



ExtremeCloud™ IQ - Site Engine Installation Guide

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ExtremeCloud IQ - Site Engine Suite Installation

This document provides instructions for installing and launching ExtremeCloud IQ - Site Engine, and for launching ExtremeCloud IQ - Site Engine applications on remote ExtremeCloud IQ - Site Engine clients. It also includes information for those upgrading from an earlier version of Extreme Management Center.

IMPORTANT: Backup the Extreme Management Center database prior to performing the upgrade and save it to a safe location. Use the **Administration > Backup/Restore** tab.

General Information

Before you install ExtremeCloud IQ - Site Engine, read the *ExtremeCloud IQ - Site Engine Release Notes*. The most recent version of these release notes can be found at the [ExtremeCloud IQ - Site Engine Documentation site](#). Select **Release Notes** at the top of the page.

NOTE: The terms engine, gateway, and appliance are used interchangeably throughout ExtremeCloud IQ - Site Engine documentation.

Operating System Requirements

ExtremeCloud IQ - Site Engine Server Requirements

These are the operating system requirements for the ExtremeCloud IQ - Site Engine server.

Manufacturer	Operating System
Linux	Red Hat Enterprise Linux WS and ES v6 and v7 Ubuntu 18.04
VMware® (ExtremeCloud IQ - Site Engine Virtual Engine)	VMware ESXi™ 6.0 server VMware ESXi™ 6.5 server VMware ESXi™ 6.7 server VMware ESXi™ 7.0 server vSphere (client only)™
Hyper-V (ExtremeCloud IQ - Site Engine Virtual Engine)	Hyper-V Server 2012 R2 Hyper-V Server 2016

ExtremeCloud IQ - Site Engine Client Requirements

These are the operating system requirements for remote ExtremeCloud IQ - Site Engine client machines.

Manufacturer	Operating System
Windows (qualified on the English version of the operating systems)	Windows® 10
Linux	Red Hat Enterprise Linux WS and ES v6 and v7 Ubuntu 18.04
Mac OS X®	El Capitan Sierra

ExtremeCloud IQ - Site Engine Server and Client Hardware Requirements

These are the hardware requirements for the ExtremeCloud IQ - Site Engine server and ExtremeCloud IQ - Site Engine client machines:

ExtremeCloud IQ - Site Engine Server

	Small	Medium	Enterprise	Large Enterprise
Total CPUs	1	2	2	2
Total CPU Cores	8	16	16	16
Memory	16 GB	32 GB	64 GB	64 GB
Disk Size	240 GB	480 GB	960 GB	1.92 TB
IOPS	200	200	10,000	10,000

ExtremeCloud IQ - Site Engine Client

	Requirements
CPU Speed	3.0 GHz Dual Core Processor
Memory	4 GB
Disk Size	300 MB (User's home directory requires 50 MB for file storage)
Java Runtime Environment (JRE) (Oracle Java only)	Version 8
Browser* (Enable JavaScript and Cookies)	Microsoft Edge (version 41.16.199.10000.0 in compatibility mode) Mozilla Firefox (version 34 or later*) Google Chrome (version 33.0 or later)

ExtremeControl Engine Version Requirements

For complete information on ExtremeControl engine version requirements, see the [Upgrade Information](#) section of these Installation instructions.

Screen Resolution

For optimum display of ExtremeCloud IQ - Site Engine windows and tables, the recommended minimum screen resolution setting for ExtremeCloud IQ - Site Engine clients is 1024 by 768 pixels. For optimum display of graphs and tables, the recommended minimum screen resolution setting is 1280 by 1024 pixels.

ExtremeCloud IQ - Site Engine Services

During the ExtremeCloud IQ - Site Engine installation, you can enable the ExtremeCloud IQ - Site Engine Services, allowing it to run in the background on the ExtremeCloud IQ - Site Engine server. The service starts automatically by default, and if you shut down and restart the machine, the service is restarted automatically.

You can also restart the services manually or disable a service so it does not start automatically when you restart the server.

- **SNMPTrap Service** - Enables SNMP trap messages to be received and logged when problems or irregularities are detected on network devices. Only one trap service may be running at a time on a server. If you are also running a network management system on the server, you may wish to use the network management trap service.
- **TFTP** - Enables you to upload and download configuration files, and download firmware to devices. Only one TFTP service may be running at a time on a machine.

NOTE: The ExtremeCloud IQ - Site Engine TFTP Service does not support IPv6.

Typically, the TFTP service that exists in Linux is disabled; however, if it is enabled, you may wish to disable it and enable the ExtremeCloud IQ - Site Engine version of TFTP which provides additional features for ExtremeCloud IQ - Site Engine. If you elect to enable the ExtremeCloud IQ - Site Engine version on the Linux platform, you must first disable the Linux TFTP service and perform some configuration as follows:

1. Using a text editor, edit the file `/etc/xinetd.d/tftp`

2. Set *disable* = *yes*

Sample file:

```
service tftp
{
  flags = REUSE
  socket_type = stream
  wait = no
  user = root
}
```

```

server = /usr/sbin/in.tftp
disable = yes
}

```

3. Then run: `/etc/rc3.d/S56xinetd restart`

Upgrade Information

ExtremeCloud IQ - Site Engine version 21.09.10 supports upgrades from ExtremeCloud IQ - Site Engine version 21.04.10, as well as Extreme Management Center versions 8.4.4, or 8.5.5. If you are upgrading from an earlier version of NetSight or Extreme Management Center, you must perform intermediate upgrades before upgrading to ExtremeCloud IQ - Site Engine version 21.09.10.

The following table details which upgrades are needed for each NetSight, Extreme Management Center or ExtremeCloud IQ - Site Engine version prior to upgrading to ExtremeCloud IQ - Site Engine version 21.09.10.

Current Version	Intermediate Upgrade Versions Needed				Upgrade to ExtremeCloud IQ - Site Engine version 21.09.10
	8.1.7	8.3.3	8.4.4	8.5.6	
ExtremeCloud IQ - Site Engine version 21.04.10					X
Extreme Management Center version 8.5.5, 8.5.6					X
Extreme Management Center version 8.5.0-8.5.4				X*	X
Extreme Management Center version 8.4.4					X

Current Version	Intermediate Upgrade Versions Needed				Upgrade to ExtremeCloud IQ - Site Engine version 21.09.10
	8.1.7	8.3.3	8.4.4	8.5.6	
Extreme Management Center version 8.4.0-8.4.3			X	X*	X
Extreme Management Center version 8.2.x or 8.3.x			X	X*	X
Extreme Management Center version 8.0.x or 8.1.x		X		X	X
NetSight version 7.1 or older	X	X		X	X

*These versions can be updated to either version 8.4.4, 8.5.5, or 8.5.6, and then to ExtremeCloud IQ - Site Engine version 21.09.10.

IMPORTANT: When performing an upgrade, be sure to backup the Extreme Management Center database prior to performing the upgrade, and save it to a safe location. Use the **Administration > Backup/Restore** tab to perform the backup. Backup functionality is enhanced in version 8.0 of Extreme Management Center and may function differently depending on the method used by your version of Extreme Management Center.

When upgrading the Extreme Management Center server, ExtremeAnalytics engine, or ExtremeControl engine to version 21.09.10, ensure the DNS server IP address is correctly configured.

During the installation (if upgrading using the user interface installer), you have the option to backup additional user files by selecting a checkbox on the Previous Installation Detected screen. This option lets you backup user files such as Inventory Manager archive files not automatically backed up during the install because the backup could take several minutes.

Important Upgrade Considerations

- If your network is using ExtremeAnalytics or ExtremeControl engines, Fabric Manager, or another add-on feature, you must first perform the ExtremeCloud IQ - Site Engine upgrade to version 21.09.10 and then add the feature.
- The 4.xx version of the NAC Request Tool is not compatible with the 21.09.10 ExtremeCloud IQ - Site Engine server. If you are using the NAC Request Tool you need to upgrade the version of NAC Request Tool to version 21.09.10.

Upgrading ExtremeControl Engine to Version 21.09.10

General Upgrade Information

You are not required to upgrade your ExtremeControl engine version to 21.09.10 when upgrading to ExtremeCloud IQ - Site Engine 21.09.10. However, both ExtremeCloud IQ - Site Engine and ExtremeControl engine must be at version 21.09.10 in order to take advantage of the new ExtremeControl 21.09.10 features. ExtremeCloud IQ - Site Engine 21.09.10 supports managing ExtremeControl engine versions 8.4, 8.5, 21.4, and 21.09.10.

In addition, if your ExtremeControl solution utilizes a Nessus assessment server, you should also upgrade your assessment agent adapter to version 21.09.10 if you upgrade to ExtremeControl version 21.09.10.

You can download the latest ExtremeControl engine version at the [Extreme Portal](#).

Agent Version for NAC Agent-Based Assessment

If you are using onboard agent-based assessment, be aware that the agent version is upgraded during the ExtremeControl engine software upgrade. If you would like end-systems to update their agent to the new version, you must configure your assessment test set to test for the new agent version. Refer to the Upgrade Information section in the [ExtremeCloud IQ - Site Engine Release Notes](#) or the agent version included in the ExtremeControl engine software.

Upgrading to Policy Manager 21.09.10

- Policy Manager 21.09.10 only supports ExtremeWireless Controller version 8.01.03 and higher. If you upgrade to ExtremeCloud IQ - Site Engine 21.09.10 prior to upgrading your controllers, then Policy Manager does not allow you to open a domain where the controllers already exist or add them to a domain. A dialog is

displayed indicating your controllers do not meet minimum version requirements and that they must be upgraded before they can be in a domain.

- Following an upgrade to Wireless Controller version 8.31 and higher, a Policy Manager enforce fails if it includes changes to the default access control or any rules that are set to contain. To allow Policy Manager to modify the default access control or set rules to contain, you must disable the **"Allow" action in policy rules contains to the VLAN assigned by the role** checkbox accessed from the Wireless Controller's web interface on the Roles > **Policy Rules** tab. This will allow the enforce operation to succeed.

Pre-Installation Checklist

Please review the following checklist prior to performing an ExtremeCloud IQ - Site Engine software installation or upgrade.

Backup database. If performing an upgrade, be sure to backup the Extreme Management Center database prior to performing the upgrade. Use the **Backup/Restore** tab to perform the backup (**Administration > Backup/Restore** tab).

If you are an existing Extreme Management Center customer, contact your representative to have your Extreme Management Center license migrated to an ExtremeCloud IQ - Site Engine license. The ExtremeCloud IQ - Site Engine license also includes licensing for ExtremeAnalytics.

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- IMPORTANT:**
- For upgrade and installation requirements, as well as configuration considerations, see [ExtremeCloud IQ - Site Engine Configuration and Requirements](#).
 - ExtremeCloud IQ - Site Engine version 21.09.10 receives the licenses from ExtremeCloud IQ. ExtremeCloud IQ - Site Engine is a subscription-based -only licensing model. Existing NMS licenses do not provide access to ExtremeCloud IQ - Site Engine. You can view the status of your license by accessing [Administration > Licenses](#).
-

ExtremeCloud IQ - Site Engine Installation

If you are an existing Extreme Management Center customer, contact your representative to have your Extreme Management Center license migrated to an ExtremeCloud IQ - Site Engine license. The ExtremeCloud IQ - Site Engine license also includes licensing for ExtremeAnalytics.

Installing ExtremeCloud IQ - Site Engine

Use the following instructions to install ExtremeCloud IQ - Site Engine. Please read through the following items before beginning the installation.

- The user performing the installation must be the root user. During the installation process you can specify another user to launch and run the server, if desired.
- If you are installing ExtremeCloud IQ - Site Engine on a Linux system that doesn't support a GUI, see [Performing a Silent Install](#) for information on installing ExtremeCloud IQ - Site Engine without using its GUI Installation wizard.
- If you are installing ExtremeCloud IQ - Site Engine on a Linux system that requires an operating system upgrade, you [are prompted](#) to upgrade using either an internet connection or locally if no additional Ubuntu packages need to be installed.
- Prior to beginning installation, verify that your /etc/hosts file has the local host name specified. It should have an entry that looks like:

```
127.0.0.1 localhost
```

- You may encounter a Java exception during the install when becoming the root user with the su - command. Be sure that your system's root environment has a proper DISPLAY variable setting. The Installation program reports a Java exception (InvocationTargetException) if the DISPLAY variable is undefined. If this occurs:

Before using the su - command, set the system display variable to accept a remote display with the command:

```
/usr/openwin/bin/xhost +test 111 111
```

After using the su - command, set the display variable in the environment where the su - was done.

For C shell: `setenv DISPLAY :0.0`

For Korn shell: `export DISPLAY=:0.0`

Preparing for CD Installation

Perform the following steps if you will be installing the ExtremeCloud IQ - Site Engine software from a CD. The following procedures assume that the CD drive from which you are installing is physically attached to the system where ExtremeCloud IQ - Site Engine is being installed.

1. Insert the ExtremeCloud IQ - Site Engine CD into the CD drive.
2. Use an xterm where you are logged in as root. (Be sure that your system's root environment has a proper DISPLAY variable setting. For more information see the above [note](#).)
3. Using the cd command, cd to the `/mnt/cdrom` directory.
4. Using the ls command, check to see if the CD drive is mounted. If no files are listed, issue the following commands:

```
mount /mnt/cdrom
```

Install and Launch ExtremeCloud IQ - Site Engine

1. Download the ExtremeCloud IQ - Site Engine software from the ExtremeCloud IQ section of the [Extreme Portal](#).
2. Use an xterm where you are logged in as root. (Be sure that your system's root environment has a proper DISPLAY variable setting. For more information see the above [note](#).)
3. Change the permissions on the upgrade file by entering the following command:

```
chmod u+x File_Name_<version>_install.bin
```
4. If installing ExtremeCloud IQ - Site Engine on a system on which Ubuntu 18.04 LTS (Bionic Beaver) is installed, continue to step 5; otherwise, proceed to step 9.
5. Edit the `rsyslog.conf` file.
6. Uncomment (remove the # from the beginning of the line) for the lines that include `imudp/514` and `imtcp/514`:

```
#ENABLE_RSYSLOG_SERVICE
cp /etc/rsyslog.conf /etc/rsyslog.conf.original
sed -i 's/#module(load=\\"imudp\\")/module(load=\\"imudp\\")/g' /etc/rsyslog.conf
sed -i 's/#input(type=\\"imudp\\" port=\\"514\\")/input(type=\\"imudp\\" port=\\"514\\")/g' /etc/rsyslog.conf
sed -i 's/#module(load=\\"imtcp\\")/module(load=\\"imtcp\\")/g' /etc/rsyslog.conf
sed -i 's/#input(type=\\"imtcp\\" port=\\"514\\")/input(type=\\"imtcp\\" port=\\"514\\")/g' /etc/rsyslog.conf
systemctl restart rsyslog
```

7. Edit the `/etc/hosts` file.
8. Ensure the ip fqdn hostname line is configured (the last line in the following codeblock):

```
#IF_DNS_NOT_CONFIGURED
hostnamectl set-hostname <set_your_hostname_here>
domainname <set_your_domain_here>
export HOST_IP=`hostname -i|awk '{print $1}'`
export HOST_FQDN=`hostname -f`
export HOST_NAME=`hostname`
cp /etc/hosts /etc/hosts.original
echo $HOST_IP $HOST_FQDN $HOST_NAME >> /etc/hosts
#
# If DNS is configured on the system ensure the /etc/hosts contains an
# entry of the format:
# <ip> <fqdn> <hostname>
# 192.168.1.150 xmc1804.extremenetworks.com xmc1804
```

9. Start the Installer.

- **If you have downloaded the software**, cd to the directory where you downloaded the installer and start the Installer with the following command:
./ExtremeCloudIQSiteEngine_<version>_64bit_install.bin
- **If you are installing from a CD**, start the installer with the command:
/mnt/cdrom/ExtremeCloudIQSiteEngine_<version>_64bit_install.bin

10. The ExtremeCloud IQ - Site Engine Installer leads you through a series of windows that ask for all the information required in order to install ExtremeCloud IQ - Site Engine. You need the following information for the Installer Program:

- **Service Configuration** - There are two Service Configuration screens.
 - In the first screen, you can specify a user other than root to own the ExtremeCloud IQ - Site Engine server and its supporting files, if desired. This user becomes the admin user for the server. Select **Use existing user** if you already have a user defined on the machine and enter the user name. Select **Create local netsight user** if you want to create a new "netsight" user (netsight is the user name) and enter the password for this new user. Leave the **Use existing user** option set to **root** if you do not want to specify another user.
 - In the second screen, enable and start the ExtremeCloud IQ - Site Engine Services. (For more information on the services offered on the Linux platform, see [ExtremeCloud IQ - Site Engine Services.](#))

- **Destination Directory** - This is the path to your ExtremeCloud IQ - Site Engine Installation Directory. In the Destination Directory window, select **Choose** to navigate to the directory, or type the path in manually.
- **Operating System Upgrade Method** – If your Linux system requires an operating system upgrade, you are prompted to upgrade using either an internet connection or locally (without an internet connection) if no additional Ubuntu packages need to be installed:

!!! ATTENTION !!!

We can attempt to upgrade the OS without using the Internet if there were no extra Ubuntu packages installed. If there were extraneous packages installed, the upgrade will fail with this method.

Do you want to attempt a local in-place upgrade of the OS and reboot when complete? (Y/n)

When you have finished with this series of windows, ExtremeCloud IQ - Site Engine is installed according to your specifications.

11. When the installation is complete, the database and server are started automatically. You must wait until the ExtremeCloud IQ - Site Engine server has started all its various server components before you can connect to the server and launch the ExtremeCloud IQ - Site Engine applications. On the installation screen, you see an hourglass icon while the server starts its components. When the server is ready for connections, the installation screen displays a green check.
12. On the installation screen, select the **Show Launch Page** link to open the ExtremeCloud IQ - Site Engine Launch Page.
13. The ExtremeCloud IQ - Site Engine Launch Page opens. At the top of the web page you will see tabs for the following functions:
 - **Home** - Launch your ExtremeCloud IQ - Site Engine applications by selecting the names or icons of any of the listed applications.
 - **Getting Started** - In order to launch your ExtremeCloud IQ - Site Engine applications, you must have Java Runtime Environment (JRE) 6 (also referred to as 1.6) or higher installed on your system. This page tells you if you have met this requirement and provides instructions for installing the Java Runtime Environment (JRE), if required.
 - **Administration** - Provides access to specific server administration functions such as client and server diagnostics, and server utilities.

14. Verify that you have met the JRE requirement by accessing the **Getting Started** tab, and install the JRE according to the instructions on the **Install Java** tab, if required.
15. Select the **Home** tab and launch the desired ExtremeCloud IQ - Site Engine application by selecting the name or icon.
16. A login window appears. ExtremeCloud IQ - Site Engine requires a user login as a way to restrict access to the ExtremeCloud IQ - Site Engine server, perform audit trails, and assign user capabilities according to the Authorization Group the user belongs.
 - a. Select the ExtremeCloud IQ - Site Engine server to which you wish to connect.
 - b. Enter your username.
 - c. Enter your password and select OK.

NOTES: The initial user to log in must be the user that performed the ExtremeCloud IQ - Site Engine installation, which is either root or the user defined in the [Service Configuration screen](#) during the installation. This is because the ExtremeCloud IQ - Site Engine server has a single pre-defined user. After the initial user has logged in, additional users can be defined.

The password for the root user does not expire. To configure the password to age so it expires after 60 days, see [Configure Your Password to Expire](#).

17. The application main window opens.

Performing a Silent Install

If you are installing ExtremeCloud IQ - Site Engine on a Linux system that doesn't support a GUI, you must add the cli flag (`--cli`) to the install command, in order to allow the ExtremeCloud IQ - Site Engine installer to prompt for any required input.

Start the installation with the following command:

```
./ExtremeCloudIQSiteEngine_<version>_64bit_install.bin --cli
```

If you are installing as a user other than root, you must use the `--user` command to specify the different user. The user must already be configured on the machine before you install. For example:

```
./ExtremeCloudIQSiteEngine_<version>_64bit_install.bin --cli --  
user <username>
```

To perform the install and create a new local "netsight" user (where netsight is the user name), use the --password command to set the password for the new "netsight" user. For example:

```
./ExtremeCloudIQSiteEngine_<version>_64bit_install.bin --cli --  
password <password>
```

Onboarding ExtremeCloud IQ - Site Engine to ExtremeCloud IQ

After installing or upgrading to ExtremeCloud IQ - Site Engine, you need to [onboard](#) ExtremeCloud IQ - Site Engine to ExtremeCloud IQ. When the onboarding is complete, you can then access ExtremeCloud IQ - Site Engine.

Entering your ExtremeCloud IQ name and password are required during the first-time login to ExtremeCloud IQ - Site Engine.

NOTES: If Extreme Management Center is onboarded to ExtremeCloud IQ, when you upgrade to ExtremeCloud IQ - Site Engine, you need to remove Extreme Management Center from ExtremeCloud IQ before onboarding ExtremeCloud IQ - Site Engine

When ExtremeCloud IQ - Site Engine has been onboarded, it can start sending requests to add the devices from its database to ExtremeCloud IQ.

As devices are added and discovered in ExtremeCloud IQ - Site Engine, they are onboarded to ExtremeCloud IQ, with a request for a [license](#) of the appropriate tier.

There are three tiers of licenses for ExtremeCloud IQ - Site Engine and devices:

- Pilot - Natively supported Extreme devices
- Navigator - 3rd party devices, Extreme Campus Controller wireless devices, WING wireless devices, and devices not natively supported by ExtremeCloud IQ - Site Engine
- No License - Status-Only devices

Post Installation Procedure for Ubuntu 18.04 LTS (Bionic Beaver)

If installing ExtremeCloud IQ - Site Engine on a system on which Ubuntu 18.04 LTS (Bionic Beaver) is installed, follow this procedure when ExtremeCloud IQ - Site Engine is installed:

1. Open a command prompt on the ExtremeCloud IQ - Site Engine server.
2. Enter `cp /var/Extreme_Networks/.netsight /var/Extreme_Networks/.netsight.original`.
3. Enter `export HOST_IP=`hostname -i|awk '{print $1}'``.
4. Enter `sed -i "\$aJBOS_HOSTNAME=$HOST_IP" /var/Extreme_Networks/.netsight`.
5. Install OpenSSH for SCP-based archives support and allow root login:
 - a. Open the `/etc/ssh/sshd_config` file and change **PermitRootLogin** to **yes**.
 - b. Enter `apt-get install openssh-server`.
6. Allow root access to the ExtremeCloud IQ - Site Engine server via SSH.
 - a. Enter `cp /etc/ssh/sshd_config /etc/ssh/sshd_config.original`.
 - b. Enter `sed -i 's/#PermitRootLogin prohibit-password/PermitRootLogin yes/g' /etc/ssh/sshd_config`.

Restoring a Database from a Windows Server to a Linux Server

This section describes several ExtremeCloud IQ - Site Engine configuration changes required if you are moving your ExtremeCloud IQ - Site Engine installation from a Windows platform system to a Linux platform system. The steps are performed after restoring your database to the new server.

In addition, there are two changes that must be made in the legacy Console java application and one change in the legacy Inventory Manager application.

Console

Use the following instructions to change the location of syslog and trap information to the new location on the Linux system.

Syslog

Change the Syslog Log Manager to point to the new location on the Linux system. This allows the display of syslog information in the **Syslog Event View** tab.

1. From the Console menu bar, select **Tools > Alarm/Event > Event View Manager**.
2. Select the Syslog entry under Available Log Managers, and select the **Edit** button. The Log Manager Parameters window opens.

3. Change the path in the Log Directory field to `/var/log/syslog`.
4. Change the Pattern to Red Hat LINUX Syslog Pattern.
5. Select **OK**.

Traps

Change the Traps Log Manager to point to the new location on the Linux system. This allows the display of trap information in the **Traps Event View** tab.

1. From the Console menu bar, select **Tools > Alarm/Event > Event View Manager**.
2. Select the Traps entry under Available Log Managers, and select the **Edit** button. The Log Manager Parameters window opens.
3. Change the path in the Log Directory field to `%logdir%/traps`.
4. Select **OK**.

Inventory Manager

If you are using Inventory Manager, you need to change the Data Storage Directory path to point to the new location on the Linux system. The Data Storage directory is where all Inventory Manager data is stored, including capacity planning reports, configuration templates, archived configurations, and property files.

1. From the Inventory Manager menu bar, select **Tools > Options**. Expand the Inventory Manager options folder and select **Data Storage Directory Path**.
2. Change the path to the correct new location. On a default Linux install, the path would be: `<user's home directory>/appdata/InventoryMgr`
3. Select **OK**.

Systems with Multiple NICs

This section provides instructions for configuring ExtremeCloud IQ - Site Engine servers with multiple NICs (Network Interface Cards). During the startup process, the ExtremeCloud IQ - Site Engine server automatically binds to the first available NIC, which may not be the correct interface for the server to use. In addition, changes on the network can cause the server to bind to an incorrect interface, should the server restart during a change.

If the system has multiple NICs installed, it is a good practice to either:

- configure the server to bind to a preferred IP address, if using only one interface for connections or
- configure multiple network interfaces, if using more than one interface for connections.

This ensures that local and remote clients, as well as ExtremeControl engines, are able to connect to the ExtremeCloud IQ - Site Engine server.

Binding to One Interface

If the ExtremeCloud IQ - Site Engine server has multiple NICs installed but only one interface is used to access ExtremeCloud IQ - Site Engine, use the following instructions to configure the preferred interface for the ExtremeCloud IQ - Site Engine server.

Configure the ExtremeCloud IQ - Site Engine server to bind to the correct IP address.

1. Open the `/var/Extreme_Networks/.netsight` file. Edit the line `JBOSS_HOSTNAME=<server IP>` to add the correct NIC IP address.
2. Restart the ExtremeCloud IQ - Site Engine server.

Remote Client Launch

ExtremeCloud IQ - Site Engine is a web-based application you access from the ExtremeCloud IQ - Site Engine Login page. Remote ExtremeCloud IQ - Site Engine clients can use the following steps to access the ExtremeCloud IQ - Site Engine Launch page and run ExtremeCloud IQ - Site Engine applications from the remote client machine.

1. Open a browser window and enter your ExtremeCloud IQ - Site Engine information as a URL in the following format:

`http://servername:8080/`

where *servername* is the ExtremeCloud IQ - Site Engine server's IP address or hostname, and 8080 is the required port number. For example,

`http://10.20.30.40:8080/`

2. The ExtremeCloud IQ - Site Engine Login page opens.

ExtremeCloud IQ - Site Engine requires a user login as a way to restrict access to the ExtremeCloud IQ - Site Engine server, perform audit trails, and assign user capabilities according to the Authorization Group the user belongs. It is important to

note that when you log in, you are authenticating to the operating system of the ExtremeCloud IQ - Site Engine server system to which you are connecting.

3. Enter your username.
4. Enter your password and select **Login**.
5. The application main window opens.

The first time you log in, the embedded help window displays the Getting Started

NOTE: User preferences and application data (such as FlexViews and MIBs) for remote clients are stored in the following local directory on the client machine: C:\Documents and Settings\\Application Data\NetSight.

Uninstalling ExtremeCloud IQ - Site Engine

Use the procedures below to uninstall your ExtremeCloud IQ - Site Engine Suite of products. The uninstall removes all ExtremeCloud IQ - Site Engine data from the database. Be sure to backup your database prior to uninstalling.

Navigate to the <install directory>/uninstaller directory and start the Uninstaller by issuing the command:

```
./uninstall.sh
```

Extreme Networks Support

If you require assistance, contact Extreme Networks Global Technical Assistance Center using one of the following methods.

Web	www.extremenetworks.com/support/
Phone	1-800-872-8440 (toll-free in U.S. and Canada) or 1-603-952-5000 For the Extreme Networks Support phone number in your country: www.extremenetworks.com/support/contact/
Email	support@extremenetworks.com

ExtremeCloud IQ - Site Engine Licensing

ExtremeCloud IQ - Site Engine includes all the features and functionality of Extreme Management Center. If you are an existing Extreme Management Center customer, contact your representative to have your Extreme Management Center license migrated to an ExtremeCloud IQ - Site Engine license. The ExtremeCloud IQ - Site Engine license also includes licensing for ExtremeAnalytics.

-
- NOTES:**
- ExtremeCloud IQ - Site Engine is a subscription-based -only licensing model.
 - ExtremeCloud IQ - Site Engine is not compatible with ExtremeCloud IQ Connect level account. Either the Pilot or Navigator level is mandatory.
-

You can view ExtremeCloud IQ and ExtremeCloud IQ - Site Engine license information by accessing [Administration > Licenses](#).

This Help topic includes information on the following:

- [Licensing for Devices in Connected Mode](#)
- [License Limits and Violations](#)
- [Licensing for ExtremeControl](#)

There are three tiers of licenses for ExtremeCloud IQ - Site Engine and devices:

- Pilot - Natively supported Extreme devices
- Navigator - 3rd party devices, Extreme Campus Controller wireless devices, WiNG wireless devices, and devices not natively supported by ExtremeCloud IQ - Site Engine
- No License - Status-Only devices

NOTE: Devices that do not have serial numbers or MAC addresses in Extreme Management Center must be Rediscovered after you upgrade to ExtremeCloud IQ - Site Engine before they can be onboarded to ExtremeCloud IQ.

If your number of devices exceeds your licenses available, ExtremeCloud IQ - Site Engine transitions to a license violation state and your access to ExtremeCloud IQ - Site Engine features and functionality is degraded. To resolve the license shortage you need to access the Extreme Networks License Portal or ExtremeCloud IQ to evaluate the quantities of available Pilot and Navigator licenses versus the number of licenses required by ExtremeCloud IQ - Site Engine.

Licensing for Devices

When ExtremeCloud IQ - Site Engine has been [onboarded](#), it starts sending requests to add the devices from its database to ExtremeCloud IQ.

As devices are added and discovered in ExtremeCloud IQ - Site Engine, they are onboarded to ExtremeCloud IQ, with a request for a license of the appropriate tier (Navigator, Pilot or No License) that each device will require.

Devices may be marked as [Unmanaged](#) in ExtremeCloud IQ, which means they are not using a license and available features are very limited.

The following grid details the type of license required by each device and engine type:

Device Type	License Tier Type	Number of Licenses Per Device
Extreme-supported Device (Includes VSP, SLX, Extreme Access, VDX, Fabric Manager, Unified Switching VOSS, Unified Switching EXOS, Summit Series, ERS Series, 200 Series, 700 Series, A Series, B Series, C Series, ICX Series, Security Appliances, MLXe Series)	Pilot	1
Chassis	Pilot	1
ExtremeControl engine	Pilot	1

ExtremeAnalytics engine	Pilot	1
ExtremeCloud IQ - Site Engine itself	Pilot	1
Extreme Management Center	Pilot	1
vSensor	Pilot	1
All Other Devices (Includes Non-Extreme Device)	Navigator	1
Devices with Ping-Only profile	No License	0
Devices Added with No Access Profile	No License (These are not onboarded to ExtremeCloud IQ)	0
Status-Only Devices	No License (These are not onboarded to ExtremeCloud IQ)	0

NOTE: For HiveOS APs (IQE), a Pilot license is required, but currently not enforced in ExtremeCloud IQ - Site Engine Version 21.09.10. These are not onboarded to ExtremeCloud IQ through ExtremeCloud IQ - Site Engine.

License Limits and Violations

For each request to add a device to ExtremeCloud IQ - Site Engine:

- ExtremeCloud IQ determines if there are enough licenses of that type available.

As a result, one of the following actions happens:

- If there are enough licenses, device onboarding is successful.
- If there are not enough Navigator licenses, a Pilot license is used instead.
- If there are not enough Pilot licenses, the request is considered a license violation.

NOTE: When an evaluation license is used for ExtremeCloud IQ - Site Engine, all devices are managed with Pilot licenses.

To correct a license limit violation:

- You must acquire more licenses (and, when the updated licenses are available in ExtremeCloud IQ, they are used by ExtremeCloud IQ - Site Engine).

Devices Marked as Unmanaged

When devices are marked as Unmanaged in ExtremeCloud IQ, they are also Unmanaged in ExtremeCloud IQ - Site Engine.

Onboarded Unmanaged devices are indicated in the [XIQ Onboarded column](#) of the **Network > Site > Device** table by a red X.

Poll Details	Device Type	Family	Firmware	Reference	Connector	XIQ Onboarded	Upda...	Archived	Config Changed
Up: 328 Down: 0	N430-02-240-04	Summit Ser.	31.1.1.3			X			
Up: 196 Down: 0	vn386E105	Summit Ser.	30.4.0.483						
Configuration staged for device									
	vn386E105	Summit Ser.	31.1.1.3		3.6.1.8				
Up: 2 Down: 162	N435-247-45	Summit Ser.	31.1.1.3	✓	3.6.1.8			✓	
Up: 2 Down: 162	N435-247-45	Summit Ser.	31.1.1.3	✓	3.6.1.8			✓	
Up: 0 Down: 196	Virtual Application A...	Extreme An...	8.6.3.46						
Up: 0 Down: 196	Virtual Access Contr...	Extreme Co...	8.5.5.12						
Up: 2 Down: 162	R4BR103R	Retro Man...	8.6.3.26		3.6.1.8				

For more details on the **Network > Site > Device** table, visit [Onboarding Unmanaged Devices](#).

Licensing for ExtremeControl

The licensing details for ExtremeControl vary depending on whether ExtremeCloud IQ - Site Engine is [onboarded](#) after upgrading from Extreme Management Center or if it is initially installed.

When ExtremeCloud IQ - Site Engine is ExtremeCloud IQ.

After Upgrading From Extreme Management Center versions 8.4.4 or 8.5.5

If you are upgrading from Extreme Management Center versions 8.4.4 or 8.5.5 to ExtremeCloud IQ - Site Engine version 21.09.10, the licensing and capabilities of ExtremeControl does not change. The following are included in the licenses:

- NMS-ADV License includes 500 Access Control End-Systems and 50 Guest and IoT Manager (GIM) licenses.
- NMS-xx License includes 250 Access Control End-Systems and 25 GIM licenses.

If you had an NMS-xx License with Extreme Management Center, you can upgrade to an NMS-ADV License on the Extreme Portal after you onboard ExtremeCloud IQ - Site Engine.

NOTE: If your version of ExtremeControl contains NMS or NetSight licenses described above and uses licenses through ExtremeCloud IQ, ExtremeControl will use the licenses provided via ExtremeCloud IQ.

Upon Initial Installation

If you are completing an initial install of ExtremeCloud IQ - Site Engine, there is no end-system license included. The evaluation license can be generated on the Extreme Portal which includes unlimited end-systems and Guest and IoT Manager (GIM) licenses.

Related Information

[Onboarding ExtremeCloud IQ - Site Engine](#)

Onboarding ExtremeCloud IQ - Site Engine

To access ExtremeCloud IQ - Site Engine, you must first complete the steps to onboard ExtremeCloud IQ - Site Engine to ExtremeCloud IQ.

There are two scenarios by which you can onboard ExtremeCloud IQ - Site Engine:

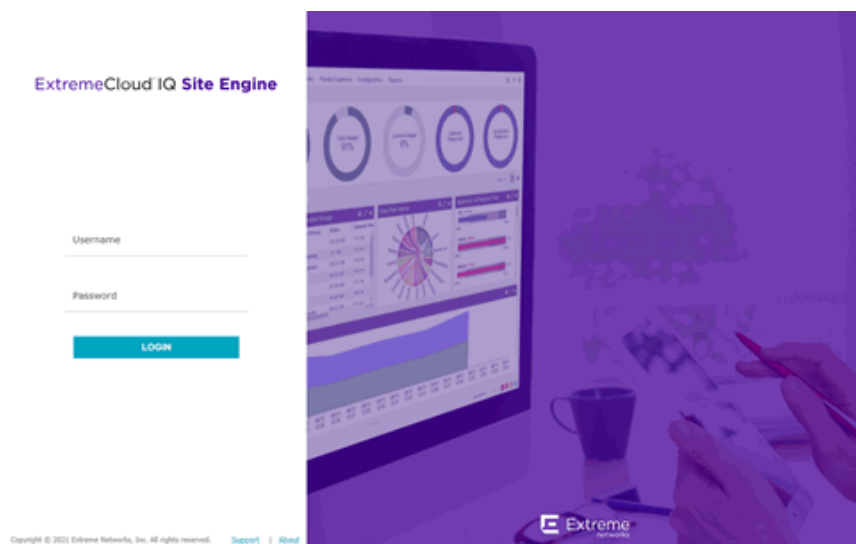
- [After Upgrading to ExtremeCloud IQ - Site Engine from Extreme Management Center Versions 8.4.4 or 8.5.5.](#)
- [After Initial Installation of ExtremeCloud IQ - Site Engine.](#)

After Upgrading to ExtremeCloud IQ - Site Engine from Extreme Management Center Versions 8.4.4 or 8.5.5

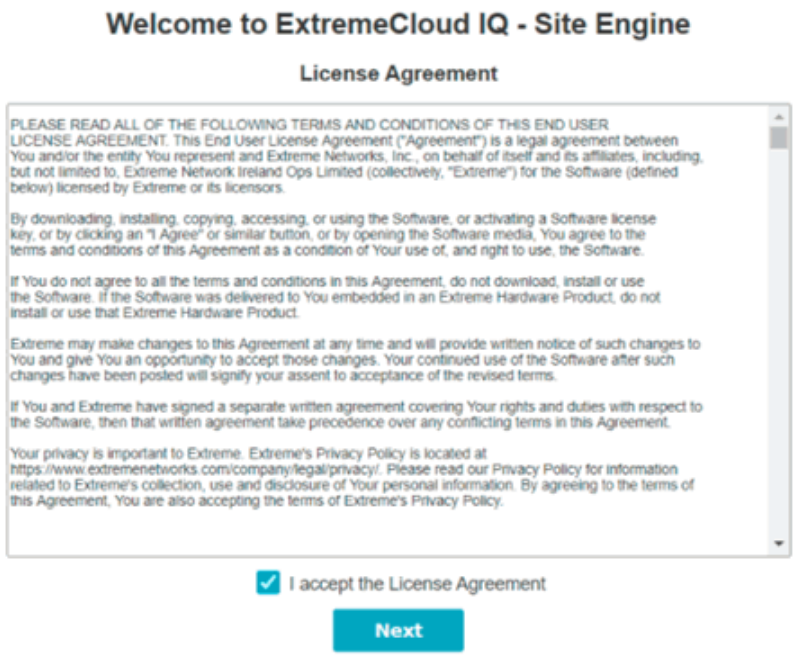
When you upgrade from Extreme Management Center to ExtremeCloud IQ - Site Engine, if you used the softlaunch feature of Extreme Management Center in ExtremeCloud IQ, you need to remove Extreme Management Center from ExtremeCloud IQ before onboarding ExtremeCloud IQ - Site Engine.

After you upgrade your Extreme Management Center to ExtremeCloud IQ - Site Engine, you need to onboard ExtremeCloud IQ - Site Engine:

1. Log in to ExtremeCloud IQ - Site Engine. Enter your ExtremeCloud IQ - Site Engine username and password. Select **Login**.

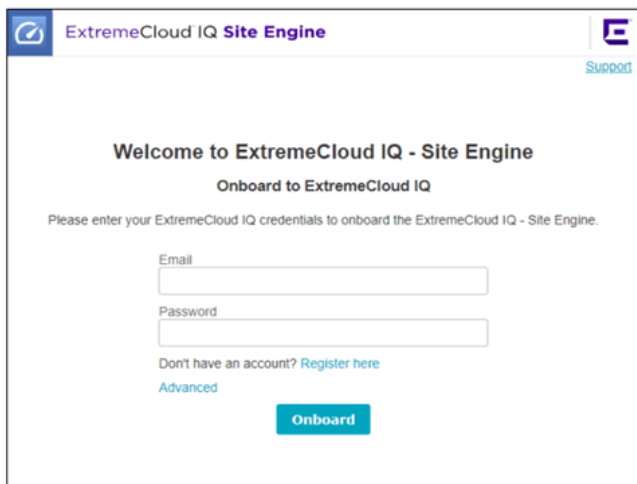


2. Accept the License Agreement.



Select **Next**.

3. To onboard ExtremeCloud IQ - Site Engine to ExtremeCloud IQ, provide your ExtremeCloud IQ email address and password.



After ExtremeCloud IQ - Site Engine has successfully onboarded, you can now access ExtremeCloud IQ - Site Engine.

If your environment requires HTTP Proxy or other advanced settings, select the Advanced link. If you do not have an ExtremeCloud IQ account, select the Register Here link.

After Initial Installation of ExtremeCloud IQ - Site Engine

Complete the following steps to onboard ExtremeCloud IQ - Site Engine after you install ExtremeCloud IQ - Site Engine:

1. Accept the ExtremeCloud IQ - Site Engine License Agreement.

Welcome to ExtremeCloud IQ - Site Engine

License Agreement

PLEASE READ ALL OF THE FOLLOWING TERMS AND CONDITIONS OF THIS END USER LICENSE AGREEMENT. This End User License Agreement ("Agreement") is a legal agreement between You and/or the entity You represent and Extreme Networks, Inc., on behalf of itself and its affiliates, including, but not limited to, Extreme Network Ireland Ops Limited (collectively, "Extreme") for the Software (defined below) licensed by Extreme or its licensors.

By downloading, installing, copying, accessing, or using the Software, or activating a Software license key, or by clicking an "I Agree" or similar button, or by opening the Software media, You agree to the terms and conditions of this Agreement as a condition of Your use of, and right to use, the Software.

If You do not agree to all the terms and conditions in this Agreement, do not download, install or use the Software. If the Software was delivered to You embedded in an Extreme Hardware Product, do not install or use that Extreme Hardware Product.

Extreme may make changes to this Agreement at any time and will provide written notice of such changes to You and give You an opportunity to accept those changes. Your continued use of the Software after such changes have been posted will signify your assent to acceptance of the revised terms.

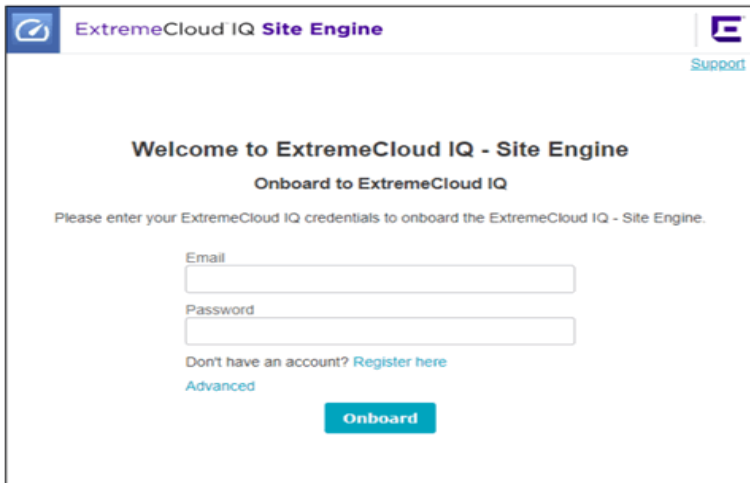
If You and Extreme have signed a separate written agreement covering Your rights and duties with respect to the Software, then that written agreement take precedence over any conflicting terms in this Agreement.

Your privacy is important to Extreme. Extreme's Privacy Policy is located at <https://www.extremenetworks.com/company/legal/privacy/>. Please read our Privacy Policy for information related to Extreme's collection, use and disclosure of Your personal information. By agreeing to the terms of this Agreement, You are also accepting the terms of Extreme's Privacy Policy.

I accept the License Agreement

Next

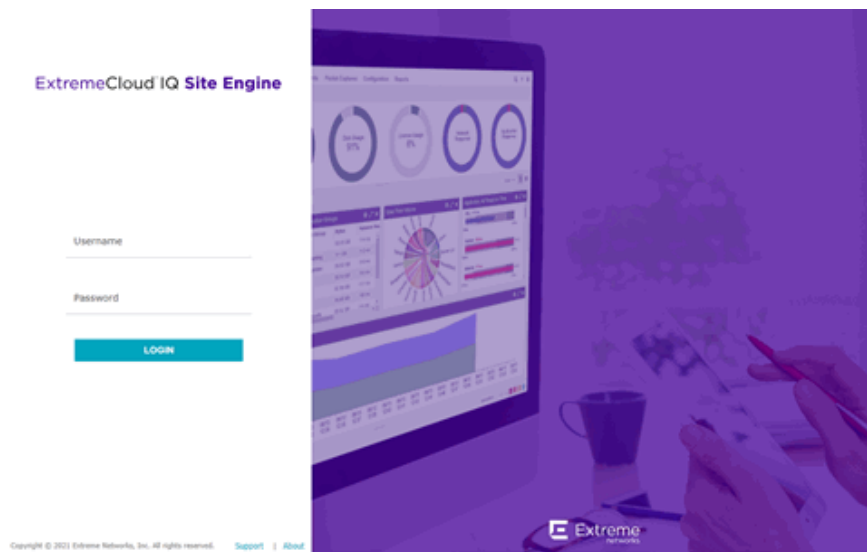
2. Enter your ExtremeCloud IQ email address and password. Select **Login**.



If your environment requires HTTP Proxy or other advanced settings, select the Advanced link. If you do not have an ExtremeCloud IQ account, select the Register Here link.

3. ExtremeCloud IQ retrieves the license information and sends it to ExtremeCloud IQ - Site Engine. ExtremeCloud IQ - Site Engine is onboarded to ExtremeCloud IQ.

You can now access the ExtremeCloud IQ - Site Engine login page.



Enter the Username and Password you specified during the ExtremeCloud IQ - Site Engine installation.

Onboarding Devices

When ExtremeCloud IQ - Site Engine is onboarded, it starts sending requests to add the devices from its database to ExtremeCloud IQ. Cloud Configuration Groups are created in ExtremeCloud IQ that match User Device Groups in ExtremeCloud IQ - Site Engine.

NOTE: Devices with IPv6 addresses in ExtremeCloud IQ - Site Engine will not be onboarded as locally-managed devices in ExtremeCloud IQ. Only devices with IPv4 addresses qualify.

As devices are added and discovered in ExtremeCloud IQ - Site Engine, they are onboarded to ExtremeCloud IQ, with a request for a [license](#) of the appropriate tier (Navigator, Pilot or No License) that each device will require.

If devices that are onboarded are included in User Device Groups in ExtremeCloud IQ - Site Engine, they are also included in Cloud Configuration Groups in ExtremeCloud IQ that match the devices' assigned User Device Groups in ExtremeCloud IQ - Site Engine.

Cloud Configuration Groups are updated when devices are added to User Device Groups (either by user action or by API call). Cloud Configuration Groups are also updated when devices are removed from a User Device Group or deleted from ExtremeCloud IQ - Site Engine.

NOTES: Cloud Configuration Group names include User Device Group parent names (other than "My Network") and are prefixed with "XIQSE-".
The Cloud Configuration Group names will be shortened to fit the limit of 128 characters.

View the [ExtremeCloud IQ - Site Engine and ExtremeCloud IQ Onboarding Flowchart](#) for a detailed chart on how devices are onboarded to ExtremeCloud IQ and managed by ExtremeCloud IQ - Site Engine.

XIQ Onboarded Status for Devices

After an attempt is made to onboard a device, the [XIQ Onboarded column](#) of the **Network > Site > Device** table indicates the status of the onboarding attempt.

Port Details	Device Type	Family	Firmware	Reference	Connector	IQ Onboarded	Update	Archived	Config Changed
Up: 328 Down: 0	N850-02-240-04	Summit Ser...	31.1.1.3						
Up: 198 Down: 0	vm386E105	Summit Ser...	30.4.0.483						
Configuration staged for device									
Up: 2 Down: 162	N835-247-45	Summit Ser...	31.1.1.3	✓		3.6.1.8			✓
Up: 2 Down: 162	N835-247-45	Summit Ser...	31.1.1.3	✓		3.6.1.8			✓
Up: 0 Down: 198	Virtual Application A...	Extreme An...	8.5.3.46						
Up: 0 Down: 198	Virtual Access Contr...	Extreme Co...	8.5.5.12						
Up: 2 Down: 162	FABRIC1x3R	Fabric Man...	8.5.3.25			3.6.1.8			

- Black check mark - Indicates that the device is onboarded to ExtremeCloud IQ.
- Red X - Indicates the device is onboarded but Unmanaged, which means it is not using a license, it has read-only device-level support, and available features in ExtremeCloud IQ - Site Engine are limited. Other functionality, including Status Polling, Historical Device + Port Statistics Collection, Existing Scheduled Tasks, and Archives, are supported for devices with Unmanaged status, but these devices cannot be configured for new tasks or new archives.

NOTES: In ExtremeCloud IQ - Site Engine version 21.09.10, only use ExtremeCloud IQ to set an ExtremeCloud IQ - Site Engine onboarded device to Unmanaged as a temporary measure while you obtain more licenses.

If you mark a device as Unmanaged so it does not trigger a [license limit violation](#), you can then access ExtremeCloud IQ - Site Engine and delete the device before the license violation occurs.

You can perform an enforce for an ExtremeControl engine with an Unmanaged status; however, if the device has an Unmanaged status, then the enforce does not reconfigure the device and changes are not written to the device.

When devices are marked as Unmanaged in ExtremeCloud IQ, they are also Unmanaged in ExtremeCloud IQ - Site Engine.

In addition, existing ExtremeAnalytics functionality for devices with an Unmanaged status is still supported, but only with existing configuration.

- Blank - Indicates the device is not successfully onboarded to ExtremeCloud IQ from the ExtremeCloud IQ - Site Engine because either it is already onboarded to ExtremeCloud IQ (either from another ExtremeCloud IQ - Site Engine or by using the IQ Agent to connect directly), or because ExtremeCloud IQ - Site Engine lost its connection to ExtremeCloud IQ.

NOTE: If a device's status is Blank, it has limited features available in ExtremeCloud IQ - Site Engine because management of the device is owned by ExtremeCloud IQ.

- N/A - Indicates the device is not eligible to be onboarded to ExtremeCloud IQ because it does not have a valid serial number or MAC address, or Extreme does not yet offer onboarding support for the device.

NOTE: If ExtremeCloud IQ - Site Engine does not recognize a device's serial number or MAC address, right-click on the device and select Rediscover to attempt to discover the device's serial number or MAC address. When the device's serial number or MAC address is discovered, it can be onboarded to ExtremeCloud IQ during the next onboarding cycle.

Related Information

[ExtremeCloud IQ - Site Engine Licensing](#)

[XIQ Onboarded Column of Devices Table](#)