9920 v21.2.2.0 Release Notes

New Features, Bug Fixes, and Known Limitations

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Abstract

The 9920 Release Notes for version 21.2.2.0 details key updates, feature enhancements, known limitations, and defect resolutions for the 9920 platform. Significant additions include load balance with masking options, packet capture enhancements, VXLAN and MPLS outer encapsulation, new health check commands in supportsave. Known limitations include issues like GRE tunnel encapsulation failing to support MPLS packets, SNMP linkUp/linkDown traps being generated during system upgrades, overwriting of mirror sessions and packet capture, and 100G-DR, FR optical transmissions. Resolved defects include LC7 failing to initialize after upgrading to version 21.1.2.7, LAG aggregation messages for state notifications not sent to forwarding services, NPB not sending syslogs to syslog server after XCO upgrade. This release is critical for network administrators optimizing 9920 systems, addressing functionality and improving operational stability.

Release Notes

The NPB software runs the NPB operating system and provides network packet broker functions.

New in this Release

Version 21.2.2.0 of the Extreme 9920 software with the NPB application offers the following feature enhancements and defect fixes.

Table 1: Feature Updates

Feature	Description
Load Balance with Masking Options	Load balance feature enhancements include support for individual masking options such as Src-IP, Dst-IP, Protocol, Dst-L4-Port, Src-L4-Port, and Tunnel-ID for lag hashing in addition to already supported load balancing algorithms.
Packet Capture	• **Start Time Configuration**: Support for configuring the start time for packet capture. • **Tunnelled Packets Capture**: Added support for capturing tunnelled packets at the ingress group. • **Differentiated File Names**: Packet capture file names are now differentiated based on the source of the packet capture trigger (ACL or interface).

Table 1: Feature Updates (continued)

Feature	Description
VXLAN and MPLS Outer Encapsulation	New parameters, `log` and `log_drop` are added.
RAS	The following new health check commands are supported in supportsave: • ipmitool sensor list • ipmitool mc info • ipmitool chassis power status • ipmitool fru • ipmitool sdr

For more information, see:

- *Extreme 9920 Software Configuration Guide, 21.2.2.0*
- Defects Closed With Code Changes

Commands

There are new and modified commands in this release.

New Commands

- **capture start time**

Modified Commands

- **load-balance**
- **traffic-type vxlan**
- **traffic-type mpls**

For more information, refer to the *Extreme 9920 Software Command Reference, 21.2.2.0*.

Supported Optics

The following optics are new in this release.

- 100G-FR-QSFP2KM
- 100G-DR-QSFP500M
- 100G SR4 QSFP28 100m
- 100G LR4 Lite 2km

Known Limitations

Note the following caveats that were disclosed in the NPB 21.1.2.0 release that is applicable for this release of the software as well.

GRE tunnel encapsulation does not support MPLS packets

When an MPLS packet is subjected to GRE encapsulation, the protocol ID in the GRE header is set to 0.

Listener policy byte count is incorrect when truncation is enabled

On Extreme 9920 devices, the byte count for truncated packets is the actual byte count seen by the egress ACL before truncation.

GRE version-1 packets are not filtered with the 'network-id-type:NETWORK_ID_TYPE_GRE' rule

The rule filters the GRE version-0 packets.

Scale limitation of 2000 ingress groups is not achieved in a certain configuration

When both transport tunnels and ingress groups are configured, some of the non-transport ingress groups are not stored in the hardware table. Ingress groups that are not in the hardware table are not counted toward the scale limit.

Filtering by the authentication header is not supported

You cannot configure ACLs for IP ESP (Encapsulating Security Payload) that filter for the authentication header.

MAC ACL counters are incremented when traffic matches IPv4, IPv6, and MAC ACLs

If multiple matches, in different ACL types, are on permit rules, only the match in the highest-preference type is implemented. Lower-preference matches are ignored. The preference order is Layer 3 > Layer 2. The counters are incremented for all the matching ACLs because they indicate that a match is found.

Matching packets based on IGMP group address for both IPv4 and IPv6 is not supported

You cannot configure ACL rules to match packets based on the IGMP group address for both IPv4 and IPv6.

Transport tunnel termination is supported only for ERSPAN Type II

Transport tunnel termination considers only ERSPAN Type II headers for termination and does not consider any specific SPAN-ID to terminate and further classify the flows.

Device links are not operational for 100G LR4 optic with FEC mode set to auto

To enable the links between Extreme 9920, SLX 9140, and SLX 9240 devices to be operational with 100GBASE-LR4 optics, configure one of the following

- Disable FEC on Extreme 9920 devices.
- Enable RS-FEC on SLX devices when the peer side FEC configuration is set to auto.

IPv6 packets with extension headers cannot be matched, filtered, or forwarded

On Extreme 9920 devices, IPv6 packets with extension headers cannot be matched, filtered, or forwarded on standard TCP or UDP protocols.

Multiple SNMP linkUp or linkDown traps are generated during SNMP upgrade

This situation occurs when you upgrade the SNMP service with the `system service update` command. These traps do not impact functionality and there is nothing you need to do.

Overwriting of mirror sessions and packet capture due to ASIC behavior

A mirror session programmed at one stage will be overwritten by a subsequent stage if the packet matches an entry in the table. Onboard PCAP capture of ACL will overwrite packet capture of ingress interface and tunnel based captures.

100G-DR, FR optical transmission

The 100G-DR, FR uses a single laser and operates with PAM4 modulation at 53.125 Gb on the optical side. Since PAM4 encodes 2 bits per symbol, this results in a 100G transmission rate. Channels 2, 3, and 4 should remain inactive, so the tx, rx, and txbias data will show proper values for channel 1, and either infinity or 0.00 for channels 2, 3, and 4.

Defects Closed With Code Changes

The following defects were closed with code changes in the 21.2.2.0 release of the software.

Parent Defect ID:	NPB-6252	Issue ID:	NPB-6252
Severity:	S2 - Major		
Product:	NPB	Reported in Release:	NPB 21.1.2.7
Symptom:	After upgrade to 21.1.2.7, LC7 did not come up and device was not reachable.		

Parent Defect ID:	NPB-6310	Issue ID:	NPB-6310
Severity:	S2 - Major		
Product:	NPB	Reported in Release:	NPB 21.2.1.0
Symptom:	LAG aggregation messages for state notifications were not received by forwarding services and as a result traffic was impacted for the port channel.		
Condition:	Post reboot, LAG aggregation messages for state notifications were not received by forwarding services.		

Parent Defect ID:	NPB-6317	Issue ID:	NPB-6317
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.1.2.7
Symptom:	After XCO upgrade, NPB stops sending syslogs to syslog server.		
Condition:	During XCO upgrade, NPB was clearing all the rsyslog configuration.		

Defects Closed Without Code Changes

There are no defects closed without code changes in the 21.2.2.0 release of the software.

Open Defects

The following defects are open in this release of the software.

Parent Defect ID:	NPB-5182	Issue ID:	NPB-5182
Severity:	S2 - Major		
Product:	NPB	Reported in Release:	NPB 21.1.1.0
Symptom:	Entity MIB item entPhysicalVendorType does not return any Vendor type OIDs, instead it just returns {0 0} when SNMP walk is performed		
Condition:	This happens during SNMP walk of entPhysicalVendorType in the entity MIB.		
Workaround:	No workaround		
Recovery:	No recovery available		

Parent Defect ID:	NPB-5188	Issue ID:	NPB-5188
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.1.1.0
Symptom:	"Link Fault Status" field in "Show interface ethernet" might show incorrect fault status.		
Condition:	"no shutdown" on the ethernet interface.		
Recovery:	No functional impact.		

Parent Defect ID:	NPB-5724	Issue ID:	NPB-5724
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.1.2.0
Symptom:	LACP port-channel remains down after replaying the configuration with LACP rate as 'fast' in the member interfaces.		
Condition:	The issue is seen when the LACP configurations are replayed with the node in default-configs. only when "lacp rate fast" is configured on member ports.		

Workaround:	If we reboot the system with config, it will work properly or change the "lacp rate normal", and after the port-channel comes up again, change it to "lacp rate fast" on member ports.
Recovery:	Disable & enable lacp in the global config mode. ('no protocol lacp' & 'protocol lacp')

Parent Defect ID:	NPB-6285	Issue ID:	NPB-6285
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.2.2.0
Symptom:	The 100G-DR, FR is a single laser. On the optical side it runs PAM4 at 53.125 Gb. PAM4 is 2 bits per symbol which gives you 100G. Channels 2,3 and 4 should be quiet. Hence tx, rx, txbias data shows proper for channel-1, inf or 0.00 on channel-2,3,4		

Parent Defect ID:	NPB-6302	Issue ID:	NPB-6302
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.2.1.0
Symptom:	Help string has to be updated to display the range from 1-4095. Documentation has been updated.		
Condition:	While configuring the ACL rules, the help string shows the priority range as 1-65535.		
Workaround:	Configure the rules with priority ranging from 1 to 4095.		
Recovery:	Configure the rules with priority ranging from 1 to 4095.		

Parent Defect ID:	NPB-6311	Issue ID:	NPB-6311
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.1.2.5
Symptom:	"show grpc-server gnmi statistics" command output does not indicate external IP address which originated the gnmi subscription request.		
Condition:	"show grpc-server gnmi statistics" command output always indicates internal IP address as the originator of GNMI subscriptions		

Parent Defect ID:	NPB-6313	Issue ID:	NPB-6313
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.2.2.0
Symptom:	For single lane optics, currently the 'show cli' command displays the media information for all the lanes.		
Condition:	This is applicable for single lane optics like FR and DR.		

Workaround:	Only the first lane data to be considered for single lane optics.
Recovery:	None

Parent Defect ID:	NPB-6315	Issue ID:	NPB-6315
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.1.2.7
Symptom:	All line cards of NPB restarted randomly.		
Condition:	Issue happened with NPB box powered using DC PSU and there is voltage fluctuation causing all LCs to go down.		
Workaround:	Use 'system slot on' command to bring up the LC, if LCs are in Present state.		
Recovery:	All LCs recover when voltage is normal.		

Parent Defect ID:	NPB-6318	Issue ID:	NPB-6318
Severity:	S3 - Moderate		
Product:	NPB	Reported in Release:	NPB 21.1.2.7
Symptom:	Traffic is not getting forwarded out of few egress ports.		
Condition:	Traffic is not getting forwarded out of few egress ports.		
Workaround:	With rebooting the system, the condition is getting cleared and traffic forwarded.		
Recovery:	With rebooting the system, the condition is getting cleared and traffic forwarded.		

Help and Support

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

Extreme Portal

Search the GTAC (Global Technical Assistance Center) knowledge base; manage support cases and service contracts; download software; and obtain product licensing, training, and certifications.

The Hub

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

Call GTAC

For immediate support: (800) 998 2408 (toll-free in U.S. and Canada) or 1 (408) 579 2800. For the support phone number in your country, visit www.extremenetworks.com/support/contact.

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

- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any actions already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

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