# Extreme OS ONE SR v22.2.2.0 Scale and Standards Matrix

## Switching and Protocol Capacity Specifications

9039564-00 Rev AA
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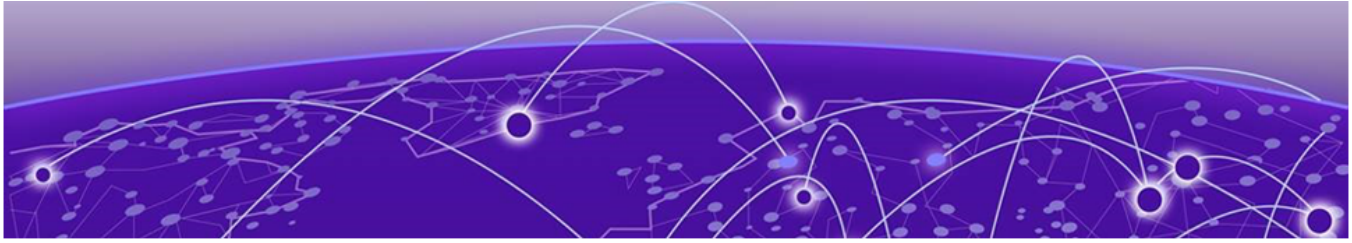

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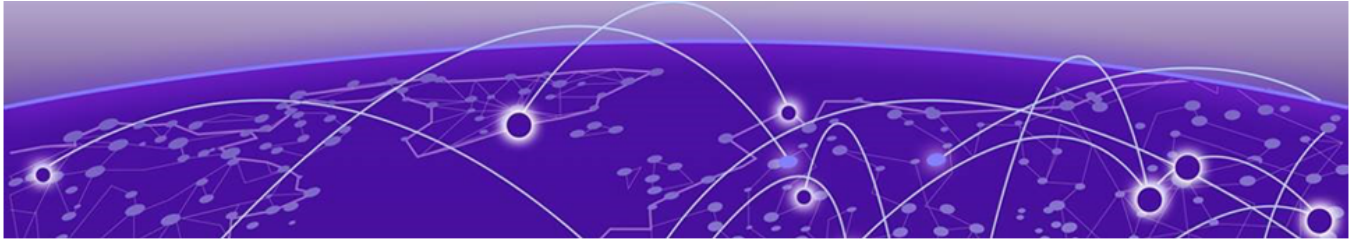

# Abstract

Extreme ONE OS SR version 22.2.2.0 scale and standards matrix outlines core technical specifications and capacity benchmarks for major switching platforms, emphasizing Layer 2/3 networking, protocol support, and management features. It highlights key capabilities in MAC address scaling, VLAN and interface limits, advanced routing, and security controls, while summarizing guidance for deployment, performance optimization, and troubleshooting. The matrix is designed for network engineers and administrators seeking a clear reference for platform capabilities and operational scenarios.

# 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, the product is referred to as *the switch*.

**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.<br>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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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.
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# 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 Product-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.

# Scalability Matrix

Extreme OS ONE Switching and Routing 22.2.1.0 and later releases support Extreme 8520, Extreme 8720, Extreme 8730, and Extreme 8820 hardware platforms.

| Support Type | 8730 | 8720/8520 | 8820 |
|---|---|---|---|
| **Layer 2 Switching** | | | |
| Number of trunk groups supported | 128 | 128 | 144 |
| Number of ports per trunk group | 64 | 64 | 64 |
| Max LACP trunk threshold | 64 | 64 | 64 |
| Maximum MAC addresses per switch | 120000 | 96000 | 600000 |
| Jumbo frames | L2-9216 L3-9194 | L2-9216 L3-9194 | L2-9216 L3-9194 |
| Number of VLANs | 4094 | 4094 | 4094 |
| Maximum Bridge Domains (BD) | 4094(VLAN) + 4096 (BD) | 4094(VLAN) + 4096 (BD) | 4094(VLAN) + 4096 (BD) |
| LIF(Default Mode BD/VLAN Mode BD) | 10000(Default Mode BD) 12000 (Vlan Mode BD) | 12000 (Default Mode BD) 12000 (VLAN Mode BD) | 40000 (Default Mode BD) 64000(Default +VLAN mode BD) |
| **Layer 3 - IPv4** | | | |
| Maximum IP interfaces per system (Ipv4, Ipv6) | 8000 | 4000 | 8000 |
| Maximum Virtual Ethernet Interfaces per system | 8000 | 8000 | 8000 |
| Maximum ARP entries | 32000 | 47000 | 100000 |
| Maximum IP next-hops | 32000 | 47000 | 64000 |
| Maximum loopback interfaces | 1000 | 1000 | 1000 |
| Maximum static route entries | 24000 | 24000 | 24000 |

| Support Type | 8730 | 8720/8520 | 8820 |
|---|---|---|---|
| Maximum BGP peer groups | 1024(v4) or 1024(v6) or 1024(v4+v6) | 1024(v4) or 1024(v6) or 1024(v4+v6) | 1024(v4) or 1024(v6) or 1024(v4+v6) |
| Maximum BGP routes in RIB (RIBIN + RIBOUT) | 3.25M | 3.25M | 3M |
| BGP peers (IPv4 and IPv6 concurrent including all VRFs) | 2400 | 2400 | 2400 |
| BGP dynamic listen range supported (IPv4 and IPv6 concurrent including all VRFs) | 2400 | 2400 | 2400 |
| Maximum BGP additional paths for received prefixes | 128 | 128 | 128 |
| Maximum IPv4 routes | 1.4M | 163840 | 2M |
| Maximum VRFs per system (BGP VRF IPv4/IPv6) | 1024 | 1024 | 1024 |
| Maximum VRFs per system static VRF IPv4/IPv6) | 1024 | 1024 | 1024 |
| Maximum ECMP paths per Group | 128 | 128 | 128 |
| Maximum ECMP Groups (Overlay) | 4000 | 2000 | 32000 |
| Maximum ECMP Paths | 25600 | 12800 | 80000 |
| Layer 3 Features - IPv6 | | | |
| Maximum IPv6 static route entries | 10000 | 10000 | 10000 |
| Maximum IPv6 routes | 1M | 64512 | 1M |
| Maximum ND entries | 32000 | 33000 | 100000 |
| Maximum BGPv6 routes in the RIB (RIBIN + RIBOUT) | 3.25M | 3.25M | 3M |
| Maximum BGPv6 neighbors | 2400 | 512 | 2400 |
| ACL | | | |

| Support Type | 8730 | 8720/8520 | 8820 |
|---|---|---|---|
| Maximum shared IPv4 ACLs per system (Ingress) | 2047 (Ingress) + 2047 (Egress) | 768 (Ingress) + 512 (Egress) | 4096 (Ingress) + 2048 (Egrress) |
| Maximum shared IPv6 ACLs per system(Ingress) | 2047 (Ingress) + 2047 (Egress) | 768 (Ingress) + 512 (Egress) | 4096 (Ingress) + 2048 (Egrress) |
| Maximum shared L2 ACLs per system | 2047 | 768 | 2048 |
| Maximum number of IPv4 receive ACLs | 2047 | 768 | 2048 |
| Maximum number of IPv6 receive ACLs | 2047 | 768 | 2048 |
| Multi-Chassis Trunking (vLAG Support) | | | |
| Maximum port-BD/port-VLAN association (Logical Interfaces or LIFs) | 12000 (4K Vlan Mode BD + 2K Default Mode BD) | 12000 | 56000(8K Default Mode) |
| Maximum MLAG clients | 64 LACP Port channel 116 – Static PO 120 – Ethernet | 64 LACP Port channel 116 – Static PO 120 – Ethernet | 64 LACP Port channel 116 – Static PO 120 – Ethernet |
| Maximum MAC addresses for MCT | 120000 | 96000 | 250000 |
| Maximum Extended Bridge Domain - MLAG | 4094 (VLAN mode) + 4096 (Default Mode) | 4094 (VLAN mode) + 4096 (Default Mode) | 4094 (VLAN mode) + 4096 (Default Mode) |
| EVPN-VXLAN Scaling (IP Fabric) | | | |
| L2 VNI (bridge domains) | 2000 | 2000 | 2000 |
| L3 VNI | 500 | 500 | 500 |
| Layer 2 | | | |
| Maximum VLANs | 4094 | 4094 | 4094 |
| Maximum Bridge Domains | 4094 (VLAN mode) + 4096 (Default mode) | 4094 (VLAN mode) + 4096 (Default mode) | 4094 (VLAN mode) + 4096 (Default mode) |
| Maximum MAC entries | 120000 | 96000 | 250000 |
| Maximum ARP entries | 32000 | 47000 | 100000 |
| Maximum VNI (L2 + L3 VNI) | 1500 | 1500 | 1500 |
| Layer 3 | | | |
| Maximum BGP peers (IPv4+IPv6) | 2000 | 2400 | 2400 |
| Maximum VE | 8000 | 8000 | 8000 |

| Support Type | 8730 | 8720/8520 | 8820 |
|---|---|---|---|
| Maximum VRF | 1024 | 1024 | 1024 |
| ND entries | 32000 | 33000 | 100000 |
| Static Anycast Gateway address per system (IPv4, IPv6) | 8000 | 8000 | 8000 |
| Static Anycast Gateway address per VE interface (IPv4, IPv6) | 8000 | 8000 | 8000 |
| BGP EVPN IPv4 and IPv6 routes | 2M | 2M | 2M |
| BGP EVPN MAC IP routes | 2M | 2M | 2M |
| BGP EVPN MAC routes | 2M | 2M | 2M |
| **SNMP** | | | |
| Maximum communities | 256 | 256 | 256 |
| Maximum SNMP v3 users | 10 | 10 | 10 |
| Maximum v1/v2c/v3 trap hosts | 18 | 18 | 18 |
| **gNMI** | | | |
| Maximum Sessions | 64 | 64 | 64 |
| Maximum Subscriptions | 512 | 512 | 512 |
| Maximum payload for set | 4MB | 4MB | 4MB |
| **SSH** | | | |
| Maximum SSH and Telnet concurrent sessions | 32 | 32 | 32 |
| **Bidirectional Forwarding Detection (BFD)** | | | |
| IPv4 Hardware Sessions | 1000 | 1000 | 1200 |
| IPv6 Hardware Sessions | 1000 | 1000 | 1200 |
| IPv4/IPv6 Concurrent Hardware Sessions | 1000 | 1000 | 1200 |
| **Equal-Cost Multi-Path (ECMP)** | | | |

| Support Type | 8730 | 8720/8520 | 8820 |
|---|---|---|---|
| Maximum ECMP paths (Underlay) | 16000 | 4000 | 16000 |
| Maximum ECMP Groups (Underlay) | 1000 | 250 | 1000 |
| Max VXLAN tunnel – Static Vxlan | 1000 | 250 | 1000 |
| Maximum RH ECMP Path | 16000 | 16000 | 16000 |