9920 Software Scale Matrix

21.2.2.0

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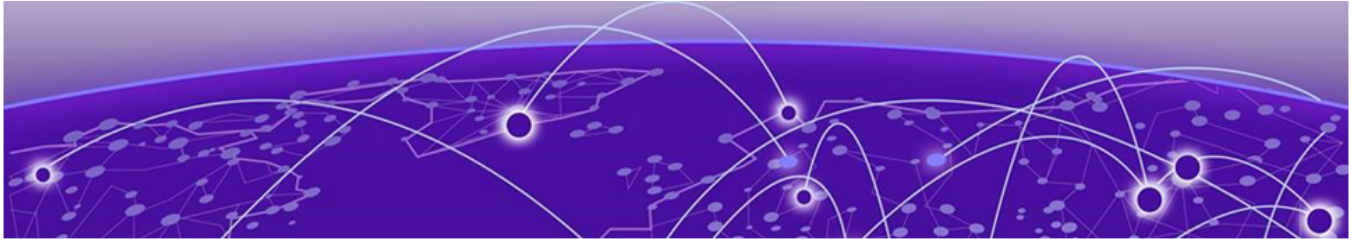

Table of Contents

Preface

Read the following topics to learn about:

- The meanings of text formats used in this document.
- Where you can find additional information and help.
- How to reach us with questions and comments.

Text Conventions

Unless otherwise noted, information in this document applies to all supported environments for the products in question. Exceptions, like command keywords associated with a specific software version, are identified in the text.

When a feature, function, or operation pertains to a specific hardware product, the product name is used. When features, functions, and operations are the same across an entire product family, such as Extreme Networks switches or SLX routers, the product is referred to as *the switch* or *the router*.

Table 1: Notes and warnings

Icon	Notice type	Alerts you to...
	Tip	Helpful tips and notices for using the product
	Note	Useful information or instructions
	Important	Important features or instructions
	Caution	Risk of personal injury, system damage, or loss of data
	Warning	Risk of severe personal injury

Table 2: Text

Convention	Description
`screen displays`	This typeface indicates command syntax, or represents information as it is displayed on the screen.
The words *enter* and *type*	When you see the word *enter* in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says *type*.
Key names	Key names are written in boldface, for example **Ctrl** or **Esc**. If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press **Ctrl**+**Alt**+**Del**
Words in italicized type	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.
NEW!	New information. In a PDF, this is searchable text.

Table 3: Command syntax

Convention	Description
bold text	Bold text indicates command names, keywords, and command options.
italic text	Italic text indicates variable content.
`[ ]`	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
`{ x | y | z }`	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x | **y**	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, such as passwords, are enclosed in angle brackets.
...	Repeat the previous element, for example, *member*[*member*...].
\	In command examples, the backslash indicates a “soft” line break. When a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

Find Extreme Networks product information at the following locations:

Current Product Documentation
Release Notes
Hardware and Software Compatibility for Extreme Networks products
Extreme Optics Compatibility
Other Resources such as articles, white papers, and case studies

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Some software files have been licensed under certain open source licenses. Information is available on the Open Source Declaration page.

Training

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For details, visit the Extreme Networks Training page.

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

Subscribe to Product Announcements

You can subscribe to email notifications for product and software release announcements, Field Notices, and Vulnerability Notices.

1. Go to The Hub.
2. In the list of categories, expand the **Product Announcements** list.
3. Select a product for which you would like to receive notifications.
4. Select **Subscribe**.
5. To select additional products, return to the **Product Announcements** list and repeat steps 3 and 4.

You can modify your product selections or unsubscribe at any time.

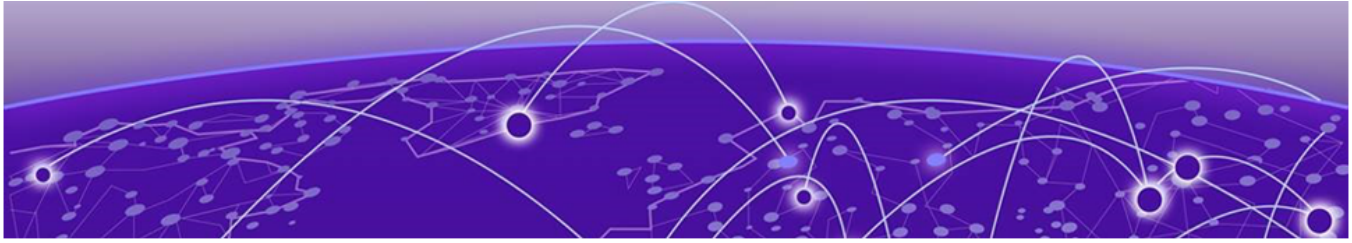
Send Feedback

The User Enablement team at Extreme Networks has made every effort to ensure that this document is accurate, complete, and easy to use. We strive to improve our documentation to help you in your work, so we want to hear from you. We welcome all feedback, but we especially want to know about:

- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information.
- Broken links or usability issues.

To send feedback, email us at documentation@extremenetworks.com.

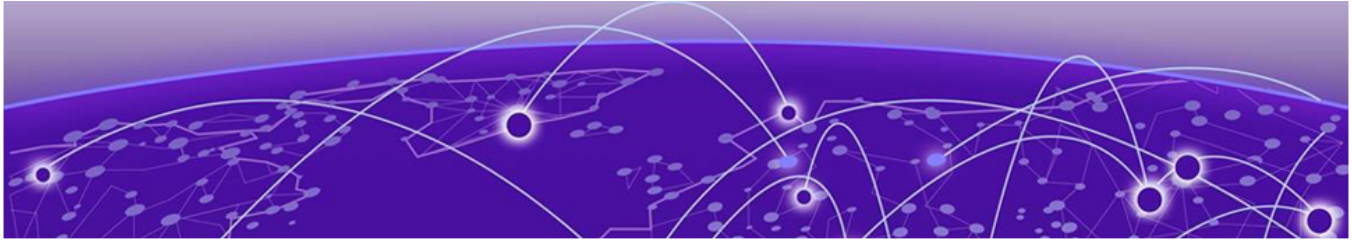
Provide as much detail as possible including the publication title, topic heading, and page number (if applicable), along with your comments and suggestions for improvement.



What's New in this Document

There are no new updates for Extreme 9920 software, release 21.2.2.0.

For more information about this release, see the *Extreme 9920 Software Release Notes, 21.2.2.0*.



Scalability Matrix

The following table summarizes scale limitations for the NPB application forwarding features.

Table 4: Scalability matrix

Feature	Sub-Group	Product Scale	Description
Port Channel	NA	32	• Max. no. of static LAGs: 32 • Max. no. of ports in single static LAG: 64 • Max. no. of LACP LAGs: 32 • Max. no. of ports in single LACP LAG: 64
Tunnel Termination	Only transport tunnel (GRE/ ERSPAN)	1000	• dest vtep: 1000 • Inner SAP TCAM: 2000
	Outer VXLAN header (only)	1000	
	Outer MPLS header (only)	1000	
	Transport tunnel + Outer VXLAN header + Outer MPLS header	1000	
Non-Transport Tunnel	NA	2000	

Table 4: Scalability matrix (continued)

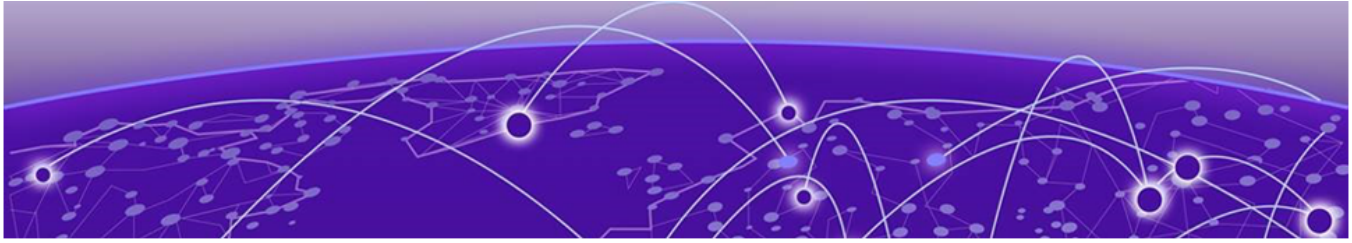
Feature	Sub-Group	Product Scale	Description
Ingress Group	Physical ports and port channels	256	The no. of ingress groups on physical port or port channel depends on the physical ports.
	Transport tunnels only	1000	• dest vtep: 1000 • Inner SAP: 2000 • Limit: 1000
	Non-transport tunnels only	2000	• Max. inner SAP: 2000 • TCAM: Max. 1000 entries for overlapping or shared entries across features
Route-map or route-map instances	NA	4000	The no. of route-map entries in the hardware and limit depends on ACL rules. • No. of ACLs: 9500 • No. of route-maps: 10000 • No. of ingress groups: 2000 The route-maps are attached to ingress groups. • Each route-map can have only one ingress group instance and each instance can have only one ACL. So, only 8000 route-maps are supported.
Ingress ACL	MAC	1500	If the ACL is attached to a route-map which is attached to an ingress group, the entries are programmed to the hardware (TCAM). • If an ACL contains `x` no. of rule entries that are attached to `y` no. of route-maps, then `x * y` denotes the consumed TCAM space.
	IPv4	6000	
	IPv6	2000	
Ingress Range support: • IP packet length • Source L4 port • Destination L4 port • L4 port range	NA	128	Max. length range match: 128

Table 4: Scalability matrix (continued)

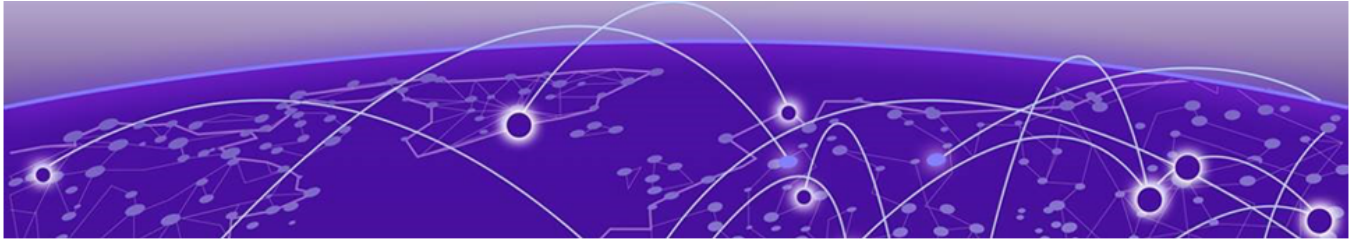
Feature	Sub-Group	Product Scale	Description
Egress Group	NA	• 128 (no replication) • 126 (replication)	Max. no. of unique egress objects + max. no. of egress-groups with replication cannot exceed 128. • If replication is not enabled, egress group acts as a container and does not consume anything from the hardware. • Replication requires at least two egress groups or objects. • If replication is enabled, egress group consumes one SFC entry for each group. Examples: • Max. no. of egress groups or objects (with two same egress objects across all egress-groups): 126 • Max. no. of egress groups or objects (with unique egress object per egress-group): 42
Egress	NA	128	Egress objects limit depends on the SFC table which supports 128 entries. • Egress groups (with replication enabled) use the SFC table. • If replication is not configured, the max. no. of egress objects allowed is 128.
Egress ACL	MAC	512	If the ACL is attached to a listener policy which is attached to an egress object, the entries are programmed to the hardware (TCAM). If an ACL contains `x` no. of rule entries that are attached to `y` no. of listener policies, then `x * y` denotes the consumed TCAM space.
	IPv4	512	
	Pv6	512	
Egress Range support • IP packet length • Source L4 port • Destination L4 port • L4 port range	NA	128	The max. length range match is 128 ACL rules.

Table 4: Scalability matrix (continued)

Feature	Sub-Group	Product Scale	Description
Listener Policy	NA	484	The no. of listener policy entries in the hardware and limit depends on ACL rules. • Egress ACLs: 484 The listener policy is attached to egress objects. Each listener policy can have three instances. • Max. no. of egress objects: 128.
Tunnel Origination	NA	128	The hardware supports 512 tunnel origination which is attached to egress objects. • Egress objects limit: 128
Onboard PCAP Sessions	NA	10	
VXLAN/MPLS Mirrors	NA	250	When configured, a copy of the full untagged VXLAN or MPLS frame is mirrored to the configured egress port without any header termination. • Max. no. of VXLAN mirrors + max. no. MPLS mirrors: 250



Glossary



Index