Extreme™

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](). Click **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 21.04.10 supports upgrades from Extreme Management Center version 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 21.04.10.

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

Current Version	Intermediate Upgrade Versions Needed				Upgrade to ExtremeCloud IQ - Site Engine version 21.04.10
	8.1.7	8.3.3	8.4.4	8.5.5	
Extreme Management Center version 8.5.5					X
Extreme Management Center version 8.5.0-8.5.4				X	X
Extreme Management Center version 8.4.4					X
*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 or version 8.5.5 and then to ExtremeCloud IQ - Site Engine version 21.04.10.

> **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 21.04.10, 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 21.04.10 and then add the feature.

- If you are running Data Center Manager (DCM), a Mobile Device Management (MDM) integration, or other OneFabric Connect or Fusion integration with ExtremeCloud IQ - Site Engine:

  - The OneFabric connect module is disabled on upgrade, and requires a new version in order to operate with ExtremeCloud IQ - Site Engine 21.04.10. You must install an updated module that supports ExtremeCloud IQ - Site Engine 21.04.10. Contact your account team for information on obtaining this update.

  - You must install an ExtremeCloud IQ - Site Engine Advanced (NMS-ADV) license with 21.04.10 when you upgrade. Contact your account team for information on obtaining this license.

- If you are accessing Web Services directly or through OneFabric Connect you need to install an ExtremeCloud IQ - Site Engine Advanced (NMS-ADV) license. Contact your account team for information on obtaining this license.

- When upgrading a 64-bit ExtremeCloud IQ - Site Engine server or when upgrading from a 32-bit to a 64-bit ExtremeCloud IQ - Site Engine server, if the -Xmx setting is set below 1536m, it is increased to 1536m.

- The 4.xx version of the NAC Request Tool is not compatible with the 21.04.10 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 21.04.10.

Upgrading ExtremeControl Engine to Version 21.04.10

General Upgrade Information

You are not required to upgrade your ExtremeControl engine version to 21.04.10 when upgrading to ExtremeCloud IQ - Site Engine 21.04.10. However, both ExtremeCloud IQ - Site Engine and ExtremeControl engine must be at version 21.04.10 in order to take advantage of the new ExtremeControl 21.04.10 features. ExtremeCloud IQ - Site Engine 21.04.10 supports managing ExtremeControl engine versions 8.4, 8.5, and 21.04.10.

In addition, if your ExtremeControl solution utilizes a Nessus assessment server, you should also upgrade your assessment agent adapter to version 21.04.10 if you upgrade to ExtremeControl version 21.04.10.

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 21.04.10

- Policy Manager 21.04.10 only supports ExtremeWireless Controller version 8.01.03 and higher. If you upgrade to ExtremeCloud IQ - Site Engine 21.04.10 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.

Upgrading to Wireless Manager 21.04.10

Following a Wireless Manager upgrade, you should clear the Java Cache before starting the ExtremeCloud IQ - Site Engine client.

Pre-Installation Checklist

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

IMPORTANT: Access to ExtremeCloud IQ - Site Engine requires access to https://extremecloudiq.com and its subdomains, and an ExtremeCloud IQ account is required.

- **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).
- **Disable antivirus software.** Disable any antivirus software running on the ExtremeCloud IQ - Site Engine server prior to beginning the installation. Be sure to re-enable the antivirus software following the install.

NOTE: Installing ExtremeCloud IQ - Site Engine on a system on which McAfee version 8.0 is installed may prevent the installation from completing successfully without displaying an error message. Ensure you disable McAfee before installing.

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.

IMPORTANT:	• For upgrade and installation requirements, as well as configuration considerations, see ExtremeCloud IQ - Site Engine Configuration and Requirements.
	• ExtremeCloud IQ - Site Engine version 21.04.10 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 > Diagnostics > Server > Server Licenses.
	• ExtremeCloud IQ - Site Engine is not compatible with ExtremeCloud IQ Connect level account. Either the Evaluation or Pilot/Navigator level is mandatory.
	• Onboarding ExtremeCloud IQ - Site Engine devices using an ExtremeCloud IQ HIQ account is not supported. You must use a VIQ Account to onboard ExtremeCloud IQ - Site Engine devices.

Onboarding ExtremeCloud IQ - Site Engine to ExtremeCloud IQ

After installing or upgrading to ExtremeCloud IQ - Site Engine, you need to onboardExtremeCloud 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 (Navigator, Pilot or No License) that each device will require.

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.

IMPORTANT:	• For upgrade and installation requirements, as well as configuration considerations, see ExtremeCloud IQ - Site Engine Configuration and Requirements. • Access to ExtremeCloud IQ - Site Engine requires access to https://extremecloudiq.com and its subdomains, and an ExtremeCloud IQ account is required. • ExtremeCloud IQ - Site Engine version 21.04.10 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 > Diagnostics > Server > Server Licenses. • ExtremeCloud IQ - Site Engine is not compatible with ExtremeCloud IQ Connect level account. Either the Evaluation or Pilot/Navigator level is mandatory. • Onboarding ExtremeCloud IQ - Site Engine devices using an ExtremeCloud IQ HIQ account is not supported. You must use a VIQ Account to onboard ExtremeCloud IQ - Site Engine devices.

Onboarding ExtremeCloud IQ - Site Engine to ExtremeCloud IQ

After installing or upgrading to ExtremeCloud IQ - Site Engine, you need to onboardExtremeCloud 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 (Navigator, Pilot or No License) that each device will require.

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 lll
  ```

  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 Network Management Suite (NMS) Download web page http://extranet.extremenetworks.com/downloads/Pages/NMS.aspx.

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, click **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, click on 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 clicking on 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. Click on the **Home** tab and launch the desired ExtremeCloud IQ - Site Engine application by clicking 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 click **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. Once 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>
```

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 once 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 $1}'``.
4. Enter `sed -i "\$aJBOSS_HOSTNAME=$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. Click on the Syslog entry under Available Log Managers, and click 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. Click **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. Click on the Traps entry under Available Log Managers, and click the **Edit** button. The Log Manager Parameters window opens.

3. Change the path in the Log Directory field to %logdir%/traps.

4. Click **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. Click **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 click **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\<username>\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 > Diagnostics > Server > Server Licenses**.

This Help topic includes information on the following:

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

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

- Pilot - Extreme devices
- Navigator - 3rd party devices
- No License - Status-Only devices

As you begin to [onboard ExtremeCloud IQ - Site Engine](#) and your devices, ExtremeCloud IQ will determine if you meet or exceed the [license limits](#) for each license type.

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.

For the first 90 days after ExtremeCloud IQ - Site Engine is released, license usage will not be enforced for devices onboarded to ExtremeCloud IQ. When ExtremeCloud IQ starts evaluating license usage, 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 locked. To resolve the license shortage you need to access the Extreme Networks 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	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, a Pilot license is required, but currently not enforced in ExtremeCloud IQ - Site Engine Version 21.04.10. 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.

To correct a license limit violation, you must acquire more licenses (and, when the updated license is sent to ExtremeCloud IQ, it is 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**.

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.

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 21.04.10, 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:	Air gapped mode (where ExtremeCloud IQ - Site Engine is not connected to ExtremeCloud IQ) is not supported for ExtremeCloud IQ - Site Engine version 21.04.10.

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**.
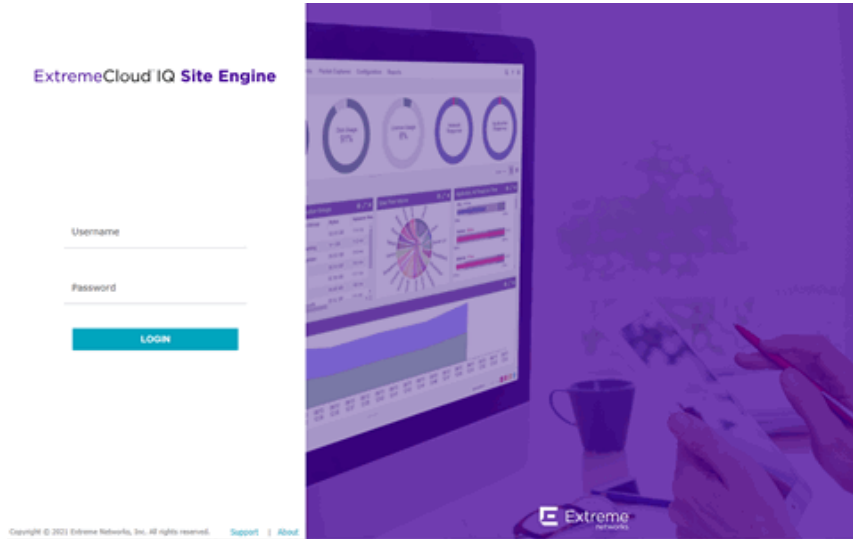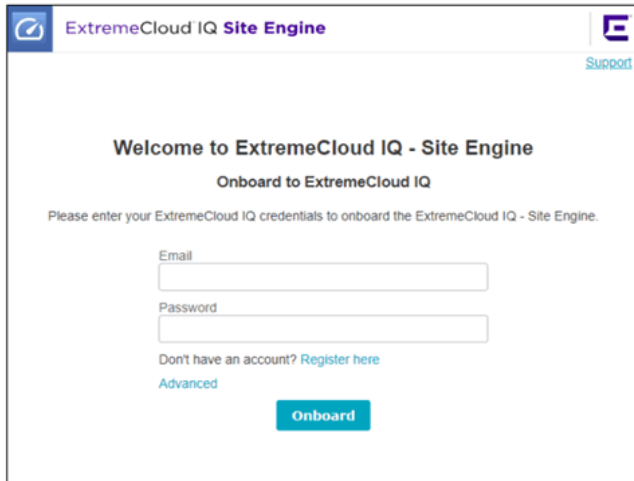
2. Accept the License Agreement.
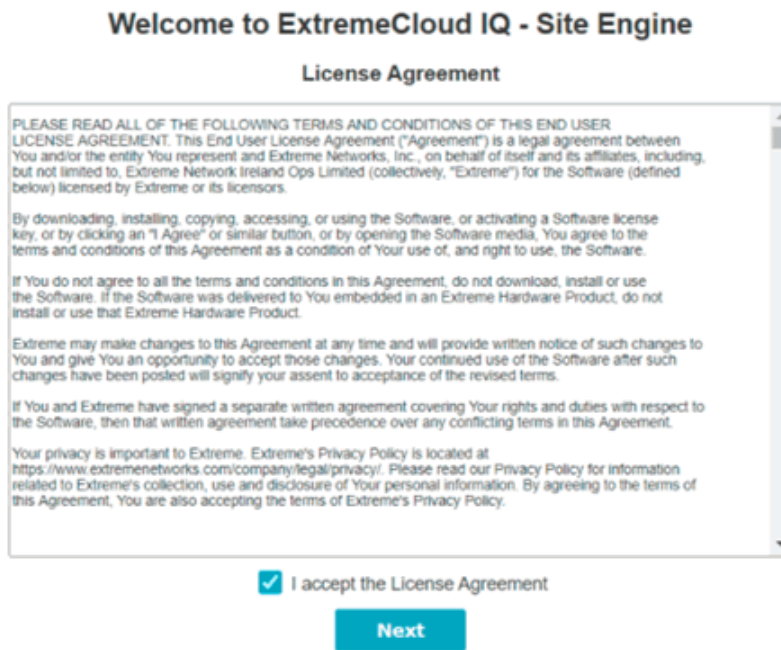
Select **Next**.

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.


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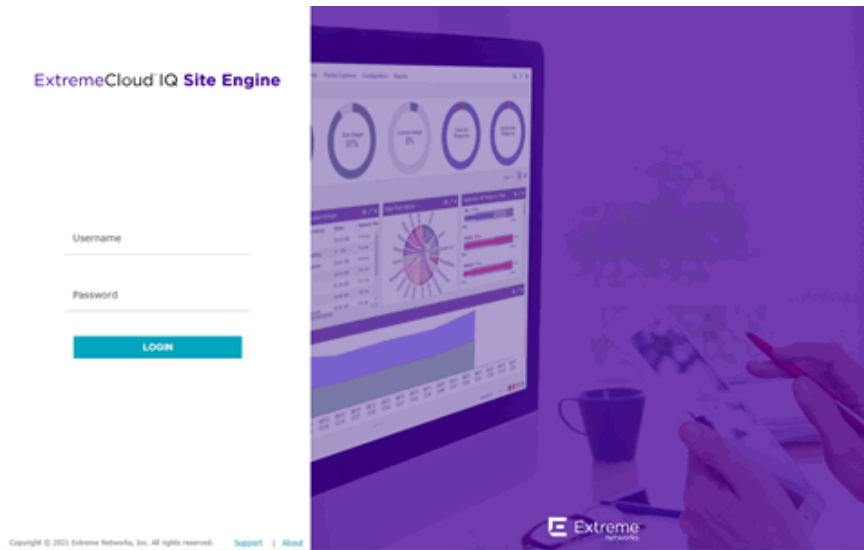
Enter the Username and Password you specified during the ExtremeCloud IQ - Site Engine installation.

Onboarding Devices

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

NOTES: 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.

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.

- 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 21.04.10, 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. Once 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