Switch Engine™ Feature License Requirements

for Version 32.7.1

9038071-00 Rev AC
June 2024

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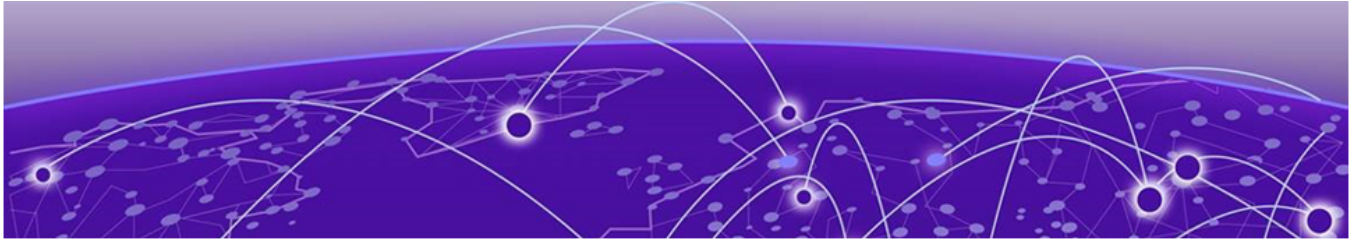

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Preface

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.

Related Publications

Switch Engine Publications

- *Switch Engine 32.7.1 Command Reference Guide*
- *Switch Engine 32.7.1 Feature License Requirements*
- *Switch Engine and ExtremeXOS 32.7.1 EMS Messages Catalog*
- *Switch Engine 32.7.1 User Guide*
- *Switch Engine 32.7.1 Release Notes*
- *ExtremeXOS Quick Guide*
- *Extreme Hardware/Software Compatibility and Recommendation Matrices*
- *Extreme Optics Compatibility*
- *Switch Configuration with Chalet for ExtremeXOS 21.x and Later*
- *ACL Solutions Guide*
- *ExtremeXOS and Switch Engine SNMP Traps Reference*

Open Source Declarations

Some software files have been licensed under certain open source licenses. More information is available at: www.extremenetworks.com/support/policies/open-source-declaration/.

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.

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.

License Overview

The switches supported on Switch Engine 32.7 include two different license levels: Base and Premier.

The following figure illustrates that the Premier license level builds on the features of the Base license, or the Base license is the only license level available.

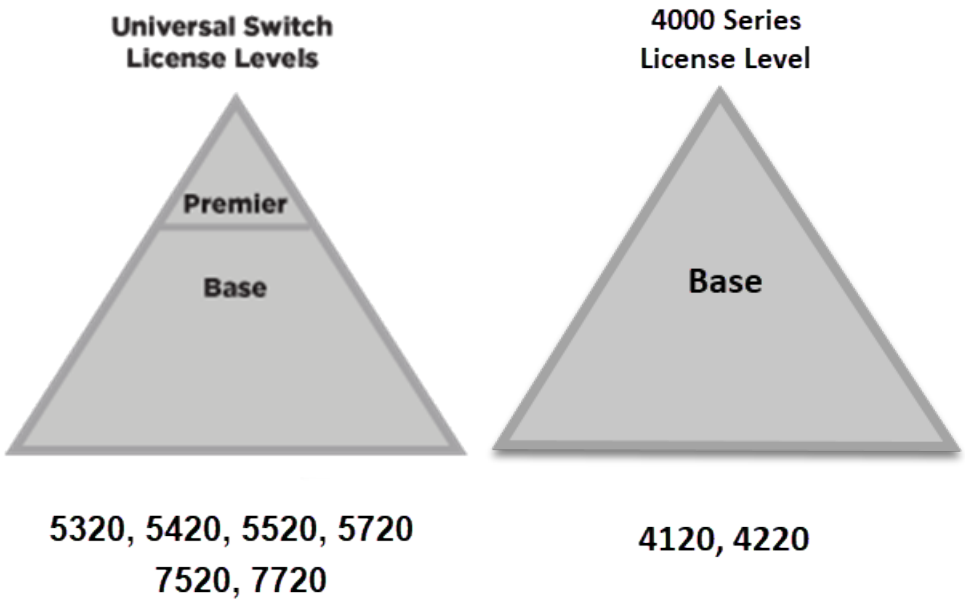
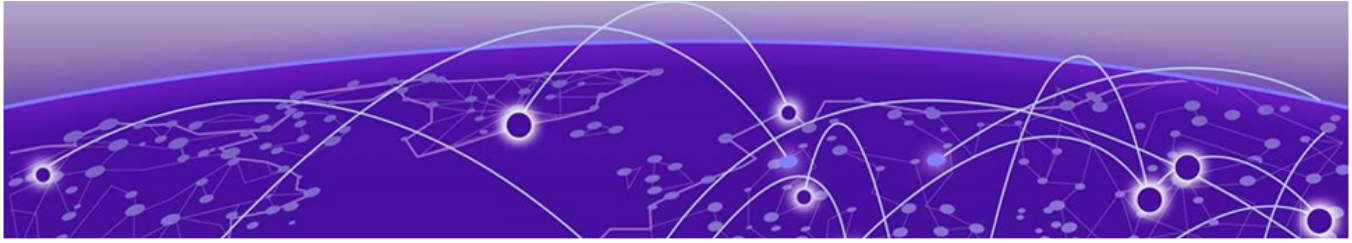


Figure 1: License Levels for Switches Supported on Switch Engine 32.7

In previous releases, non-Universal Hardware and Universal switch license levels correlated in the following way:

Premier = Core

Base = Advanced Edge + AVB



Overview for Universal Hardware Switches

Installing and Uninstalling Licenses on Universal Switches on page 10
Displaying the Installed License Levels and Feature Licenses on page 12
Factory Default (Evaluation) License for Universal Hardware Switches on page 12

This document explains the license levels and feature licenses available for universal hardware switches, and lists the features that they support.

Switch Engine software supports the following license levels for the universal hardware switches:

- **Base**—included as standard (see Base License Features on page 13)
- **Premier** (see Premier License Features on page 16)

The Base license provides a basic feature set and the Premier license adds additional functionality.

Table 4: Standard and Upgrade Licenses for Universal Hardware Switches

Switch platform	Base	Premier
ExtremeSwitching 5320	Standard	Upgrade
ExtremeSwitching 5420	Standard	Upgrade
ExtremeSwitching 5520	Standard	Upgrade
ExtremeSwitching 5720	Standard	Upgrade
Extreme 7520	Standard	Upgrade
Extreme 7720	Standard	Upgrade

Feature Licenses

To supplement the license levels, additional capabilities can be added by purchasing feature licenses (see Feature Licenses on page 18).

Additional General License Information

Software licenses are stored in the EEPROM and, after enabled, persist through reboots, software upgrades, power outages, and reconfigurations. The keys are unique to the switch, but can be transferred (see Transferring Licenses on page 11).

If you attempt to execute a command and you either do not have the required license or have reached the limits defined by the current license level, the system displays one of the following messages:

```
Error: This command cannot be executed at the current license level.
Error: You have reached the maximum limit for this feature at this license level.
```

Installing and Uninstalling Licenses on Universal Switches

This section explains how to obtain and install/uninstall licenses on universal hardware switches.

Obtaining and Installing Licenses

For universal hardware switches, you can activate a license on the switch using either of the following methods:

1. Manual activation by obtaining the license activation file from Support Portal.
2. Automated activation using ExtremeCloud IQ. For information about using ExtremeCloud IQ for bulk automated license activation, go to https://www.extremenetworks.com/support/documentation/extremecloud-iq/.

For manual license generation and installation:

1. Follow manual activation instructions for license generation available on the Extreme Portal: **Products** > **Products Home** > **ExtremeSwitching** > **Universal** > **EXOS (for your switch)** > **Activation Instructions**.
2. Load the license file onto the switch using either of the following commands:

   ```
   download [url url {vr vrname} | image [active | inactive] [[hostname | ipaddress] filename {{vr} vrname} {block-size block_size}] {partition} {install {reboot}}
   ```

   ```
   tftp get [ ip-address | host-name] { vr vr_name } { block-size block_size } remote-file local-file} {force-overwrite}
   ```

   To copy from a USB: `cp old_name new_name` specifying `/usr/local/ext`. For example: `cp /usr/local/ext/old_name /usr/local/cfg/new_name`.

   You can place the license file anywhere within the user-visible file system (for example: `/usr/local/*`).
3. To install the license, use the following command:

   ```
   install license file filename {slot slot}
   ```

   This command installs all of the license features contained in the selected license file to the specified slot (node).

Uninstalling Licenses Temporarily

You can temporarily uninstall a license from a switch. This enables you to retain the license entitlement on the switch, and thus, the original license can be used to reinstall the license. You can use this option to temporarily disable a license.

To uninstall a license temporarily from a universal hardware switch, use the following command:

`uninstall license` **`file`** *`filename`* `[{`**`revoke`** *`revocation_file`*`} | `**`withhold`** `]` `{`**`slot`** *`slot`*`}` using the **`withhold`** option.

To temporarily uninstall a specific license feature, such as MAC Security (MACsec), from a universal hardware switch, use the following command:

`uninstall license` **`product`** *`product_name`* `[`**`revoke`** *`revocation_file`* `|` **`withhold`**`]` `{`**`slot`** *`slot`*`}` using the **`withhold`** option.

Transferring Licenses

You can permanently remove a license, which enables you to transfer the license to another switch. This should only be done when preparing to return a defective switch for a replacement switch (RMA).

The `uninstall license file` *`filename`* command accepts *`filename`* as a `.lic` file that contains one or more licenses to be uninstalled. This is the license file that was used to install license.

The `uninstall license product` *`product_name`* command accepts *`product_name`* as the name of the license product to be uninstalled. This is the product name as it appears with the **`show licenses`** command.

- To uninstall a license permanently from a universal hardware switch, use the following command:

  `uninstall license` **`product`** *`product_name`* `[`**`revoke`** *`revocation_file`* `|` **`withhold`**`]` `{`**`slot`** *`slot`*`}` using the **`revoke`** option.
- To permanently uninstall a specific license product, such as PRD-5000-MACSEC, from a universal hardware switch, use the following command:

  `uninstall license` **`product`** *`product_name`* `[`**`revoke`** *`revocation_file`* `|` **`withhold`**`]` `{`**`slot`** *`slot`*`}` using the **`revoke`** option.

The **`revoke`** option invalidates the feature license and generates a revocation certificate, which is the first step to release the license entitlement back to the license entitlement manager (LEM). If the specified file name (for *`revocation_file`*) does not have an `.rvk` extension, it is automatically appended.

To transfer a license from a defective unit to a working unit:

1. Go to the Extreme Portal.
2. Select **Asset** > **Licenses Home**.
3. Select **License Transfer**.
4. Enter the serial numbers of the defective unit and the replacement unit, and the RMA/case number.

Displaying the Installed License Levels and Feature Licenses

You can display the license level and feature licenses installed on your Extreme Networks switch by using the `show licenses {[slot slot |all]} {detail}` command.

Factory Default (Evaluation) License for Universal Hardware Switches

New universal hardware switches include a Factory Default (Evaluation) License to use all features (excluding MACsec). This Evaluation license is equivalent to a Premier license. You can configure all features, except MACsec, without restrictions and save the configuration.

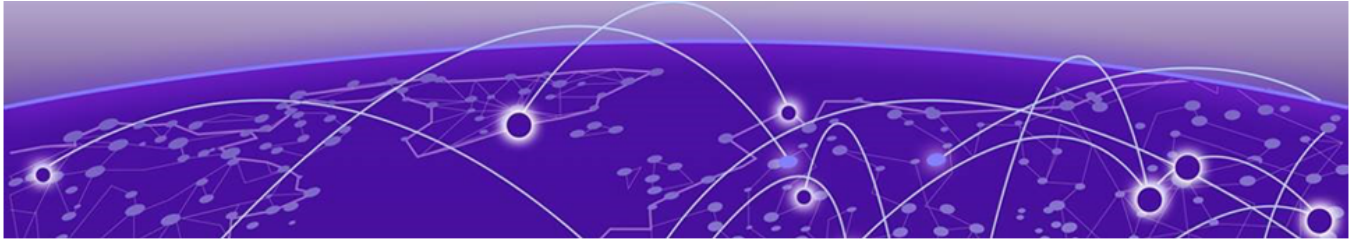
The evaluation period is 30 days. If after 30 days you have not obtained and installed a Premier license (see Obtaining and Installing Licenses on page 10) and you reboot the switch, the switch will effectively have only Base license (see Table 4 on page 9) capabilities.

To extend the evaluation period, you can use the following commands:

To enable a trial license, issue the command `debug epm enable trial-license`.

To clear a trial license, issue the command `debug epm clear trial-license`. A reboot is required before the clear license takes effect.

Note
Enabling a newly obtained license requires clearing the trial license, and then rebooting the switch.



Switch License Features

Base License Features on page 13
Premier License Features on page 16

Base License Features

The Base License includes the features in the following table:

Table 5: Switch Engine Base License Features

Switch Engine Software Feature	Supported Platforms
AVB • Generalized Precision Time Protocol (GPTP) • Multiple VLAN Registration Protocol (MVRP) • Multiple Stream Registration Protocol (MSRP) • Platform Support	All platforms, except 4120, 4220, 5320-XT, 7520, and 7720. Universal platforms have the AVB Feature License included in the Advanced Edge or Base License. You do not need to separately purchase and install the AVB Feature License for these switches.
BGP Auto-peering	All platforms
BGP peers—Switches are allowed up to 2 manually configured BGP peers on the default VR with a base license.	All platforms
CLEARFlow	All platforms
Convergence End Point (CEP) detection	All platforms
DHCPv4: • DHCPv4 server • DHCv4 client • DHCPv4 relay • DHCPv4 smart relay	All platforms
DHCPv6: • DHCPv6 relay • DHCPv6 prefix delegation snooping • DHCPv6 client • DHCPv6 smart relay • DHCPv6 remote ID	All platforms

Table 5: Switch Engine Base License Features (continued)

Switch Engine Software Feature	Supported Platforms
Direct Attach—based on the IEEE version of VEPA, eliminates the virtual switch layer, simplifying the network and improving performance. Direct Attach enables data center simplification by reducing network tiers from four or five tiers to just two or three tiers, depending on the size of the data center.	All platforms
EAPS Advanced Edge—multiple physical rings, and "common links", also known as "shared port".	All platforms except 4120 and 4220
ERPS-more domains (allows 32 rings with matching ring ports) and multi-ring support	All platforms except 4120 and 4220
ESRP-Full	All platforms
ESRP-Virtual MAC	All platforms
Extended Edge Switching	5420, 5520, and 7520-48Y
Extreme Network Virtualization (XNV)	All platforms except 5320, 4120 and 4220
Fabric Attach—uses the IEEE802.1ab Link Layer Discovery Protocol (LLDP) extensions to automatically attach network devices to individual services in an IEEE 802.1aq Shortest Path Bridging (SPB) network: • Fabric Attach Proxy • Fabric Attach Client • Fabric Attach Server • Standalone Proxy	All platforms
IP address security: • DHCP snooping • Trusted DHCP server • Source IP lockdown • ARP validation	All platforms
IP Flow Information Export (IPFIX)	5420, 5520, 5720
IP NAT	7520, 7720
IP security: • DHCP Option 82—L3 mode • DHCP Option 82—L3 mode VLAN ID • Disable ARP learning • Gratuitous ARP protection • DHCP secured ARP / ARP validation • Source IP lockdown	All platforms
IPv4 unicast routing, including static routes	All platforms

Table 5: Switch Engine Base License Features (continued)

Switch Engine Software Feature	Supported Platforms
IPv4 multicast routing, including static routes **Note:** This feature has limitations in the Edge and Advanced Edge licenses. See the *Switch Engine 32.7.1 User Guide*.	All platforms
IPv4 Duplicate Address Detection (DAD)	All platforms
IPv6 unicast routing, including static routes	All platforms
IPv6 interworking—IPv6-to-IPv4 and IPv6-in-IPv4 configured tunnels	All platforms except 4120 and 4220
IPv6 DAD without CLI management	All platforms
IPv6 DAD with CLI management	All platforms
Keychain Manager	All platforms
Local-only, user-created virtual routers (VR)	4120, 4220, 5320-24T/24P
Multi-Switch Link Aggregation Group (MLAG)	All platforms except 4120 and 4220
Multinetting for forwarding	All platforms
ONEPolicy	All platforms
OSPFv2-Edge (limited to max of 4 active interfaces)	All platforms except 4120 and 4220
OSPFv2 Auto-peering	All platforms except 4120 and 4220
OSPFv3-Edge (limited to max of 4 active interfaces)	All platforms except 4120 and 4220
PIM—Universal switches are not subject to the maximum number of PIM IPv4 interfaces (4) that pertains to other switch models.	All platforms except 4120 and 4220
PIM-SM-Edge	All platforms except 4120 and 4220
PIM snooping **Note:** This feature has limitations in the Base license. See the *Switch Engine 32.7.1 User Guide*.	All platforms except 4120 and 4220
Policy based routing (PBR) for IPv4	All platforms
Policy based routing (PBR) for IPv6	All platforms
Protocol-based VLANs	All platforms
PSTag	5420 and 5520
Python scripting	All platforms
RIP v1/v2	All platforms except 4120 and 4220
RIPng	All platforms except 4120 and 4220
Routing access policies	All platforms
Route maps	All platforms

Table 5: Switch Engine Base License Features (continued)

Switch Engine Software Feature	Supported Platforms
SummitStack (switch stacking using native or dedicated ports)	Not supported
SummitStack-V (switch stacking using dual-purpose data ports)	All platforms. See the specific models listed in the "Support for Alternate Stacking Ports" section of the *Switch Engine 32.7.1 User Guide*.
SyncE	Not supported
System virtual routers (VRs)	All platforms
UDP Forwarding	All platforms
UDP BootP relay forwarding	All platforms
User-created virtual routers (VRs) Virtual router and forwarding (VRF)	5320-48T/48P, 5420, 5520, 5720, 7520, 7720
VLAN aggregation	All platforms
VRRP	All platforms except 4120 and 4220
VXLAN	All platforms, except 4120 and 4220

Premier License Features

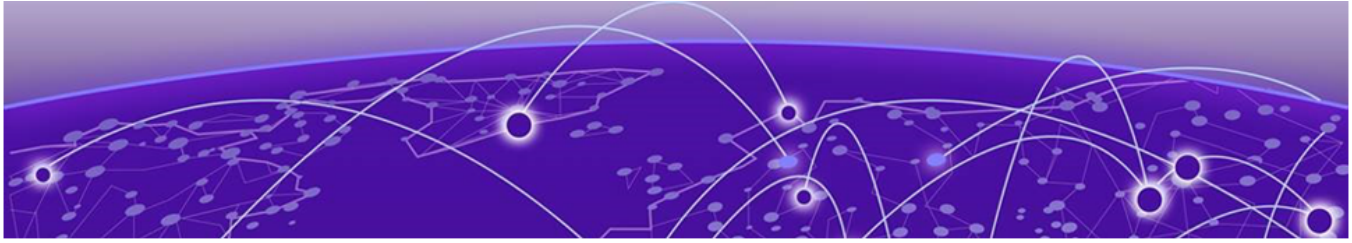
The Premier License includes the features in the following table:

Table 6: Switch Engine Premier License Features

Switch Engine software feature	Supported platforms
Anycast RP	All platforms except 4120 and 4220
Anycast RP Using PIM (RFC 4610)	All platforms except 4120 and 4220
BGP4 and MBGP (BGP4+) for IPv4 ECMP	All platforms except 4120 and 4220
BGP4 and MBGP (BGP4+) for IPv6	All platforms except 4120 and 4220
EVPN	All platforms except 4120 and 4220
GRE tunneling	All platforms except 4120 and 4220
Integrated Application Hosting (IAH)	ExtremeSwitching 5720, Extreme 7520 and 7720
IS-IS for IPv4	All platforms except 4120 and 4220
IS-IS for IPv6	All platforms except 4120 and 4220
MSDP	All platforms except 4120 and 4220
OSPFv2 "Full" (not limited to 4 active interfaces)	All platforms except 4120 and 4220
OSPFv3 "Full" (not limited to 4 active interfaces)	All platforms except 4120 and 4220
PIM DM "Full"	All platforms except 4120 and 4220

Table 6: Switch Engine Premier License Features (continued)

Switch Engine software feature	Supported platforms
PIM SM "Full"	All platforms except 4120 and 4220
PIM SSM "Full"	All platforms except 4120 and 4220



Feature Licenses

Network Timing Feature License on page 23
MAC Security Feature License on page 23

The Switch Engine software features are listed in the following table are managed as feature licenses. Feature licenses are distributed in one of the following forms:

- **In Switch Engine software** (standard software component)—You must purchase a license to use the feature.
- **Modular software package** (XMOD file, so named because of its .xmod file extension)—You must request the XMOD file from your supplier and install it.

For feature license and installation instructions, see *Installing a Modular Software Package* in the *Switch Engine 32.7.1 User Guide*.

Note

Secure Shell 2 (SSH2) is not provided as a feature license. It is incorporated into the main Switch Engine software image and is not provided as an XMOD. However, SSH2 contains strong encryption algorithms that heighten the export controls required in the US and other countries. When downloading the Switch Engine software image, you are required to verify that you meet the export clearance requirements. For more information, see *Software Upgrade and Boot Options* in the *Switch Engine 32.7.1 User Guide*.

For more information on SSH2, see *Using Secure Shell 2* in the *Switch Engine 32.7.1 User Guide*.

Table 7: Switch Engine Feature Licenses

Feature License	Feature	Platform support	XMOD Required
MPLS Feature The MPLS Feature is available as part of the Premier license under the **Platform Support** column.	• MPLS • LDP • Static LSPs • OSPF-TE • MPLS label • EXP bit replacement and classification • RSVP-TE • VPLS / H-VPLS for VLANs • VPLS STP redundancy • VPLS with ESRP redundancy • VPLS with EAPS redundancy • Fast Reroute (FRR) • Support for PW counters • User Virtual Routers • L3VPN	ExtremeSwitching 5520, Extreme 7520 and 7720. The MPLS Feature is available as part of the Premier License.	No
AVB Feature License	• Generalized Precision Time Protocol (GPTP) • Multiple VLAN Registration Protocol (MVRP)	All platforms, except 4120, 4220, 5320-XT, 7520, and 7720. All Universal Hardware platforms have the AVB Feature License included in the Base License. You do not need to separately purchase and install	No

Table 7: Switch Engine Feature Licenses (continued)

Feature License	Feature	Platform support	XMOD Required
	• Multiple Stream Registration Protocol (MSRP) • Platform Support	the AVB Feature License for supported Universal platforms.	
Network Timing Feature License See Network Timing Feature License on page 23.	Precision Time Protocol End-to-End Transparent Clock (PTPv2)	ExtremeSwitching 5520 and 5720 series switches with Premier license.	No
MAC Security License See MAC Security Feature License on page 23.	MAC Security licensing.	See MACsec Platform Support on page 20	No
ExtremeCloud™ IQ Agent	ExtremeCloud IQ provides device discovery, basic monitoring, visibility into homogenous stacking, ability to configure an optional user-defined VR, and address of the server to connect to. For more information about ExtremeCloud IQ, go to https://www.extremenetworks.com/extremecloud-iq/.	See ExtremeCloud IQ Platform Support on page 21.	Yes

MACsec Platform Support

Table 8: MACsec Supported Platforms

Platform	Ports	LRM/ MACsec Adapter Required ?
ExtremeSwitching 5320	Supported on all front-panel ports except stacking ports. Not supported on model 5320-24T-4X-XT.	No
ExtremeSwitching 5420	Supported on all front-panel ports except stacking ports.	No

Table 8: MACsec Supported Platforms (continued)

Platform	Ports	LRM/ MACsec Adapter Required ?
ExtremeSwitching 5520	Supported on all front-panel ports. Not supported on 5520-VIM-4X and 24X 10G ports.	No
ExtremeSwitching 5720	Supported on all front-panel ports except stacking ports.	No
Extreme 7520-48YE-8CE	Supported on all front-panel ports.	No

ExtremeCloud IQ Platform Support

Table 9: Supported Platforms

Switch Series	Switch Models
4120*	4120-24MW-4Y 4120-48MW-4Y
4220*	4220-8X 4220-12P-4X 4220-12T-4X 4220-24P-4X 4220-24T-4X 4220-48P-4X 4220-48T-4X 4220-4MW-8P-4X 4220-4MW-20P-4X 4220-8MW-40P-4X
ExtremeSwitching 5320	5320-48T-8XE 5320-48P-8XE 5320-24T-8XE 5320-24P-8XE 5320-16P-4XE 5320-16P-4XE-DC 5320-24T-4X-XT 5320-24T-24S-4XE-XT

Table 9: Supported Platforms (continued)

Switch Series	Switch Models
ExtremeSwitching 5420	5420F-8W-16P-4XE 5420F-24P-4XE 5420F-24S-4XE 5420F-24T-4XE 5420F-16MW-32P-4XE 5420F-16W-32P-4XE 5420F-48P-4XE 5420F-48P-4XL 5420F-48T-4XE 5420M-24T-4YE 5420M-24W-4YE 5420M-16MW-32P-4YE 5420M-48T-4YE 5420M-48W-4YE
ExtremeSwitching 5520	5520-24T 5520-24W 5520-48T 5520-48W 5520-12MW-36W 5520-24X 5520-48SE 5520-24T-ACDC-BASE 5520-48T-ACDC-BASE 5520-24X-ACDC-BASE 5520-48SE-ACDC-BASE
ExtremeSwitching 5720	5720-24MW 5720-24MXW 5720-48MW 5720-48MXW
Extreme 7520	7520-48Y-8C 7520-48XT-6C 7520-48YE-8CE
Extreme 7720	7720-32C

* - See *4000 Series User Guide* for this version of Switch Engine for detailed information on these Cloud-managed devices.

NEW! Network Timing Feature License

The Network Timing Feature License is included with the Premier license and supports the Precision Time Protocol (PTPv2) with transparent clock only.

Note
Network-Clock module is required in addition to Network Timing Feature License to enable PTPv2. This is not required for E2E Transparent Clock support in Universal Switches

For more information about PTP, see *Overview of PTP* in the *Switch Engine 32.7.1 User Guide*.

MAC Security Feature License

Use of the MAC Security (MACsec) feature requires a slot-based MACsec Feature License.

Slot-based MACsec licenses have the following behaviors:

Table 10: MACsec License Behavior

	No License	License Installed
Standalone Switch	• The command `show macsec` is the only available command. • MACsec cannot be configured or enabled.	• All MACsec commands are available. • MACsec can be configured and enabled.
Stack	• All MACsec commands are available. • MACsec can be configured on MACsec-capable slots. • If configured, MACsec cannot be enabled.	• All MACsec commands are available. • MACsec can be configured and enabled on licensed slots.

Note
In a stack, any slot configured with a MACsec-capable module (with `configure` **`slot`** *`slot`* **`module`** *`module_type`*) can be configured for MACsec, even if the slot is not physically present, or if the slot is present, but does not have a valid MACsec license installed.