ExtremeCloud IQ Release Notes

23.4.1

July 2023

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General Release Information

Current Release: 23.4.1

July 2023

Minor Release 1: 23.4.1.4 New Features and Addressed Issues

Table 1: New Features - CoPilot

Feature ID	Feature	Description

XIQ-19800	Update Action, Feedback and other services to be migrated to XAPIs	The following services are now migrated to xAPI architecture:
		• /copilot/anomalies/notifications
		• /copilot/anomalies/devices/feedback?
		  ◦ Anomaly type: WIFI_CAPACITY
		• /copilot/anomalies/update-action
		  ◦ Anomaly type: WIFI_EFFICIENCY
		  ◦ Action type: MUTE <buildingId>
		• /copilot/anomalies/update-action
		  ◦ Anomaly type: ADVERSE_TRAFFIC
		  ◦ Action type: PINNED <locationId>

Table 2: Addressed Issues

Issue ID	Description
CFD-8133	Addressed an issue where applying an SSID to specific locations/APs using classification rules with ExtremeGuest Essentials failed.
CFD-9585	Addressed an issue where the error *Device Update Failed - Cannot find {} in the metadata service* was observed when attempting to push complete configuration changes.

Table 2: Addressed Issues (continued)

Issue ID	Description
XIQ-15872	Addressed an issue that caused anomalies to be incorrectly grouped. Previously, anomalies detected in the same location but on different floors were listed individually, when they should have been grouped together under a single location. Now, the location grouping works correctly, and anomalies detected in the same location are grouped together.
XIQ-19825	Addressed an issue where the **Using Device Level Configuration** icon—which shows when a device-level configuration supersedes the device templates within the Network Policy—was only visible through the mobile Companion application. The icon has been restored in ExtremeCloud IQ and is now visible where applicable on the **Manage** > **Devices** page.

Patch 2: 23.4.0.47 Addressed Issues

Issue ID	Description
CFD-9601 (02793721)	Addressed an issue where during a stack failover, the primary stack slot move caused issues with connectivity to ExtremeCloud IQ. A java.langNullPointer Exception Error was also observed when pushing a configuration update to the stack.

Patch 1: 23.4.0.44 Addressed Issues

Table 3: Addressed Issues

Issue ID	Description
CFD-9512/XIQ-21179	Updates to manage expired certificates in new and existing VIQs.

ExtremeCloud IQ Public IP Address Blocks

Data Center	IP Block	Addresses and Ports
Global Data Center (GDC)	44.234.22.92/30 18.194.95.0/28 34.253.190.192/26 3.234.248.0/27	
US East (VA)	34.202.197.0/26 44.192.245.0/26 3.234.248.0/27	Firewall Address and Port Information
US East 2 (VA2)	34.202.197.0/26 44.192.245.0/26 3.234.248.0/27	Firewall Address and Port Information
Ireland (IE)	34.253.190.192/26	Firewall Address and Port Information

Data Center	IP Block	Addresses and Ports
India (IN)	13.232.67.8/29 3.6.70.64/29	Firewall Address and Port Information
Germany (FRA)	3.67.81.96/27 18.194.95.0/28	Firewall Address and Port Information
Sweden (SE)	13.48.186.224/29 13.48.4.184/29	Firewall Address and Port Information
Brazil (BR)	18.228.70.16/28	Firewall Address and Port Information
Australia (AUS)	13.210.3.192/28	Firewall Address and Port Information
Japan (JP)	18.176.203.112/29 13.231.6.232/29	Firewall Address and Port Information
Azure, US East (AVA)	52.226.89.112/28	Firewall Address and Port Information
Bahrain (BH)	15.184.70.208/28	Firewall Address and Port Information
The Netherlands (NL-GCP)	34.91.82.64/27	Firewall Address and Port Information
US-Iowa (IA-GCP)	34.67.130.64/27	Firewall Address and Port Information
Switzerland (ACH)	51.107.1.192/28	Firewall Address and Port Information
Azure, Canada Central (ACA)	20.151.64.48/28	Firewall Address and Port Information
Singapore (SG-GCP)	34.87.158.80/28	Firewall Address and Port Information
United Kingdom (UK-AGB)	51.143.233.80/28	Firewall Address and Port Information

Supported IQ Engine 10.6.2 Software

This is the link to the current IQ Engine version that ExtremeCloud IQ supports.
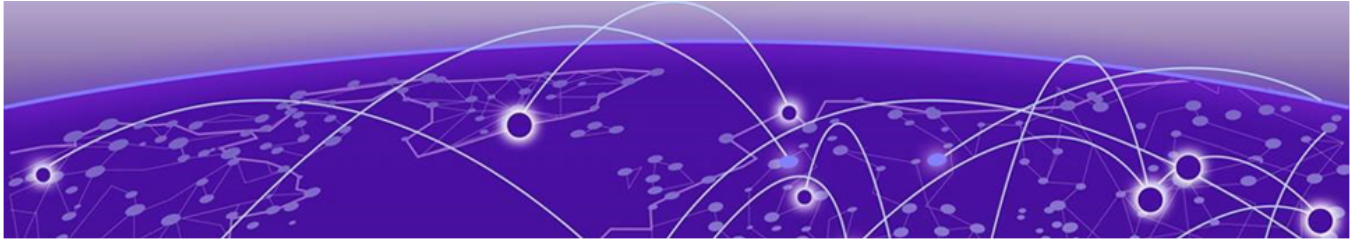
New Features in 23.4.0.42

Device OS Support

This release adds support for the following device operating systems:

- **Switch Engine** 32.4 Download Image Support
- **Switch Engine** 32.5 (onboard, monitor, config, and local image management)
- **Fabric Engine** 8.8.3 and 8.10.1 (onboard, monitor, config, and local image management)
- **Fabric Engine** 8.10 Download Image Support

New Hardware Support

This release adds support for the following devices:

- 7520 Universal Switch
- 7720 Universal Switch

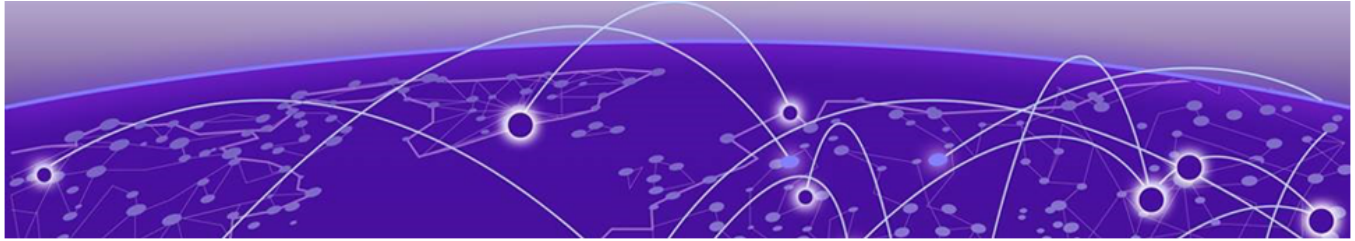| Feature ID	Feature	Description
XIQ-766	Support 7720/7520 Universal HW in XIQ (3 SKUs)	Added support for onboarding, monitoring, persona change, and management of device licenses of 7520-48Y, 7520-48XT, and 7720-32c Universal Hardware running Switch Engine or Fabric Engine persona. Network policy assignment and configuration including stacking support is available for 7000 series switches only when running Switch Engine persona.
XIQ-891	ML Insights > Client 360 combined VLAN and IP column	The VLAN and IP columns are now combined into one VLAN & IP column which displays the VLAN and corresponding IP address of the client. If the client has more than one VLAN and IP address assigned, then more than one VLAN and IP address displays in the column.

Feature ID	Feature	Description
XIQ-1024	NAC PROFILE and NAC DETAILS columns added to ML Insights > Client 360	Wireless end-systems connected through XIQ Native APs, XCC, XIQC, and switches added in ExtremeCloud IQ - Site Engine Access Control can now have the client information sent to ExtremeCloud IQ. The information is in new NAC PROFILE and NAC DETAILS columns in **ML Insights** > **Client 360**. This feature is available and enabled by default in ExtremeCloud IQ - Site Engine release 23.07.10 and later.
XIQ-1159	Location data in XIQ is read-only for ExtremeCloud IQ - Site Engine managed devices	For devices managed by ExtremeCloud IQ - Site Engine the location data in ExtremeCloud IQ is read-only. You can assign the location for these devices in ExtremeCloud IQ - Site Engine.
XIQ-1575	ML Insights > Client 360 top panel widgets for wired clients	**ML Insights** > **Client 360** now displays multiple VLAN and IPv4 address information for wired clients in the client active widget.
XIQ-6378	Client Mode Enhancement: Port Forwarding	Configuration of up to 48 **Port Forwarding Rules** is now supported on the following UIs: • **Configure** > **Common Objects** > **Policy** > **AP Template** > **Client Mode** > **Client Mode Profile** • **Configure** > **Common Objects** > **Basic** > **Client Mode Profiles**
XIQ-8745	Restart PSE displays as action under Updated column	When the **Utilities** > **Restart PSE** function for Switch Engine is in use, it is now displayed as an action that is currently in progress under the **Updated** column of the **Manage** > **Devices** page.
XIQ-9974	Common AP Templates: Field to rate limit multicast	New controls to configure rate-limiting for incoming multicast/broadcast traffic on a wired interface are introduced. Go to **Configure** > **Common Objects** > **Policy** > **AP Template** > **Wired Interfaces**, then select **MCast Filter** to enable multicast filtering and set the **Multicast Rate Limit** to a maximum of 20000 kbps.
XIQ-10512	VOSS and Fabric Engine Release 8.10 Onboard, Monitor, Config, and Download Image support	ExtremeCloud IQ support for VOSS and Fabric Engine Release 8.10 and 8.5.3 image download for all currently supported VSP/Fabric Engine SKUs. VOSS/Fabric Engine 8.10 for 7720, 7520, 5720, 5520, 5420 & 5320 persona change.

Feature ID	Feature	Description
XIQ-11498	Support for packet capture on AP302W, AP305C/CX, and AP510C/CX in radio share mode	AP302W, AP305C/CX, and AP510/CX supporting shared sensing can now run packet captures in ExtremeCloud IQ.
XIQ-12043	Client Mode enhancement - DHCP reservation	Client Mode Enhancement: DHCP Reservations: MAC to IP now possible in client mode with **Advanced DHCP Server** mode avaliable on the following UIs: · **Configure** > **Common Objects** > **Policy** > **AP Template** > **Client Mode** > **Client Mode Profile** · **Configure** > **Common Objects** > **Basic** > **Client Mode Profiles**
XIQ-13048	Consolidate NTP config at device level	ExtremeCloud IQ can now detect if Switch Engine and Fabric Engine devices have SNTP/NTP local configuration that is out of sync with assigned network policy configuration when network policy and configuration updates are performed. This feature requires a minimum version of Switch Engine 32.3 and Fabric Engine 8.9 to be installed.
XIQ-13049	Consolidate SNMP config at device level	ExtremeCloud IQ can now detect if Switch Engine and Fabric Engine devices have SNMP server local configuration that is out of sync with assigned network policy configuration when network policy and configuration updates are performed. This feature requires a minimum version of Switch Engine 32.3 and Fabric Engine 8.9 to be installed.
XIQ-13050	Consolidate Syslog config at device leve	ExtremeCloud IQ can now detect if Switch Engine and Fabric Engine devices have Syslog local configuration which is out of sync with assigned network policy configuration when network policy and configuration updates are performed. This feature requires a minimum version of Switch Engine 32.3 and Fabric Engine 8.9 to be installed.
XIQ-13639	AP510/650: Support for fabric attach	AP510C and AP650 now support Fabric Attach.

Feature ID	Feature	Description

XIQ-13916	Custom Date/Time	A **Custom** option is now available in the **Time Range** drop-down menu, which allows for setting a customized time frame for captured data displays and reports. Use the Custom option to display calendar and 24-hour clock controls, then set a time frame of up to 30 days. This feature updates the following UIs:
		• **Manage** > **Summary**
		• **Manage** > **Devices** >
		  ◦ **<switch> Hostname** > **Monitor** > **Overview**, **Clients**, **Diagnostics**, and **Alarms** > **Timeline View**
		  ◦ **<access point> Hostname** > **Monitor** > **Overview**, **Wireless Interfaces**, **Wired Interfaces**, **Clients** , and **Alarms** > **Timeline View**
		• **Manage** > **Users** > **Historical**
		• **Manage** > **Reports** > **Network Summary** and > **Client Tracking**
		• **Manage** > **Security**
		• **Manage** > **Client Monitor & Diagnosis** > **Client Monitor**
		• **ML Insights** > **Network 360 Monitor** > **<All Tiles>** and > **Client 360** > **Inactive**

XIQ-14049	Custom name for Client (Alias)	Assigning a custom Alias to client devices is now possible. This can be done manually, in bulk through CSV, or through API. It is also possible to search for aliases, where applicable.
XIQ-14417	EXOS and Switch Engine version 32.4 Download Image support	ExtremeCloud IQ support for EXOS and Switch Engine version 32.4 image download.
XIQ-15554	Device Template and D360: Wired interfaces eth0 speed should list 2.5Gbps and 5Gbps for the supported APs	Device Template and D360 Wired eth0 interface speed configuration now includes 2.5 Gbps and 5 Gbps for supported APs.

Feature ID	Feature	Description
XIQ-16933	Always present the option to override a Switch Engine or Fabric Engineconfiguration that is out of sync with ExtremeCloud IQ	The **Perform delta configuration update and resolve local device configuration which is out of sync with ExtremeCloud IQ** update option for Switch Engine and Fabric Engine devices is now always available to select when performing a Network Policy device update. In previous releases the switch had to fail an update for the option to become available on the next device update prompt.
XIQ-17044	Imagotag support for AP5010, AP410C, and AP305C	SES-Imagotag is now supported for AP5010, AP410C, and AP305C in template configurations and in **Manage** > **Device Configuration** > **Interface Settings**.
XIQ-17202	xAPI - Allow /devices endpoint to filter locationId as an array instead of integer	The /devices endpoint now permits filtering the *locationid* parameter using an array of location IDs, rather than a single integer value.
XIQ-17579	IQ Engine 10.6.2 support	IQ Engine version 10.6.2 support for the following models: • AP302W • AP510C/CX • AP650/X • AP630 • AP305C/CX • AP410C • AP460C/S6C/S12C • AP4000/U • AP5010/U • AP5050D/U • AP3000/X
XIQ-17883	VOSS and Fabric Engine Release 8.8.3 Inboard, Monitor, Config, (Drag/Drop) support	ExtremeCloud IQ support for VOSS and Fabric Engine version 8.8.3 image from the local image management option.
XIQ-17884	VOSS and Fabric Engine Release 8.10.1 Onboard, Monitor, Config, (Drag/Drop) support	ExtremeCloud IQ support for VOSS and Fabric Engine version 8.10.1 image from the local image management option.

Feature ID	Feature	Description
XIQ-18570	Connect level VIQ banner announcing "Changes are on the horizon"	When users log in to the Connect level VIQ, a yellow banner appears announcing *Attention! ExtremeCloud IQ Connect accounts will soon be limited to 10 managed devices. If you plan to use more than 10 devices, contact Extreme or the partner account team for more information about increasing the managed device limit.*
XIQ-19473	EXOS and Switch Engine version 32.5 Onboard, Monitor, Config (Drag/Drop) support	ExtremeCloud IQ support for EXOS and Switch Engine version 32.5 image from the local image management option.
XIQ-19723	IQAgent 0.7.21 support	EXOS and Switch Engine support for IQAgent version 0.7.21.
XIQ-19735	Fabric Engine now supports IQAgent 0.6.10	VOSS and Fabric Engine for support IQAgent version 0.6.10.

Addressed Issues in 23.4.0.42

Isuue ID	Description
XIQ-12715	Addressed an issue with AP4000- and AP5000-series devices that occurred when, under **ManageDevices<AP4000/ AP5000>ConfigureInterface SettingsWireless Interfaces**, changing the **WiFi2** radio to dual mode (client access and backhaul selected) resulted in the Delta Config push not generating the CLI commands.
XIQ-16897	Addressed an issue where the **Configure - User Management** > **Private Client Groups** page displayed a **Loading** message and did not complete. This occurred rarely, when new users were added in **Key-Based Groups** and the view was changed back to page **1** of the list of users.
XIQ-19438	Addressed an issue where, occasionally, the **Connection Status** tile on the **Manage** > **Devices** page displayed inconsistencies between the total number of online and offline connections versus the total number of online and offline devices.
XIQ-19756	Addressed an issue where the start date displayed in License Information was incorrect when the start date of the entitlement was in the future. Previously, the start date was off by 1 day.
XIQ-20029	Addressed an issue on the **ML Insights** > **Client 360** page where, under certain circumstances, the tile displaying session details for wired clients contained incorrect and mismatched **Connected To** and **Port Number** information.
XIQ-20652	Addressed an issue where the following commands were not getting pushed to AP410C/AP460C: • interface wifi2 mode adsp-sensor • interface wifi2 application-essentials profile default-xiq-profile • wips-essentials enable • location-essentials enable
XIQ-20722	Addressed an issue where LACP links on ports were not displayed for ERS stacks onboarded through ExtremeCloud IQ - Site Engine.

Isuue ID	Description
XIQ-20753	Addressed an issue where Port Details view is blank for some devices onboarded through ExtremeCloud IQ - Site Engine.
XIQ-20845	Addressed an issue where, previously, a device that was already onboarded natively in ExtremeCloud IQ and was then onboarded through ExtremeCloud™ IQ - Site Engine resulted in a message displaying "FAILURE_TO_PERSIST_TO_DB" under the **Onboard Status** column of on the Site Engine ExtremeCloud IQ **Device Message Details** page. Now, the Onboard Status column displays the message "DEVICE_ALREADY_ONBOARDED".

Known Issues in 23.4.0.42

The following table contains known product issues.

Issue ID	Description
XIQ-11984	For AP3000X/AP3000 and AP5050U/AP5050D devices operating in dual mode, under **Manage** > **Devices** > **<AP3000X/AP3000> or <AP5050U/AP5050D>** > **Interface Settings** > **Modify Multiple : Interface Settings** > **Wireless Interfaces**, the radio **Operating Mode** drop-down list includes a **5 GHz** option which can be selected; however, this option is not supported with this configuration.
XIQ-18544	A workaround has been devised to address VGVA configurations failing when using WPA3 SSID in the same Network policy: move APs with WPA3 enabled SSID to a new profile.
XIQ-19572	Upon upgrade from ExtremeCloud IQ 23.2.x to 23.3.x, the **Manage** > **Devices** page does not retain settings from 23.2.x for the **OS** option under the **Column Picker** dropdown list. To revert to the 23.2.x page view, the **OS** option must be reselected, and the column repositioned on the page, as desired.
CFD-8216 (02634924)	Access points running IQ Engine version <=10.4r3 are not able to receive the Delta Configuration push from ExtremeCloud IQ when Air Defense Essentials is enabled. You need to upgrade them to the latest IQ Engine version.
CFD-8946 (02710778, 02748750)	License descriptions are automatically cleared when the "ACTIVATED" status is updated.
CFD-8598 (02670900)	Cannot enable **Guest Essentials** via **Configure > Guest Essentials Users**. **Workaround**: It can still be enabled via **Essentials > Extreme Guest** in Extreme Cloud IQ.
CFD-8677 (02688860)	VLAN probe shows the results of a successful probe while the status says it is still running.
CFD-8678 (02688797)	VLAN probe category counts are not always accurate.
XIQ-16652	The AP3000x/AP3000/AP5010U **Auto Provision Update** is failing with country code discover timeout.
XIQ-17024	The **Cable Test** action is not supported for x435 switch running the 32.3 software image due to limitations with storage space on the switch.
XIQ-9848	Duplicate entries in the Client Trail when a client moves away from the AP then comes back.

Issue ID	Description
XIQ-9847	The **Roam Time** entry in the Client Trail does not always display the correct `device name`.
XIQ-5700	Client Trial only showed the currently connected AP when the client roamed to a different AP from the onboarded Extreme Cloud IQ Controller.
XIQ-12503	Network 360 shows `Unknown Error` when All Access Points Applications is selected and the user is selecting both WiNG and IQE devices. **Workaround**: Deselect WiNG Devices.
XIQ-7312	5720 Switch Engine devices were showing as connected during the reboot process.
HOS-18313	AP5010 devices will not boot when some non-Extreme micro-USB cables are connected.
APC-41057	Legend labels on the switch stack graph sometimes disappear when attempting to download or print the graph. **Workaround**: 1. Only download one graph at a time, and open the downloaded file before choosing to download again. 2. The SVG option is the most stable format, the rest (PNG, JPG, and PDF) have spacing issues on the legend section.
APC-22297	ExtremeCloud IQ displays PoE configuration controls for all ports on the Dell EMC N1108P switch, even though the N1100P only supports PoE on ports 1 - 4.
APC-21456	In rare cases, ExtremeCloud IQ does not upload some IGMP sub-commands successfully. **Workaround**: Use the **Supplemental CLI** feature to upload problematic commands.
APC-20760	ExtremeCloud IQ reports as unidentified any wired devices that are connected to an SR2208P switch.
APC-20734	When a configuration upload is unsuccessful because of improper **Supplemental CLI** commands, hovering the mouse over the upload message does not result in a tool tip containing the problematic CLI command.
APC-20647	ExtremeCloud IQ does not successfully upload configurations that contain an external RADIUS server.
APC-20172	The option to configure SSH displays when the admin is attempting bulk edits of multiple switches or of switches and APs together. When the admin is performing bulk edits of multiple APs only, ExtremeCloud IQ correctly hides the SSH configuration options.
DAPC-385	ExtremeCloud IQ sometimes displays the incorrect port number in the tool tip when the admin mouses over a stack port on the **Port Status** page.
DAPC-382	When an administrator attaches a switch stack to **HiveManager Virtual Appliance**, only the primary switch is auto-detected. The administrator must subsequently onboard the remaining stack members manually.

Issue ID	Description
DAPC-240D	When the primary switch is removed from a stack, the stack retains the old MAC address. As a result, the primary switch (now a standalone switch), and the original stack both have the same MAC address, which ExtremeCloud IQ cannot resolve. **Workaround**: Before removing the primary from a stack with the intention of continuing to use the primary as a standalone switch, perform the following steps: 1. Remove the stack from ExtremeCloud IQ. 2. Perform the related command line operations on the stack to remove the primary switch. 3. Re-add the stack and the standalone switch to ExtremeCloud IQ.
DAPC-222	After an admin uploads a stack template to a switch stack, ExtremeCloud IQ displays `[-No Change-]` in the **Stack Template** drop-down list, rather than the new template name.
DAPC-186	ExtremeCloud IQ does not display the management VLAN information in the **Devices** table.
DAPC-73	When resetting multiple switches simultaneously to factory default settings, ExtremeCloud IQ erroneously reports that the reset was unsuccessful.

Device Support Information

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

Controllers

Device Model	Latest Supported Release	Comments
E1120	XIQC 10.06.01	Monitor only
E2120	XIQC 10.06.01	Monitor only
E2122	XIQC 10.06.01	Monitor Only
E3120	XIQC 10.06.01	Monitor only
VE6120	XIQC 10.06.01	Monitor only
VE6120H	XIQC 10.05.02	Monitor only
VE6120K	XIQC 10.05.02	Monitor Only
VE6125	XIQC 10.06.01	Monitor only
VE6125K	XIQC 10.05.02	Monitor Only
NX5500	WiNG OS 7.9.1.0	Monitor only
NX7500 Series	WiNG OS 7.9.1.0	Monitor only
NX9500 Series	WiNG OS 7.7.1.5	Monitor only
NX9600 Series	WiNG OS 7.9.1.0	Monitor only
RFS4000 Series	WiNG OS 5.9.7.1	Monitor only
RFS6000 Series	WiNG OS 5.9.1.8	Monitor only
RFS7000 Series	WiNG OS 5.8.6.11	Monitor only
VX9000	WiNG OS 7.9.1.0	Monitor only

Access Points

Access Point information is provided in the following sections:

Universal Hardware

Device Model	Latest Supported Release	Comments
AP302W	IQ Engine 10.6.2 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.3.1
AP305C	IQ Engine 10.6.1 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.1.1
AP305C-1	IQ Engine 10.6.1 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.4.6
AP305CX	IQ Engine 10.6.1 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.1.1
AP3000/AP3000X	IQ Engine 10.6.2	Platform support introduced with IQ engine 10.6.1
AP4000	IQ Engine 10.6.1 IQC 10.06.01	Platform support introduced with IQ Engine 10.4.1
AP4000-1	IQ Engine 10.6.1 IQC 10.06.01	Platform support introduced with IQ Engine 10.4.2
AP410C	IQ Engine 10.6.2 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.1.2
AP410C-1	IQ Engine 10.6.1 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.4.6
AP460C	IQ Engine 10.6.2 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.1.2
AP460S6C	IQ Engine 10.6.2 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.1.2
AP460S12C	IQ Engine 10.6.2 WiNG OS 7.7.1.7 IQC 10.06.01	Platform support introduced with IQ Engine 10.1.2

Device Model	Latest Supported Release	Comments
AP5010	IQ Engine 10.6.2 IQC 10.06.01 WiNG OS 7.9.1.0	Platform support introduced with IQ Engine 10.5.1
AP5050U	IQ Engine 10.6.2 IQC 10.06.01	Platform support introduced with IQ Engine 10.5.3
AP5050D	IQ Engine 10.6.2 IQC 10.06.01	Platform support introduced with IQ Engine 10.5.3

IQ Engine (Cloud Native)

Device Model	Latest Supported Release	Comments
AP630	IQ Engine 10.6r2	Platform support introduced with IQ Engine 10.0r1. End of Life Information
AP650	IQ Engine 10.6r2	Platform support introduced with IQ Engine 10.0r1. End of Life Information
AP650X	IQ Engine 10.6r2	Platform support introduced with IQ Engine 10.0r1. End of Life Information
AP1130	IQ Engine 10.5r3	Platform support introduced with IQ Engine 8.2r1. End of Life Information
AP550	IQ Engine 10.5r3	Platform support introduced with IQ Engine 7.0r3. End of Life Information
AP390	IQ Engine 6.5r16	End of Life Information
AP370	IQ Engine 6.5r16	End of Life Information
AP350	IQ Engine 6.5r10	End of Life Information
AP340	IQ Engine 6.5r16	End of Life Information
AP330	IQ Engine 6.5r16	End of Life Information
AP320	IQ Engine 6.5r10	End of Life Information
AP250	IQ Engine 10.6r1	Platform support introduced with IQ Engine 7.0r2.
AP245X	IQ Engine 10.5r3	Platform support introduced with IQ Engine 7.0r2. End of Life Information
AP230	IQ Engine 10.5r3	Platform support introduced with IQ Engine 8.2r1. End of Life Information
AP170	IQ Engine 6.5r16	End of Life Information
AP150W	IQ Engine 10.6r1	Platform support introduced with IQ Engine 8.1r1.
AP141	IQ Engine 6.5r16	End of Life Information

Device Model	Latest Supported Release	Comments
AP130	IQ Engine 10.6r1	Platform support introduced with IQ Engine 8.2r1. End of Life Information
AP122	IQ Engine 10.6r1	Platform support introduced with IQ Engine 7.0r4.
AP122X	IQ Engine 10.5r3	Platform support introduced with IQ Engine 8.2r1. End of Life Information
AP121	IQ Engine 6.5r16	End of Life Information
AP120	IQ Engine 6.5r10	End of Life Information
Atom AP30	IQ Engine 10.6r1	Platform support introduced with IQ Engine 8.3r2.
AP510C/CX	IQ Engine 10.6r2	Platform support introduced with IQ Engine 10.0r8

WiNG

Device Model	Latest Supported Release	Comments
AP560i	WiNG OS 7.7.1.7	Monitor only
AP560h	WiNG OS 7.7.1.7	Monitor only
AP505	WiNG OS 7.7.1.7	Monitor only
AP510i	WiNG OS 7.7.1.7	Monitor only
AP510i-1	WiNG OS 7.7.1.7	Monitor only
AP460i/e	WiNG OS 7.7.1.7	Monitor only
AP410i/e	WiNG OS 7.7.1.7	Monitor only
AP410i-1	WiNG OS 7.7.1.7	Monitor only
AP360i/e	WiNG OS 7.7.1.7	Monitor only
AP310i/e	WiNG OS 7.7.1.7	Monitor only
AP310i/e-1	WiNG OS 7.7.1.7	Monitor Only
AP8533	WiNG OS 7.7.1.7	Monitor only
AP8432	WiNG OS 7.7.1.7	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 7.7.1.7	Monitor only
AP7632	WiNG OS 7.7.1.7	Monitor only
AP7622	WiNG OS 5.9.7.1	Monitor only
AP7612	WiNG OS 7.7.1.7	Monitor only

Device Model	Latest Supported Release	Comments
AP7602	WiNG OS 5.9.7.1	Monitor only
AP7562	WiNG OS 7.7.1.7	Monitor only
AP7532	WiNG OS 7.7.1.7	Monitor only
AP7522	WiNG OS 7.7.1.7	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
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 23
- ExtremeXOS on page 27
- VOSS on page 30
- IQ Engine (Cloud Native) on page 31
- Dell EMC on page 31

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
7520-48Y	Switch Engine 32.4 Fabric Engine 8.10	**Switch Engine:** • Monitor • Template- and device-level configuration • SSH Proxy **Fabric Engine**: Monitor	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
7520-48XT	Switch Engine 32.4 Fabric Engine 8.10	**Switch Engine:** • Monitor • Template- and device-level configuration • SSH Proxy **Fabric Engine**: Monitor	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
7720-32c	Switch Engine 32.4 Fabric Engine 8.10	**Switch Engine:** • Monitor • Template- and device-level configuration • SSH Proxy **Fabric Engine**: Monitor	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
5320-16P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
5320-16P-4XE-DC	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
5320-24T-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5320-24PT-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5320-48P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5320-48T-4XL	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-24T-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-24P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-24S-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-48T-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-48P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-48P-4XL	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5420F-8W-16P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-16W-32P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420F-16MW-32P-4XE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420M-24T-4YE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420M-24W-4YE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420M-48T-4YE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420M-48W-4YE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5420M-16MW-32P-4YE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5520-24W	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5520-24T	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5520-48W	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5520-48T	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5520-12MW-36W	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5520-48SE	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
5520-24X	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine:** • Monitor • Template- and device-level configuration • SSH Proxy
5720-24MW	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine:** • Monitor • Template- and device-level configuration • SSH Proxy

Device Model	Latest Supported Release	Standalone Support	Stack Support
5720-48MW	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
5720-24MXW	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy
5720-48MXW	Switch Engine 32.4 Fabric Engine 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	**Switch Engine**: • Monitor • Template- and device-level configuration • SSH Proxy

ExtremeXOS

Device Model	Latest Supported Release	Standalone Support	Stack Support
X435-8P-2T-W	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	N/A
X435-24T-4S	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	N/A
X435-24P-4S	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	N/A
X435-8T-4S	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	N/A

Device Model	Latest Supported Release	Standalone Support	Stack Support
X435-8P-4S	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	N/A
X440-G2-12p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
X440-G2-12t-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
X440-G2-24p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
X440-G2-24t-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
X440-G2-48p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
X440-G2-48t-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	• Monitor • Template- and device-level configuration • SSH Proxy
X450-G2-24p-GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X450-G2-24p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor

Device Model	Latest Supported Release	Standalone Support	Stack Support
X450-G2-48p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X460-G2-24p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X460-G2-48p-10GE4	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X465-24W	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X465-48W	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X465-24MU	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X465-48P	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor
X465-24MU-24W	ExtremeXOS 32.4	• Monitor • Template- and device-level configuration • SSH Proxy	Monitor

VOSS

Device Model	Latest Supported Release	Standalone Support	Stack Support
VSP7432CQ	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
VSP7400-48Y	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
VSP4900-48P	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
VSP4900-24XE	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
VSP4900-24S	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
VSP4900-12MXU-12XE	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
XA1480	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported
XA1440	VOSS 8.10	• Monitor • Template- and device-level configuration • SSH Proxy	Not supported

IQ Engine (Cloud Native)

Device Model	Latest Supported Release
SR2024 End of Life	IQ Engine 6.5r12
SR2024P End of Life	IQ Engine 6.5r12
SR2124P End of Life	IQ Engine 6.5r12
SR2148P End of Life	IQ Engine 6.5r12
SR2208P	FASTPATH 8.2.0.2 v1.0.1.29 IQAgent 1.1.31
SR2224P	FASTPATH 8.2.0.2 v1.0.1.29 IQAgent 1.1.31
SR2324P	FASTPATH 8.2.0.2 v1.0.1.29 IQAgent 1.1.31
SR2348P	FASTPATH 8.2.0.2 v1.0.1.29 IQAgent 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

Device Model	Latest Supported Release
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

Routers

Device Model	Latest Supported Release	Standalone Support
BR100 End of Life	IQ Engine 6.5r12	*Not supported in ExtremeCloud IQ*
BR200 End of Life	IQ Engine 6.5r12	*Not supported in ExtremeCloud IQ*
BR200-LTE-VZ End of Life	IQ Engine 6.5r12	*Not supported in ExtremeCloud IQ*
BR200WP End of Life	IQ Engine 6.9r7	
XR200P	IQ Engine 6.9r7	Platform support introduced with IQ Engine 6.9r2
XR600	IQ Engine 10.0r11	Platform support introduced with IQ Engine 9.0r1
XR600P	IQ Engine 10.0r11	Platform support introduced with IQ Engine 9.0r1
VGVA	IQ Engine 6.9r7	

Site Engine

ExtremeCloud IQ - Site Engine Version	Supported Features
22.06.12.13	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO
22.06.13.09	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO
22.09.10.73	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO
22.09.11.14	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO
22.09.12.14	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO
22.09.13.5	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO

ExtremeCloud IQ - Site Engine Version	Supported Features
23.02.10	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO • Stack members
23.02.11	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO • Stack members
23.04.10	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO • Stack members
23.04.11	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO • Stack members

ExtremeCloud IQ - Site Engine Version	Supported Features
23.04.12	• License allocation • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO • Stack members
23.07.10	• License allocation • Device Assignment to the ExtremeCloud IQ Location • Device Statistics • Port Statistics • Unmanage/Manage device • Device Group to CCG mapping • Open Site Engine with SSO • Stack members • NAC details update for wireless end-systems

CoPilot

CoPilot Feature	Minimum Firmware				
	IQ Engine	Switch Engine	Fabric Engine	EXOS	VOSS
WiFi Efficiency	10.5r2*	--	--	--	--
WiFi Capacity	10.5r2*	--	--	--	--
PoE Stability	10.5r2*	32.1	8.6	32.1	8.6
Port Efficiency	10.5r2**	31.7	8.6	31.7	8.6
DFS Recurrence	10.5r2*	--	--	--	--
Adverse Traffic Patterns	10.5r2*	31.7	8.6	31.7	8.6
Time to Associate (Wireless Connectivity Experience)	10.5r2*	--	--	--	--
Time to Authenticate (Wireless Connectivity Experience)	10.5r2*	--	--	--	--
Time to obtain IP (Wireless Connectivity Experience)	10.5r2	--	--	--	--
Port Errors (Wired Connectivity Experience)	--	31.7	8.6	31.7	8.6

*beta support from 10.4

**beta support from 10.5r1

A3

ExtremeCloud A3 Version	Supported Features
4.1.0-9	• Licensing • Status Monitoring • SSO
4.1.1-5	• Licensing • Status Monitoring • SSO
5.0.0-12	• Licensing • Status Monitoring • SSO • Client Details
5.0.1-4	• Licensing • Status Monitoring • SSO • Client Details

Supported Browsers and Display Settings

Desktop and Mobile Browser Support

> **Note**
> ExtremeCloud IQ does not support 32-bit browsers.

Table 4: Desktop Browsers

Desktop Browsers	Version Supported
Chrome	v73
Edge	v79
Firefox	v67
Internet Explorer	Not supported
Opera	v60
Safari	v13

Table 5: Mobile Browsers

Mobile Browsers	Version Supported
Android Webview	v73
Chrome for Android	v73
Edge	v79

Table 5: Mobile Browsers (continued)

Mobile Browsers	Version Supported
Firefox for Android	v67
Opera for Android	v52
Safari for iOS	v13
Samsung Internet	Not supported

Display Settings

ExtremeCloud IQ supports display resolutions of 1280 x 1024 or higher.