



ExtremeCloud™ Universal ZTNA v24.2.0 Release Notes

Enhancements, Fixes, and Supported Devices

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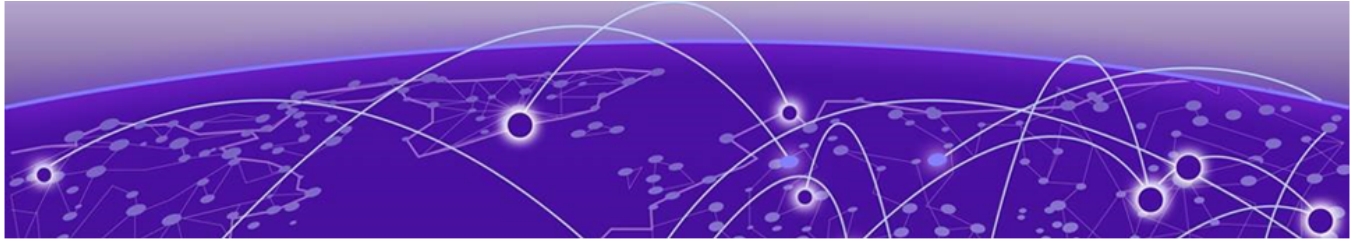
Table of Contents

Abstract.....	iv
Preface.....	5
Conventions.....	5
Text Conventions.....	5
Platform-Dependent Conventions.....	7
Terminology.....	7
Send Feedback.....	7
Help and Support.....	8
Subscribe to Product Announcements.....	8
Universal ZTNA General Release Information.....	9
Overview.....	9
Switch Onboarding Options.....	9
Firewall Considerations.....	9
New Features for 24.2.0.....	11
Addressed Issues in 24.2.0.....	12
Known Issues in 24.2.0.....	15
Device Support Information.....	17
Access Points.....	17
Universal Hardware.....	17
(Cloud Native).....	18
.....	19
Extreme Wireless.....	20
Switches.....	21
Universal Hardware.....	21
ExtremeXOS.....	27
VOSS.....	31
(Cloud Native).....	32
Dell EMC.....	33
Supported Browsers and Display Settings.....	34
Desktop and Mobile Browser Support.....	34
Display Settings.....	34



Abstract

The ExtremeCloud Universal ZTNA 24.2.0 Release Notes detail several technical enhancements, new features, and critical fixes introduced in this release for network administrators managing the ExtremeCloud Universal ZTNA platform. This update supports Application Discovery. Additionally, new VLAN attributes, real-time RF heat maps, and roaming trail visualization on the client map enhance network management. Addressed issues include performance fixes for location-based condition rule assignment, Device Group Modal resolution, and auto-refresh for Universal ZTNA pages. Known issues highlights license page issues, profile image sharing for new roles, and syncing with Azure.



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.

Conventions

To help you better understand the information presented in this guide, the following topics describe the formatting conventions used for notes, text, and other elements.

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

Table 1: Notes and warnings (continued)



Icon	Notice type	Alerts you to...
	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 <i>enter</i> and <i>type</i>	When you see the word <i>enter</i> 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 <i>type</i> .
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
<i>Words in italicized type</i>	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.
<i>italic text</i>	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.

Table 3: Command syntax (continued)

Convention	Description
...	Repeat the previous element, for example, <i>member [member . . .]</i> .
\	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.

Platform-Dependent Conventions

Unless otherwise noted, all information applies to all platforms supported by Switch Engine software, which are the following:

- ExtremeSwitching® switches
- SummitStack™

When a feature or feature implementation applies to specific platforms, the specific platform is noted in the heading for the section describing that implementation in the Switch Engine command documentation (see the Extreme Documentation page at www.extremenetworks.com/documentation/). In many cases, although the command is available on all platforms, each platform uses specific keywords. These keywords specific to each platform are shown in the Syntax Description and discussed in the Usage Guidelines sections.

Terminology

When features, functionality, or operation is specific to a device family, such as ExtremeSwitching, the family name is used. Explanations about features and operations that are the same across all product families simply refer to the product as the *device*.

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:

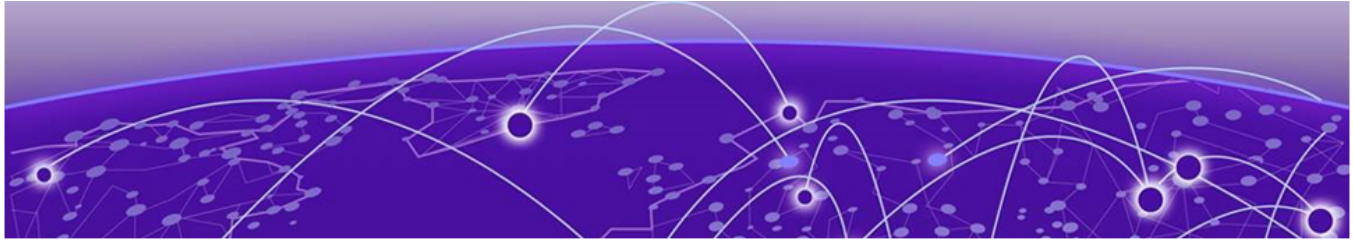
- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any actions already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental 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.



Universal ZTNA General Release Information

Overview

Universal ZTNA integrates network, application, and device access security within a single solution to bolster security organization wide. Establish and maintain a consistent security policy across your network with a single solution to manage and enforce an identity-level zero trust policy for all users. You can also manage user networks, applications, and Internet of Things (IoT) device access independent of the user's location.

Universal ZTNA combines and enhances remote and campus access security. Remote access leverages ZTNA continuous authentication, tunneled application sessions with direct to cloud routing. On campus access combines ZTNA and NAC capabilities to control access to the network and applications for headed and headless devices.

Switch Onboarding Options

Option 1 – Managed

- Supported NOSs: Switch Engine only
- Supported Switches: 4120, 4220, 5320, 5420, 5520, 5720, x435
- Minimum NOS version: 32.6.3
- Summary: Switch configuration is fully managed by ExtremeCloud IQ. The Instant Secure Port workflow is used to provision RADIUS/authentication and Universal ZTNA policy is provisioned via static policy.

Option 2 – Locally Managed

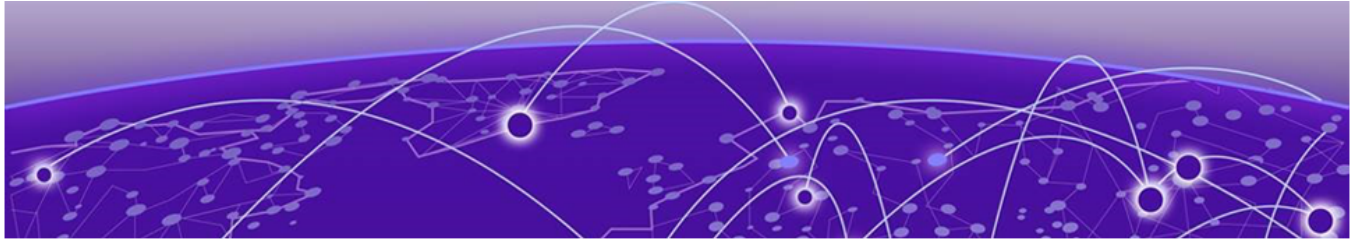
- Supported NOSs: Fabric Engine and Switch Engine
- Supported Switches: 5320, 5420, 5520, 5720, 7520, 7720, x435
- Minimum NOS version: Fabric Engine 9.0.2, Switch Engine 32.6.3
- Summary: Switch is onboarded but switch configuration is managed outside of cloud. Universal ZTNA network policy is provisioned via dACLs by RADIUS VSAs

Firewall Considerations

Outbound access to the following IP Addresses are required in any firewall configurations:

- 13.248.199.77

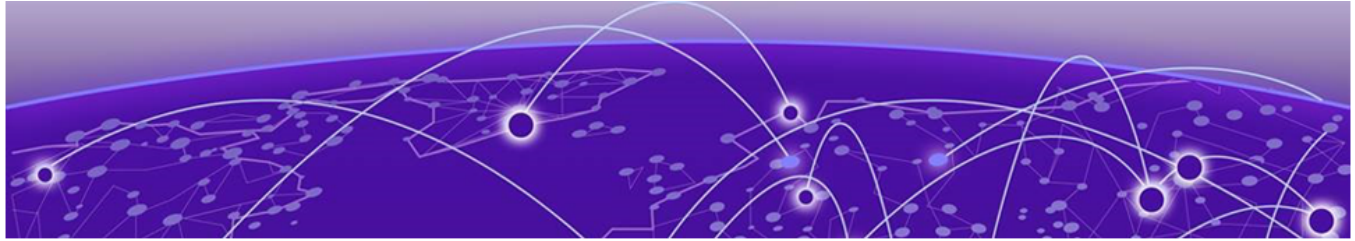
- 76.223.79.155



New Features for 24.2.0

Table 4: New Features in 24.2.0

Feature ID	Feature	Description
ZTNA-18723	Discovery of Private Applications	Application Discovery finds and enlists those applications that are used by our users/customers and usually are not present in the system. Go to Insights > Application Discovery .
ZTNA-18727	Additional Roles for Admin Portal	<p>Monitor Role - This role has view access to all menu items. The Monitor role is unable to create, edit, or delete anything in Universal ZTNA. This role can use the Troubleshooting tool to generate and download logs.</p> <p>Observer Role - This role has view access to all menu items. The Observer role is unable to create, edit, or delete anything in Universal ZTNA. This role does not have access to the Troubleshooting tool.</p>
ZTNA-23125	Application Troubleshooting	Troubleshooting applications end-to-end connectivity and easy log collection.
ZTNA-24115	[Entra ID] Support user login for both UPN & Email	Enables support for login via UPN and Email Address when UPN & Email Addresses do not match.
ZTNA-24116	EAP-TLS: Support Additional Options for Certificate Comparison	Support the implementation of an option in the certificate management screen to address this decision point for 'Distinguished Name' or 'Common Name'.



Addressed Issues in 24.2.0

Table 5: Addressed Issues in 24.2.0

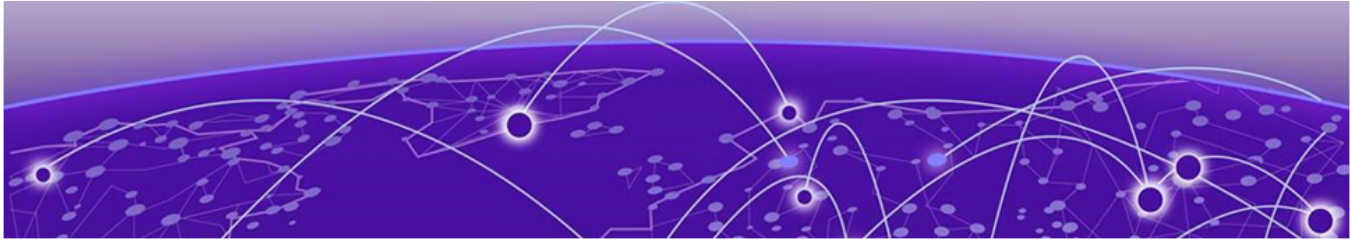
Issue ID	Issue	Description
CFD-12199	Universal ZTNA Agent assigning DNS server 8.8.8.8 even though not seen in configurations	Issue has been resolved with code changes.
CFD-12215	Invalid RADIUS certificate in Universal ZTNA showing N/A	Now N/A values in certificates will have Reset option.
CFD-12255	Universal ZTNA pushes policy to switch even though there are no matching location	SSID location condition enforcement is now supported along with switch and site location conditions.
CFD-12256	Universal ZTNA Oops screen appears during normal operations.	Screen no longer appearing.
CFD-12302	Device state for a non-compliant device in Identities tab is showing as NON_COMPLIANT (not user friendly)	Device states are "Compliant" and "Non Compliant".
CFD-12310	Unable to highlight information in Identities "View History" page	Copy/Paste is now supported for fields in identities view.
CFD-12316	Universal ZTNA - User Group search is slow.	<ul style="list-style-type: none"> Replaced API call for fetching user groups to be paginated The options in the drop-downs will load successively as the user scrolls.
CFD-12413	Universal ZTNA client shows 'You are connected' but Applications are still connecting status	Front-end solution by waiting for the next chunk of data if the previous one was incomplete, ensuring the correct display of data on the UI.

Table 5: Addressed Issues in 24.2.0 (continued)

Issue ID	Issue	Description
CFD-12482	Universal ZTNA profiles add 3 rules instead of 1 in ExtremeCloud IQ.	Universal ZTNA is no longer creating duplicate user profile common objects.
CFD-12498	If SSID Object name and broadcast name are different, the Universal ZTNA rule will not match	The location condition was passing "ssid_id" (SSID Name) as the broadcast name. Updated "ssid_id" to "ssid_name" (SSID Broadcast Name) to resolve the issue.
UZ-2189	Eula keep getting presented for tenant on chrome browser (intermittent)	EULA keeps getting presented for tenant on Chrome browser. The issue was caused by EULA was being tracked by local storage. EULA is now being tracked by the database.
UZ-2204	If location condition based rule added in policy, it is not getting enforced on the switch	Location condition is now getting enforced on the switch.
ZTNA-15902	[Device Posture] Posture Check frequency attribute issue	Users who fail the posture check show up as 'accepted' in the identities table when in reality they have been 'rejected'.
ZTNA-21709	SSID status does not change or display to Ready to Connect even after configuring the Network profile on MAC client for BYOD	To get an updated state, refresh manually. Also, after connecting or disconnecting, refresh after 30s as there is throttling implemented on refresh action.
ZTNA-22085	Universal ZTNA Agents do not support redirection to other RDCs	Redirection to other RDCs is now supported.
ZTNA-22446	Data is not getting auto-refreshed on Universal ZTNA pages	Universal ZTNA now has auto-refresh.
ZTNA-23458	Create Button in Add User Group and Device Group Modal Isn't Visible	Create button is now visible.
ZTNA-23462	In Agentless, for VNC access, username is set to optional but when not added the application stays in connecting state	In Agentless, for VNC access, username is set to optional, but when not added the application stays in connecting state if the credentials are incorrect. To resolve this issue, refresh and confirm correct username password.

Table 5: Addressed Issues in 24.2.0 (continued)

Issue ID	Issue	Description
ZTNA-23482	2 or more devices with the same MAC Address can be imported if formats are changed.	The file content validation API was checking for duplicates before normalizing the MAC addresses, only normalized MAC addresses will be stored in the database.
ZTNA-26030	WireGuard Connector Keeps Going Down Intermittently	Upgrade the Service connector.
ZTNA-26068	On Service Connector restart or new instance creation the Service connector is stuck in service initialization process	Upgrade the Service connector.
ZTNA-26235	Service connector upgrade is not happening	New upgrades are rolled out by Super Admin only.



Known Issues in 24.2.0

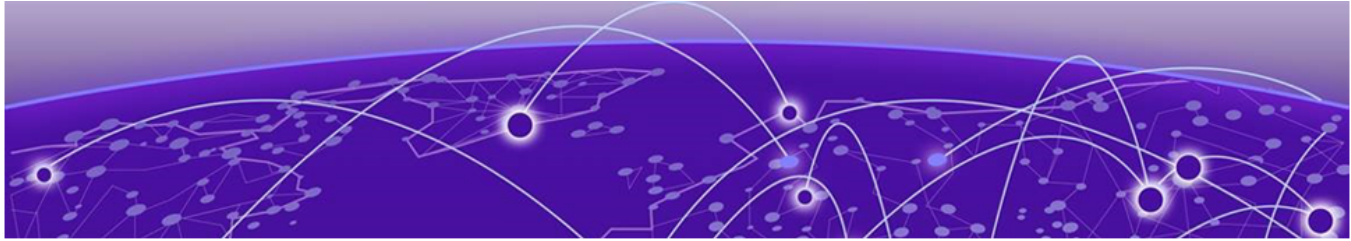
The following table lists Universal ZTNA known product issues. Issues are grouped according to ID prefix and sorted within their group with the most recently logged issue listed first. Issue IDs are in descending order.

Table 6: Known Issues in 24.2.0

Issue Name	Description
CFD-11975	Identity shows up as MAC address with EAP-TLS if Certificate is set to SAN Email Address.
CFD-12203	FQDN Applications are only retrieving the first A record of the application.
CFD-12357	Universal ZTNA Apps in Agent are slow to connect.
UZ-2954	Each Group Name that is imported or synced to Universal ZTNA must be unique. There are frequent scenarios with Entra ID customers where they may have two of the same group name because one is a Security Group and another is an Office 365 or Distribution group. Entra ID allows this, however Universal ZTNA does not. If multiple groups with the same name attempt to be synchronized an error will occur in the synchronization.
UZ-3129	Device login or posture failures are not reported on the insights table.
UZ-3171	Applications with SSO enabled are not accessible through agentless web access.
UZ-3566	Application Discovery will not work on first attempt. Attempt will timeout. A second attempt is required.
UZ-3818	Network Resources connection prematurely closes before a response is sent. If anything in network resources page is out of sync, "Resync All" needs to be manually run to force a sync.
XCD-677	If Universal ZTNA is set as the default application on the applications page, XCD redirects to the wrong URL. Workaround: Don't select the Universal ZTNA application as the default application.
XCD-679	License SKU description is not displayed on XCD user interface.

Table 6: Known Issues in 24.2.0 (continued)

Issue Name	Description
XIQ-36836	Client table no longer showing "Unknown" as the OS Type MAC OS "Sequoia".
XIQ-36842	For Limited Availability customers who are upgrading to General Availability: XIQ policies created prior to the upgrade will not see wireless clients populated in identities table. Work-around is to disable and enable the UZTNA slider and push the XIQ policy to the access point.
XIQ-33843	EAP-TLS auth is not working with IDM in ExtremeCloud IQ.
ZTNA-15224	No entries in activity log are created for actions performed in Device Posture admin screen.
ZTNA-21536	Unregistered devices and network location conditions both show up stale SSIDs in the desktop agent and Universal ZTNA, respectively.
ZTNA-23480	When using the agent and shifting from IPsec to Wireguard a delete and reinstall of the application is required.
ZTNA-27078	For Limited Availability customers who are upgrading to General Availability: VLAN IDs show empty after upgrade, however VLAN assignment is still enforced as configured prior to upgrade.
ZTNA-27150 & ZTNA-27145	Wireless authentication fails on SSIDs that have 'UZTNA Managed' and BYOD Enabled' enabled.
ZTNA-27147	When new service connector build is rolled out, the upgrade service connector banner is not shown and the user is unable to upgrade to the latest build. Manual intervention is required.
ZTNA-27149	macOS Sequoia 15.0.1 fails with error "Failed to configure ssid" when 'Click to Configure' is selected in the networks section of the agent.



Device Support Information

[Access Points](#) on page 17

[Switches](#) on page 21

[Supported Browsers and Display Settings](#) on page 34

This section lists the devices that Universal ZTNA supports and includes the latest version of the software that each device supports.

Access Points

Access Point information is provided in the following sections:

- [Universal Hardware](#) on page 17
- [\(Cloud Native\)](#) on page 18
- [Extreme Wireless](#) on page 20

Universal Hardware

Device Model	Latest Supported Release	Comments
AP302W	IQ Engine 10.7.3.0 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.3.1
AP305C	IQ Engine 10.6.6 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.1.1
AP305C-1	IQ Engine 10.7.3.0 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.4.6
AP305CX	IQ Engine 10.6.6 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.1.1
AP3000	IQ Engine 10.7.3.0 AP 10.8.1	Platform support introduced with IQ engine 10.6.1
AP3000X	IQ Engine 10.6.6	Platform support introduced with IQ Engine 10.6.1

Device Model	Latest Supported Release	Comments
AP4000	IQ Engine 10.7.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.4.1
AP4000-1	IQ Engine 10.6.6 AP 10.8.1	Platform support introduced with IQ Engine 10.4.2
AP410C	IQ Engine 10.6.6 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.1.2
AP410C-1	IQ Engine 10.7.3.0 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.4.6
AP460C	IQ Engine 10.6.6 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.1.2
AP460S6C	IQ Engine 10.7.3.0 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.1.2
AP460S12C	IQ Engine 10.6.6 WiNG OS 7.9.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.1.2
AP5010	IQ Engine 10.6.6 AP 10.8.1 WiNG OS 7.9.3.0	Platform support introduced with IQ Engine 10.5.1
AP5050U	IQ Engine 10.7.3.0 AP 10.8.1	Platform support introduced with IQ Engine 10.5.3
AP5050D	IQ Engine 10.6.6 AP 10.8.1	Platform support introduced with IQ Engine 10.5.3
AP510C/CX	IQ Engine 10.6.6	Platform support introduced with IQ Engine 10.0.8

(Cloud Native)

Device Model	Latest Supported Release	Comments
AP630	10.6.2	Platform support introduced with 10.0.1. End of Life Information
AP650	10.6.6	Platform support introduced with 10.0.1. End of Life Information
AP650X	10.6.6	Platform support introduced with 10.0.1. End of Life Information

Device Model	Latest Supported Release	Comments
AP1130	10.6.1a	Platform support introduced with 8.2.1. End of Life Information
AP550	10.6.1a	Platform support introduced with 7.0.3. End of Life Information
AP390	6.5.16	End of Life Information
AP370	6.5.16	End of Life Information
AP350	6.5.16	End of Life Information
AP340	6.5.10	End of Life Information
AP330	6.5.16	End of Life Information
AP320	6.5.10	End of Life Information
AP250	10.6.1a	Platform support introduced with 7.0.2.
AP245X	10.6.1a	Platform support introduced with 7.0.2. End of Life Information
AP230	10.6.1a	Platform support introduced with 8.2.1. End of Life Information
AP170	6.5.16	End of Life Information
AP150W	10.6.1a	Platform support introduced with 8.1.1.
AP141	6.5.16	End of Life Information
AP130	10.6.1a	Platform support introduced with 8.2.1. End of Life Information
AP122	10.6.1a	Platform support introduced with 7.0.4.
AP122X	10.6.1a	Platform support introduced with 8.2.1. End of Life Information
AP121	6.5.16	End of Life Information
AP120	6.5.10	End of Life Information
Atom AP30	10.6.1a	Platform support introduced with 8.3.2.

Device Model	Latest Supported Release	Comments
AP560i	WiNG OS 7.9.3.0	Monitor only
AP560h	WiNG OS 7.9.3.0	Monitor only
AP505	WiNG OS 7.9.3.0	Monitor only
AP510i	WiNG OS 7.9.3.0	Monitor only
AP510i-1	WiNG OS 7.9.3.0	Monitor only
AP460i/e	WiNG OS 7.9.3.0	Monitor only

Device Model	Latest Supported Release	Comments
AP410i/e	WiNG OS 7.9.3.0	Monitor only
AP410i-1	WiNG OS 7.9.3.0	Monitor only
AP360i/e	WiNG OS 7.9.3.0	Monitor only
AP310i/e	WiNG OS 7.9.3.0	Monitor only
AP310i/e-1	WiNG OS 7.9.3.0	Monitor Only
AP3000	WiNG OS 7.9.3.0	Monitor Only
AP8533	WiNG OS 7.7.1.8	Monitor only
AP8432	WiNG OS 7.7.1.8	Monitor only
AP8232	WiNG OS 5.9.1.8	Monitor only
AP8222	WiNG OS 5.8.6.11	Monitor only
AP8163	WiNG OS 5.9.7.1	Monitor only
AP8132	WiNG OS 5.9.1.8	Monitor only
AP8122	WiNG OS 5.9.1.8	Monitor only
AP7662	WiNG OS 7.7.1.8	Monitor only
AP7632	WiNG OS 7.7.1.8	Monitor only
AP7622	WiNG OS 5.9.7.1	Monitor only
AP7612	WiNG OS 7.7.1.8	Monitor only
AP7602	WiNG OS 5.9.7.1	Monitor only
AP7562	WiNG OS 7.7.1.8	Monitor only
AP7532	WiNG OS 7.7.1.8	Monitor only
AP7522	WiNG OS 7.7.1.8	Monitor only
AP7502	WiNG OS 5.9.7.1	Monitor only
AP7161	WiNG OS 5.9.1.8	Monitor only
AP7131	WiNG OS 5.8.6.11	Monitor only
AP6562	WiNG OS 5.9.1.8	Monitor only
AP6532	WiNG OS 5.9.1.8	Monitor only
AP6522	WiNG OS 5.9.1.8	Monitor only
AP6521	WiNG OS 5.9.1.8	Monitor only
AP6511	WiNG OS 5.8.6.11	Monitor only

Extreme Wireless

Device Model	Latest Supported Release	Comments
AP3965	ExtremeWireless 10.51	Monitor only
AP3935	ExtremeWireless 10.51	Monitor only

Device Model	Latest Supported Release	Comments
AP3917	ExtremeWireless 10.51	Monitor only
AP3916C	ExtremeWireless 10.51	Monitor only
AP3915	ExtremeWireless 10.51	Monitor only
AP3912	ExtremeWireless 10.51	Monitor only
SA201	ExtremeWireless 10.51	Monitor only

Switches

Switch information is provided in the following sections:

- [Universal Hardware](#) on page 21
- [ExtremeXOS](#) on page 27
- [VOSS](#) on page 31
- [\(Cloud Native\)](#) on page 32
- [Dell EMC](#) on page 33

For the latest release notes for Fabric Engine and Switch Engine, see the [Extreme Networks Documentation Site](#).

Universal Hardware

Device Model	Latest Supported Release	Standalone Support	Stack Support
5320-16P-4XE	Switch Engine 33.1.1 Fabric Engine 9.1.00	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5320-16P-4XE-DC	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5320-24T-8XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5320-24PT-8XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5320-48P-8XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5320-48T-8XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-24T-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-24P-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-24S-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-48T-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5420F-48P-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-48P-4XL	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-8W-16P-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-16W-32P-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420F-16MW-32P-4XE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420M-24T-4YE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420M-24W-4YE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5420M-48T-4YE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420M-48W-4YE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5420M-16MW-32P-4YE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-24W	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-24T	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-24T-ACDC	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-24X-ACDC	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5520-48W	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-48T	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-48T-ACDC	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-12MW-36W	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-48SE	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-48SE-ACDC	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5520-24X	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5720-24MW	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5720-48MW	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5720-24MXW	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
5720-48MXW	Switch Engine 32.7 Fabric Engine 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
7520-48Y	Switch Engine 32.7 Fabric Engine 9.0	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* Fabric Engine: Monitor	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy
7520-48YE	Switch Engine 32.7 Fabric Engine 9.0	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* Fabric Engine: Monitor	Switch Engine: <ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
7520-48XT	Switch Engine 32.7 Fabric Engine 9.0	Switch Engine: <ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy* Supplemental CLI* Fabric Engine: Monitor	Switch Engine: <ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy
7720-32c	Switch Engine 32.7 Fabric Engine 9.0	Switch Engine: <ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy* Supplemental CLI* Fabric Engine: Monitor	Switch Engine: <ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy

**Note**

* SSH Proxy and Supplemental CLI can be used for configuring additional parameters not currently available within template or device-level configurations.

ExtremeXOS

Device Model	Latest Supported Release	Standalone Support	Stack Support
X435-8P-2T-W	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy* Supplemental CLI* 	N/A
X435-24T-4S	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy* Supplemental CLI* 	N/A
X435-24P-4S	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> Monitor Template- and device-level configuration SSH Proxy* Supplemental CLI* 	N/A

Device Model	Latest Supported Release	Standalone Support	Stack Support
X435-8T-4S	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	N/A
X435-8P-4S	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	N/A
X440-G2-12p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI*
X440-G2-12t-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI*
X440-G2-24p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI*
X440-G2-24t-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI*

Device Model	Latest Supported Release	Standalone Support	Stack Support
X440-G2-48p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI*
X440-G2-48t-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI*
X450-G2-24p-GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X450-G2-24p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X450-G2-48p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X460-G2-24p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X460-G2-48p-10GE4	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor

Device Model	Latest Supported Release	Standalone Support	Stack Support
X465-24W	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X465-48W	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X465-24MU	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X465-48P	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor
X465-24MU-24W	ExtremeXOS 32.6.3	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Monitor



Note

* SSH Proxy and Supplemental CLI can be used for configuring additional parameters not currently available within template or device-level configurations.

VOSS

Device Model	Latest Supported Release	Standalone Support	Stack Support
VSP7432CQ	VOSS 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Not supported
VSP7400-48Y	VOSS 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Not supported
VSP4900-48P	VOSS 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Not supported
VSP4900-24XE	VOSS 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Not supported
VSP4900-24S	VOSS 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Not supported
VSP4900-12MXU-12XE	VOSS 9.0	<ul style="list-style-type: none"> • Monitor • Template- and device-level configuration • SSH Proxy* • Supplemental CLI* 	Not supported

Device Model	Latest Supported Release	Standalone Support	Stack Support
XA1480	VOSS 8.10	<ul style="list-style-type: none">• Monitor• Template- and device-level configuration• SSH Proxy*• Supplemental CLI*	Not supported
XA1440	VOSS 8.10	<ul style="list-style-type: none">• Monitor• Template- and device-level configuration• SSH Proxy*• Supplemental CLI*	Not supported



Note

* SSH Proxy and Supplemental CLI can be used for configuring additional parameters not currently available within template or device-level configurations.

(Cloud Native)

Device Model	Latest Supported Release
SR2024 End of Life	6.5.12
SR2024P End of Life	6.5.12
SR2124P End of Life	6.5.12
SR2148P End of Life	6.5.12
SR2208P	FASTPATH 8.2.0.2 v1.0.1.29 1.1.31
SR2224P	FASTPATH 8.2.0.2 v1.0.1.29 1.1.31
SR2324P	FASTPATH 8.2.0.2 v1.0.1.29 1.1.31
SR2348P	FASTPATH 8.2.0.2 v1.0.1.29 1.1.31

Dell EMC

Device Model	Latest Supported Release
N3132PX	IQAgent 1.1.29
N3024EF	IQAgent 1.1.29
N3024EP	IQAgent 1.1.29
N3024ET	IQAgent 1.1.29
N3048EP	IQAgent 1.1.29
N3048ET	IQAgent 1.1.29
N3024	IQAgent 1.1.29
N3024F	IQAgent 1.1.29
N3024P	IQAgent 1.1.29
N3048	IQAgent 1.1.29
N3048P	IQAgent 1.1.29
N2128PX	IQAgent 1.1.29
N2024	IQAgent 1.1.29
N2024P	IQAgent 1.1.29
N2048	IQAgent 1.1.29
N2048P	IQAgent 1.1.29
N1524	IQAgent 1.1.29
N1524P	IQAgent 1.1.29
N1548	IQAgent 1.1.29
N1548P	IQAgent 1.1.29
N1108T-ON	IQAgent 1.1.29
N1108P-ON	IQAgent 1.1.29
N1124T-ON	IQAgent 1.1.29
N1124P-ON	IQAgent 1.1.29
N1148T-ON	IQAgent 1.1.29
N1148P-ON	IQAgent 1.1.29

Supported Browsers and Display Settings

Desktop and Mobile Browser Support

**Note**

Universal ZTNA does not support 32-bit browsers.

Table 7: Desktop Browsers

Desktop Browsers	Version Supported
Chrome	v116
Edge	v115
Firefox	v115
Opera	v60
Safari	v13

Table 8: Mobile Browsers

Mobile Browsers	Version Supported
Android Webview	v73
Chrome for Android	v116
Edge	v79
Firefox for Android	v67
Opera for Android	v52
Safari for iOS	v13

Display Settings

Universal ZTNA supports display resolutions of 1280 x 1024 or higher.