ingress VLAN which is the source VLAN as well."		

Parent Defect ID:	NI-14761	**Issue ID:**	NI-22472
Severity:	S1 - Critical		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	MPLS	**Technology:**	MPLS VPLS - Virtual Private LAN Services
Symptom:	24X10G Line card module may reload unexpectedly with the below stack trace:- 20b6a954: darter_ppcr_dword_read(pc) 20b75ac4: darter_ppcr_retrieve_mvid(lr) 20b76468: darter_ppcr_retrieve_mvid_index 20a8b92c: ppcr_retrieve_mvid 20a66eb4: ppcr_dm_mmpls_entry 20963428: yyparse 20920378: sys_parse 20c7692c: cli_lp_parser_cmds 20c62aa0: call_action_func 20c632ec: parse_node 20c62da0: parse_node_recurse 20c63430: parse_node 20c622a4: parser 20c69f58: parse_input 2091ff58: sys_console_input_process 207f6b9c: lp_console_task 00040158: sys_end_task		
Condition:	Rarely observed during the execution of this debug command 'dm entry me/1 mmpls <index>'		

Parent Defect ID:	NI-9740	**Issue ID:**	NI-22473
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Management module may reload unexpectedly with the below stack trace:- 20eb7b5c: debug_assert(pc)		

	20fa325c: bgp_RIB_out_delete_NLRI(lr) 20fa325c: bgp_RIB_out_delete_NLRI 20fb4150: bgp_add_or_remove_ribout_if_necessary 20fb8e00: bgp_check_and_update_bgp_route_in_ip_table_as_necessary 20faabdc: bgp_RIB_in_add_route 21050d44: bgp_process_NLRI_fields 2104a6fc: bgp_process_update_message_from_peer 20f8f23c: bgp_process_update_message_received_event 20f87a88: bgp_execute_bgp_finite_state_machine 21047f34: bgp_process_received_message 20fc0538: bgp_tcp_receive_call 20fd2884: bgp_io_process 21027630: bgp_io_task 00005e18: sys_end_task
Condition:	1. Router configured with 'advertise-best-external' for BGP 2. Churn in the BGP network due to change in the best-external path repeatedly

Parent Defect ID:	NI-17438	**Issue ID:**	NI-22474
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	Management	**Technology:**	NTP - Network Time Protocol
Symptom:	NTP packets may not be authenticated after upgrade from 6.2b releases		
Condition:	1)Configured IPv6 on the NTP server 2)Configured management VRF with IPv6 address		

Parent Defect ID:	NI-9593	**Issue ID:**	NI-22475
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00d
Technology Group:	Traffic Management	**Technology:**	Traffic Queueing and Scheduling
Symptom:	Line card may reload unexpectedly with the below stack trace:- Possible Stack Trace (function call return address list) rw2_collect_stats_via_dma_4x40(pc) rw2_collect_stats_via_dma_4x40(lr) rw2_collect_stats_via_dma rw2_collect_stats_via_direct_read_4x40 rw2_collect_stats_via_direct_read rw2_read_petra_stats_direct_read_at_index Fap20v_hw_read_per_q_counters fap20v_read_n_return_per_q_counters lp_get_tm_one_voq_data_stat scp_show_tm_voq_stat scp_info_mplp_show_process_ipc mplp_show_process_ipc		

	ipc_multi_module_handler ipc_process_messages ipc_receive_packet ge_process_ipc_data_msg lp_ipc_task sys_end_task
Condition:	1. Reception of CPU traffic like unknown unicast or protocol 2. On repeated execution of the command "show tm-voq-stat" for CPU traffic

Parent Defect ID:	NI-17559	**Issue ID:**	NI-22476
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00d
Technology Group:	Security	**Technology:**	TACACS & TACACS+
Symptom:	Active MM module may be reloaded unexpectedly with the below stack trace. Possible Stack Trace (function call return address list) 207bf470: tacplus_create_md5_hash(pc) 207bf448: tacplus_create_md5_hash(lr) 207bf54c: tacplus_md5_xor 207bb67c: tacplus_send_account_pkt 2079ef3c: aaa_tcp_outgoing_connection_ready_callback 20ba0540: itc_process_msgs_internal 20ba09ec: itc_process_msgs 207d62d0: snms_task 00005e18: sys_end_task		
Condition:	1. Configured TACACS+ accounting for CLI commands by specifying the privilege level as 0 as below aaa accounting commands 0 default start-stop tacacs+ 2. with TACACS+ server key of 30 characters 3. Continuous execution of command “show ip interface” from SSH		

Parent Defect ID:	NI-9956	**Issue ID:**	NI-22478
Severity:	S4 - Minor		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	Monitoring	**Technology:**	Syslog
Symptom:	telnet client may not be observed in 'show logging' as configured		
Condition:	'telnet client <ip-address>' is configured from a telnet session.		

Parent Defect ID:	NI-9745	**Issue ID:**	NI-22480
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	ICMP - Internet Control Message Protocol
Symptom:	IPv6 traffic may not be forwarded to destined port		
Condition:	Specific to Ipv6 Hop-by-hop and fragmented packets		

Parent Defect ID:	NI-9743	**Issue ID:**	NI-22481
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	IP Multicast	**Technology:**	PIM - Protocol-Independent Multicast
Symptom:	Multicast traffic forwarding may fail on MLX with High LP CPU		
Condition:	When source traffic moves to a different port on same VE		

Parent Defect ID:	NI-9738	**Issue ID:**	NI-22482
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPFv3 - IPv6 Open Shortest Path First
Symptom:	IPv6 traffic may not be forwarded over VEoVPLS interface		
Condition:	MPLS LSP primary path goes down on disabling the VEoVPLS interface		

Parent Defect ID:	NI-9651	**Issue ID:**	NI-22485
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00
Technology Group:	Traffic Management	**Technology:**	Rate Limiting and Shaping
Symptom:	Burst traffic may be forwarded more than the configured rate on CES/CER		
Condition:	Bursty traffic with Rate-limit is configured on the interface		

Parent Defect ID:	NI-9962	**Issue ID:**	NI-22486
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	Static Routing (IPv4)
Symptom:	Line card module CPU usage may go high		
Condition:	1. Static route configured for a host 2. Along with the reception of traffic for the configured host ex: ip route a.b.c.d/32 ve x		

Parent Defect ID:	NI-9961	**Issue ID:**	NI-22487
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	Management	**Technology:**	SNMP - Simple Network Management Protocol

Symptom:	Show statistics CLI may display incorrect out utilization for 100G Line card module
Condition:	Observed with traffic rate more than 55Gbps

Parent Defect ID:	NI-3836	**Issue ID:**	NI-22488
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00
Technology Group:	Layer 2 Switching	**Technology:**	LAG - Link Aggregation Group
Symptom:	LACP counter statistics may display boundary values like 42949672 or 429496729 unless the relevant LACP packets are actually received or sent		
Condition:	On execution of 'show lacp' cli command		

Parent Defect ID:	NI-9763	**Issue ID:**	NI-22489
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4+ - IPv6 Border Gateway Protocol
Symptom:	show commands in BGP may not filter expected entries on certain conditions		
Condition:	1. Regular expression used to filter the BGP entries 2. BGP prefixes with repeated numbers/values in the expression ex: show ip bgp sum | i x.x.y to filter prefixes like z.x.x.y		

Parent Defect ID:	NI-9649	**Issue ID:**	NI-22490
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00
Technology Group:	Security	**Technology:**	ACLs - Access Control Lists
Symptom:	Loss of connectivity and ARP is not resolved		
Condition:	1. MLX is upgraded to 6.0a and above versions with 4x10G module 2. L4 deny all ACL applied on the physical interface as given below:- ip access-list extended ABC permit ip x.0.0.0 0.0.0.y any deny ip any any interface ethernet a/b enable ip address x.0.0.z/y ip access-group ABC in		

Parent Defect ID:	NI-17677	**Issue ID:**	NI-22491
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00c

Technology Group:	Security	**Technology:**	ACLs - Access Control Lists
Symptom:	MLX console may respond slow and SSH through VE interfaces/inband are slow		
Condition:	1. Applying ACL with more rules to many virtual interfaces 2. Start continuous traffic from source matching applied ACL rules 3. Enable 'acl-accounting' and 'sflow' on interfaces		

Parent Defect ID:	NI-17590	**Issue ID:**	NI-22498
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	IS-IS - IPv6 Intermediate System to Intermediate System
Symptom:	ISIS level 1 routes are not redistributed to Level 2 database		
Condition:	1. Interface is configured with circuit type Level 1 ex: int eth x/y isis circuit-type level-1 2. Device is configured as level-1-2 router to redistribute the inter area routes from Level-1 into Level-2 database. ex: address-family ipv4 unicast default-metric y maximum-paths x metric-style wide redistribute connected level-1-2		

Parent Defect ID:	NI-22507	**Issue ID:**	NI-22507
Severity:	S2 - Major		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00e
Technology Group:	Security	**Technology:**	TACACS & TACACS+
Symptom:	Management Module failover		
Condition:	"1. Configured TACACS+ accounting for CLI commands by specifying the privilege level as 0 as below aaa accounting commands 0 default start-stop tacacs+ 2. with TACACS+ server key of 30 characters 3. Continuous execution of the command “show ip interface” from SSH"		

Parent Defect ID:	NI-22539	**Issue ID:**	NI-22539
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00e
Technology Group:	Security	**Technology:**	Security Vulnerability

Symptom:	CVE-2022-0778 - Porting OpenSSL DSA signature algorithm has been shown to be vulnerable
Condition:	1.Configure DSA key algorithm 2. Try doing SSH to MLX

Parent Defect ID:	NI-22540	**Issue ID:**	NI-22540
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Originating external lsa after e-route processing for a network with longest mask /29 instead of /24		
Condition:	1. There are two ABRs connecting area 0 and NSSA area. 2. The address configured on NSSA internal router and the static address configured on NSSA ABRs are in the same subnet. 3. Redistribute connected on NSSA internal routers and redistribute static on NSSA ABR.		

Parent Defect ID:	NI-22541	**Issue ID:**	NI-22541
Severity:	S3 - Moderate		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Lower router-id also translates type7 to type5 and it should be done by only higher router id end		
Condition:	1. There are two ABRs connecting area 0 and NSSA area. 2. The address configured on NSSA internal router and the static address configured on NSSA ABRs are in the same subnet. 3. Redistribute connected on NSSA internal routers and redistribute static on NSSA ABR.		

Closed with code changes NI6.3.00d

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of June 2021 in NetIron OS 6.3.00d.

Parent Defect ID:	NI-8524	**Issue ID:**	NI-10818
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00a
Technology Group:	MPLS	**Technology:**	MPLS Traffic Engineering
Symptom:	Device may reload unexpectedly with the following stack trace:- Possible Stack Trace (function call return address list) 2159f290: rrr_pkt_edit_recv(pc) 2159f260: rrr_pkt_edit_recv(lr) 21d1adf8: rsvp_pkt_process		

	21d19b48: rrr_rcv_rsvp_message 21d8da74: rrr_rcv_sck_data_msg2 21d8d7a8: rrr_rcv_sck_data_msg 21d8a970: rrip_sock_to_rsvp_proc 21dae0ac: rri_receive_proc 214a1a7c: nbb_dispatch_process 214a0eb8: nbb_schedule_one 214a1370: nbb_scheduler 214af9d4: nbb_spin_start 214a49d8: nbs_spin_start 216aef54: mpls_rsvp_recive_data_itc_callback 20b8fe8c: itc_process_msgs_internal 20b90338: itc_process_msgs 2170a434: mpls_task 00005e18: sys_end_task
Condition:	On reception of Malformed MPLS RSVP Hello packet

Parent Defect ID:	NI-21470	**Issue ID:**	NI-21518
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00ha
Technology Group:	Traffic Management	**Technology:**	Rate Limiting and Shaping
Symptom:	Class-id 0 Re-mapping value may get corrupted in rate-limit table		
Condition:	It is observed rarely after making changes/rebinding when both global and interface rate-limits are configured concurrently on a system		

Parent Defect ID:	NI-17605	**Issue ID:**	NI-21530
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Management Module may unexpectedly reload with the following stack trace: Exception Type 0000 (Soft Check), bgp Timeout (30s) 0000f030: msr 00000000: dar 00000000: dsisr 225f9ac8: memset(pc) 20fe76ac: bgp_best_route_selection_with_sorting(lr) 20fe7fc4: bgp_best_route_selection_and_change 20fb8724: bgp_check_and_update_bgp_route_in_ip_ta 20ff7320: bgp_clear_dampened_paths 21009088: bgp_clear_dampening_itc_request_callbac 20ba3ac0: itc_process_msgs_internal 20ba3f6c: itc_process_msgs		

	210275d8: bgp_task 00005e18: sys_end_task
Condition:	It is observed rarely while clearing dampening routes using clear command like below: clear ip bgp dampening

Parent Defect ID:	NI-21141	**Issue ID:**	NI-21537
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00h
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	IPv6 Addressing
Symptom:	Connectivity loss may be observed in IPv6 network		
Condition:	It is observed rarely on a MCT/ VEoVPLS configured device with MCT spoke connection in between the cluster peers		

Parent Defect ID:	NI-21431	**Issue ID:**	NI-21558
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00h
Technology Group:	Traffic Management	**Technology:**	QoS - Quality of Service
Symptom:	Packet priority may not be retained for control traffic		
Condition:	It is seen rarely on a MLX device, when the priority (TOS/DSCP) of the control traffic is modified at user level. Note: A New CLI (disable-ppgxt-prioritization) has been introduced to override the default behavior thereby retaining the actual priority value of control packets/traffic.		

Parent Defect ID:	NI-21149	**Issue ID:**	NI-21573
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00c
Technology Group:	Security	**Technology:**	TACACS & TACACS+
Symptom:	Sometimes SSH session may fail to login on specific vty		
Condition:	1.AAA authentication, authorization and accounting configured 2.Frequent creation and termination of SSH sessions with CLI's executed		

Parent Defect ID:	NI-21442	**Issue ID:**	NI-21585
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00
Technology Group:	MPLS	**Technology:**	MPLS VPLS - Virtual Private LAN Services
Symptom:	VPLS index in 'show mpls vpls local' does not match with index in 'show logging' log message.		
Condition:	Multiple VPLS instances with multiple VPLS peers are configured.		

Parent Defect ID:	NI-21588	**Issue ID:**	NI-21589
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00ha
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	BGP route updates may get stuck in ToSend queue		
Condition:	1.Routes with a large amount of attributes set 2.Update message length more than 1400bytes		

Parent Defect ID:	NI-21631	**Issue ID:**	NI-21632
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00jc
Technology Group:	Monitoring	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	100G Links may observe sub second flaps		
Condition:	Presence of Rev 2 CFP2 ER4 optic		

Parent Defect ID:	NI-21641	**Issue ID:**	NI-21643
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00e
Technology Group:	Traffic Management	**Technology:**	Traffic Queueing and Scheduling
Symptom:	Packet drops seen before the TM-NIF errors reach the configured limit are not logged.		
Condition:	Generally, there is a TM-NIF link monitoring every 1 min and if the errors reach configured limit there is a default action like shutdown the ports etc, but if before reaching the limit if there are drops, now addressed by a new action of snmp traps through this feature.		

Parent Defect ID:	NI-21674	**Issue ID:**	NI-21675
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00ha
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Rate Limit causing BGP session timing out		
Condition:	When 'ip rate-limit ttl-exceeded-to-cpu' and 'ipv6 rate-limit hoplimit-expired-to-cpu' are configured globally, it causes their BGP sessions to flap		

Parent Defect ID:	NI-21712	**Issue ID:**	NI-21712
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00ha

Technology Group:	Monitoring	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	Port may not come up on 2x100G CFP2 Line card module		
Condition:	In the presence of Finisar 100GE QSFP28-LR4 optic		

Parent Defect ID:	NI-21756	**Issue ID:**	NI-21756
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00a
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	default-originate command applied on the neighbor doesn't originate the default route to the neighbor		
Condition:	1. BGP is configured on the router 2. neighbor is configured with default-originate command with route-map 3. The NULL route-map is applied		

Parent Defect ID:	NI-9765	**Issue ID:**	NI-21813
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Monitoring	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	Link may stay down for 2x100G CFP2 Line card		
Condition:	In the presence of third party LR4 range of optics Note: Enabling 'fec' in CLI will now be allowed for LR4 to fix this issue		

Parent Defect ID:	NI-21803	**Issue ID:**	NI-21817
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00d
Technology Group:	Management	**Technology:**	CLI - Command Line Interface
Symptom:	CER/CES may reload unexpectedly with the following stack trace:- Possible Stack Trace (function call return address list) 000c454c: tsec_mib_dump(pc) 000c4544: tsec_mib_dump(lr) 000c4e5c: tsec_show_cmd 0007b730: parser 0007c654: cmdloop 000468ec: root_task 00040158: sys_end_task		
Condition:	On execution of 'tsec 1 show' cli command from OS mode		

Parent Defect ID:	NI-21825	**Issue ID:**	NI-21825

Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00e
Technology Group:	Monitoring	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	Latency/loss of frames are observed for Y.1731 (dot1ag) traffic.		
Condition:	1)MCT is configured with member VLAN's. 2)Dot1ag-transparent is configured and either LP power-cycle, LP reseat or reload of the chassis is performed. 3)802.1ag frames are transmitted with different priorities.		

Parent Defect ID:	NI-21841	**Issue ID:**	NI-21841
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00j
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	ARP - Address Resolution Protocol
Symptom:	After reload, ARP-Guard is applied to non-configured ports		
Condition:	1. system has 100G card inserted in any slot 2. LAG is configured and applied ARP-Guard on the primary port 3. reload the system		

Parent Defect ID:	NI-21784	**Issue ID:**	NI-21846
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00d
Technology Group:	Management	**Technology:**	SNMP - Simple Network Management Protocol
Symptom:	SNMP bulk may not get proper value for optical monitoring table		
Condition:	SNMP bulk get for the same slot Example :- snmpget -v 2c -c public 10.26.143.246 .1.3.6.1.4.1.1991.1.1.3.3.6.1.1.1 .1.3.6.1.4.1.1991.1.1.3.3.6.1.2.1 .1.3.6.1.4.1.1991.1.1.3.3.6.1.3.1		

Parent Defect ID:	NI-21847	**Issue ID:**	NI-21847
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00je
Technology Group:	Management	**Technology:**	NTP - Network Time Protocol
Symptom:	NTP symmetric passive association messages are seen in the log file without specifically configured for a server		
Condition:	Router listening on all IP's when NTP is disabled		

Parent Defect ID:	NI-21752	**Issue ID:**	NI-21851
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00g
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Some prefix in RTM is not updated with change in BGP route table		
Condition:	When BGP maximum-path has been configured, routing table still show old multipath routes even though BGP table has been updated with new route paths.		

Parent Defect ID:	NI-21809	**Issue ID:**	NI-21852
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	redistribute route learned through Type-7 LSA in NSSA area is not installed in the routing table		
Condition:	1. Two ABR exists in an NSSA area 2. static route is configured and advertised by ASBR through redistribution		

Parent Defect ID:	NI-21855	**Issue ID:**	NI-21855
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00ec
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	IPv6 Addressing
Symptom:	Intermittent packet loss may be observed for IPv6 network		
Condition:	It is observed rarely on a VEoVPLS configured device		

Parent Defect ID:	NI-21857	**Issue ID:**	NI-21857
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00a
Technology Group:	Security	**Technology:**	IPsec - IP Security
Symptom:	IPSEC tunnels dropped and did not recover		
Condition:	When LP was reloaded which has IPSEC tunnels configured		

Parent Defect ID:	NI-21875	**Issue ID:**	NI-21875
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Security	**Technology:**	AAA - Authentication, Authorization, and Accounting

Symptom:	May observe below error messages during AAA accounting:- NOTE: AAA stopped paste as an invalid command is seen in the current mode
Condition:	Configuring Ipv6 prefix list with prefix length more than 32 Example :- ipv6 prefix-list test2 deny ::/0 le 33

Parent Defect ID:	NI-21877	**Issue ID:**	NI-21877
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00j
Technology Group:	Monitoring	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	Link-OAM causing interface flap when another LP is power-cycled		
Condition:	1. Link-oam command is configured globally attaching ports from any specific LP for which timeout command should be configured less than 2 secs 2. Unrelated LP is power-cycled.		

Parent Defect ID:	NI-21880	**Issue ID:**	NI-21880
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	GRE - Generic Routing Encapsulation
Symptom:	Elevated CPU and Traffic Volume Due to GRE Configuration		
Condition:	1. Two loopbacks (loopback system) are configured on the ingress physical port and another loopback configured on another physical port with PBR configuration. 2. On LB1, the nexthop is set as a specific vlan with out-going DA MAC 3. On LB2, next-hop-ip-tunnel is set to GRE tunnel		

Parent Defect ID:	NI-17554	**Issue ID:**	NI-21883
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00g
Technology Group:	Monitoring	**Technology:**	Syslog
Symptom:	Latched Low, High Optical Monitoring Messages are observed in syslog periodically		
Condition:	Even though values are normal from "show optic" command values		

Parent Defect ID:	NI-21904	**Issue ID:**	NI-21904
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00e

Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	IPv6 Addressing
Symptom:	Management Module may unexpectedly reload with the following stack trace:- 220e0e34: vpls_mac_find_entry_by_vpls_idx(pc) 2126937c: nd6_process_neighbor_advert_message(lr) 2126937c: nd6_process_neighbor_advert_message 2123a254: icmp6_packet_received 212634ec: ip6_pass_packet_to_upper_layer 21262dec: ip6_packet_received 20f64614: l3_receive_packet 20f6508c: sw_receive_packet 20f65508: mp_rx_main 00005e18: sys_end_task		
Condition:	It is observed rarely on a MLX/XMR device, with VEoVPLS configured		

Parent Defect ID:	NI-21907	**Issue ID:**	NI-21907
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00b
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	OSPF task may utilize around 31% of Management Module CPU		
Condition:	On reception of larger LSA packet in the presence of standby Management Module		

Parent Defect ID:	NI-21937	**Issue ID:**	NI-21937
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00jf
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Some prefix in RTM is not updated with change in BGP route table		
Condition:	When BGP maximum-path has been configured, routing table still show old multipath routes even though BGP table has been updated with new route paths.		

Parent Defect ID:	NI-21198	**Issue ID:**	NI-21987
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00
Technology Group:	IP Multicast	**Technology:**	PIM - Protocol-Independent Multicast
Symptom:	Multicast video stream is not received on viewing stations in a SPT switchover environment		

Condition:	1. CER/MLX device is immediately connected to the source directly 2. SLX device is connected as FHR running IGMP on one side and PIM on the other side towards the CER/MLX devices. 3. All source/CER/SLX are in the same VLAN and the receivers are on a different VLANs

Parent Defect ID:	NI-21996	**Issue ID:**	NI-21996
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00h
Technology Group:	Management	**Technology:**	SNMP - Simple Network Management Protocol
Symptom:	Optic value shows up in cli output but shows not supported in SNMP client		
Condition:	100G or 40G LP card is inserted in any of the slot and SNMP walk or get/get-next operation performed for the object optical lane monitoring.		

Parent Defect ID:	NI-22003	**Issue ID:**	NI-22003
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.3.00
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	Multi-VRF
Symptom:	In-label information was not seen when sh ip bgp vpnv4 tag command was issued.		
Condition:	In-label for all VRFs were not seen when the label going to upstream BGP peer for incoming traffic.		

Parent Defect ID:	NI-9412	**Issue ID:**	NI-22016
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00fb
Technology Group:	Management	**Technology:**	SNMP - Simple Network Management Protocol
Symptom:	The maximum response time for SNMP polling may go around 300msec		
Condition:	SNMP walk for snIfOpticalMonitoringInfoTable		

Parent Defect ID:	NI-17641	**Issue ID:**	NI-22019
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00ca
Technology Group:	MPLS	**Technology:**	MPLS VPLS - Virtual Private LAN Services

Symptom:	With VPLS "rate-limit input unknown-unicast", "show rate-limit counters" can show 0 drops
Condition:	1. VPLS is configured with the command "rate-limit input unknown-unicast" under the vpls instance 2. various traffic patterns is passed over this instance and this traffic is stopped for 30 seconds

Parent Defect ID:	NI-21172	**Issue ID:**	NI-22031
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00h
Technology Group:	Monitoring	**Technology:**	RAS - Reliability, Availability, and Serviceability
Symptom:	Port may go down on 4x10G line card module		
Condition:	Presence of non-brocade TWINAX SFPP optic Note: "phy disable-equalization" will be allowed for 4x10G as well in addition to 8x10G.		

Parent Defect ID:	NI-17614	**Issue ID:**	NI-22033
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Active Management Module may reload with the following stack trace:- Possible Stack Trace (function call return address list) 20f76924: bgp_check_for_fwd_address(pc) 20fb9534: bgp_check_and_update_bgp_route_in_ip_table_as_necessary(lr) 20fb9534: bgp_check_and_update_bgp_route_in_ip_table_as_necessary 20ff447c: bgp_route_damping_timer_event 20fd7478: bgp_timer 20fd2a68: bgp_timeout_func 20ba3ac0: itc_process_msgs_internal 20ba3f6c: itc_process_msgs 210275d8: bgp_task 00005e18: sys_end_task		
Condition:	Frequent route flap and route churn with BGP dampening configured on the device		

Parent Defect ID:	NI-14763	**Issue ID:**	NI-22043
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00f

Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Management Module may unexpectedly reload with the following stack trace:- 20ff5f58: bgp_print_flap_statistics_entry(pc) 20ff5f54: bgp_print_flap_statistics_entry(lr) 20ff6414: bgp_get_flap_statistics_page_itc_handler 2100b2c0: bgp_show_dampening_itc_request_callback 20ba3ac0: itc_process_msgs_internal 20ba3f6c: itc_process_msgs 210275d8: bgp_task 00005e18: sys_end_task		
Condition:	It is observed rarely on a MLX/XMR device when, 1. "show ip bgp flap-statistics" is executed 2. Dampening events also occurs in parallel		

Parent Defect ID:	NI-17369	**Issue ID:**	NI-22044
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 05.8.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	Static Routing (IPv4)
Symptom:	Unstable routes with continuous route updation observed in the MLX under specific condition		
Condition:	When static route configured with next-hop-vrf as non-default VRF Ex: vrf vrf0X rd a:b address-family ipv4 ip route x.x.x.x/y next-hop-vrf vrf0Y z.z.z.z		

Parent Defect ID:	NI-17440	**Issue ID:**	NI-22046
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.0.00c
Technology Group:	Traffic Management	**Technology:**	Rate Limiting and Shaping
Symptom:	High LP CPU may be observed on 20x10G and 2x100G CFP2 Line card module		
Condition:	1. Configure policy-map and apply ARP rate-limit globally 2. Received ARP traffic at high rate		

Parent Defect ID:	NI-22050	**Issue ID:**	NI-22050
Severity:	S2 - High		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00e
Technology Group:	Security	**Technology:**	IPsec - IP Security
Symptom:	IPSEC tunnels dropped and did not recover		

Condition:	When LP was reloaded which has IPSEC tunnels configured

Parent Defect ID:	NI-22053	**Issue ID:**	NI-22053
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00f
Technology Group:	Monitoring	**Technology:**	Sysmon
Symptom:	Latched Low, High Optical Monitoring Messages are observed in syslog periodically		
Condition:	When False threshold alarms are raised		

Parent Defect ID:	NI-22066	**Issue ID:**	NI-22066
Severity:	S3 - Medium		
Product:	NetIron OS	**Reported in Release:**	NI 06.2.00d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	DHCP - Dynamic Host Configuration Protocol
Symptom:	DHCPv6 server RELAY replies are dropped after gateway due to nested DHCP headers are not properly handled by MLX		
Condition:	1. There are atleast 2 intermediary dhcp relay-agents between dhcp client and server. 2. MLX is acting as relay-agent adjacent to DHCP server 3. client has LDRA configured and carries the corresponding options in the DHCP packet.		

Closed with code changes NI6.3.00c

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of March 2020 in NetIron OS 6.3.00c.

Parent Defect ID:	NI-14753	**Issue ID:**	NI-17685
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 05.8.00f	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	MLX may send BGP update message with empty AS-SET Path attribute to BGP peer. The update messages would be dropped by peer due to incorrect or empty AS-SET path information.		
Condition:	1. When BGP neighbor is configured with "remove-private-as" command on MLX device 2. Private AS number is exist/connected in network		

Parent Defect ID:	NI-9350	**Issue ID:**	NI-21189
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer

Reported in Release:	NI 05.8.00g	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	OSPF neighbors may show all ECMP paths after upgraded MLXe fails setting a forwarding address in AS External LSA.		
Condition:	It is rarely observed with the following steps:-(1) OSPFv2 is enabled on the device(2) static routes are configured with gateway, which is reachable and redistributed into OSPFv2(3) Repeated image upgrade and downgrade		
Workaround:	NA		

Parent Defect ID:	NI-21238	**Issue ID:**	NI-21306
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.3.00b	**Technology:**	Static Routing (IPv4)
Symptom:	Traffic may be forwarded by Line card CPU causing high CPU utilization		
Condition:	Port is removed from GTP profile with PBR configured		
Workaround:	Re-binding the IP/IPV6 PBR on the interface		

Parent Defect ID:	NI-21231	**Issue ID:**	NI-21347
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.2.00a	**Technology:**	IPv6 Addressing
Symptom:	Line card may reload with the following stack trace :- Possible Stack Trace (function call return address list) 21685920: memset(pc) 20c09860: generic_get_mem_from_pool(lr) 20fcd940: ip6_get_free_cache_entry 20faf9fc: ip6_process_route_loookup 20faa738: ipv6_fwd_unicast_packet 20fac984: ipv6_packet_receive 20f350e0: rx_pkt_processing 20d8b720: lp_pkt_receive 20a1deb4: ppcr_recieve_packet 207f3360: lp_pbif_packet_task 00040158: sys_end_task		
Condition:	Processing large number of ICMPv6 echo request packets for unknown destination hosts with 'ipv6 max-host-drop-cam' configured		
Workaround:	NA		

Parent Defect ID:	NI-21312	**Issue ID:**	NI-21359
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 05.8.00f	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Router ID may not displayed correctly in 'show ip ospf' config output		
Condition:	1. OSPF is configured on the device 2. router-id is configured on a loopback		

Parent Defect ID:	NI-21371	**Issue ID:**	NI-21385
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 06.3.00b	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	Port may not go down on 2x100G CFP2 Line card module		
Condition:	When "loopback system" configuration is removed from an interface having QSFP28-SR4 optic installed with no physical connection		

Parent Defect ID:	NI-14775	**Issue ID:**	NI-21409
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.3.00a	**Technology:**	ICMP - Internet Control Message Protocol
Symptom:	Host may fail to ping directly connected virtual interface and packets may get dropped in NP as Routed Packet drops		
Condition:	1. when a port is configured as untagged port in default VLAN and associated with virtual interface 2. Rarely observed during repeated disconnection of directly connected host		
Workaround:	NA		

Parent Defect ID:	NI-21340	**Issue ID:**	NI-21461
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.2.00c	**Technology:**	IPv6 Addressing
Symptom:	Line card may reload unexpectedly with the following stack trace :- Possible Stack Trace (function call return address list) 20e112dc: debug_assert(pc) 20fcdcb0: ip6_remove_cache_from_LinkList(lr) 20fce940: ip6_delete_host_cache_entry 20d1fda8: ipv6_cam_ageout_handler 20aef974: xpp80ge_age_rc2 20aefd0c: xpp80ge_age_rc 20a05d60: ppcr_rc_aging_poll 20005a74: perform_callback 2000647c: timer_timeout 00040160: sys_end_entry 0005e4a0: suspend 0005cf78: dev_sleep 00005024: xsyscall 207f18b0: main 00040158: sys_end_task		
Condition:	Processing large number of ICMPv6 echo request packets for unknown destination hosts with 'ipv6 max-host-drop-cam' configured		

Parent Defect ID:	NI-21465	**Issue ID:**	NI-21481
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.3.00b	**Technology:**	GRE - Generic Routing Encapsulation
Symptom:	High LP CPU utilization may be observed		
Condition:	Existence of tunnel interface with tunnel mode as gre ip without any tunnels established and receiving unknown GRE packets/traffic		

Parent Defect ID:	NI-21477	**Issue ID:**	NI-21485
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 05.8.00h	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	The routes learnt over sham-link are treated as O2 (external routes)		
Condition:	1. In the OSPF network, there are 2 PE devices, between which sham-link is brought UP and 2 CE devices connect to each of the two PE devices. 2. A static route is configured on one of the PE devices and redistributed		

Parent Defect ID:	NI-9349	**Issue ID:**	NI-21490
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 05.8.00g	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Inconsistent behavior may be observed between OSPFV2 and OSPFV3		
Condition:	Configuration of 'max-metric' command		

Parent Defect ID:	NI-21468	**Issue ID:**	NI-21492
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Management
Reported in Release:	NI 06.0.00f	**Technology:**	CLI - Command Line Interface
Symptom:	Management Module may reload unexpectedly with the following stack trace:- Possible Stack Trace (function call return address list) 203c0e40: uprintf(pc) 203c0e40: uprintf(lr) 20025b3c: copy_runConfig_startConfig 202eff7c: call_action_func 202f0a74: parse_node 202f04f0: parse_node_recurse 202f0d48: parse_node 2036485c: parse_input 2042a90c: cli_aaa_accounting_callback 2079f3bc: aaa_accounting_start 2042a160: cli_request_command_accounting 202f0964: parse_node 2036485c: parse_input 2042ab9c: cli_aaa_authorization_callback 2079f450: aaa_authorization_start 20429780: cli_request_command_authorization 202f0954: parse_node 202eefb8: parser 20364838: parse_input 20aa4e48: ssh_event_handler 20ab80a0: ProcessChannelData 20ab56bc: ShProcessMessage 20abea5c: ProcessClientInputData 20abe1f4: ShFiniteStateMachine 209c06ec: HandleProtocolAction 209c04cc: HandleConnectionTask 20aa3a18: ssh_connection_task 20aa4164: ssh_socket_control 20aa6e00: ssh_receive_data_ready 20aa6e44: ssh_tcp_receive_data_ready_callback 20ba3ac0: itc_process_msgs_internal 20ba3f6c: itc_process_msgs 20a9f0d4: ssh_in_task 00005e18: sys_end_task		
Condition:	killing the SSH session while 'write mem' with large size running configuration is being performed		

Parent Defect ID:	NI-21400	**Issue ID:**	NI-21494
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.2.00b	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	MLX/CER router may reload unexpectedly with the following stack trace:- Possible Stack Trace (function call return address list) 20fdfea0: calculate_routes_to_a_single_external_destination(pc) 20fdfe54: calculate_routes_to_a_single_external_destination(lr) 20fdf80c: ospf_recalc_type5_route_chunk 20fbb610: ospf_construct_routing_table 20fca9b0: ospf_route_calculation_process 20fa02f4: ospf_route_calc_task 00040158: sys_end_task		
Condition:	1. OSPF is enabled on the device 2. OSPF has learnt external LSAs with forwarding address, which is not reachable		

Parent Defect ID:	NI-21440	**Issue ID:**	NI-21499
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Security
Reported in Release:	NI 06.0.00h	**Technology:**	TACACS & TACACS+
Symptom:	The below authentication logs will be observed for every successful TACACS login. Aug 14 04:19:04:I:Tacplus service for Authentication session gave response=ACCEPT from server_ip=a.b.c.d		
Condition:	TACACS authentication is Enabled.		

Parent Defect ID:	NI-21401	**Issue ID:**	NI-21503
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 06.0.00d	**Technology:**	RAS - Reliability, Availability, and Serviceability
Symptom:	Timestamp of error messages in "show sysmon log" and "show logging" does not match.		
Condition:	Errors detected by sysmon monitoring		

Parent Defect ID:	NI-21427	**Issue ID:**	NI-21516
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 06.0.00j	**Technology:**	RAS - Reliability, Availability, and Serviceability
Symptom:	In show optic command output, Tx power levels will not be displayed for QSFP28 optics.		
Condition:	QSFP28 optical connector connected to the device.		

Parent Defect ID:	NI-8943	**Issue ID:**	NI-21525
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	SDN
Reported in Release:	NI 05.8.00e	**Technology:**	OpenFlow
Symptom:	Traffic may not be forwarded properly on an Open Flow enabled port		
Condition:	Observed when the same Open Flow rules are pushed through Lumina controller by Rest API repeatedly with different priorities.		

Parent Defect ID:	NI-9125	**Issue ID:**	NI-21527
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 2 Switching
Reported in Release:	NI 05.8.00f	**Technology:**	QnQ - IEEE 802.1Q
Symptom:	Double tagged packets with both inner and outer tag-type as 8100 may get dropped on 20X10G Line card module		
Condition:	Ingress port is configured as tagged with tag-type 8100		

Parent Defect ID:	NI-21135	**Issue ID:**	NI-21532
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00f	**Technology:**	Static Routing (IPv6)
Symptom:	May observe duplicate route entry messages on LP console like below:- kbp_duplicate_entry_IPV6[0] idx : 0x0033a932 tbl_id : 144 pfx :00000000:00000000:00000000:00000000/0		
Condition:	1.Addition and removal of IPv6 static default NULL0 route 2.IPv6 is disabled on interface		

Parent Defect ID:	NI-17565	**Issue ID:**	NI-21533
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Traffic Management
Reported in Release:	NI 06.0.00g	**Technology:**	Rate Limiting and Shaping
Symptom:	Traffic may be dropped with the packet size larger than 1100 bytes		
Condition:	1. Port speed configured as 100M full duplex 2. Rate-limit configured with cbs greater than 54000(256000/125000)bytes 3. In the presence of burst traffic		

Parent Defect ID:	NI-17589	**Issue ID:**	NI-21535
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	MPLS
Reported in Release:	NI 06.2.00b	**Technology:**	MPLS VPLS - Virtual Private LAN Services
Symptom:	MCT Local VPLS switchover may take up to 15sec		
Condition:	One of the MCT peer goes Down with 3.5k VPLS instances configured on MCT		

Parent Defect ID:	NI-17613	**Issue ID:**	NI-21536
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Management
Reported in Release:	NI 05.4.00ea	**Technology:**	CLI - Command Line Interface
Symptom:	LP module uptime may show incorrect value		
Condition:	Observed after LP reload with MP running for more than 1500 days		

Parent Defect ID:	NI-21210	**Issue ID:**	NI-21538
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Management
Reported in Release:	NI 06.3.00b	**Technology:**	CLI - Command Line Interface
Symptom:	Incorrect media and optical information observed		
Condition:	1.On 100G module with QSFP28 optic 2.Port configured with loopback system		

Parent Defect ID:	NI-21353	**Issue ID:**	NI-21539
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Traffic Management
Reported in Release:	NI 06.2.00c	**Technology:**	Rate Limiting and Shaping
Symptom:	Traffic may not be rate-limited as configured		
Condition:	When ACL based rate-limit configuration with different queue priority is modified multiple times ex: rate-limit output access-group xxx priority q2 policy-map xyzMbps rate-limit output access-group xxx priority q0 xyz abc		

Parent Defect ID:	NI-21164	**Issue ID:**	NI-21544
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Management
Reported in Release:	NI 05.6.00j	**Technology:**	FDP - Foundry Discovery Protocol
Symptom:	Management Module may unexpectedly reload with the following stack trace:- Possible Stack Trace (function call return address list) 0002b1d0: free_memory_pool(pc) 0002b1c8: free_memory_pool(lr) 0002b800: free_memory 00027e3c: dev_free_memory 00005024: xsyscall 202ad558: os_free 206a5528: fdp_reallocate_cache_entry_data 206a56c8: fdp_reallocate_cache_entry 206a5778: fdp_release_one_fdp_cache_entry 206a6058: fdp_process_one_incoming_message 206a6284: fdp_process_fdp_cdp_pdu 20a1fa90: itc_process_msgs_internal 20a1fdd0: itc_process_msgs 206ae930: snms_task 00005e18: sys_end_task		
Condition:	It is rarely observed when copying LP FPGA image with FDP/CDP enabled on a cluster configured MLX device		

Parent Defect ID:	NI-21219	**Issue ID:**	NI-21546
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00g	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	The BGP default route originated and advertised to the peer, will not have the AS_PATH prepended as per the route-map applied		
Condition:	1. BGP is enabled on the device 2. There is a BGP peering exists with the neighbor 3. A route-map "xxxx" is defined to prepend the AS_PATH to the default route 3. "default-originate route-map xxxx" command configured for the neighbor		

Parent Defect ID:	NI-21223	**Issue ID:**	NI-21547
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 06.3.00b	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	10G port is initialized as 1G port speed		
Condition:	1. Any port in 20x10G module with no optic installed 2. Loopback system configured on the port		
Workaround:	Configure the port speed manually		

Parent Defect ID:	NI-21317	**Issue ID:**	NI-21548
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00f	**Technology:**	Static Routing (IPv4)
Symptom:	May observe duplicate route entry messages on LP console like below:- kbp_duplicate_entry_IP[0] idx : 0x0019ddbc tbl_id : 128 pfx : 0.0.0.0/0		
Condition:	Frequent route update and live traffic on device with IPv4 static default NULL0 route configured		

Parent Defect ID:	NI-21313	**Issue ID:**	NI-21549
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 06.0.00d	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	100G Links may observe sub second flaps		
Condition:	Presence of Rev 2 CFP2 ER4 optic		

Parent Defect ID:	NI-21357	**Issue ID:**	NI-21550
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Security
Reported in Release:	NI 06.0.00j	**Technology:**	IPsec - IP Security
Symptom:	High LP CPU may be observed with IPSEC data traffic		
Condition:	1. Route to tunnel destination changes 2. IPSEC data traffic received with MTU size greater than default value 1431		

Parent Defect ID:	NI-21370	**Issue ID:**	NI-21551
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 05.8.00ec	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	Management Module may unexpectedly reload with the following stack trace: Possible Stack Trace (function call return address list) 0002e2cc: assert_double_free_small_memory(pc) 0002e2c4: assert_double_free_small_memory(lr) 0002e4cc: free_memory_pool 0002eafc: free_memory 0002b0e0: dev_free_global 00005024: xsyscall 20a87fc0: FreeEvent 20ae7304: scp_event_callback 20b148d0: itc_process_msgs_internal 20b14a24: itc_process_msgs 20adf8a0: scp_task 00005e18: sys_end_task		
Condition:	It is observed rarely on a MLX device, during removal of delay-link-event configuration.		

Parent Defect ID:	NI-21436	**Issue ID:**	NI-21554
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Monitoring
Reported in Release:	NI 06.3.00ba	**Technology:**	OAM - Operations, Admin & Maintenance
Symptom:	10G port may come as 1G		
Condition:	1. On 20x10G module with no optic installed 2. Loopback system configured on a disabled interface		
Workaround:	have the interface enabled before applying loopback system configuration		

Parent Defect ID:	NI-21581	**Issue ID:**	NI-21582
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.2.00d	**Technology:**	IPv6 Addressing
Symptom:	Intermittent traffic drop may be observed sometimes		
Condition:	Removing and reconfiguring IPV6 address on a VE interface that receives continuous traffic.		

Parent Defect ID:	NI-21352	**Issue ID:**	NI-21586
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00f	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Management Module may unexpectedly reload with the following stack trace:- 20f6c5a0: bgp_clear_out_policy_soft_outbound_callback(pc) 21044e2c: bgp_tree_partial_traverse(lr) 21044e2c: bgp_tree_partial_traverse 20f6cad0: bgp_clear_out_policy_soft_outbound 20f6c400: bgp_clear_one_neighbor_number_soft_outbound 20fd34c0: bgp_timer 20fd2aa0: bgp_timeout_func 20ba3ac0: itc_process_msgs_internal 20ba3f6c: itc_process_msgs 210275d8: bgp_task 00005e18: sys_end_task		
Condition:	It is observed rarely while adding new BGP peers to the router and executing the BGP soft clear command like below:- clear ip bgp neighbor x.x.x.x soft-outbound		

Parent Defect ID:	NI-19279	**Issue ID:**	NI-21587
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 05.7.00e	**Technology:**	OSPFv3 - IPv6 Open Shortest Path First
Symptom:	Management Module may unexpectedly reload with the following stack trace:- 21112da8: ospf6_listnode_delete_count(pc) 21112f40: ospf6_lsdb_remove(lr) 21112f40: ospf6_lsdb_remove 21113644: ospf6_lsdb_install 2111f0f4: ospf6_dbex_receive_lsa 2111f80c: ospf6_ls_upd 2112069c: ospf6_message_process 21104644: ospf6_router_receive_packet_callback 20a55c34: itc_process_msgs_internal 20a55f6c: itc_process_msgs 21103e0c: ospf6_task 00005e18: sys_end_task		
Condition:	OSPFv3 Cost changes on a scaled network		

Parent Defect ID:	NI-17371	**Issue ID:**	NI-21600
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00f	**Technology:**	IPv6 Addressing
Symptom:	IPv6 neighborship may not be established		
Condition:	When IPv6 neighbor solicitation request is received from the peer with source address same as configured interface IPV6 address		

Parent Defect ID:	NI-9624	**Issue ID:**	NI-21601
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00e	**Technology:**	OSPF - IPv4 Open Shortest Path First
Symptom:	Management Module may unexpectedly reload with the following stack trace:- 210ea558: ospf_free_route_entry(pc) 210e97c4: ospf_delete_dspt_asbr_entry_callback(lr) 210e97c4: ospf_delete_dspt_asbr_entry_callback 2033fff4: ip4_delete_entire_trie 210e9830: ospf_clear_dspt_asbr_routing_table 210e52d8: ospf_dspt_clear_whole_table 22077304: ospf_lsp_shortcut_destroy 2109ccc8: ospf_disable_operation_of_ospf_protocol 210fbaf8: restart_ospf 210fbb58: clear_ospf_all 210c36fc: cu_clear_ospf_all_callback 20ba069c: itc_process_msgs_internal 20ba0b48: itc_process_msgs 210ba678: ospf_task 00005e18: sys_end_task		
Condition:	It is observed rarely on a MLX/XMR device, 1. With high scale of routes in a MCT, VRF and OSPF configured device 2. On restarting the OSPF process ex: clear ip ospf vrf vrf-name all		

Parent Defect ID:	NI-21614	**Issue ID:**	NI-21615
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.0.00hb	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Line card module may reload unexpectedly with the following stack trace: 20ed7218: ip_check_if_all_children_keys_are_in_cam(pc) 20f30418: ip_add_entry_in_routing_table_trie(lr) 20f2fe68: ip_add_entry_in_routing_table_trie 20f32f90: ip_search_and_traverse_trie 20f335d4: ip4_search_and_traverse_trie 20e0a708: ip_route_checksum 20ed0900: tree_veri_func 20ed1838: tree_veri_func_unicast 20bd61b4: process_dy_veri_packet 20c1ce8c: ipc_multi_module_handler 20c1f400: ipc_process_messages 20c1fbdc: ipc_receive_packet 20036ee8: ge_process_ipc_data_msg 207f528c: lp_ipc_task 00040158: sys_end_task		
Condition:	It is observed rarely on a MLX device during route sync-up in the presence of VRF routes with BGP		

Parent Defect ID:	NI-21619	**Issue ID:**	NI-21620
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.3.00	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	unreachable BGP route count may not be correct in show CLI output.		
Condition:	In the presence of BGP filtered route (denying via prefix-list) with unresolvable Next Hop.		

Parent Defect ID:	NI-8935	**Issue ID:**	NI-21671
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	SDN
Reported in Release:	NI 05.8.00e	**Technology:**	OpenFlow
Symptom:	Sometimes Open flow rules may not get installed		
Condition:	On receiving the update action within a second, while processing the same Open flow rule with same priority and priority should be less that the existing flow		
Workaround:	NA		

Closed with code changes NI6.3.00a1

This section lists software defects with Critical, High, and Medium Technical Severity closed with a code change as of August 2019 in NetIron OS 6.3.00a1.

Parent Defect ID:	NI-21342	**Issue ID:**	NI-21342
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Security
Reported in Release:	NI 06.3.00a1	**Technology:**	IPsec - IP Security
Symptom:	The certficate signing request (CSR) generated by MLXe has digest calculated using SHA1 instead of using SHA256 or SHA384.		
Condition:	When user issue pki enroll command to enroll for X509v3 certficate.		

Parent Defect ID:	NI-21405	**Issue ID:**	NI-21405
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Security
Reported in Release:	NI 06.3.00a1	**Technology:**	IPsec - IP Security
Symptom:	Sometime when MLXe is configured as a Responder only for IKEv2, IPsec tunnel will not be established when X509v3 certificates are used for peer authentication.		
Condition:	MLXe configured as a Responder Only for IKEv2 and X509v3 certficates are used for peer authentication.		
Workaround:	Stop and restart IPsec tunnel establishment from the remote peer who is initiator or make MLXe as a initiator.		

Parent Defect ID:	NI-21424	**Issue ID:**	NI-21424
Severity:	S3 - Medium		
Product:	NetIron OS	**Technology Group:**	Security
Reported in Release:	NI 06.3.00a1	**Technology:**	IPsec - IP Security
Symptom:	Sometime IPsec Tunnel can be established with a remote peer that has sent invalid X509v3 certificate in case where the remote client has in last 10 minutes sent a valid X509v3 certficate.		
Condition:	Establishment of IPsec tunnel by remote peer with a valid X509v3 certificate followed by teardown of the IPsec tunnel and then re-establishment of same IPsec tunnel by same remote peer with an invalid X509v3 certficate within 10 minutes of previous successfull IPsec tunnel setup with the valid X509v3 certficate.		
Workaround:	Issue " clear ikev2 sa" before IPsec tunnel is re-established.		

Parent Defect ID:	NI-21426	**Issue ID:**	NI-21426
Severity:	S2 - High		
Product:	NetIron OS	**Technology Group:**	Layer 3 Routing/Network Layer
Reported in Release:	NI 06.3.00a1	**Technology:**	ARP - Address Resolution Protocol
Symptom:	IPv6 Traffic is dropped when a lag which is member of a VE interface goes down due to IPv6 Neighbor Discovery Table entries are not updated to point to an alternative outgoing physical port which is up and member of same VE interface.		
Condition:	Lag which is member of VE and currently selected outgoing physical port of a IPv6 neighbor discovery entries must go down and another physical port of VE which is up is selected as a the new outgoing physical port for the ND6 entries.		
Workaround:	Issue " clear ipv6 neighbor ve <ve interface number>"		