ExtremeCloud™ IQ Site Engine v26.11.10 Installation Guide:

Deployment, System Requirements, and Data Migration

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Abstract

The ExtremeCloud IQ Site Engine version 26.11.10 Installation Guide provides detailed technical procedures for deploying and upgrading ExtremeCloud IQ Site Engine. This installation guide outlines system requirements for server and client components, focusing on configurations for Linux, Windows, and VMware or Nutanix virtual environments. Version 26.11.10 adds support for Virtual Engine deployments on Nutanix 7.5.0.6, and removed support on Nutanix 6.8.1. Key tasks include configuring server, client, and network settings, and upgrading Access Control and ExtremeAnalytics engines. Critical upgrade considerations such as disk space allocation, license management for both connected and air gap deployment modes, and advanced troubleshooting for post-upgrade issues are addressed. Additionally, instructions cover system backup, firewall configuration, and enabling key services such as SNMP and TFTP.

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ExtremeCloud IQ Site Engine Suite Installation

A special MySQL to PostgreSQL Data Migration (For Upgrades from ExtremeCloud IQ Site Engine 24.2 to 24.7 or up to 25.8) is required to upgrade ExtremeCloud IQ Site Engine from versions earlier than 24.7 due to a MySQL to PostgreSQL database change. The minimum version to upgrade Analytics Engines and Access Control Engines is 24.2.13.

IMPORTANT: Backup the 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 the release notes can be found at the ExtremeCloud IQ Site Engine Documentation site. Select **Release Notes** at the top of the page.

For instructions to deploy a ExtremeCloud IQ Site Engine, Access Control, or ExtremeAnalytics virtual engine on a VMware® ESXi server, a Microsoft® Hyper-V server, or a Nutanix server, see the *ExtremeCloud™ IQ Site Engine, ExtremeControl®, and ExtremeAnalytics® Virtual Engine Installation Guide*. The most recent version of the document can be found at the ExtremeCloud IQ Site Engine Documentation site. Select **Installation Guide > Virtual Engine Installation Guide** 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 9.8
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 VMware ESXi™ 8.0 server vSphere (client only)™

Manufacturer	Operating System
Microsoft® Hyper-V (ExtremeCloud IQ Site Engine Virtual Engine)	Windows® Server 2022 Windows® Server 2025
Nutanix (ExtremeCloud IQ Site Engine Virtual Engine)	AHV: 11.0.0.2 AOS: 7.5.0.6 Prism Central: 2026.27648
Extreme Networks	Universal Compute Platform 2130C version 5.09.01

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 and 11
Linux	Red Hat Enterprise Linux 9.8
Mac OS X®	Monterey, Sonoma

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	24	24
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
Recommended scale based on server configuration:				
Maximum APs	250	2,500	25,000	25,000
Maximum Wireless MUs	2,500	25,000	100,000	100,000
Maximum XIQ Controllers	2	4	100	100
Maximum Managed Devices	100	1,000	10,000 air gap 8,000 connected	10,000 air gap 8,000 connected
Maximum Concurrent Management Sessions	5	15	50	50

	Small	Medium	Enterprise	Large Enterprise
ExtremeControl End-Systems	N/A	50,000	200,000	200,000
Statistics Retention (Days)	90	180	180	360
ExtremeAnalytics	No	Yes	Yes	Yes
MU Events	No	Yes	Yes	Yes

NOTE: The Extreme Networks UCP 2130C provides up to Enterprise scaling capacity for an ExtremeCloud IQ Site Engine Virtual Engine deployment.

ExtremeCloud IQ Site Engine Client

Requirements	
CPU Speed	Dual Core Processor
Memory	8 GB
Disk Size	300 MB (User's home directory requires 50 MB for file storage)
Java Runtime Environment (JRE) (Oracle Java only)	Version 8 (for FlexView Editor / MIB Tools)
Browser[1] (Enable JavaScript and Cookies)	Microsoft Edge Mozilla Firefox Google Chrome

[1]Browsers set to a zoom ratio of less than 100% might not display ExtremeCloud IQ Site Engine properly (for example, missing borders around windows). Setting your browser to a zoom ratio of 100% corrects this issue.

ExtremeControl Engine Version Requirements

For complete information on ExtremeControl engine version requirements, see Important Upgrade Information.

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`

Important Upgrade Information

A special Data Migration Procedure is required to upgrade ExtremeCloud IQ Site Engine from versions older than 24.07. The minimum version to upgrade Analytics Engines and Access Control Engines is 24.02.13.

NOTE:

ExtremeCloud IQ Site Engine Version 26.11.10 contains an OS upgrade. If upgrading from version 24.02.15 then internet connectivity is required to download custom packages.

The installer prompts "Do you want to use the Internet to perform the OS upgrade?". The offline upgrade path is supported when no custom packages are installed (answer N). The online upgrade is required when custom packages are manually installed (answer Y). An online upgrade is recommended when an online upgrade was used previously, however there is a risk of session timeout due to 15 minutes of screen inactivity.

To upgrade Access Control Engines and Application Analytics Engines you can use the directive --keepalive to decrease the chance of a session expiry timeout from 15 minutes of no screen activity.

From Version (currently running)	To Version (next step in upgrade path)
ExtremeCloud IQ Site Engine **24.07.x, 24.10.x. 25.02.x, 25.05.x. 25.08.x, 25.11.x, 26.02.x, 26.06.x, 26.08.x**	ExtremeCloud IQ Site Engine **26.11**
Application Analytics Engine, Access Control Engine **24.02.15, 24.07.x, 24.10.x, 25.02.x, 25.05.x, 25.08.x, 25.11.x, 26.02.x, 26.06.x, 26.08.x**	Application Analytics Engine, Access Control Engine **26.11**
ExtremeCloud IQ Site Engine **24.02.x**	Fresh installation of ExtremeCloud IQ Site Engine **25.08** and follow the Data Migration Procedure
ExtremeCloud IQ Site Engine **23.04.12, 23.07.x, 23.11.x, 24.02.x**	ExtremeCloud IQ Site Engine **24.02.15**
Application Analytics Engine, Access Control Engine **23.04.12, 23.07.x, 23.11.x, 24.02.x**	Application Analytics Engine, Access Control Engine **24.02.15**
ExtremeCloud IQ Site Engine **21.x, 22.x, 23.2.x 23.04.10, 23.04.11**	ExtremeCloud IQ Site Engine **23.04.12**

From Version (currently running)	To Version (next step in upgrade path)
Application Analytics Engine, Access Control Engine **21.x, 22.x, 23.2.x, 23.04.10, 23.04.11**	Application Analytics Engine, Access Control Engine **23.04.12**
Extreme Management Center version **8.5.7**	ExtremeCloud IQ Site Engine **24.02.15**
Extreme Management Center version **8.2.x to 8.5.6**	Extreme Management Center **8.5.7**
Extreme Management Center version **8.0.x to 8.1.x**	Extreme Management Center **8.3.3.11**
NetSight version **7.1.4.1**	Extreme Management Center **8.3.3.11**
NetSight version **7.x**	NetSight **7.1.4.1**
NetSight version **6.3.0.186**	NetSight **7.1.4.1**
NetSight version **6.x**	NetSight **6.3.0.186**

IMPORTANT: A backup (**Administration >** Backup/Restore) of the database must be performed prior to the upgrade and saved to a safe location.

If you use LDAPS with a Fully Qualified Domain Name (FQDN) in the URL to authorize a user to the OneView, then ExtremeCloud IQ Site Engine presents the Server Certificate (located in Administration > Certificates > Server Certificate Information) to the LDAPS server. If the LDAPS server presents a certificate that does not match the LDAPS URL, then the certificate is rejected with the error "Certificate Unknown".

The best practice is to use a trusted certificate if the LDAPS URL is defined with FQDN, otherwise the LDAPS server might not accept the LDAPs connection. The alternative option is to use an IP address in the LDAPS URL instead of FQDN.

Important Upgrade Considerations

- If your network is using ExtremeAnalytics or ExtremeControl engines, or another add-on feature, you must first perform the ExtremeCloud IQ Site Engine upgrade to version 26.11.10 and then upgrade the feature.
- To upgrade Traffic Sensor from version 21.x, a fresh installation is recommended. If the fresh installation cannot be used, then please check Knowledge Base for a special procedure.
- If the online upgrade fails due to an Internet connectivity issue, fix the connectivity issue and rerun the upgrade.

IMPORTANT:	When performing an upgrade, be sure to back up the database prior to performing the upgrade, and save it to a safe location. Use the **Administration** > Backup/Restore tab to perform the backup.

- When upgrading the ExtremeCloud IQ Site Engine server, ExtremeAnalytics engine, or Access Control engine to version 26.11.10, ensure the DNS server IP address is correctly configured.
- When upgrading to ExtremeCloud IQ Site Engine version 26.11.10, if you adjusted the ExtremeCloud IQ Site Engine memory settings and want them to be saved on upgrade, a flag (`-DcustomMemory`) needs to be added to the `/usr/local/Extreme_Networks/NetSight/services/nsserver.cfg` file.

  For example:
  ```
  -Xms12g -Xmx24g -XX:HeapDumpPath=../../nsdump.hprof -XX:+HeapDumpOnOutOfMemoryError -XX:MetaspaceSize=128m -DcustomMemory
  ```

License Renewal

Upgrading to ExtremeCloud IQ Site Engine version 26.11.10 requires you to transition from perpetual to subscription-based license model. Existing NMS licenses do not provide access to ExtremeCloud IQ Site Engine. If your perpetual licenses were not transitioned to subscription-based licenses, contact your Extreme Networks Representative for assistance.

Free Space Consideration

When upgrading to ExtremeCloud IQ Site Engine version 26.11.10, a minimum of 15 GB of free disk space is required on the ExtremeCloud IQ Site Engine server

To increase the amount of free disk space on the ExtremeCloud IQ Site Engine server, perform the following:

- Decrease the number of ExtremeCloud IQ Site Engine backups (by default, saved in the `/usr/local/Extreme_Networks/NetSight/backup` directory).

- Decrease the Data Persistence settings (**Administration** > **Options** > **Access Control** > **Data Persistence**).
- Remove unnecessary archives (**Network** > **Archives**).
- Delete the files in the `<installation directory>/NetSight/.installer` directory.

Site Discover Consideration

Discovering devices via the **Site** tab using a **Range**, **Subnet**, or **Seed** discover might not successfully add all expected devices. To correct the issue, increase the **Length of SNMP Timeout** value on the **Administration** > **Options** > **Site** tab in the Discover First SNMP Request section.

ExtremeAnalytics Upgrade Information

Enabling or disabling the disk flow export feature might cause enforce operations to time out. Enforcing again resolves the issue.

When you delete an ExtremeXOS/Switch Engine device that is configured as a flow source via the Flow Sources table of the **Analytics** > **Configuration** > **Engines** > **Configuration** tab from the Devices list on the **Network** > **Devices** tab, an error message is generated in the `server.log`. The message does not warn you that the device is in use as a flow source. Adding the device back in the Devices list on the **Network** > **Devices** tab or removing the device from the Flow Source table fixes the issue.

The Flow Sources table on the **Analytics** > **Configuration** > ***engine*** > **Configuration** tab may take a few minutes to load.

The best practice is for all Application Analytics Engines to run the same version as ExtremeCloud IQ Site Engine.

ExtremeControl Version 8.0 and later

Beginning in version 8.0, ExtremeControl may fail to join Active Directory when accessing as a **Standard Domain User with Descendant Computer Objects ("Reset password" permissions only)** group member.

To allow this functionality, add the following permissions:

- **Reset Password**
- **Validated write to DNS host name**
- **Validated write to service principal**
- **Read and write account restrictions**
- **Read and write DNS host name attributes**
- **Write servicePrincipalName**

Other Upgrade Information

Immediately after you install version 26.11.10 on the Access Control engine, the date and time does not properly synchronize and the following error message displays:

```
WARNING: Unable to synchronize to a NTP server. The time might not be
correctly set on this device.
```

Ignore the error message and the date and time automatically synchronize after a short delay.

Additionally, the following message might display during the ExtremeControl upgrade to version 26.11.10:

No domain specified

To stop domain-specific `winbindd` process, run `/etc/init.d/winbindd stop` *`{example-domain.com}`*

Upgrading Access Control Engine to Version 26.11.10

General Upgrade Information

The EAP-TLS Certificates with SHA1 are considered weak and are not accepted anymore. The radius server fails to start with the SHA1 certificate. You can use a more secure certificate, such as SHA256.

You are not required to upgrade your Access Control Engine version to 26.11.10 when upgrading to ExtremeCloud IQ Site Engine version 26.11.10. However, both ExtremeCloud IQ Site Engine and Access Control Engine must be at version 26.11.10 in order to take advantage of the new ExtremeControl version 26.11.10 features. The best practice is for all Access Control Engines to run the same version as ExtremeCloud IQ Site Engine.

In addition, if your ExtremeControl solution utilizes a Nessus assessment server, you should also upgrade your assessment agent adapter to version 26.11.10 if you upgrade to ExtremeControl version 26.11.10.

You can download the latest Access Control Engine version at the Extreme Portal.

LDAPS servers with FQDN

If the LDAPS server URL uses a Fully Qualified Domain Name (FQDN), then the LDAPS client of Access Control Engine presents the internal Communication Certificate to the LDAPS server. If the LDAPS server URL uses a FQDN then the LDAPS client of ExtremeCloud IQ Site Engine presents the Server Certificate (located in Administration > Certificates > Server Certificate Information) to the LDAPS server. If the LDAPS server presents a certificate that does not match the LDAPS URL, then the certificate is rejected with the error "Certificate Unknown"

The best practice is to use trusted certificates if the LDAPS URL is defined with FQDN, otherwise the LDAPS server might not accept the LDAPS connection. If the LDAPS server URL uses an IP address then

the LDAPS client (of both Access Control Engine and ExtremeCloud IQ Site Engine) does not present the Certificate to the LDAPS server.

Upgrading to Policy Manager 26.11.10

- Policy Manager 26.11.10 only supports ExtremeWireless Controller version 8.01.03 and higher. If you upgrade to ExtremeCloud IQ Site Engine 26.11.10 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 ExtremeCloud IQ Site Engine 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.

IMPORTANT:

- For upgrade and installation requirements, as well as configuration considerations, see ExtremeCloud IQ Site Engine Configuration and Requirements.
- ExtremeCloud IQ Site Engine version 26.11.10 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 not provided by Extreme Networks, 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
  ```

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.
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
   ```

Installation on Red Hat Enterprise Linux (RHEL)

ExtremeCloud IQ Site Engine only requires standard basic OS support, the GUI for RHEL is not required. The following services must be installed with the RHEL OS:

- Syslog
- Time
- VMware tools (if running on VMware)
- IPv4
- IPv6 (if IPv6 will be used)
- DNS

The following services are included in ExtremeCloud IQ Site Engine, do not install with the RHEL OS:

- PSQL
- TFTP

Installing RHEL Operating System

1. Run the RHEL installation wizard, select **Software Selection > Minimal Install > Standard** environment.
2. Configure your system networking including the hostname in **Network & Host Name**
3. Configure your localization time and date with timezone in **Time & Date**.

The best practice is to use a non-root user account for the ExtremeCloud IQ Site Engine application to run. The RHEL OS installation wizard allows the creation of a user account. Running the ExtremeCloud IQ Site Engine application on root account will function but is not recommended.

NOTE: The following installation and upgrade procedure commands use the user account "netsight".

Register Subscription with Red Hat

To download RPM packages a Red Hat subscription is required. See Red Hat documentation for more details about subscriptions and how to register Red Hat Subscriptions.

Configuring RHEL for ExtremeCloud IQ Site Engine

1. Install the following additional packages:

```
sudo yum install net-snmp-utils
sudo yum install net-snmp
```

2. Enable and configure SNMPd:

```
systemctl enable snmpd
sudo nano /etc/snmp/snmpd.conf
```

a. Edit the snmpd.conf file by adding the following line:

```
sysobjectid .1.3.6.1.4.1.1916.2.417
```

NOTE: The DES protocol is deprecated by Red Hat, the local SNMPd will not accept the SNMPv3 communication with DES encryption.

3. Start SNMPd:

```
systemctl start snmpd
```

4. Install initscripts:

```
sudo yum install initscripts
```

5. Enable syslog service to receive messages by editing the config file:

```
sudo nano /etc/rsyslog.conf
```

a. Comment out the following line:

```
#module(load="builtin:omfile" Template="RSYSLOG_
TraditionalFileFormat")
```

b. Add the following two lines at the same section:

```
$template mcdefault,"<%syslogpriority%>%timegenerated% %HOSTNAME%
%fromhost-ip% %syslogtag%%msg%\n"
module(load="builtin:omfile" Template="mcdefault")
```

c. Uncomment the following lines:

```
module(load="imudp")
input(type="imudp" port="514")
module(load="imtcp")
input(type="imtcp" port="514")
```

6. Restart the service:

```
sudo systemctl restart rsyslog
```

7. Modify the firewall settings:

```
sudo firewall-cmd --zone=public --add-port=8080/tcp
sudo firewall-cmd --zone=public --permanent --add-port=8080/tcp
sudo firewall-cmd --zone=public --add-port=8443/tcp
sudo firewall-cmd --zone=public --permanent --add-port=8443/tcp
sudo firewall-cmd --zone=public --add-port=162/udp
sudo firewall-cmd --zone=public --permanent --add-port=162/udp
sudo firewall-cmd --zone=public --add-port=514/udp
sudo firewall-cmd --zone=public --permanent --add-port=514/udp
sudo firewall-cmd --zone=public --add-port=514/tcp
sudo firewall-cmd --zone=public --permanent --add-port=514/tcp
```

```
sudo firewall-cmd --zone=public --add-service=tftp
sudo firewall-cmd --zone=public --permanent --add-service=tftp
```

8. Configure the IP address resolution to resolve the IPv4 address from the hostname.

   ```
   sudo nano /etc/hosts
   ```

9. Verify the IP address resolution by the following command and check if the IP is resolved.

   ```
   ping `hostname`
   ```

10. Disable the SELinux feature by editing the config file:

    ```
    sudo nano /etc/selinux/config
    ```

    a. Change the line `SELINUX=enforcing` to `SELINUX=disabled`

11. Verify the SELinux status (a reboot might be required to disable):

    ```
    sestatus
    SELinux status: disabled
    ```

12. Install the following packages for generating PDF reports:

    ```
    sudo yum install libpng15
    sudo yum install xorg-x11-fonts-Type1
    sudo yum install xorg-x11-fonts-75dpi
    wget https://github.com/wkhtmltopdf/packaging/releases/download/0.12.6.1-2/wkhtmltox-0.12.6.1-2.almalinux9.x86_64.rpm
    sudo rpm -ivh wkhtmltox-0.12.6.1-2.almalinux9.x86_64.rpm
    ```

13. Install the following packages for the migration process:

    ```
    sudo yum install python3-pip
    sudo pip3 install paramiko
    sudo pip3 install scp
    ```

Installing ExtremeCloud IQ Site Engine on RHEL

1. Change the attributes of the install file:

   ```
   chmod 700 ExtremeCloudIQSiteEngine_<version>_64bit_install.bin
   ```

2. Run the install file without GUI support (use `--user` to define an existing user for the main process):

   ```
   sudo ./ExtremeCloudIQSiteEngine_<version>_install.bin --cli --user netsight
   ```

3. Monitor the installation progress, and answer any questions that might occur during the installation.
   The install process finishes, and a prompt returns with the following messages:

   ```
   WARN BaseInstallUninstall.java:337 - Exiting. Process completed normally.
   WARN BaseInstallUninstall.java:347 - Finished in 7 minutes.
   ```

Upgrading ExtremeCloud IQ Site Engine on RHEL

1. Stop the nsserver and nsdatabase:

   ```
   sudo /usr/local/Extreme_Networks/NetSight/scripts/stopserver.sh
   ```

2. Change the attributes of the install file:

   ```
   chmod 700 ExtremeCloudIQSiteEngine_<version>_64bit_install.bin
   ```

3. Run the install file without GUI support:

   ```
   sudo ./ExtremeCloudIQSiteEngine_<version>_install.bin --cli --user
   netsight
   ```

Known Limitations of ExtremeCloud IQ Site Engine on RHEL

- SNMPv3 traps and informs with MD5 and DES encryption are not decrypted, displaying an error message: “Authentication failed”.
- DES protocol is deprecated by current Red Hat versions, the SNMPd running on Red Hat does not accept the SNMPv3 communication with DES encryption.
- The option to Manage SSH configuration in Administration > Users > is disabled.

For more information on RHEL limitations with SNMPv3, see the following Red Hat article: Considerations in Adopting RHEL 9.

For more information on memory settings, see the following knowledge base article: Customize Memory Allocation.

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>
```

Select the deployment mode and licensing for ExtremeCloud IQ Site Engine

After installing or upgrading to ExtremeCloud IQ Site Engine, you need to select your deployment mode and licensing for ExtremeCloud IQ Site Engine. Refer to First log in to ExtremeCloud IQ - Site Engine for the procedure.

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.

Adding new NICs or removing NICs from the Application Analytics Engine, as well as the Access Control Engine, can cause the ETH interface assignment to change in the operating system. After adding or removing NICs, check the assignment of the ETH interfaces to your NICs and revert or adjust your changes as required.

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.

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. The account level must be Pilot or Extreme Platform ONE.
- ExtremeCloud IQ Site Engine in Connected mode is fully compatible with the Extreme Platform ONE licensing model starting in version 25.02.10
- ExtremeCloud IQ Site Engine in Air Gap mode is fully compatible with the Extreme Platform ONE licensing model starting in version 25.05.10

You can view ExtremeCloud IQ and ExtremeCloud IQ Site Engine license information by accessing Administration > Licenses.

This Help topic includes information on the following:

- ExtremeCloud IQ Pilot Twin Subscription Provides Backwards Compatibility
- Licensing for Devices in Connected Mode
- Licensing for Devices in Air Gap Mode
- Revoke Air Gap License
- License Limits and Violations
- Licensing for ExtremeControl

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

- No License - Status-Only devices
- Platform ONE Tier 3rd Party - 3rd party devices, Extreme Campus Controller, ExtremeCloud IQ Controller, WiNG wireless devices, and devices not natively supported by ExtremeCloud IQ Site Engine
- Navigator - 3rd party devices, Extreme Campus Controller, ExtremeCloud IQ Controller, WiNG wireless devices, and devices not natively supported by ExtremeCloud IQ Site Engine
- Platform ONE Tier A - Natively supported Extreme devices of tier A
- Platform ONE Tier B - Natively supported Extreme devices of tier B
- Platform ONE Tier C - Natively supported Extreme devices of tier C

- Platform ONE Tier D - Natively supported Extreme devices of tier D
- Pilot - Natively supported Extreme devices of any tier

NOTE:

- If the license of the appropriate tier is not available then you can use a higher license tier instead.
- The license tier hierarchy from lowest to highest is: No License - Tier 3rd Party - Navigator - Tier A - Tier B - Tier C - Tier D - Pilot.
- In Air Gap deployment, the **Administration > Licenses > Realign License Assignment** button triggers the process of automatic realignment of licenses to devices. The device is assigned the best-fit available Tier. In Connected mode deployment, use Unmanage/Manage in Extreme Platform ONE or ExtremeCloud IQ to realign licenses.
- Device stacks can include devices from different families and use licenses of different tiers, subject to the following requirements:
    - Licenses must all be of the same Standard or Pilot level. Combinations are not allowed.
    - Each unit in a stack requires a license. If there are insufficient subscriptions to license all devices in a stack, then the entire stack is unmanaged.

ExtremeCloud IQ Site Engine can be deployed in two ways, using Connected mode or Air Gap mode:

- Connected mode:
    - ExtremeCloud IQ - Site Engine uses ExtremeCloud IQ to determine if you meet or exceed the license limits for each license type.
    - All ExtremeCloud IQ - Site Engines connected to the same customer account share a pool of licenses, one serial number consumes one license entitlement, regardless of the number of monitoring entities.
    - ExtremeCloud IQ - Site Engine shares information with ExtremeCloud IQ.
    - ExtremeCloud IQ can cooperate with ExtremeCloud IQ - Site Engine.
- Air Gap mode:
    - ExtremeCloud IQ - Site Engine does not require internet access.
    - ExtremeCloud IQ - Site Engine uses a license file to determine if you meet or exceed the license limits for each license type.
    - ExtremeCloud IQ - Site Engines can not share licenses.

	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 in Connected mode before they can be onboarded to ExtremeCloud IQ.
NOTE:	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, Navigator, Platform ONE, and NAC licenses versus the number of licenses required by ExtremeCloud IQ Site Engine.

ExtremeCloud IQ Pilot Twin Subscription Provides Backwards Compatibility

Some versions of ExtremeCloud IQ Site Engine and ExtremeCloud IQ Controller do not support Extreme Platform ONE subscriptions. To provide you with the necessary time to upgrade to later versions, Extreme Networks provides every Extreme Platform ONE standard subscription with an ExtremeCloud IQ Pilot Twin subscription with the same start date, end date, and licensed quantity.

- The Extreme Portal shows both Extreme Platform ONE Standard and ExtremeCloud IQ Pilot Twin subscriptions
- ExtremeCloud IQ does not show ExtremeCloud IQ Pilot Twin subscriptions
- Extreme Platform ONE does not show ExtremeCloud IQ Pilot Twin subscriptions
- ExtremeCloud IQ Site Engine version 25.2 and earlier supports ExtremeCloud IQ Pilot and ExtremeCloud IQ Pilot Twin subscriptions
- ExtremeCloud IQ Site Engine version 25.5 and later supports ExtremeCloud IQ Pilot and Extreme Platform ONE subscriptions
- ExtremeCloud IQ Controller versions support ExtremeCloud IQ Pilot and ExtremeCloud IQ Pilot Twin subscriptions

NOTE:	If you purchased an Extreme Platform ONE subscription and are running management application versions which are not compatible with Extreme Platform ONE subscriptions, you can use the provided ExtremeCloud IQ Pilot Twin subscription.

Licensing for Devices in Connected Mode

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, Extreme Platform ONE, or No License) that each device will require. ExtremeCloud IQ assigns a license of the appropriate tier (No License, Tier 3rd Party, Navigator, Tier A, Tier B, Tier C, Tier D, Pilot).

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 Tier D (Includes: Universal Platform Fabric Engine 5720, Universal Platform Switch Engine 5720, Universal Platform Fabric Engine 7520, Universal Platform Switch Engine 7520, Universal Platform Fabric Engine 7720, Universal Platform Switch Engine 7720, Universal Platform Fabric Engine 7830, Universal Platform Switch Engine 7830, Summit Series X670, Summit Series X670V, Summit Series X670-G2, Summit Series X690, Summit Series X695, Summit Series X770, Summit Series X870)	Tier D	1 for each unit
Extreme-supported Device Tier D (Includes: VSP series 7200, VSP series 7400, VSP series 8000, VSP series 8600)	Tier D	1
Extreme-supported Device Tier C (Includes: Universal Platform Fabric Engine 5520, Universal Platform Switch Engine 5520, Summit Series X460-G2, Summit Series X465, Summit Series X590, Summit Series X620, ERS Series 5900)	Tier C	1 for each unit
Extreme-supported Device Tier C (Includes: VSP series 4000, VSP series 4900)	Tier C	1

Device Type	License Tier Type	Number of Licenses Per Device
Extreme-supported Device Tier B (Includes: Universal Platform Fabric Engine 5420, Universal Platform Switch Engine 5420, Summit Series X450-G2, ERS Series 4800, ERS Series 4900)	Tier B	1 for each unit
Extreme-supported Device Tier A (Includes: Universal Platform Fabric Engine 5320, Universal Platform Switch Engine 5320, Universal Platform Fabric Engine 5322, Universal Platform Switch Engine 5322, Universal Platform Fabric Engine 5120, Universal Platform Switch Engine 5120, Universal Platform Fabric Engine 4220, Universal Platform Switch Engine 4220, Universal Platform Switch Engine 4120, Summit Series X440-G2)	Tier A	1 for each unit
Extreme-supported Devices (Includes: SLX, Extreme Access Series, Fabric Manager, ICX Series, Security Appliances, MLXe Series, VDX Series, Summit Series X435)	Tier A	1
Extreme-supported Legacy Devices (includes: A Series, B Series, C Series, 7100 Series, 200 Series, SSA Series, ERS Series 8xxx, ERS Series 3xxx)	Tier A	1 for each unit
Extreme-supported Chassis (Includes S series, K series, N series, E series, Black Diamond, Black Diamond X, X series, MLXe series, VDX series, SLX series)	Tier A	1 for each chassis
ExtremeControl Engine, ExtremeAnalytics Engine, vSensor	Tier A	1
ExtremeCloud IQ Site Engine*	Tier A	1
All Other Devices (Includes Non-Extreme Device)	Tier 3rd Party	1
Devices with Ping-Only profile	No License	0

*There is one license required for the ExtremeCloud IQ Site Engine itself. Each ExtremeCloud IQ Site Engine consumes only one license even if there are multiple ExtremeCloud IQ Site Engine devices in the device list.

NOTE: For Port Extenders V300, Port Extenders V400, HiveOS APs (IQE) and Dell N-Series, a Tier A license is required, but currently not enforced in ExtremeCloud IQ Site Engine. These devices are not onboarded to ExtremeCloud IQ through ExtremeCloud IQ Site Engine.

For WiNG APs, a Tier 3rd party license is required, but currently not enforced in ExtremeCloud IQ Site Engine. These devices are not onboarded to ExtremeCloud IQ through ExtremeCloud IQ Site Engine.

Licensing for Devices in Air Gap Mode

ExtremeCloud IQ Site Engine uses licenses stored locally in a license file. This ensures ExtremeCloud IQ Site Engine does not require an internet connection to verify licenses are available as you add devices.

NOTE: Licenses in one installation of ExtremeCloud IQ Site Engine in Air Gap mode cannot be shared with other installations of ExtremeCloud IQ Site Engine.

As devices are added and discovered in ExtremeCloud IQ Site Engine, they consume a license of the appropriate tier (No License, Navigator, Tier A, Tier B, Tier C, Tier D, Pilot) that each device requires against the total listed in the license file.

Devices may be marked as Unmanaged, 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 Tier D (Includes: Universal Platform Fabric Engine 5720, Universal Platform Switch Engine 5720, Universal Platform Fabric Engine 7520, Universal Platform Switch Engine 7520, Universal Platform Fabric Engine 7720, Universal Platform Switch Engine 7720, Universal Platform Fabric Engine 7830, Universal Platform Switch Engine 7830, Summit Series X670, Summit Series X670V, Summit Series X670-G2, Summit Series X690, Summit Series X695, Summit Series X770, Summit Series X870)	Tier D	1 for each unit
Extreme-supported Device Tier D (Includes: VSP series 7200, VSP series 7400, VSP series 8000, VSP series 8600)	Tier D	1
Extreme-supported Device Tier C (Includes: Universal Platform Fabric Engine 5520, Universal Platform Switch Engine 5520, Summit Series X460-G2, Summit Series X465, Summit Series X590, Summit Series X620, ERS Series 5900)	Tier C	1 for each unit
Extreme-supported Device Tier C (Includes: VSP series 4000, VSP series 4900)	Tier C	1
Extreme-supported Device Tier B (Includes: Universal Platform Fabric Engine 5420, Universal Platform Switch Engine 5420, Summit Series X450-G2, ERS Series 4800, ERS Series 4900)	Tier B	1 for each unit

Device Type	License Tier Type	Number of Licenses Per Device
Extreme-supported Device Tier A (Includes: Universal Platform Fabric Engine 5320, Universal Platform Switch Engine 5320, Universal Platform Fabric Engine 5322, Universal Platform Switch Engine 5322, Universal Platform Fabric Engine 5120, Universal Platform Switch Engine 5120, Universal Platform Fabric Engine 4220, Universal Platform Switch Engine 4220, Universal Platform Switch Engine 4120, Summit Series X440-G2)	Tier A	1 for each unit
Extreme-supported Devices (Includes: SLX, Extreme Access Series, Fabric Manager, ICX Series, Security Appliances, MLXe Series, VDX Series, Summit Series X435, HiveOS (IQE), Dell N-Series)	Tier A	1
Extreme-supported Legacy Devices (includes: A Series, B Series, C Series, 7100 Series, 200 Series, SSA Series, Port Extenders V300, Port Extenders V400, ERS Series 8xxx, ERS Series 3xxx)	Tier A	1 for each unit
Extreme-supported Chassis (Includes S series, K series, N series, E series, Black Diamond, Black Diamond X, X series, MLXe series, VDX series, SLX series)	Tier A	1 for each chassis
ExtremeControl Engine, ExtremeAnalytics Engine, vSensor	Tier A	1
ExtremeCloud IQ Site Engine*	Tier A	1
All Other Devices (Includes Non-Extreme Device)	Tier 3rd Party	1
Devices with Ping-Only profile	No License	0

*There is one license required for the ExtremeCloud IQ Site Engine itself. Each ExtremeCloud IQ Site Engine consumes only one license even if there are multiple ExtremeCloud IQ Site Engine devices are in the device list.

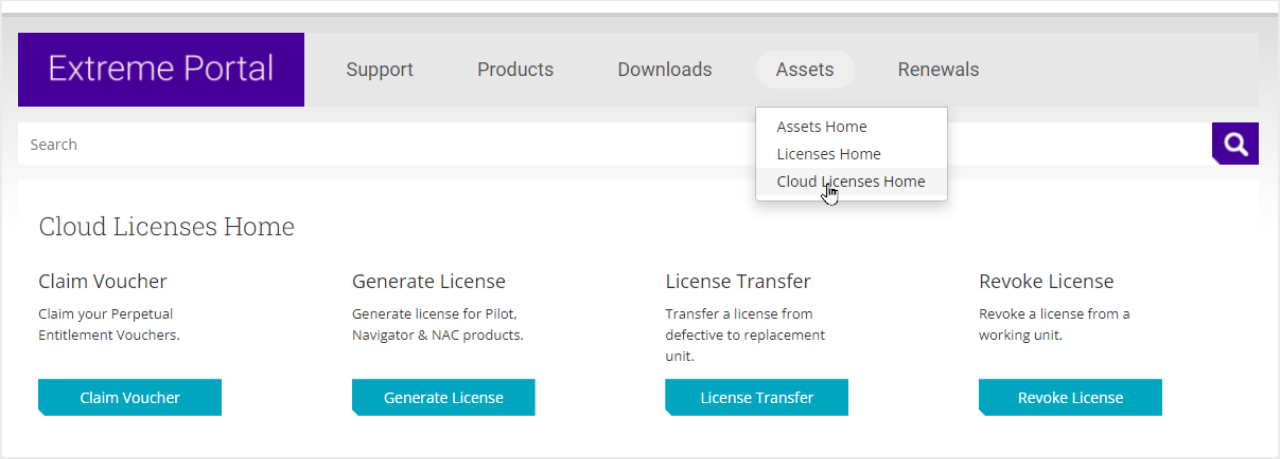
Revoke Air Gap License

NOTE: A maximum of 10 Air Gap licenses can be revoked in one revocation file.

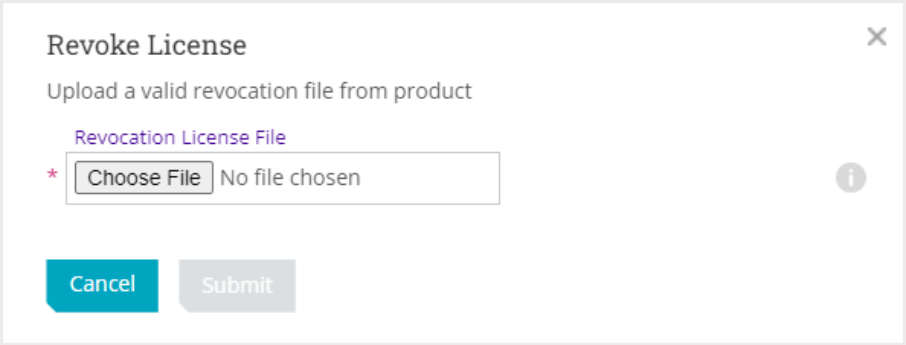
Follow this procedure to revoke your Air Gap license.

1. Open **Administration > Licenses** or enter this URL.
   `https://<Server>:/8443/xiqLicenseSetup.jsp?setupMode=Airgap`
2. Select either the Pilot, Navigator, Platform ONE, or NAC license to revoke.

   ExtremeCloud IQ Site Engine generates a revocation file.
3. Download the file to your computer.
4. Log into the Extreme Portal (https://extreme-networks.my.site.com/ExtrCloudLicenseLanding).
5. Select **Assets > Cloud Licenses Home > Revoke License**.



6. Upload the revocation file and select **Submit**.



The revoked licenses are returned to the license pool. Contact support if you encounter an error. You will need to provide the revocation file (`.rvk`) and the error message.

License Limits and Violations

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

- **In Connected mode**: ExtremeCloud IQ determines if there are enough licenses of that type available.
- **In Air Gap mode**: ExtremeCloud IQ Site Engine uses the license file to determine if there are enough licenses of that type available.

As a result for both modes, one of the following actions happens:

- If there are enough licenses of the optimal type, device onboarding is successful.
- If there are not enough optimal type licenses, a license of the higher type is used instead.
- If there are not enough 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 Tier D licenses.

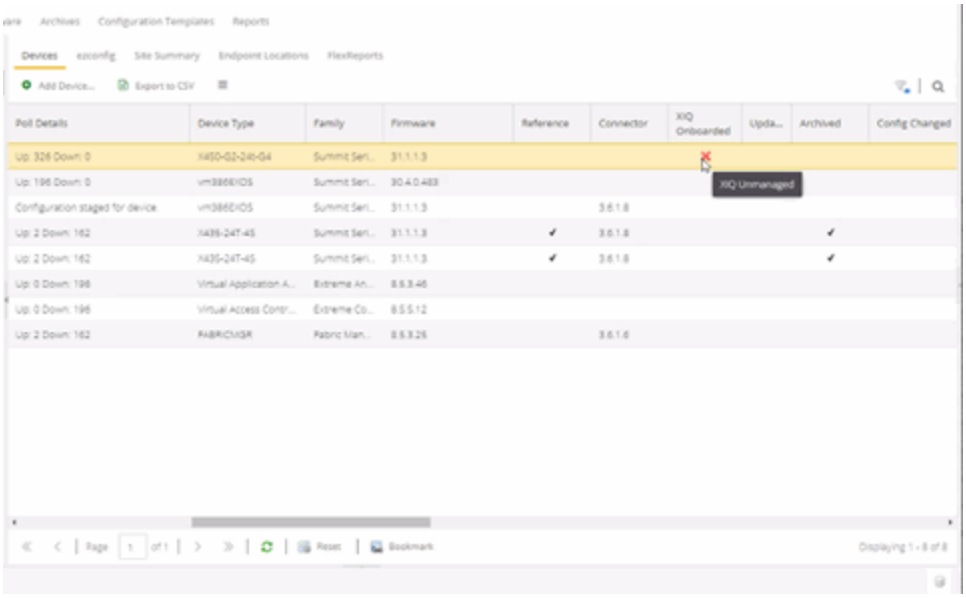
To correct a license limit violation:

- **In Connected mode**: You must acquire more licenses (and, when the updated licenses are available in ExtremeCloud IQ, they are used by ExtremeCloud IQ Site Engine).
- **In Air Gap mode**: You must acquire more licenses by generating a new licensing file from the licensing portal, then install the licensing file in 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 (Network Access Control)

If the ExtremeCloud IQ Site Engine was onboarded to ExtremeCloud IQ, ExtremeCloud IQ provides the Network Access Control (NAC) entitlements to ExtremeCloud IQ Site Engine. There is an option to allocate a portion of the available license pool in ExtremeCloud IQ. The full 100% NAC entitlements should be allocated automatically to the first ExtremeCloud IQ Site Engine. If there are more Site Engines, for example, a lab instance and a production instance, then the NAC entitlements allocation can be changed in the ExtremeCloud IQ GUI. It is recommended to check the NAC entitlements allocation in ExtremeCloud IQ.

If the ExtremeCloud IQ Site Engine is operated in Air Gap deployment mode, the licensed quantity for ExtremeControl is provided through a license file. The license file is generated in Extreme Portal. The licensed quantity for ExtremeControl varies depending on whether ExtremeCloud IQ Site Engine is initially installed or it was upgraded from the Extreme Management Center.

After Upgrading from Extreme Management Center

If you are upgrading from Extreme Management Center to ExtremeCloud IQ Site Engine, the licensing and capabilities of ExtremeControl do not change. The following are included in the licenses:

- NMS-ADV License includes 500 Access Control End-Systems.
- NMS-xx License includes 250 Access Control End-Systems.

NOTE: If your version of ExtremeControl contains NMS or NMS-ADV licenses described above and licenses are used through ExtremeCloud IQ (in Connected mode) or in a locally stored license file (in Air Gap mode), ExtremeControl will sum those licensed quantities.

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.

Logging into ExtremeCloud IQ Site Engine

In connected mode, ExtremeCloud IQ Site Engine gets licenses through ExtremeCloud IQ. ExtremeCloud IQ acts as a license proxy between ExtremeCloud IQ Site Engine and Extreme Portal. Therefore, your ExtremeCloud IQ needs to be linked to your license entitlements in the Extreme Portal before your ExtremeCloud IQ Site Engine can be onboarded to ExtremeCloud IQ and consumes licenses via ExtremeCloud IQ. In Air Gap deployment mode, ExtremeCloud IQ Site Engine utilizes these licenses based on a license file.

Post upgrade from Extreme Management Center Version 8.5.5 or newer

When the Extreme Management Center is onboarded to ExtremeCloud IQ using the soft launch feature, you need to remove Extreme Management Center from ExtremeCloud IQ before onboarding ExtremeCloud IQ Site Engine.

Initial installation of ExtremeCloud IQ Site Engine or upgrading from Extreme Management Center

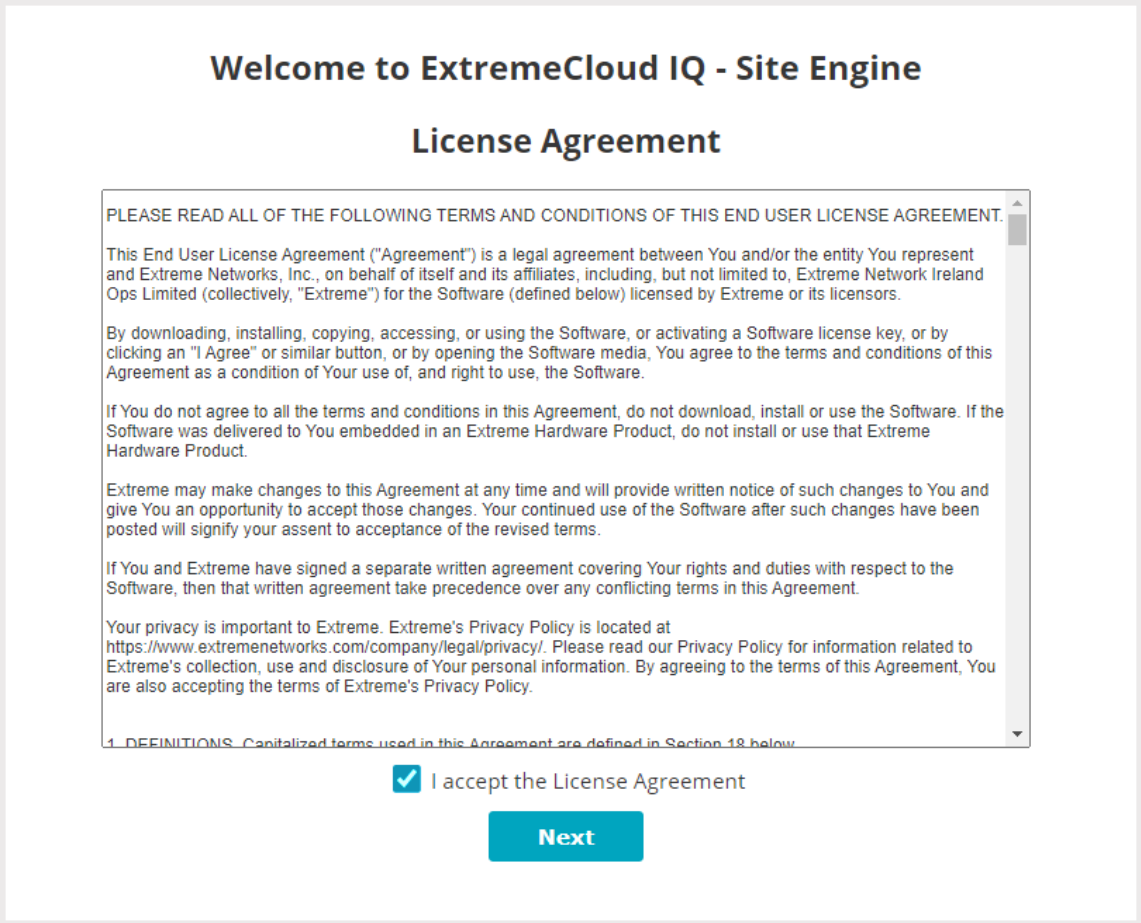
Follow these steps to launch ExtremeCloud IQ Site Engine:

1. Enter this `https://<IP Address>:8443` in your browser.

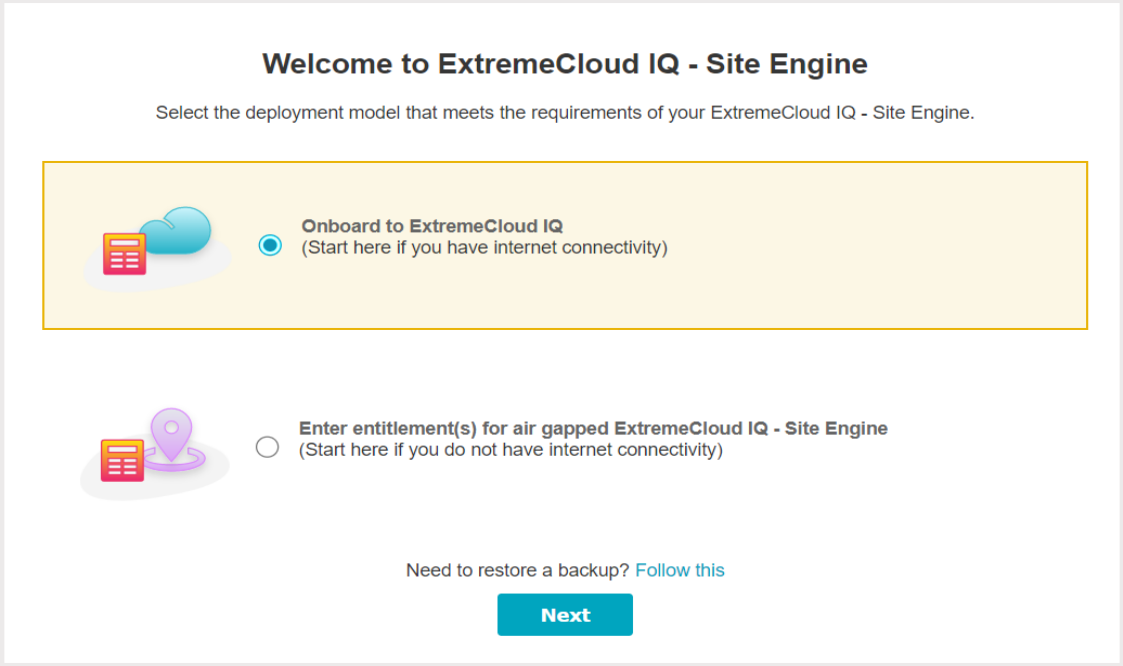


2. Enter your ExtremeCloud IQ Site Engine login credentials and select **Login**. These are the credentials you configured during the installation

3. Accept the License Agreement and select **Next**.

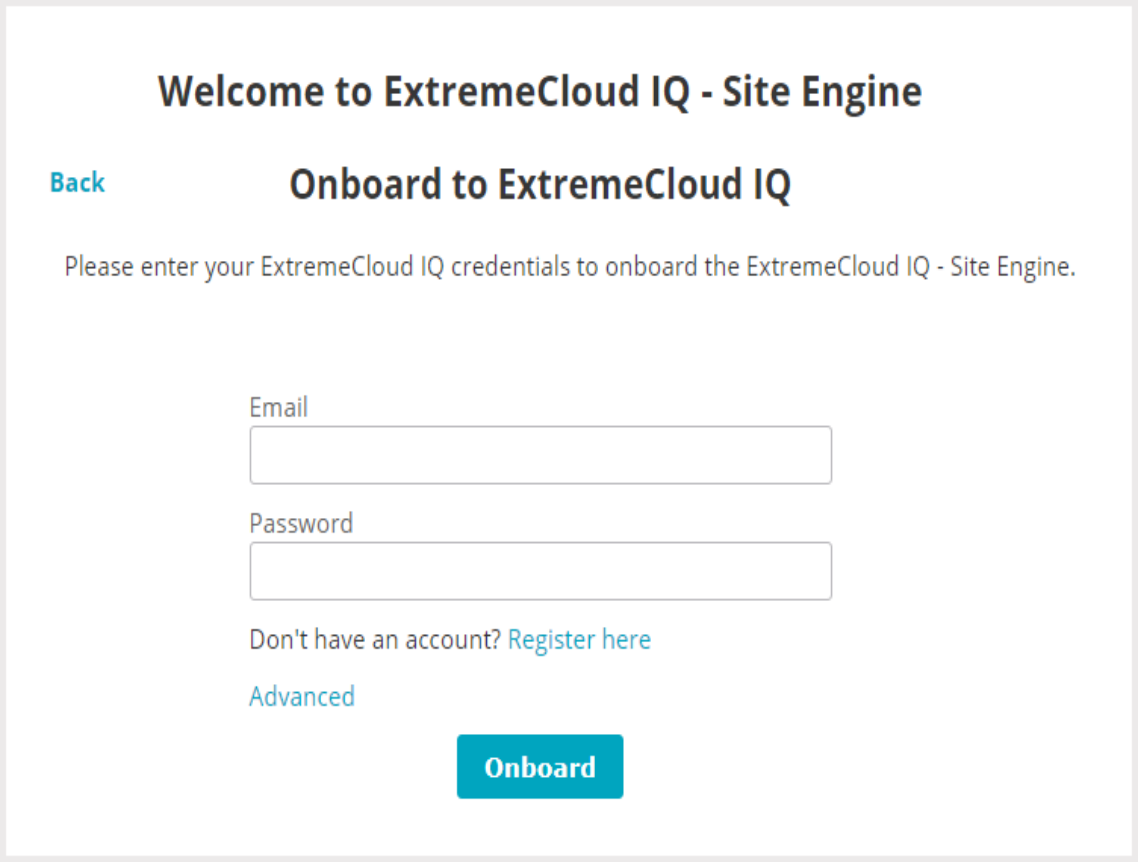


4. Select your deployment mode. Refer to the XIQ-SE Activation document for licensing information.
    - Connected mode - **Onboard to ExtremeCloud IQ Site Engine** - In connected deployment mode, ExtremeCloud IQ Site Engine utilizes these licenses through connection to ExtremeCloud IQ. It is required to link your Extreme Portal to ExtremeCloud IQ. Once those are linked together, you can use the licenses you purchased in both ExtremeCloud IQ and ExtremeCloud IQ Site Engine.
    - Air Gap mode - **Enter entitlement(s) for air gapped ExtremeCloud IQ Site Engine** - In air gap deployment mode, ExtremeCloud IQ Site Engine utilizes these licenses based on a license file. During the generation of the license file, the licenses are assigned to the locking ID of ExtremeCloud IQ Site Engine.

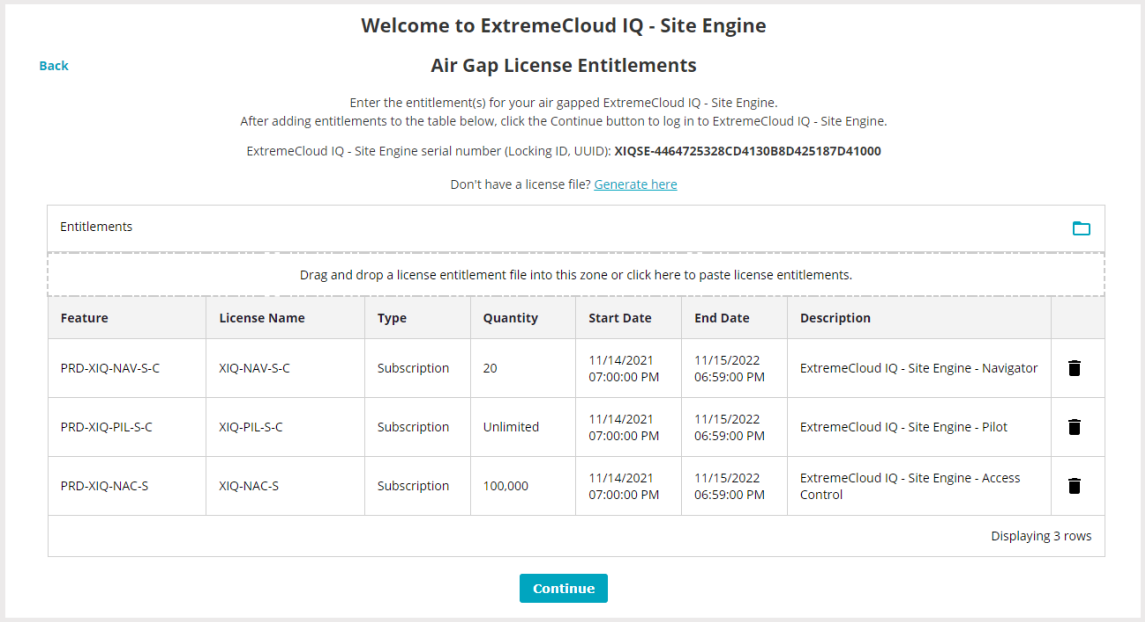


NOTE: The Welcome screen provides a link to the procedure for restoring ExtremeCloud IQ Site Engine from backup.

5. Click **Next**.
6. Depending on the deployment mode you selected, you will do one of the following:
   - For Connected mode onboarding of ExtremeCloud IQ Site Engine to ExtremeCloud IQ, enter the ExtremeCloud IQ email address and password and select **Onboard**. 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.



- For Air Gap deployment, drag and drop your entitlements to this screen.



7. Click **Onboard** (Connected mode) or **Continue** (Air Gap mode). ExtremeCloud IQ Site Engine is ready to use.

You can now access ExtremeCloud IQ Site Engine.

NOTE:	If you need to convert your deployment between Connected or Air Gap mode, see Convert from Connected to Air Gap deployment or Convert from Air Gap to Connected deployment.

Onboarding Devices (Connected mode only)

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.

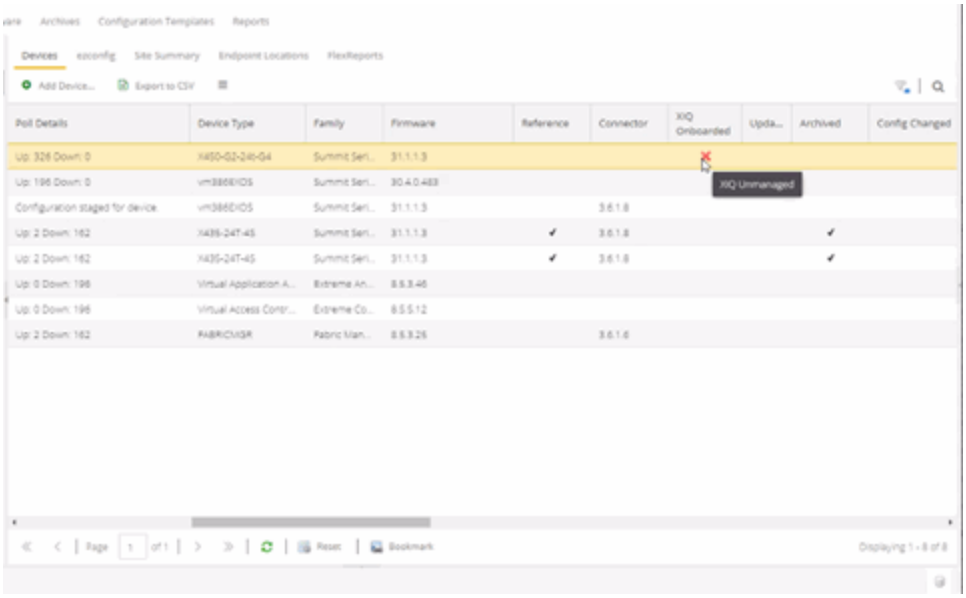
Cloud Configuration Groups are updated when devices are added to User Device Groups (either by user action or by API call). Cloud Configuration Groups are also updated when devices are removed from a User Device Group or deleted from ExtremeCloud IQ Site Engine.

NOTE:	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 (Connected mode only)

After an attempt is made to onboard a device, the XIQ Onboarded column in the table **Network > Site > Device**) 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.

NOTE:

In ExtremeCloud IQ Site Engine version 26.11.10, 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.

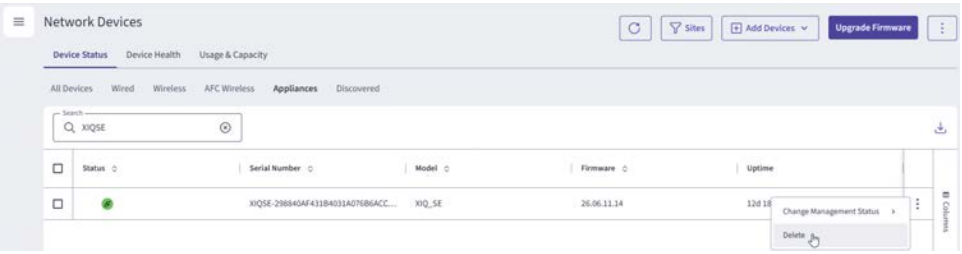
NOTE:	If ExtremeCloud IQ Site Engine does not recognize a device’s serial number or MAC address, right-click on the device and select Rediscover to attempt to discover the device’s serial number or MAC address. When the device's serial number or MAC address is discovered, it can be onboarded to ExtremeCloud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

Convert from Connected to Air Gap deployment

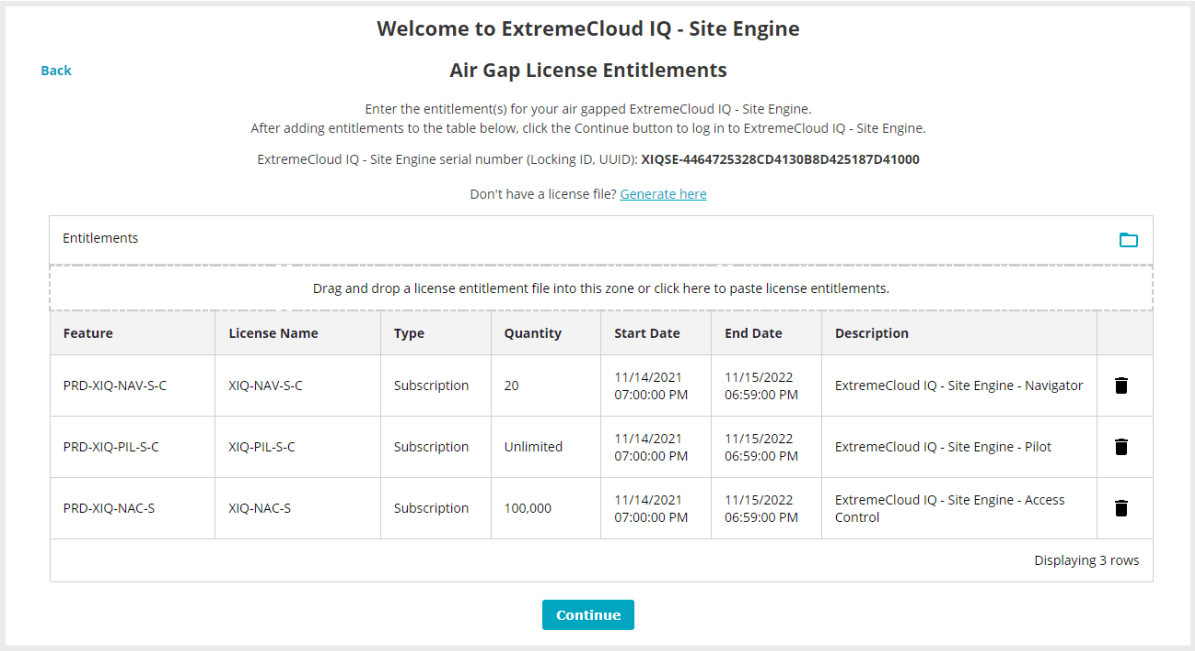
Licensing requirements are the same in air gap and connected deployments, but enforcement differs by implementation. Currently, ExtremeCloud IQ Site Engine deployed in connected mode does not enforce certain license requirements: Port Extenders V300, Port Extenders V400, HiveOS APs (IQE), and Dell N-Series devices require a Tier A license, and WiNG APs require a Tier 3rd Party license. Before you convert, verify that you have enough licenses to cover all affected devices.

Follow this procedure if you need to convert from Connected mode to Air Gap mode.

1. Delete ExtremeCloud IQ Site Engine from ExtremeCloud IQ or Extreme Platform ONE Networking.



2. In the next 6 hours, all subscriptions will be deactivated automatically. During this time period:
    - The ExtremeCloud IQ Site Engine will report `Connection Lost with ExtremeCloud IQ`.
    - New devices cannot be added to ExtremeCloud IQ Site Engine
3. Log in to ExtremeCloud IQ Site Engine
4. Go to **Air Gap License Entitlements** using `HTTPS://<SiteEngineIP>:8443/xiqLicenseSetup.jsp?setupMode=Airgap`



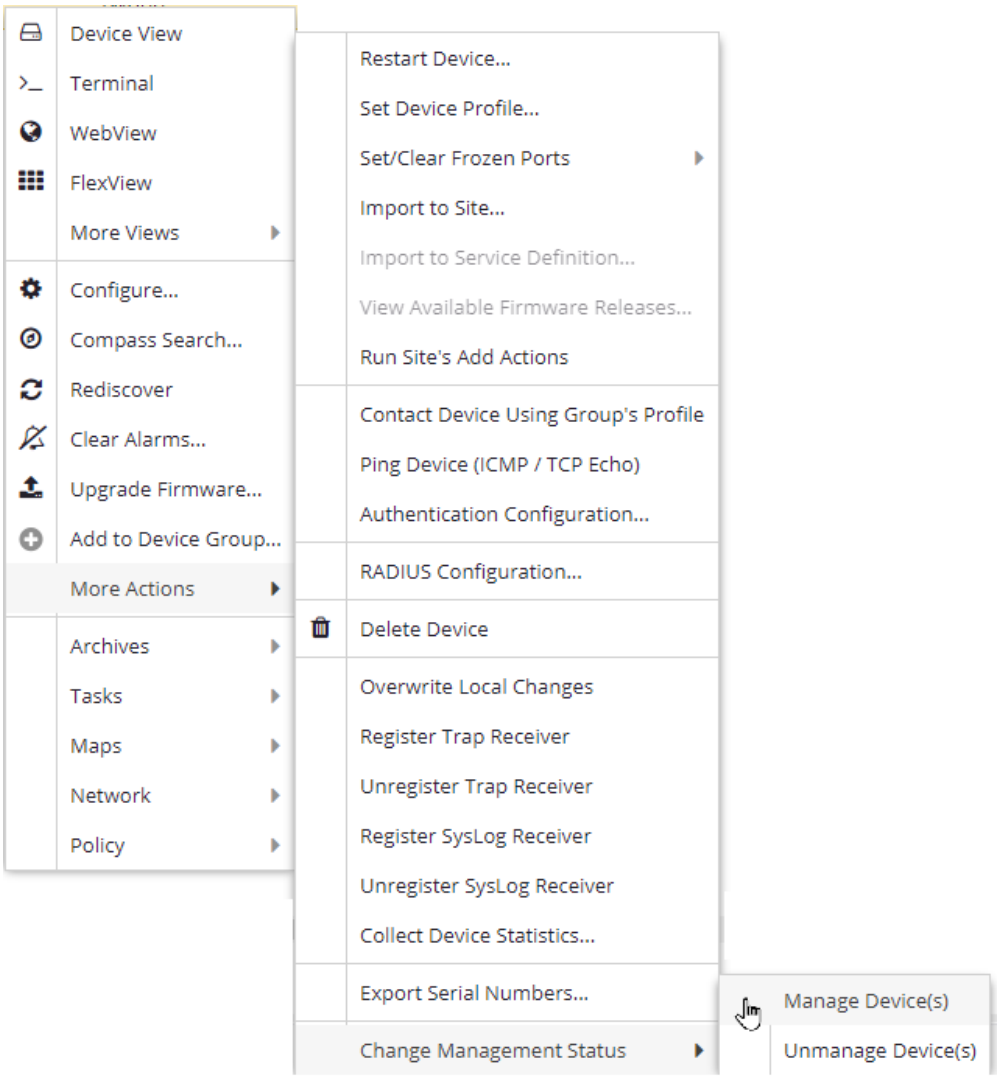
5. Copy the ExtremeCloud IQ Site Engine serial number (Locking ID, UUID) from the entitlements screen
6. Generate a license file. Follow the license generation procedure in section *Air gap deployment mode: Generate and Install the License File* found in the Activation Instructions guide
7. Drag and drop the license file in the **Entitlements** section of the **Air Gap License Entitlements** screen (see step 4).
8. Click **Continue**
9. Restart your ExtremeCloud IQ Site Engine server.

After the restart, your Site Engine is ready to use.

Convert from Air Gap to Connected deployment

Follow this procedure if you need to convert from Air Gap mode to Connected mode.

1. Check the connectivity from ExtremeCloud IQ Site Engine to ExtremeCloud IQ. If there is a connectivity issue, fix it before continuing.
2. Make all of the devices managed or delete all unmanaged devices from ExtremeCloud IQ Site Engine.



3. Revoke all Air Gap licenses. For information on how to revoke the licenses, see Revoke Air Gap License.
4. Go to `HTTPS://<SiteEngineIP>:8443/xiqLicenseSetup.jsp?setupMode=Auto`

5. If you do not have an ExtremeCloud IQ account, then you need to create one.
6. If your ExtremeCloud IQ account is not linked to your Extreme Portal account, follow the procedure in the Activation Instructions.
7. Onboard ExtremeCloud IQ Site Engine to ExtremeCloud IQ. For more information on how to onboard Site Engine, see Logging into ExtremeCloud IQ - Site Engine.
8. Restart your ExtremeCloud IQ Site Engine server.

After the restart, your Site Engine is ready to use.

MySQL to PostgreSQL Data Migration (For Upgrades from ExtremeCloud IQ Site Engine 24.2 to 24.7 or up to 25.8)

The following data migration procedure is required for ExtremeCloud IQ Site Engine upgrades from version 24.2 to version 24.7 (or up to 25.8) due to a database engine change from MySQL to PostgreSQL. You can upgrade the Application Analytics Engine, Access Control Engine, and Traffic Sensor the standard way, by either using the firmware upgrade feature or by running the upgrade binary manually.

If you need to migrate data across the same versions of ExtremeCloud IQ Site Engine 24.7 or later, see Data Migration to Rehost a Matched Version Instance of ExtremeCloud IQ Site Engine.

IMPORTANT:

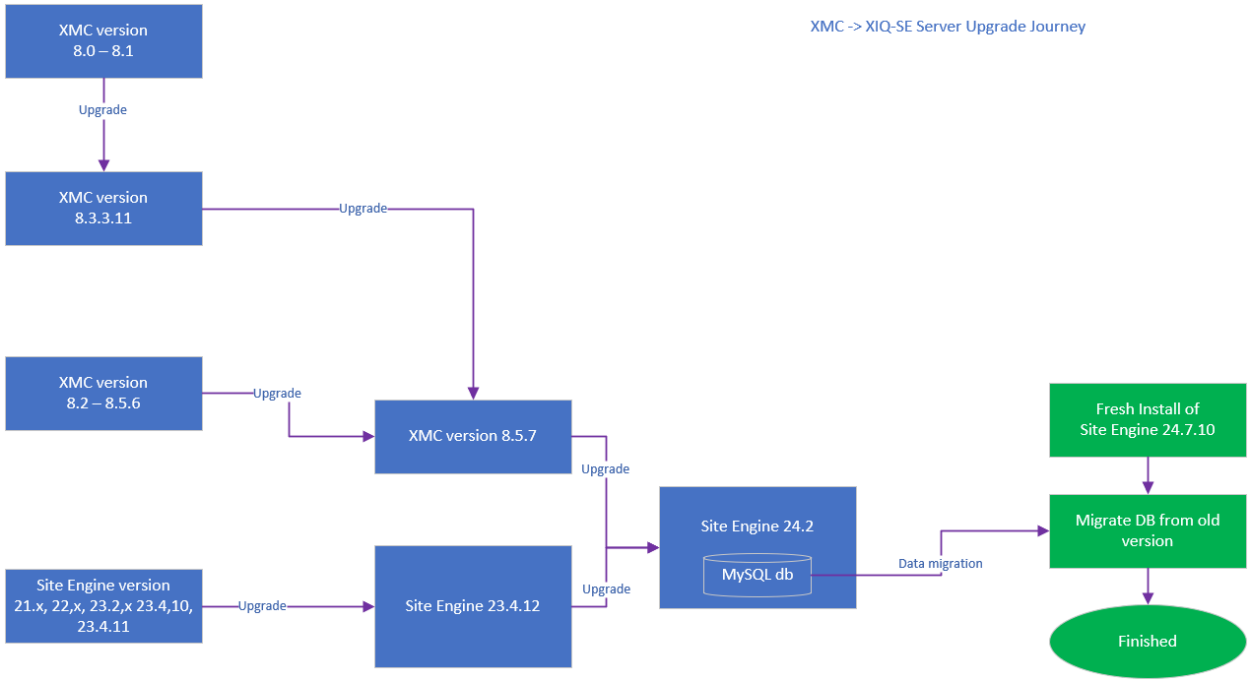
Backups from ExtremeCloud IQ Site Engine version 24.2 and earlier (MySQL) are not compatible with ExtremeCloud IQ Site Engine version 24.7 and later (PostgreSQL).

To migrate a 24.2 backup, you must restore the 24.2 backup to an active running configuration of ExtremeCloud IQ Site Engine version 24.2, and then perform the following MySQL to PostgreSQL data migration procedure.

The following data migration procedure is not supported in version 25.11 and later. You must migrate your data from 24.2 to 24.7 (or up to 25.8) before installing 25.11 and later.

Migration Steps

1. Ensure the source server for the migration is currently running ExtremeCloud IQ Site Engine version 24.2.
    - If the source server is not running ExtremeCloud IQ Site Engine version 24.2, then check Important Upgrade Information for more information about the intermediate steps.
    - The following flowchart shows the supported upgrade paths for a data migration to ExtremeCloud IQ Site Engine version 24.7:



2. Ensure you have a backup of the ExtremeCloud IQ Site Engine version 24.2 configuration with **Administration > Backup/Restore**.
3. Ensure TCP ports 22 and 4589 are open without any firewall or ACLs blocking the ports for communication. The migration script connects to the source server on those ports.
4. Deploy and start a new installation of ExtremeCloud IQ Site Engine version 24.7 (or up to 25.8), connect to the console, and login.
5. Follow the installation wizard. All parameters the wizard prompts for are the final desired state, except for the IP settings. **IMPORTANT**: You must provide a temporary IP address for the new installation until the data is migrated from the source server.
    - The current or original settings of your MySQL based ExtremeCloud IQ Site Engine can be found in `/usr/postinstall/dnetconfig.properties`.
6. After providing all required information to the installation wizard, wait for the installation to complete with the following output:

```
================================================================================
Extreme Networks, Inc. - ExtremeCloud IQ - Site Engine - Setup Complete
================================================================================
Setup of the ExtremeCloud IQ - Site Engine is now complete. The appliance is
now operational and ready to accept remote connections.  Details of
the installation are located in the /var/log/install directory.
================================================================================


================================================================================
To access the GUI, navigate your browser to "https://          :8443" and continue
there. To migrate from existing ExtremeCloud IQ - Site Engine version 24.2 continue
by executing /usr/local/Extreme_Networks/NetSight/scripts/migrateFromVersion24_2.sh
and follow the instructions.
================================================================================
root@xiqseappliance:~#
```

7. The installation wizard might have configured one account for SCP and SFTP already. If the Inventory Manager is configured to use different SCP and SFTP accounts, create the accounts in the Operating System before the migration. You can use the command `sudo adduser mySCPuser`.

8. Run the following commands in the ExtremeCloud IQ Site Engine version 24.2 (source of the migration).

   ```
   cd /usr/local/Extreme_Networks/NetSight/scripts
   sudo ./permitSQLAccessForMigration.sh
   ```

   The version 24.2 source server stops and remote access to MySQL is granted:

```
**** Extreme Networks ************************************************************

This is the ExtremeCloud IQ - Site Engine 24.2.10.90.  Alter files with caution.

WWW Site:       http://www.extremenetworks.com
Support Email:  support@extremenetworks.com
Phone:          +1 800-998-2408

********************************************************************************


root@Mysql-xiqse:~# cd /usr/local/Extreme_Networks/NetSight/scripts/
root@Mysql-xiqse:/usr/local/Extreme_Networks/NetSight/scripts# sudo ./permitSQLAccessForMigration.sh

mysql: [Warning] Using a password on the command line interface can be insecure.
The server is now stopped. Remote access to MySQL is now enabled.
If any firewall is used then adjust firewall rules before the migration.
The access can be revoked by executing the script denySQLAccessForMigration.sh.
root@Mysql-xiqse:/usr/local/Extreme_Networks/NetSight/scripts#
```

9. Start the data migration by running the following command in the new installation of ExtremeCloud IQ Site Engine (destination of the migration):

   ```
   sudo /usr/local/Extreme_Networks/NetSight/scripts/migrateFromVersion24_
   2.sh -s <IP-of-the-source> -u <username-for-OS-access>
   ```

   Optional additional command syntax parameters are:

- `--noAnalytics` to skip migration of Analytics data
- `--noNAChistory` to skip migration of NAC end-system history
- `--noStats` to skip migration of device and port statistics
- `--timeout` to change the timeout value in seconds for the data transfer from the MySQL server (default timeout is 120 seconds)

10. Provide the password to access the Operating System by SSH/SCP when prompted.
11. The data migration is in process. Wait until the migration process finishes and the following prompt is returned:

```
root@psql-SiteEngine:~# sudo /usr/local/Extreme_Networks/NetSight/scripts/migrateFromVersion24_2.sh
-s 10.[redacted] -u root
Ensure the permitSQLAccessForMigration.sh was executed on the source server.
Enter ssh password for root@10.[redacted]:
Remote server version 24.2 validated.
Please wait, stopping the nsserver process on this machine before the data migration starts.
Initializing new database.
Migrating database from 24.2.
Progress: |                                                  | 100.00% Complete
Successfully migrated database from 24.2.
Partitioning reporting data.
Progress: |                                                  | 100.00% Complete
Successfully repartitioned reporting data.
Partitioning endpoint data.
Progress: |                                                  | 100.00% Complete
Successfully repartitioned endpoint data.
Final schema adjustments.
Final schema adjustments successful.
Migrating files from 24.2.
Progress: |                                                  | 100.00% Complete
Done migrating files from 24.2.
Migrating database files from 24.2.
Progress: |                                                  | 100.00% Complete
Done migrating database and server files from version 24.2.

Here are the recommended next steps:
1. Wait for the nsserver process to be started on this machine again
2. Log in to the OneView on this machine and check you have all the data you expected
3. Shutdown the source server running version 24.2
4. Execute dnetconfig from the console and reconfigure the IP address of this server to use the same
 IP as the source server was using
5. Continue with the upgrade of Engines you may have (Access Control Engines, Analytics Engines)

Check more details in the documentation:
https://emc.extremenetworks.com/content/oneview/install/migration_from_24_2.htm
root@psql-SiteEngine:~#
```

    The nsserver process automatically starts with the migrated data

12. Log in to the new installation of ExtremeCloud IQ Site Engine and check you have all the data you expected to be migrated from version 24.2.
13. Change the IP address of the source server running ExtremeCloud IQ Site Engine version 24.2 to some unused available IP by running `sudo /usr/postinstall/dnetconfig`. Change the IP address so that If you need to start this machine again, you will not have a duplicate IP address

scenario.

14. Shutdown the source server running ExtremeCloud IQ Site Engine version 24.2
15. Run `sudo /usr/postinstall/dnetconfig` from the console and reconfigure the IP address of the new installation of ExtremeCloud IQ Site Engine to use the IP address previously configured to the shut down ExtremeCloud IQ Site Engine version 24.2.
16. Use the reconfigured IP address to re-connect to the new installation ExtremeCloud IQ Site Engine GUI.
17. Continue with a traditional upgrade of other Engines you might have (Access Control Engines, Analytics Engines, Traffic Sensor, etc), the minimum version is 24.2.13.
18. Navigate to **Administration > Backup/Restore > Backup**, and create a new backup of the new installation ExtremeCloud IQ Site Engine configuration.

Notes:

- Migration takes data from the MySQL database, not from the backup. Backups are not migrated.
- After changing the IP address, be aware that the new system has a new MAC address (the MAC is not cloned), if static ARPs are used, update your arp cache on your router.
- Historical Syslog events are not migrated
- Backups from ExtremeCloud IQ Site Engine based on MySQL (version 24.2 and earlier) are not compatible with ExtremeCloud IQ Site Engine based on PostgreSQL (version 24.7 and later). To migrate a 24.2 backup you first need to restore to an active configuration of ExtremeCloud IQ Site Engine running version 24.2 and run the migration procedure.
- Custom reports (/usr/local/Extreme_Networks/NetSight/appdata/OneView/MyReports) are not migrated. If you use custom reports using SQL commands they need to be adjusted.
- If SCP is used for inventory manager, it might be beneficial to copy ssh keys and settings by: `sudo scp -r root@<IP-of-the-source>:/etc/ssh /etc/`
- Local user accounts created in the operating system manually are not automatically migrated. It might be necessary to create local users again in the new system.
- The following features are transferred during the migration:
    - Vendor Profile definition (~/NetSight/appdata/VendorProfiles/Stage/MyVendorProfile)
    - Custom Mibs (~/NetSight/appdata/System/mibs/MyMibs)
    - Custom FlexViews (~/NetSight/appdata/System/FlexViews/My FlexViews)

- Archives (the path is defined in Administration > Options > Inventory Manager > Data Storage)
- Configuration templates (the path is defined in Administration > Options > Inventory Manager > Data Storage)
- TFTP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- FTP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- SCP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- SFTP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- Connect module configuration (~/NetSight/wildfly/standalone/configuration/connect/)
- Custom Analytics Fingerprints (~/NetSight/appdata/Purview/MyFingerprints/)
- Licenses (~/NetSight/appdata/license)
- Events/logs (the path is in Alarms & Events > Event Configuration > Event Logs)
- TFTPd settings (~/NetSight/services/nstftpd.cfg)
- SNMPtrapd settings (~/NetSight/appdata/snmptrapd.conf)
- NAT config settings (~/NetSight/appdata/nat_config.txt)
- Private certificate (~/NetSight/wildfly/standalone/configuration/nsserver.keystore)
- Custom scripts (~/NetSight/appdata/scripting/overrides)
- Custom CLI scripts ((~/NetSight/appdata/CommandScriptTool/overrides)
- PolicyMgr port templates (~/NetSight/appdata/PolicyMgr/authTemplates)

- If there are other customizations like custom scripts in the file system then you must move those customizations manually

Post-Migration Known Issues

Known Issue 1:

Access Control "Enforce Preview" may show a line similar to the following:

Removed engine property: MGT_SVR_JMS_USERNAME MGMT_IP_AT_PREVIOUS_ENFORCE MGT_SVR_JMS_PASSWORD VERSION_AT_PREVIOUS_ENFORCE FAILED_SWITCH_CONFIG_LIST DB_ENCRYPTED_MGT_SVR_JMS_PASSWORD VERSION_AT_PREVIOUS_SWITCH_CONFIGURATION

Resolution: You can safely ignore this line, the engine(s) enforced without issue.

Known Issue 2:

Access Control "Enforce Preview" may show a line similar to the following:

AAA Configuration TEAP Chaining Mode mode: DEF_TEAP_MSCHAP_MSCHAP, changing to: null

Cause: If AAA configurations were not saved on the original server prior to migration, this line appears on the new server in Enforce Preview.

Resolution: In each AAA configuration in Access Control (Configuration > AAA), save the configuration. If the "Save" button is not available, undo and redo a change in the configuration to activate the button, then Save. The line should no longer appear in the Enforce Preview.

Known Issue 3:

Access Control "Enforce Preview" may show a line similar to the following:

Removed Assessment Server Pools: Local Global
Removed Assessment Servers: Agent-based Assessment Agent-less Assessment

Resolution: You can safely ignore this line, the engine(s) enforced without issue.

Migration for Hardware Appliances

You have two procedure options for migrating a ExtremeCloud IQ Site Engine hardware appliance, in each option a temporary VM or hardware appliance is required:

Option 1 - Migrate to a Temporary ExtremeCloud IQ Site Engine then Move

1. Acquire a secondary hardware appliance or deploy a virtual machine to host a temporary instance of ExtremeCloud IQ Site Engine 24.7 (or up to 25.8).
2. Perform the Migration Steps procedure to migrate from the original hardware appliance to the temporary instance of ExtremeCloud IQ Site Engine 24.7 (or up to 25.8), then return here.
3. Manually offload all the customized features and files as noted from the source server; optionally restore the offloaded customized features and files to the temporary ExtremeCloud IQ Site Engine instance.
4. Verify the temporary ExtremeCloud IQ Site Engine instance is operating as expected after shutting down the original hardware appliance.

NOTE: If you deployed a new hardware appliance intended to directly replace the original hardware appliance, then the migration is complete and you can skip the following steps.

IMPORTANT: After performing the following step, the system data is erased from the original source server. **Ensure all data, manual files, etc are transferred off the source server original hardware appliance before performing the next steps.**

5. Re-image the original hardware appliance using the ExtremeCloud IQ Site Engine 24.7 (or up to 25.8) USB / ISO image.
6. Perform a database backup on the temporary ExtremeCloud IQ Site Engine.
7. Offload the database backup from the temporary ExtremeCloud IQ Site Engine and restore the backup to the re-imaged original hardware appliance.
8. Restore all the customized features and files to the re-imaged original hardware appliance.
9. Confirm the re-imaged hardware appliance is operating as expected with migrated and restored data on ExtremeCloud IQ Site Engine 24.7 (or up to 25.8).

Option 2 - Move to a Temporary ExtremeCloud IQ Site Engine then Migrate

1. Deploy a temporary ExtremeCloud IQ Site Engine 24.2.15 virtual machine.
2. Perform a database backup on the original ExtremeCloud IQ Site Engine 24.2.15 hardware appliance.
3. Offload the database backup from the original hardware appliance and restore to the temporary ExtremeCloud IQ Site Engine 24.2.15 virtual machine.
4. Manually offload all the customized features and files as noted; Optionally (recommended) restore the customized features and files to the temporary ExtremeCloud IQ Site Engine 24.2.15 virtual machine.
5. Verify the temporary ExtremeCloud IQ Site Engine 24.2.15 virtual machine instance is operating as expected after shutting down the original hardware appliance.

   IMPORTANT: After performing the following step, the system data is erased from the original source server. **Ensure all data, manual files, etc are transferred off the source server original hardware appliance before performing the next steps.**
6. Re-image the hardware appliance using the ExtremeCloud IQ Site Engine 24.7 (or up to 25.8) USB / ISO image.
7. Perform the Migration Steps procedure and migrate from the temporary ExtremeCloud IQ Site Engine 24.2.15 virtual machine to the re-imaged hardware appliance, then return here.
8. Restore all the customized features and files to the re-imaged original hardware appliance.

9. Confirm the re-imaged hardware appliance is operating as expected with migrated and restored data on ExtremeCloud IQ Site Engine 24.7 (or up to 25.8).

Data Migration to Rehost a Matched Version Instance of ExtremeCloud IQ Site Engine

You can migrate data across the same version of ExtremeCloud IQ Site Engine to a new instance running on a new host. Use this procedure if you need to migrate your data across the matched version of ExtremeCloud IQ Site Engine 24.7 or later. Use this procedure for scenarios such as migrating from VM to physical, from physical to virtual, for a host OS change, or to migrate to a new host on a different network environment or location.

If you need to migrate data from an old version to a new version of ExtremeCloud IQ Site Engine for an upgrade, go see MySQL to PostgreSQL Data Migration (For Upgrades from ExtremeCloud IQ Site Engine 24.2 to 24.7 or up to 25.8)

Data Migration Steps:

1. Ensure you have a backup of the ExtremeCloud IQ Site Engine configuration with **Administration > Backup/Restore**.
2. Install a new ExtremeCloud IQ Site Engine, use the ExtremeCloud IQ Site Engine Suite Installation procedure.
3. Complete the installation wizard. If you need original values then check these files in your migration source:
   `/usr/postinstall/dnetconfig.properties`
   `/usr/postinstall/snmpconfig.properties`
4. Copy the full backup with directory structure to the new installation. For more information, see Database Backup Options.
5. Restore the backup onto the new system through CLI, see Restoring the Database using the CLI.
6. As necessary, re-create local accounts in the Operating System of the new installation. The local accounts defined in the Operating System are not part of the backup.
   For reference, the **/etc/passwd** file contains local accounts known to the operating system.
7. If SCP is used for inventory manager, copy the SSH keys and settings with the command:
   `sudo scp -r root@<IP-of-the-source>:/etc/ssh /etc/`
8. Copy additional files from the source instance that are not part of the backup:
   - Custom Mibs (~/NetSight/appdata/System/mibs/MyMibs)
   - 3rd Party Vendor Profiles (~NetSight/appdata/VendorProfiles/Stage/MyVendorProfile/MyVendorProfile.json)

- TFTP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- FTP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- SCP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- SFTP Firmware files (path is defined in Administration > Options > Inventory Manager > File Transfer)
- Licenses (~/NetSight/appdata/license)
- Events/logs (the path is in Alarms & Events > Event Configuration > Event Logs)
- TFTPd settings (~/NetSight/services/nstftpd.cfg)
- SNMPtrapd settings (~/NetSight/appdata/snmptrapd.conf)
- NAT config settings (~/NetSight/appdata/nat_config.txt)
- Custom CLI scripts (~/NetSight/appdata/CommandScriptTool/overrides)
- Custom FlexViews not part of the VendorProfiles (~/NetSight/appdata/System/FlexViews/My FlexViews)
- Logs (~/NetSight//appdata/logs and all subdirectories)

9. Check and transfer any custom modifications you might have in:
    - NSJBoss.properties (~/NetSight/appdata/NSJBoss.properties)
    - snmptrapd.conf (~/NetSight/appdata/snmptrapd.conf)
    - If you customized the file ~/NetSight/services/nstftpd.cfg. Verify it matches the Firmware Directory Path specified in the TFTP Transfer Settings option in Inventory Manager (Tools > Options > Inventory Manager > File Transfer Settings > TFTP Transfer Settings).
10. Check for and transfer over any other customizations, such as custom scripts in the file system.
11. Configure the server certificate trust mode on the ExtremeCloud IQ Site Engine to handle the certificates it receives from other servers. Required if you have Access Control Engines or Application Analytics Engines or connect to LDAP servers, and you want the server certificate trust mode to be "Locked." For more information, see the section of the ExtremeCloud IQ Site Engine and ExtremeControl Secure Communication Help topic.
    a. Configure the ExtremeCloud IQ Site Engine with the Server Certificate Trust Mode set to "Trust All" (the default). Trust All avoids certificate trust problems while the server is being configured.

b. Once the server is configured and communicating with other servers and engines as necessary, you can transition the Server Certificate Trust Mode to "Trust And Record" where the server learns the certificates it expects to receive, and then transition to "Locked" when the certificate learning is completed.

Reinstall the Instance of Access Control Engine

You can use the following procedure for replacing an Access Control Engine. For example, to migrate from a physical server to a hypervisor-based deployment, to perform a clean Operating System installation after a security incident, or to skip multiple inline version upgrades.

The new Access Control Engine will obtain the original configuration from the ExtremeCloud IQ Site Engine if the IP address of the new Access Control Engine matches the decommissioned original Access Control Engine.

Reinstall Steps:

1. Install a new Access Control Engine. For more information, see the procedure in the **ExtremeControl Engine Configuration** chapter of the **ExtremeCloud IQ Site Engine, ExtremeControl, and ExtremeAnalytics Virtual Engine Installation Guide**.
2. Complete the installation wizard. If you need the original configuration values, check the `/user/postinstall/network.properties` file from your original Engine.
3. If access to the Operating System is not managed by ExtremeCloud IQ Site Engine, manually recreate the local accounts in the Operating System. The Operating System accounts are only part of the ExtremeCloud IQ Site Engine configuration if the accounts were created in **Control > Access Control > Engine Settings > Global & Engine Settings > Engine Settings > Network Settings > Manage SSH Configuration.** For reference, the `/etc/passwd` file contains local accounts known to the Operating System. This scenario also applies to the NTP, SNMP, and DNS settings.
4. If your system does not use the default web credentials in **Control > Access Control > Engine Settings > Global & Engine Settings > Engine Settings > Credentials > Admin Web Page Credentials**, then configure the new credentials with `/opt/nac/configWebCredentials <username> <password>`. If the password contains special characters, you must enclose the entire password in single quotes `/opt/nac/configWebCredentials <username> '<password>'`. Activate the new credentials with `nacctl restart`.
5. Ensure the ExtremeCloud IQ Site Engine with the Server Certificate Trust Mode is in the default setting of "Trust All".
6. After the Access Control Engine establishes a connection to ExtremeCloud IQ Site Engine, then enforce your settings from **Control > Access Control > Engines > All Engines.**
7. If you had a non default Server Certificate Trust Mode, you can restore your previous Server Certificate Trust Mode settings now.