

# **FlexNet Manager for Engineering Applications 15.5**

## **Installation Guide**

**Part Number FNM-1550-IG02**

**(Covers FlexNet Report Designer 15.5)**

# Legal Information

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# Introduction and Overview

FlexNet Manager for Engineering Applications is a Web-based tool that enables enterprises to centrally manage their license servers, licenses, and historical usage data throughout the organization. In most cases, one FlexNet Manager for Engineering Applications installation can serve an entire organization.

FlexNet Manager for Engineering Applications consists of two modules: Admin and Reporting. FlexNet Manager for Engineering Applications interacts with each license server using a FlexNet Agent that is installed on the license server machine.

In addition to the Admin and Reporting modules, FlexNet Manager for Engineering Applications provides a separately installable Report Designer. The Report Designer is powered by IBM Cognos and can be used to create and generate dynamic reports. More information is available in the *FlexNet Manager for Engineering Applications 15.5 Report Designer Guide*.

## FlexNet Agent

A single FlexNet Agent resides on each license server machine. The FlexNet Agent provides remote administration of one or more license servers on that machine on behalf of FlexNet Manager for Engineering Applications.

See the *FlexNet Manager for Engineering Applications 15.5 Release Notes* for information about the supported FlexNet Agent versions.

## Installation Guide Outline

This installation guide provides information to assist you in installing, configuring, and running FlexNet Manager for Engineering Applications at your enterprise.

- [Chapter 2, “Before Installing FlexNet Manager for Engineering Applications”](#) discusses deployment options and describes installation prerequisites.
- [Chapter 3, “Installing FlexNet Manager for Engineering Applications”](#) provides instructions for installing the Admin and Reporting servers, and for creating the FlexNet Manager for Engineering Applications database.

- [Chapter 4, “Upgrading to FlexNet Manager for Engineering Applications 15.5”](#) provides instructions for upgrading from a previous version.
- [Chapter 5, “Upgrading or Installing FlexNet Report Designer \(Cognos\)”](#) provides instructions for installing FlexNet Report Designer (Cognos).
- [Chapter 6, “Testing the FlexNet Manager for Engineering Applications Installation”](#) provides instructions to test the interaction of FlexNet Manager for Engineering Applications with the database server and the FlexNet Agent.
- [Chapter 7, “Configuring FlexNet Manager for Engineering Applications”](#) provides instructions for configuring the behavior of FlexNet Manager for Engineering Applications components after installation.
- [Chapter 8, “Uninstalling FlexNet Manager for Engineering Applications Components”](#) describes how to uninstall the Admin and Report modules, and how to uninstall FlexNet Report Designer.
- [Appendix A, “Configuring Database Servers”](#) provides guidelines for configuring a supported database server for use with FlexNet Manager for Engineering Applications.

## Intended Audience

This installation guide is intended for system administrators, database administrators, and license administrators of FlexEnabled software applications at enterprises who are installing and configuring FlexNet Manager for Engineering Applications and FlexNet Agents.

## Additional Documentation

In addition to this installation guide, Flexera Software provides a number of documentation resources to assist you in installing and configuring FlexNet Agents, understanding licensing concepts, and working with FlexNet Manager for Engineering Applications to monitor and manage license usage throughout your enterprise.

### PDF Documentation

The following PDF documents are available from the Flexera Software download site, FlexNet Operations On Demand (<http://flexerasoftware.flexnetoperations.com>).

- **FlexNet Manager for Engineering Applications Release Notes:** Provides information regarding platforms and databases supported, issues fixed, and enhancements.
- **FlexNet Agent Installation Guide:** Provides installation and configuration information for initial and upgrade FlexNet Agent installations.
- **FlexNet Manager for Engineering Applications Concepts Guide:** Provides conceptual information about the tasks that can be accomplished using FlexNet Manager for Engineering Applications.
- **FlexNet Manager for Engineering Applications Reporting Guide:** Provides information about generating FlexNet Manager for Engineering Applications Classic reports, use of the FlexNet Manager for Engineering Applications Report Designer (Cognos), and use of the command-line reporting interface.



- **FlexNet Manager for Engineering Applications Report Designer Guide:** Describes the data warehouse model and the reports that are available using Report Designer.
- **FlexNet Publisher License Administration Guide:** For details related to FlexNet licensing component configuration and operation. This guide describes the setup and administration of a FlexNet licensing system, including starting and stopping license servers, setting up an options file, enabling report logging, and using FlexNet license administration tools. (This guide is part of the FlexNet Publisher documentation set.)

## Online Help Library

From the product's user interface, you can access the online *FlexNet Manager for Engineering Applications Help Library*, which provides context-sensitive help. To access the online help, click the Help button, located in the upper-right corner of each FlexNet Manager for Engineering Applications page.

# Before Installing FlexNet Manager for Engineering Applications

Before you install FlexNet Manager for Engineering Applications, you must first complete the following steps. Details are provided later in this chapter and in [Appendix A, “Configuring Database Servers”](#). Documentation is available from the Flexera Software download site.

1. To learn about system requirements (for the FlexNet Manager for Engineering Applications installation and the supported databases), read the *FlexNet Manager for Engineering Applications 15.5 Release Notes*.
2. Review this installation guide, specifically the following sections:
  - [Deployment Options](#)
  - [Installation Checklist](#)
  - [Installing FlexNet Manager for Engineering Applications](#) or [Upgrading to FlexNet Manager for Engineering Applications 15.5](#) (depending on the installation type)
  - Section of the appendix covering the [database](#) that you will use with FlexNet Manager for Engineering Applications Admin/Reporting
3. Save the license file that you received from Flexera Software. Note the location of this file because you will need it during the installation.
4. [Download](#) the platform-specific FlexNet Manager for Engineering Applications Admin/Reporting installers from the Flexera Software download site.
5. If necessary, create operating system user accounts.
6. Install and/or configure the supported [database](#) components.

# Using FlexNet Manager for Engineering Applications to Report on IBM LUM Usage

If you will be using FlexNet Manager for Engineering Applications to report on usage from IBM LUM license servers, you must install the i4blt executable, available from IBM. Contact IBM for information regarding download, platform requirements, and installation instructions.

Note that installation of the i4blt executable *may not be supported* on all of the platforms supported by FlexNet Manager for Engineering Applications.

# Using FlexNet Manager for Engineering Applications to Report on DSLS Usage

If you will be using FlexNet Manager for Engineering Applications to report on usage from Dassault Systems License Server (DSLS) license servers, you must do the following to set up the DSLS third-party license server.



---

**Task:** *To set up the DSLS license server to report DSLS usage to FlexNet Manager for Engineering Applications:*

1. Install FlexNet Manager for Engineering Applications 15.5 and FlexNet Agent 5.2.2. (Refer to the *FlexNet Agent 5.2.2 Installation Instructions* for information about installing the FlexNet Agent.)
2. Enable license-usage tracing for the licenses whose usage want to report on. To do this, select the licenses using the License Usage Tracing dialog box, which is available as part of the DSLS License Administration Tool. For more information, refer to the *DS License Server Installation and Configuration Guide*, available from your DSLS vendor.
3. On the DSLS license server machine, prepare the DSLicSrv command calls:
  - a. Locate the DSLicSrv command. (This is typically in the DSLS server directory.) The full path is required.
  - b. Verify whether the DSLicSrv command can retrieve current DSLS license usage successfully, by doing the following:

- i. Create a file named glu.txt in the following directory:  
`<flexnet_agent_installation_dir>\data\<license_server_name>`

The file glu.txt should contain the following:

```
connect <server> <port>
<password if required>
glu
```

- ii. Run the following command in the FlexNet Agent installation directory to display usage data.

If you are running this command on a Microsoft Windows system, any path that includes spaces must be enclosed in double quotation marks.

```
<license_server_dir>\DSLicSrv -admin -i data\<license_server_name>\glu.txt
```

For example:

```
"c:\Program Files\ds\LicenseServer1\DSLicSrv" -admin -i "data\ds\LicenseServer1\glu.txt"
```

- iii. Verify the output that is displayed in the console. It may look similar to the following:

```
admin>glu
Dassault Systemes V4 (xxx-xxx-xxxx-xxxxxxxxxxx)
      VPMS410                maxReleaseNumber: 0  type: ConcurrentUser  count: 1  inuse: 0  customerId: xxxxxx
Dassault Systemes V5 (xxx-xxx-xxxx-xxxxxxxxxxx)
      HD2                    maxReleaseNumber: 0  type: ConcurrentUser  count: 1  inuse: 0  customerId: xxxxxx
```

- c. Verify whether the DSLicSrv command can retrieve the report log (logged server messages) successfully.
  - i. Create a file named sl.txt in the following directory:

```
<FNMEA_installation_dir>\data\<license_server_name>
```

The file sl.txt should contain the following:

```
connect <server> <port>
<password if required>
gli
sl
```

- ii. Run the following command in the FlexNet Agent installation directory to generate usage data.

If you are running this command on a Microsoft Windows system, any path that includes spaces must be enclosed in double quotation marks.

```
<license_server_dir>\DSLicSrv -admin -i data\<license_server_name>\sl.txt"
```

For example:

```
"c:\Program Files\ds\LicenseServer1\DSLicSrv" -admin -i "data\ds\LicenseServer1\sl.txt"
```

- iii. Verify the output that is displayed in the console. It may look similar to the following:

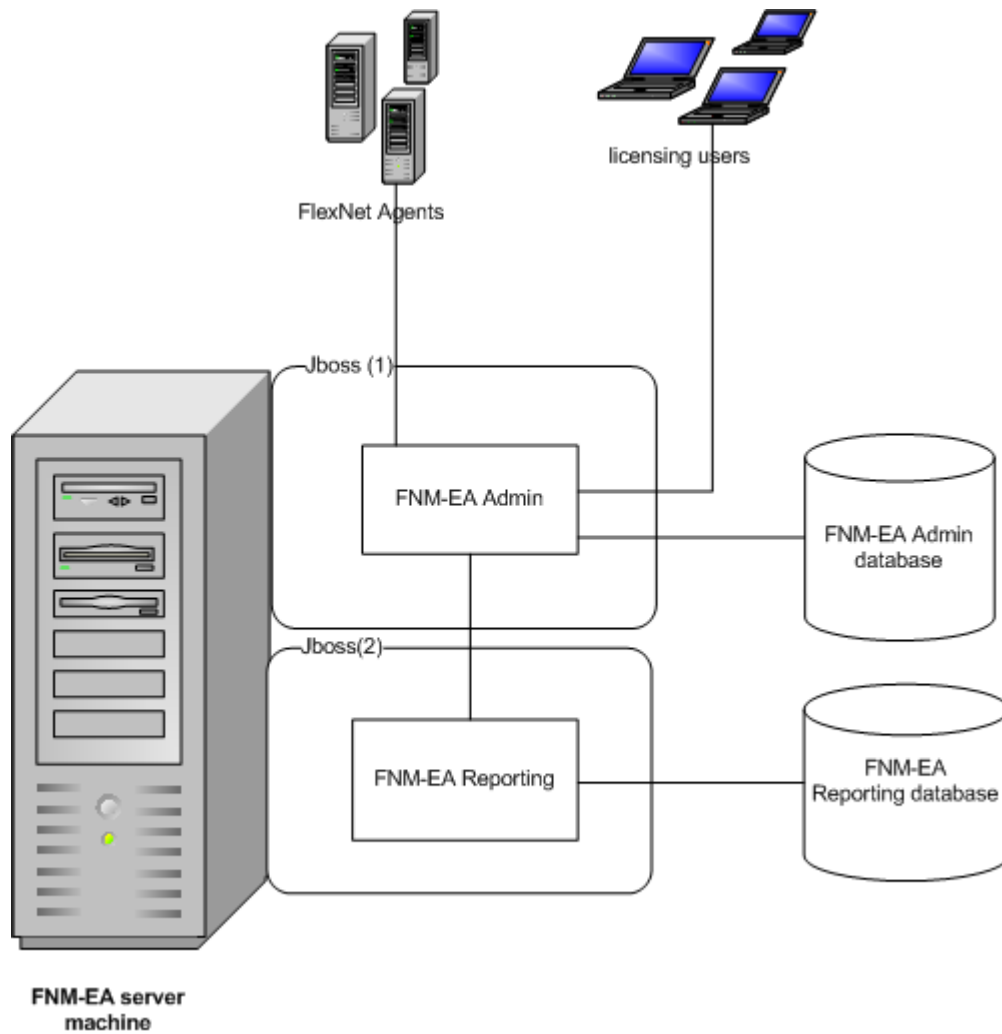
```
admin>gli
Status      Editor      Model      Feature      Quantity  StartDate      EndDate ...
active      Dassault Systemes V4  ConcurrentUser  VPMS410      1  2013-09-30.00:01.UTC  2013-12-...
superseded  Dassault Systemes V5  ConcurrentUser  HD2          1  2013-09-30.00:01.UTC  2013-12-...
```

## Deployment Options

Depending on your enterprise's needs, you can deploy FlexNet Manager for Engineering Applications in a number of different ways.

### Basic Deployment: Without FlexNet Report Designer

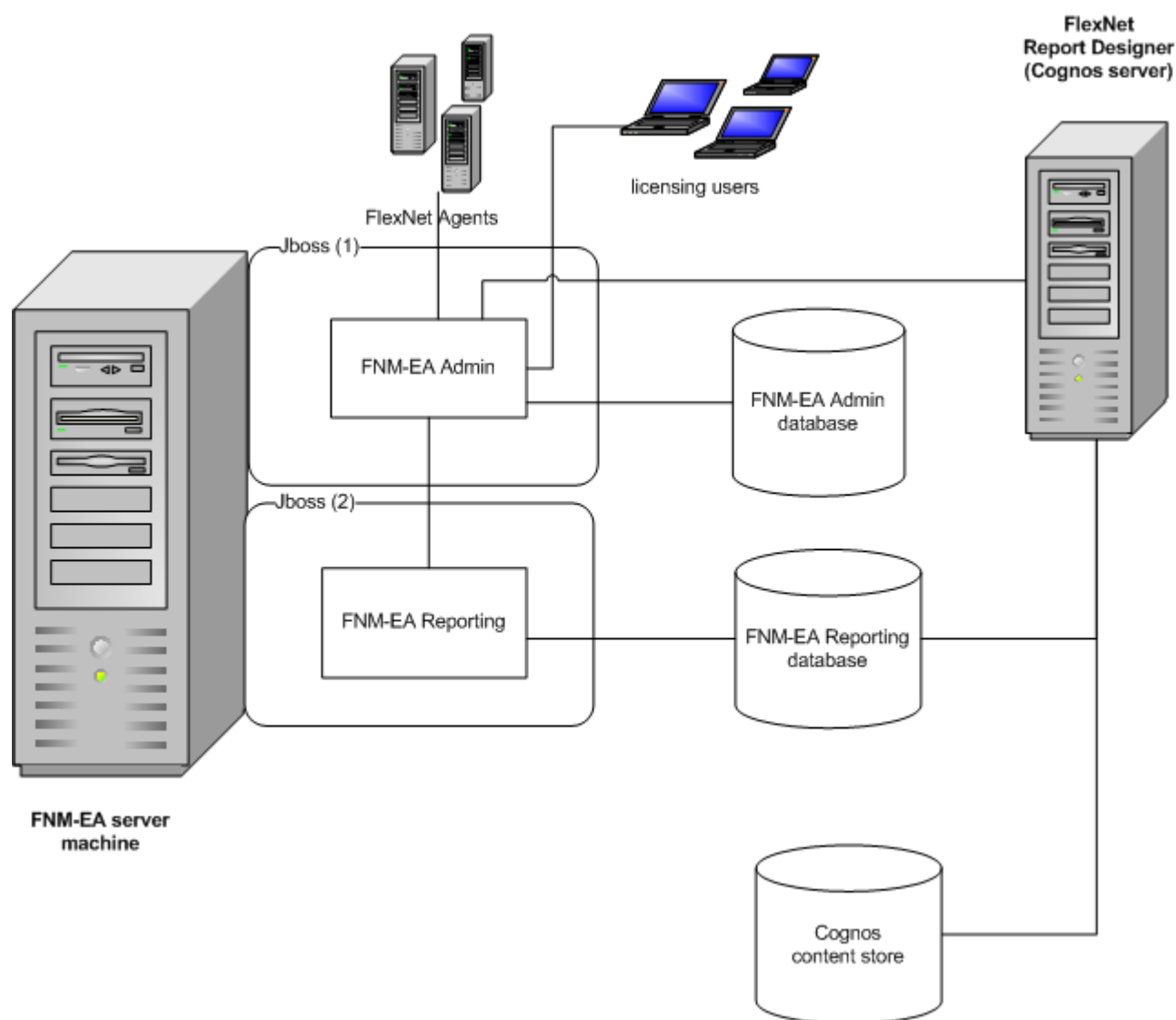
Figure 2-1 shows a basic deployment of FlexNet Manager for Engineering Applications (without FlexNet Report Designer).



**Figure 2-1:** Basic FlexNet Manager for Engineering Applications 15.5 deployment

## Deployment with FlexNet Report Designer

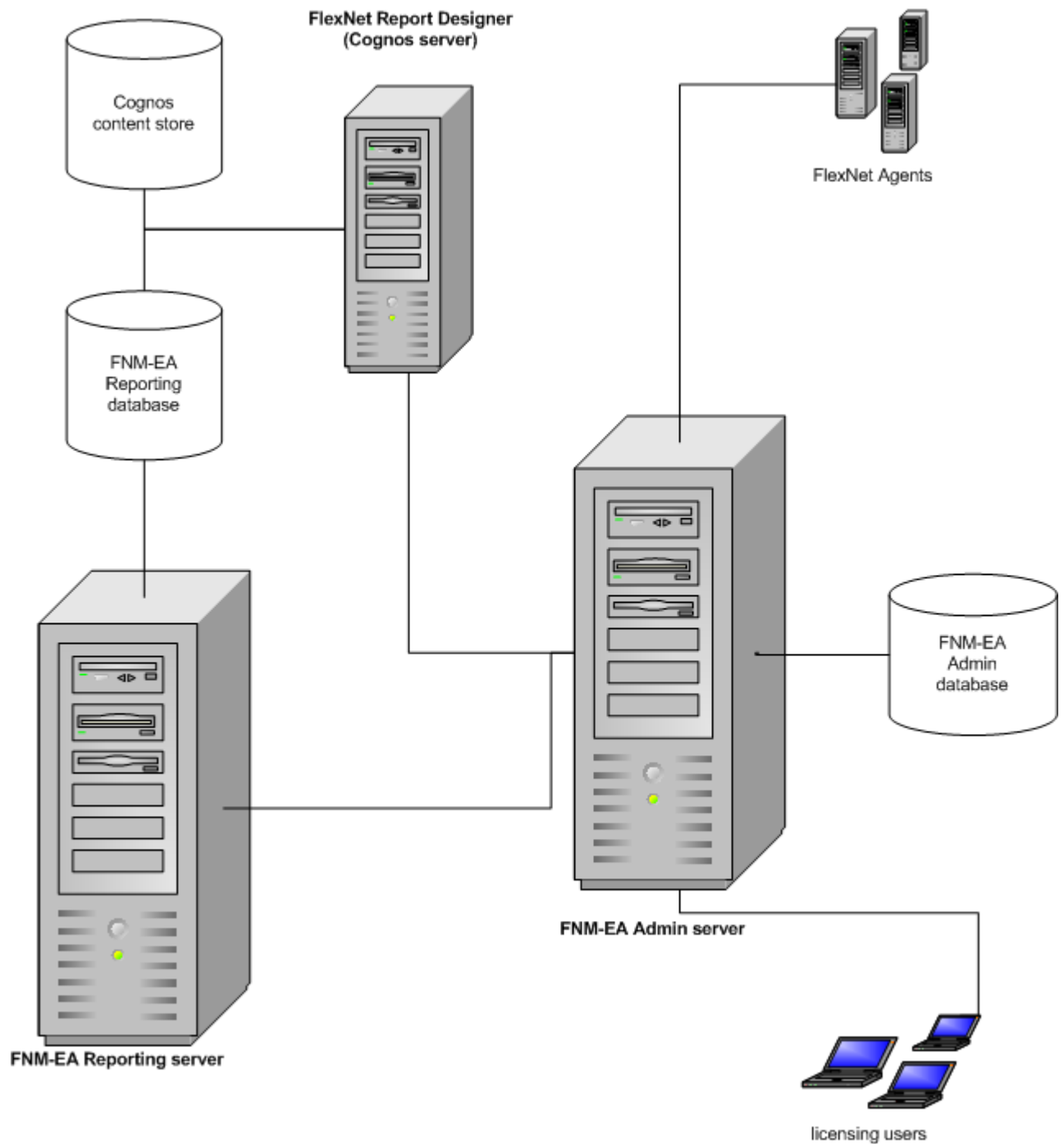
Figure 2-2 shows a basic FlexNet Manager for Engineering Applications 15.5 deployment with FlexNet Report Designer (Cognos). You can upgrade to this option from the basic FlexNet Manager for Engineering Applications 15.5 deployment (Figure 2-1), at any time, by installing FlexNet Report Designer.



**Figure 2-2:** Basic FlexNet Manager for Engineering Applications 15.5 deployment with FlexNet Report Designer (Cognos)

## Deployment for High Workload: Multiple Servers

For enterprises with a high license-management and reporting workload, Flexera Software recommends that you use separate server machines for FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting, as shown in [Figure 2-3](#).



**Figure 2-3:** Recommended deployment for high workload, using separate server machines for FlexNet Manager for Engineering Applications Reporting and FlexNet Manager for Engineering Applications Admin.

# System Requirements

For system requirements for FlexNet Manager for Engineering Applications and its associated databases, see the *FlexNet Manager for Engineering Applications 15.5 Release Notes*.

## Installation Checklist

The FlexNet Manager for Engineering Applications installation process requires that various components be installed and configured. [Table 2-1](#) lists the installation tasks and the role, permission, and/or expertise required to carry out the tasks.

**Table 2-1** • Overview of FlexNet Manager for Engineering Applications Installation Tasks

Installation Task	Role, Permissions, or Expertise
Identify machines on which to install the database and FlexNet Manager for Engineering Applications components.  See the <i>FlexNet Manager for Engineering Applications 15.5 Release Notes</i> for complete system requirements.	System administrator and FlexNet license administrator who know machine specifications
First save the license file, and then download the FlexNet Manager for Engineering Applications Admin and Reporting installers.  See <a href="#">Chapter 2, “Before Installing FlexNet Manager for Engineering Applications.”</a>	System administrator and FlexNet license administrator
Create or select operating system user accounts for users who start the database server (who may be the users that start its Windows service), start the FlexNet Manager for Engineering Applications Admin and Reporting installers, and start the FlexNet Report Designer installer.  See <a href="#">“Planning User Accounts.”</a>	System administrator or user who can create or modify operating system user accounts
Configure a database server using the guidelines described in <a href="#">Appendix A, “Configuring Database Servers.”</a>	Database administrator
Install FlexNet Manager for Engineering Applications Admin, FlexNet Manager for Engineering Applications Reporting, and/or FlexNet Report Designer Report Designer.  See <a href="#">Chapter 3, “Installing FlexNet Manager for Engineering Applications.”</a> See also <a href="#">Chapter 5, “Upgrading or Installing FlexNet Report Designer (Cognos).”</a>	System administrator or FlexNet Manager for Engineering Applications administrator who has permission to install in the chosen location



After installing these components, you are ready to manage and administer at least one license server using FlexNet Manager for Engineering Applications Admin. To learn how to test stopping and starting a license server, see the *FlexNet Agent Installation Guide*. Then you can continue to install FlexNet Agents on additional license server machines.

## Downloading the FlexNet Manager for Engineering Applications Admin/Reporting Installers

The platform-specific installers for FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting are available from the Flexera Software download site, FlexNet Operations On Demand (<http://flexerasoftware.flexnetoperations.com>).

1. Select or create a directory in which to download the FlexNet Manager for Engineering Applications Admin/Reporting installers. (This directory is referred to as `flexnet_download_dir`.)
2. From the Flexera Software download site, download the platform-specific FlexNet Manager for Engineering Applications Admin and/or Reporting installer into `flexnet_download_dir`.
3. If your enterprise is using FlexNet Manager for Engineering Applications Report Designer, download the Report Designer installer and any required Report Designer packages.

## FlexNet Manager for Engineering Applications Licensing

Using FlexNet Manager for Engineering Applications requires a license: Each discrete piece of FlexNet Manager for Engineering Applications functionality (feature) is licensed using an INCREMENT line in the license certificate that you receive from Flexera Software. For example, your FlexNet Manager for Engineering Applications license file contains INCREMENT lines for both FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting functionality (`FLEXnet_Manager.Admin` and `Common.FLEXnet_Manager.Report`), issued on a per-vendor basis. (FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting control the administrative and the reporting functionality in FlexNet Manager for Engineering Applications, respectively.)



---

**Important** • To install FlexNet Manager for Engineering Applications 15.5, you must have a license file that is specific to version 15.5. Contact Flexera Software if you have not received your FlexNet Manager for Engineering Applications 15.5 license file.

See the section, [What To Do With the License File Lines You Receive from Flexera Software](#), for information about how to use the license file information you receive.

## License Certificate Structure

FlexNet Manager for Engineering Applications is licensed for a specific set of vendor daemons. In the following license certificate lines, `vendor_a` is the only vendor that FlexNet Manager for Engineering Applications is entitled to manage. These INCREMENT lines are repeated (with a different vendor value) for every vendor daemon that you have purchased from Flexera Software.

```
INCREMENT FLEXnet_Manager.Admin mvsn x.0 date uncounted \  
  VENDOR_STRING=VENDOR:vendor_a\  
  HOSTID=HOSTNAME=myhost.mycompany.com  
  NOTICE="For use only by MyCompany" ... SIGN="....."
```

- For annual licenses, `date` specifies an expiration date; for perpetual licenses, `date` is set to permanent.
- The license is locked to the machine `myhost.mycompany.com`, which is specified on the `HOSTID` line. FlexNet Manager for Engineering Applications is entitled to run only on this machine.



---

**Note** • If both the Admin and Reporting Server are on the same host machine, the license file can be shared. If the Admin and Reporting Servers are on different hosts, a second license file is required for the Reporting Server with the host set to the `<HostName>` where FlexNet Manager for Engineering Applications Reporting Server will be installed. If you need a second license for this purpose, email a request to [orders@flexerasoftware.com](mailto:orders@flexerasoftware.com), and include the appropriate host name.

## FlexNet Manager for Engineering Applications INCREMENT Lines

The INCREMENT lines contained in your FlexNet Manager for Engineering Applications license file depend upon the set of FlexNet Manager for Engineering Applications functionality that your enterprise has purchased from Flexera Software.

See the following section, [What To Do With the License File Lines You Receive from Flexera Software](#), for more information.

### FlexNet Manager for Engineering Applications Administration and Reporting: Standard Options

```
INCREMENT FLEXnet_Manager.Primary  
INCREMENT FLEXnet_Manager.Admin  
INCREMENT FLEXnet_Platform.Primary  
INCREMENT Common.FLEXnet.Report  
INCREMENT FLEXnet.Usage.ServerCoverage  
INCREMENT FLEXnet.Usage.Summary  
INCREMENT FLEXnet.Usage.OverTime  
INCREMENT FLEXnet.Usage.HighWaterMark  
INCREMENT FLEXnet.Usage.Efficiency  
INCREMENT FLEXnet.Usage.SummaryBarchart  
INCREMENT FLEXnet.Usage.Raw  
INCREMENT FLEXnet.Usage.PeakUsage
```

```
INCREMENT FLEXnet.Usage.UniqueUser
INCREMENT FLEXnet.Report.Online
INCREMENT FLEXnet.InvestmentPlanner
INCREMENT FLEXnet.ProductUsageAggregator
INCREMENT FLEXnet.Report.LUM
INCREMENT FLEXnet.Report.CommonReportLog
INCREMENT FLEXnet.Report.LUM
INCREMENT FlexNet.Role.ProfessionalAuth
INCREMENT FlexNet.Role.AdvBusinessAuth
INCREMENT FlexNet.Role.EnhancedConsumer
INCREMENT FlexNet.Role.WebAdministrator
```

## What To Do With the License File Lines You Receive from Flexera Software

When your enterprise purchases a new version of FlexNet Manager for Engineering Applications, it receives an email from Flexera Software containing the license file information that is specific to the FlexNet Manager for Engineering Applications release for which your enterprise is licensed.

### New Installations

For new installations, copy and paste the area identified in the email (containing the license file information) into a file named `license.lic`. This file must be in a location that is accessible from the machine where you will be installing FlexNet Manager for Engineering Applications. Note the file location because the FlexNet Manager for Engineering Applications installer will ask for this information.

### Upgrade Installations

For upgrade installations, copy and paste the area identified in the email (containing the license file information) into a file named `license.lic` and replace your enterprise's existing license files for both Admin and Reporting with the new `license.lic` file.

The default locations to which the license files are typically installed are:

- `<fnmea_admin_install_dir>/config/license/`
- `<fnmea_reporting_install_dir>/config/license/`

## Planning User Accounts

### UNIX

To install FlexNet Manager for Engineering Applications Admin/Reporting on a UNIX host, the user who runs the installer must meet the following criteria:

- The user is not the root user.
- The user must have write access to both a home directory and to the selected installation directory.

On UNIX systems, each FlexNet Manager for Engineering Applications Admin/Reporting user must meet these criteria:

- The user is not the root user.
- The user who starts FlexNet Manager for Engineering Applications Admin/Reporting must have a valid DISPLAY environment variable set to a host machine that is running an X server. If you are using an X server to display to a machine different from where FlexNet Manager for Engineering Applications Admin/Reporting is running, the display machine must have the required version of Java. See the *FlexNet Manager for Engineering Applications 15.5 Release Notes* for supported platform information.
- If the user does not have a DISPLAY variable set, the installer and Configurator can be run separately in console mode.
- The user who starts FlexNet Manager for Engineering Applications Admin/Reporting must have write permissions to the `/var/tmp` directory.
- The current directory (.) must be in the path of the user who starts FlexNet Manager for Engineering Applications Admin/Reporting.

## Locale Settings on UNIX and Windows

The users who start the database server (who may be the users that start its Windows service), create the FlexNet Manager for Engineering Applications Admin/Reporting database, and start FlexNet Manager for Engineering Applications Admin/Reporting must all have the same locale settings.

- On UNIX, the tested locale setting is `en_US.ISO8859-1`. Check the locale setting for a user by logging in as the user and typing `locale`. Set this locale by typing:  
  
`setenv LC_ALL en_US.ISO8859-1`
- On Windows, the tested code page is the United States code page (437). Check the active code page for a user by opening a command window and typing `chcp`. Set this code page by typing `chcp 437`.

# Configuring a Database for FlexNet Manager for Engineering Applications

FlexNet Manager for Engineering Applications Admin/Reporting/Report Designer requires a database to run and to use for its reporting functionality. Therefore, before installing FlexNet Manager for Engineering Applications Admin, FlexNet Manager for Engineering Applications Reporting, or FlexNet Manager for Engineering Applications Report Designer, you need to install and configure a supported database management system (DBMS) according to the instructions in this guide. See [Appendix A, “Configuring Database Servers.”](#)

# Installing FlexNet Manager for Engineering Applications

This chapter describes how to install FlexNet Manager for Engineering Applications 15.5 for the first time (*fresh installation*). If you are upgrading from an earlier version, see [Chapter 4, “Upgrading to FlexNet Manager for Engineering Applications 15.5”](#).

There is a separate installer for each server module—one for Admin and one for Reporting. Flexera Software provides 64-bit and 32-bit installers for both the Admin and Reporting servers.

If your enterprise is using FlexNet Report Designer (Cognos), see [Chapter 5, “Upgrading or Installing FlexNet Report Designer \(Cognos\)”](#) for installation instructions.

## Installing FlexNet Manager for Engineering Applications Admin

This section explains how to install the Admin module. If you are upgrading an existing FlexNet Manager for Engineering Applications installation, see [Chapter 4, “Upgrading to FlexNet Manager for Engineering Applications 15.5”](#).

## Installation Process

The complete installation process consists of multiple steps, each of which is described later in this chapter.



**Important** • Before running the installation, review [Chapter 2, “Before Installing FlexNet Manager for Engineering Applications”](#) for installation prerequisites.

1. Identify Hosts—Identify the host machines on which you will install FlexNet Manager for Engineering Applications Admin and the Admin database. System requirements for each of these machines are provided in the *FlexNet Manager for Engineering Applications 15.5 Release Notes*.
2. Run the FlexNet Manager for Engineering Applications Admin installer.
3. Create an empty FlexNet Manager for Engineering Applications Admin database.
4. Configure FlexNet Manager for Engineering Applications Admin—After installation, some additional configuration steps may be required. See [Chapter 7, “Configuring FlexNet Manager for Engineering Applications”](#) for information.

## Running the FlexNet Manager for Engineering Applications Admin Installation Wizard

You can install FlexNet Manager for Engineering Applications Admin using the installation wizard if you have a display set. When the installation wizard is run, it automatically runs the FlexNet Manager for Engineering Applications Admin Configurator.

### Solaris 64-bit Users: Prerequisite and Post-Installation Requirement

If you are running the 64-bit Admin server installer on a machine running Solaris 64-bit, you must be logged in as the root user to be able to install to a custom location. After the installation is complete, you will need to grant read, write, and execute permissions to the FlexNet Manager for Engineering Applications user who will manage the application.



**Task:** *To install FlexNet Manager for Engineering Applications Admin using the installation wizard:*

1. Run the installer. If installing on Windows 2008 or Windows 7, make sure to right-click on the installer and select **Run as Administrator**. The file name of the installer has the form:

`flexnet_manager_admin-<version number>-<platform>.<ext>`

The installer prepares to install the FlexNet Manager for Engineering Applications Admin files. It may take a few minutes for the FlexNet Manager for Engineering Applications Admin installer window to appear.

2. In the first installer panel, verify that you have read the FlexNet Manager for Engineering Applications documentation and click **Next**.
3. Specify the directory in which to install FlexNet Manager for Engineering Applications Admin. The default installation directory depends on the platform, as follows:
  - Windows: C:\Program Files\FLEXnet\manager\admin
  - Solaris: /opt/FLEXnet/manager/admin

- Red Hat Linux: /opt/FLEXnet/manager/admin

To install in the default location, you may need system privileges. The location you choose is referred to as `fnmea_admin_install_dir`. Click **Next**.

4. Review the installation directory and the space requirements, and then click **Install**. The installer decompresses and installs FlexNet Manager for Engineering Applications Admin files into the installation directory.

After the files are installed, the FlexNet Manager for Engineering Applications Admin Configurator window opens. The installer window remains open.

5. In the FlexNet Manager for Engineering Applications Admin Configurator window, provide configuration information. You can run the Configurator later or use the FlexNet Manager for Engineering Applications interface to provide additional configuration information. [Table 3-1](#) provides information about the Configurator settings.

**32-bit installer users:** If you are running the 32-bit installer, select the Show Advanced Settings check box on the first panel to edit the Maximum Heap Size for Java on the Advanced Settings panel. You must change the heap size to 1024 MB.

**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**


Field Name	Default Value	Description
<b>FlexNet Manager for Engineering Applications Application License Source (Standard)</b>		
<b>License File Path</b>  <b>or</b> <b>License Server Host and Port</b>		<p>The license certificate source.</p> <ul style="list-style-type: none"> <li>• If license rights are not served, choose <b>License File Path</b>. Specify the location of the license certificate for FlexNet Manager for Engineering Applications that you received from Flexera Software and saved to disk. Either browse to, or type the location. This license file is copied to: <code>&lt;fnmea_admin_install_dir&gt;/config/license/</code></li> <li>• If license rights are served by a FlexNet Publisher license server system, choose <b>License Server Host and Port</b>. Specify the host and port from the SERVER line of the license certificate for FlexNet Manager for Engineering Applications that you received from Flexera Software.</li> </ul>
<b>Application Settings (Standard)</b>		
<b>HTTP Port</b>	8888	The HTTP port on which FlexNet Manager for Engineering Applications Admin listens. Use the port number for the embedded Web container, or supply a different value. Ensure that this port is open through the firewall on the machine where FlexNet Manager for Engineering Applications Admin is installed, if the machine hosts a firewall.

**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**

Field Name	Default Value	Description
<b>Stop Port</b>	1199	The port on which a message is sent to stop FlexNet Manager for Engineering Applications Admin. This is the port on which FlexNet Manager for Engineering Applications Admin listens for Java Name Directory Interface clients.
<b>Install As Service (Windows platforms)</b>	Not selected	<p>If you want FlexNet Manager for Engineering Applications Admin to run as a Windows service, select this check box.</p> <p>If it is installed as a Windows service, you can start and stop FlexNet Manager for Engineering Applications Admin through the <b>Services</b> window available from <b>Start   Control Panel   Administrative Tools   Services</b>.</p> <p>You can re-run the FlexNet Manager for Engineering Applications Admin Configurator to configure and install the service later.</p>
<b>Use Local System Account (Windows platforms)</b>	Selected	<p>By default, if you install FlexNet Manager for Engineering Applications Admin as a Windows service, the Local System account will run the service.</p> <p>Clear the <b>Use Local System Account</b> check box to configure another user account to run the service.</p>
<b>Service User Name</b>	If the Local System account is not used, the user to run the service defaults to the OS user who is running the installer.	The user that runs the Windows service that manages FlexNet Manager for Engineering Applications Admin. For this user to be able to start the service, the user must be listed in the security settings of the <b>Log on as service</b> policy in Windows (Control Panel   Administrative Tools   Local Security Policy   Security Settings   Local Policies   User Rights Assignment).
<b>Service User Password (Windows platforms)</b>		The password for the user that starts the Windows service that manages FlexNet Manager for Engineering Applications Admin. Provide confirmation for the password.
<b>Service User Domain (Windows platforms)</b>		The network domain for the user that starts the Windows service that manages FlexNet Manager for Engineering Applications Admin.



**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**

Field Name	Default Value	Description
<b>Service User Name (UNIX platforms)</b>	Defaults to the operating system user who is running the installer.	The user who executes the service script.
<b>Show Advanced Settings</b>	Not selected	Enables or disables additional configuration screens to define advanced settings.  <b>32-bit installer users:</b> If you are running the 32-bit installer, select this check box to edit the Maximum Heap Size for Java on the Advanced Settings panel. You must change the heap size to 1024 MB.
<b>User Data Directory (Advanced)</b>		
<b>User Data Directory</b>	C:\Program Files\FLEXnet\manager\data	<p>The directory in which all enterprise-specific data is kept—for example, usage data and reports are stored here.</p> <p>It is recommended that you back up this area on a regular basis and before upgrading to a later version of FlexNet Manager for Engineering Applications.</p>  <p><b>Important •</b> The data directory is shared between FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting. Ensure that this directory is accessible from both FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting.</p>
<b>Startup Logging Threshold (Advanced)</b>		
<b>Startup Logging Threshold</b>	Informational Messages	The maximum level of detail for the messages written to the FlexNet Manager for Engineering Applications application log file before FlexNet Manager for Engineering Applications starts. Only messages at or below the selected level of detail appear in the log.
<b>Virtual Machine Heap Size (Advanced)</b>		
<b>Initial Heap Size</b>	512	See <a href="#">Setting the Java Heap Size for FlexNet Manager for Engineering Applications</a> .
<b>Maximum Heap Size</b>	4096	<b>32-bit installer users:</b> By default, Maximum Heap Size is set to 4096 MB (4 GB). If you are running the 32-bit installer, you must change the heap size to 1024 MB (1 GB).

**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**

Field Name	Default Value	Description
<b>Secure Server Settings (Advanced)</b>		
<b>HTTPS Port</b>	8443	<p>The port on which FlexNet Manager for Engineering Applications Admin listens for HTTPS requests that it serves.</p> <p>FlexNet Manager for Engineering Applications Admin is always enabled to accept HTTPS requests, but some additional settings must be configured before using SSL. See <a href="#">Configuring FlexNet Manager for Engineering Applications Admin for Secure Socket Layer</a> for information about configuring SSL for the Tomcat Web container used by JBoss.</p> <p>The URL to connect to the FlexNet Manager for Engineering Applications application with HTTPS is <code>https://host:port/flexnet</code>, where <i>port</i> is the HTTPS port number. Note that HTTPS requests can be handled by a full-featured Web server instead of by FlexNet Manager for Engineering Applications Admin itself.</p>
<b>SSL Keystore Location</b>	fnmea_admin_install_dir	<p>The name and location of the server-side keystore file that contains the key entry for the certificate that FlexNet Manager for Engineering Applications Admin uses to provide SSL connections to its clients (for example, browsers or activation utilities).</p> <p>Use the default location only if you are using the bundled or another keystore for testing. Otherwise, point to a location of a keystore outside the FlexNet Manager for Engineering Applications Admin installation.</p>
<b>SSL Keystore Password</b>	flexnet	<p>The password used to secure the keystore that contains the certificate used for authenticating the SSL server to the SSL client. The same password is used to secure the certificate key. Provide confirmation for the password.</p>
<b>Secure Client Settings (Advanced)</b>		
<b>SSL Truststore Location</b>	fnmea_admin_install_dir	<p>The name and location of the client-side truststore file that contains the trusted certificate entry for a remote SSL server (for example, an LDAP server).</p> <p>Use the default location only if you are using the bundled truststore. Otherwise, point to a location of a truststore outside the FlexNet Manager for Engineering Applications Admin installation.</p>
<b>SSL Truststore Password</b>	changeit	<p>The password used to secure the truststore. The same password is used to secure the certificate key.</p>

**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**

Field Name	Default Value	Description
<b>Miscellaneous Ports (Advanced)</b>		
<b>AJP Port</b>	8009	The port on which the AJP connector listens. The AJP connector is used to integrate FlexNet Manager for Engineering Applications with a full-function proxy (such as Apache or IIS) server for security or load balancing.
<b>Performance Settings (Advanced)</b>		
<b>Database Connection Pool Size</b>	300	The size of the database connection pool. A minimum size of 25 is recommended. Also, make sure that your database is capable of creating the designated number of connections.
<b>Number of Scheduler Threads</b>	30	The number of threads allocated for the scheduler. A minimum setting of 30 is recommended.
<b>Database Transaction Timeout (seconds)</b>	3600	The number of seconds that the database transaction will run before timeout. A minimum timeout of 3600 seconds is recommended.
<b>Database Server (Standard)</b>		
<b>Database Type</b>	Specify	The database server you will be using with FlexNet Manager for Engineering Applications Admin. The other database settings depend on the database type selected.
<b>Database Server Host</b>	localhost	The machine on which the database server is running.  Replace localhost with the host name of the machine that hosts the database. A fully qualified host name is not required.

**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**

Field Name	Default Value	Description
<b>FlexNet Manager for Engineering Applications Admin Database (Standard)</b>		
<b>Database Server Port</b>	Oracle: 1521 SQL Server: 1433	The port on which the database server runs. Use the default value for your database server, if you did not change the database server port number when the database server was installed.
<b>FlexNet Manager for Engineering Applications Admin Database (Standard) - Oracle</b>		
<b>Database Service Name</b>	<code>&lt;orcl&gt;</code>	Oracle global database name.
<b>Tablespace</b>	flexnet	Name of the tablespace that will contain FlexNet Manager for Engineering Applications Admin.  The tablespace must be created manually before running the command <code>flexnet_1oaddb</code> (which creates and populates the database tables that FlexNet Manager for Engineering Applications Admin requires).
<b>FlexNet DB User</b>	flexnet	The user that FlexNet Manager for Engineering Applications Admin application uses to connect to the database. Running the command <code>flexnet_1oaddb</code> automatically creates the user.
<b>FlexNet DB User Password</b>	Flexnet0	The password to be assigned to the FlexNet DB User.  It is recommended that this password be changed to comply with your organization's password policies. See <a href="#">Configuring a Database for FlexNet Manager for Engineering Applications</a> .
<b>FlexNet Manager for Engineering Applications Admin Database (Standard) - MS SQL Server</b>		
<b>Database Name</b>	flexnet	For SQL Server, the name of the database to create which will contain the tables used by FlexNet Manager for Engineering Applications Admin.
<b>FlexNet DB User</b>	flexnet	The user that FlexNet Manager for Engineering Applications Admin application uses to connect to the database. Running the command <code>flexnet_1oaddb</code> automatically creates the user.
<b>FlexNet DB User Password</b>	Flexnet0	The password to be assigned to the FlexNet DB User.  It is recommended that this password be changed to comply with your organization's password policies. See <a href="#">Configuring a Database for FlexNet Manager for Engineering Applications</a> .

**Table 3-1 • FlexNet Manager for Engineering Applications Admin Configuration Information**

Field Name	Default Value	Description
<b>Reporting Server</b>		
<b>Reporting Server Name</b>	<reporting_server_host_name>	Fully qualified name of the host machine where FlexNet Manager for Engineering Applications Reporting is running.
<b>Reporting Server Port (Stop port...)</b>	1209	The value of the Stop Port for FlexNet Manager for Engineering Applications Reporting Server. This is the port at which FlexNet Manager for Engineering Applications Admin will communicate with FlexNet Manager for Engineering Applications Reporting.

- When you have finished entering configuration information, click **Finish**. The configuration information is processed and the new settings are merged into the site directory. This may take several seconds.
- After the configuration information is processed, the final installer window opens. Click **Done** to close the installer window.

## Installing FlexNet Manager for Engineering Applications Admin from the Command Line

You can install FlexNet Manager for Engineering Applications Admin from the command line (in *console mode*). When installing from the command line, you must run the installer and the Configurator separately.



**Task:** *To install FlexNet Manager for Engineering Applications Admin from the command line:*

- Open a Command prompt and run the installer, using the following command:  
`flexnet_manager_admin-<version number>-<platform>.<ext> -i console`
- After the installation finishes, change to the directory `fnmea_admin_install_dir`.
- To start the FlexNet Manager for Engineering Applications Admin Configurator, type the following command:  
`flexnet site console`  
The Configurator detects whether the display is set, and if it is not set, the Configurator runs in console mode.  
See the [installation wizard instructions](#) for information about the installation and configuration settings.

# Creating an Empty FlexNet Manager for Engineering Applications Admin Database

After installing FlexNet Manager for Engineering Applications Admin for the first time, you must create a FlexNet Manager for Engineering Applications Admin database. For this procedure, you need the user name and password of an administrative user in the DBMS who has privileges to create a database. Parameters that you supplied using the Admin Configurator are also used.



**Important** • The scripts that create the Admin database and its tables will create a completely new database. As a result, any data in an existing database of the same name will be lost when you run the scripts.



## Task:

### To create the Admin database:

1. If FlexNet Manager for Engineering Applications Admin is running, stop it. It cannot be running when you run the command (loaddb) to create the database.
2. Start the database server if it is not already running. Refer to documentation provided by the database server vendor. Ensure that the user who starts the database server has the same locale as the user who creates the database. (See the section, [Planning User Accounts](#), in [Chapter 2, "Before Installing FlexNet Manager for Engineering Applications"](#).)
3. If you are using an Oracle database, a tablespace of the name specified during installation in the FlexNet Manager for Engineering Applications Admin Configurator must be created before proceeding to the next step. See the section, [Configuring Oracle](#), in [Appendix A, "Configuring Database Servers,"](#) for guidelines.
4. At the command line, change to the `fnmea_admin_install_dir` directory and run the following command:  
  
`flexnet loaddb`  
  
See [Appendix B, "Non-Critical Database-Related Issues,"](#) for any known issues for the database you are using.
5. To create the FlexNet database and to add the FlexNet database user, you must initially connect to the DBMS as a database administrator. When prompted, enter the name and password of the database administrative user. Depending on the database, the sa (MS SQL Server) or system (Oracle) user account will be required to run `flexnet loaddb`.

The script drops the database (if it exists), creates the database, creates tables, adds the FlexNet database user, adds a FlexNet Manager for Engineering Applications Admin user, and adds configuration data.

When the FlexNet database is created, the following FlexNet Manager for Engineering Applications Admin user is created automatically and assigned the system administrator role:

- User Name: admin
- Password: admin

# Running FlexNet Manager for Engineering Applications Admin from the Command Line

In production, FlexNet Manager for Engineering Applications Admin is started using a service script on UNIX or as a Windows service (see [Running FlexNet Manager for Engineering Applications Admin As a Service](#)). However, to check whether you can run and sign in to FlexNet Manager for Engineering Applications Admin, temporarily start it manually using the startup script.



---

**Task:** *To start FlexNet Manager for Engineering Applications Admin from the command line:*

1. Ensure that the database server is running and that you have [created the flexnet database](#).
2. At the command line, change to the FlexNet Manager for Engineering Applications Admin installation directory and type `flexnet start`.

A series of log messages is displayed in the command window, ending with the time in which the server started (Started in `NWs:nnrms`).



---

**Task:** *To stop FlexNet Manager for Engineering Applications Admin from the command line:*

1. Open a Command Prompt and change to the FlexNet Manager for Engineering Applications Admin installation directory.

If you started FlexNet Manager for Engineering Applications Admin from an already open Command Prompt window, open a new Command Prompt window to stop it.

2. Type `flexnet stop`.



---

**Note** • Do not stop FlexNet Manager for Engineering Applications Admin from a Command Prompt using **Ctrl+C**. This leaves the server in an inconsistent state.

# Running FlexNet Manager for Engineering Applications Admin As a Service

In production, FlexNet Manager for Engineering Applications Admin is started using a service script on UNIX or as a Windows service. Logging information is written to `fnmea_admin_install_dir`.

## Installing the UNIX Service Script

If you are running on UNIX, you can start FlexNet Manager for Engineering Applications Admin with the service script, `flexnet-service`. You configured the service script during the FlexNet Manager for Engineering Applications Admin installation.



**Task:** *To start FlexNet Manager for Engineering Applications Admin using UNIX service script:*

1. Copy the service script `fnmea_admin_install_dir/site/bin/flexnet-service` to an appropriate boot script directory such that it can be executed by root at startup time, for example, the `/etc/init.d` directory.
2. Run FlexNet Manager for Engineering Applications Admin by typing `flexnet-service start`.

## Installing the Windows Service

FlexNet Manager for Engineering Applications Admin can run as a Windows service. The service is named FlexNet Manager for Engineering Applications Admin and it is run as the user you specified in the FlexNet Manager for Engineering Applications Admin Configurator. If you chose to install FlexNet Manager for Engineering Applications Admin as a Windows service, start the service through the Windows Administrative Tools.

If you did not choose to install FlexNet Manager for Engineering Applications Admin as a service during its installation, you can install it at any time by running the FlexNet Manager for Engineering Applications Admin Configurator to configure and install the service.



**Task:** *To configure and install the Windows service:*

1. Stop FlexNet Manager for Engineering Applications Admin from the `fnmea_admin_install_dir` by typing `flexnet stop`.
2. To start the Configurator, from the `fnmea_admin_install_dir`, type `flexnet site`.
3. Select **Install as Service** and configure the service user.
4. Click **Finish** in the Configurator. The `site` directory is re-created and the service is installed.

Because this method of installing the Windows service is recorded in the settings in the FlexNet Manager for Engineering Applications Admin Configurator, if `flexnet site make` is run, the Windows service remains installed.



## Managing the FlexNet Manager for Engineering Applications Admin Service



Use the command `flexnet service` to manage the FlexNet Manager for Engineering Applications Admin service.

### Syntax

`flexnet service <option>`

where <option> is one of parameters described in the following table.

**Table 3-2 • flexnet service Parameters**

Parameter	Description
reinstall	<p>Uninstalls and then reinstalls the service with the user configured in the FlexNet Manager for Engineering Applications Admin Configurator.</p> <p>Ensure that the user running the service is configured correctly before running this command. If no option is specified, the Local System user is the default.</p>
install	<p>Installs the service with the user configured in the FlexNet Manager for Engineering Applications Admin Configurator. Make sure that the user running the service is configured correctly before running this command (the Local System user is the default). If the service is already installed, a message is returned.</p> <p>Because this method of installing the Windows service bypasses the <b>Install as Service</b> setting in the FlexNet Manager for Engineering Applications Admin Configurator, if <code>flexnet site make</code> is run, the Windows service is uninstalled.</p>  <p><b>Note •</b> If using Windows 2008, see <a href="#">Installing and Uninstalling from the Command Line on Windows 2008</a> for information on opening the Command Prompt with Administrator privileges.</p>
uninstall	<p>Uninstalls the installed service.</p>  <p><b>Note •</b> If using Windows 2008, see <a href="#">Installing and Uninstalling from the Command Line on Windows 2008</a> for information on opening the Command Prompt with Administrator privileges.</p>
start	Starts the installed service.
stop	Stops the installed service.

## Installing and Uninstalling from the Command Line on Windows 2008

Due to Windows 2008 security features, even if a user was configured with Administrator privileges, command windows opened by that user do not have Administrator privileges. As a result, running any command that requires registering a Windows service will fail.



**Task:** *To install or uninstall the FlexNet Manager for Engineering Applications Windows service on Windows 2008:*

1. Click Start.
2. Right-click **Command Prompt**.
3. Select **Run as administrator**. The command window will open with Administrator privileges.
4. Run `flexnet service install` or `flexnet service uninstall`.

## Stopping the Service

### UNIX Platforms

If you started FlexNet Manager for Engineering Applications Admin with the UNIX service script, stop it with the service script `flexnet-service stop`.

### Windows Platforms

If you started FlexNet Manager for Engineering Applications Admin as a Windows service, stop the service using the Windows Administrative Tools.

## Signing In



**Task:** *To access the FlexNet Manager for Engineering Applications Admin interface:*

1. Open a Web browser on the machine on which FlexNet Manager for Engineering Applications Admin is running.
2. Type one of the following URLs—
  - `http://localhost:<port_number>/flexnet`
  - `http://localhost:<port_number>/flexnet/logon.do`

—where *<port\_number>* is the port number you assigned FlexNet Manager for Engineering Applications Admin during installation. By default, this is 8888.

3. Sign in to the interface using the user name `admin` and password `admin`. Click **Login**.
4. After you have made all necessary configuration settings, sign out of FlexNet Manager for Engineering Applications Admin by clicking **Logout** in the upper-right corner of the page.

## FlexNet Manager for Engineering Applications Admin Directory Structure

The following table shows the FlexNet Manager for Engineering Applications Admin directory structure.

**Table 3-3 • FlexNet Manager for Engineering Applications Admin Directory Structure**

Directory	Description
<code>fnmea_admin_install_dir</code>	Directory, specified during installation, in which FlexNet Manager for Engineering Applications Admin was installed. Contains <code>flexnet script</code> .
<code>config</code>	Contains the <code>site.properties</code> file, a license directory into which the FlexNet Manager for Engineering Applications Admin license is copied and a driver directory into which a non-bundled JDBC driver is copied during installation.
<code>custom</code>	Contains customized versions of files in a directory structure that mimics the structure of the <code>site</code> directory. When FlexNet Manager for Engineering Applications Admin starts, the files from this directory are copied into the <code>site</code> directory, augmenting or replacing existing files.  This directory and its subdirectories must be created as needed.
<code>data</code>	Contains enterprise data. This directory is preserved when FlexNet Manager for Engineering Applications Admin is reconfigured or uninstalled.
<code>orgStructure</code>	Contains the XML organization structure that is imported from the FlexNet Manager for Engineering Applications Admin User Interface.
<code>importcache</code>	Temporary space for report log imports, created when the first report log is imported.
<code>rep</code>	
<code>lic</code>	Contains subdirectories with copies of the license files for the license servers managed by FlexNet Manager for Engineering Applications Admin.
<code>opt</code>	Contains subdirectories with copies of the options files for vendor daemons managed by FlexNet Manager for Engineering Applications Admin.
<code>rl</code>	Contains subdirectories with report logs imported into FlexNet Manager for Engineering Applications Admin.

**Table 3-3 • FlexNet Manager for Engineering Applications Admin Directory Structure**

Directory	Description
reports	
output	Contains output files for usage reports generated through FlexNet Manager for Engineering Applications Admin.
jvm	Files for the bundled Java Virtual Machine.
logs	Contains all of the log files generated by FlexNet Manager for Engineering Applications Admin.
release	Contains files for individual modules installed with FlexNet Manager for Engineering Applications Admin, before they are configured for your enterprise. Files in the release directory can be used to recover site directory files that have been overwritten by customized files.
site	FlexNet Manager for Engineering Applications Admin runs from this directory. Contains merged and configured versions of the installed FlexNet Manager for Engineering Applications Admin files. This directory is re-created from files in the release and config directories when FlexNet Manager for Engineering Applications is reconfigured using the command <code>flexnet site</code> .
uninstaller	Files for the FlexNet Manager for Engineering Applications Admin uninstaller.  Run the uninstaller from the directory <code>uninstaller/flexnet</code> .

## Stopping FlexNet Manager for Engineering Applications Admin

The way in which you stop FlexNet Manager for Engineering Applications Admin depends upon the platform on which it is running.

### UNIX Platforms

If you started FlexNet Manager for Engineering Applications Admin using the UNIX service script, stop it using the service script:

```
flexnet-service stop
```

### Windows Platforms

- If you started FlexNet Manager for Engineering Applications Admin as a Windows service, stop the FlexNet Manager for Engineering Applications Admin service through Administrative Tools.
- If you started it from the command line, open a different Command prompt from that used to start it, change to the `fnmea_admin_install_dir` directory, and type `flexnet stop`

# Installing FlexNet Manager for Engineering Applications Reporting

This section explains how to install FlexNet Manager for Engineering Applications Reporting for new Flexera Software customers. If you are upgrading an existing installation of FlexNet Manager for Engineering Applications, see [Chapter 4, “Upgrading to FlexNet Manager for Engineering Applications 15.5”](#).

If you are installing FlexNet Manager for Engineering Applications Report Designer, install FlexNet Manager for Engineering Applications Reporting as described in this chapter, and then see [Chapter 5, “Upgrading or Installing FlexNet Report Designer \(Cognos\)”](#).

## Installation Process

The complete process of installation is a multi-stage process, and consists of the following steps. Each of these steps is detailed in subsequent sections in this chapter.

Before performing the installation, review [Chapter 2, “Before Installing FlexNet Manager for Engineering Applications”](#).

- 1. Identify Hosts:** Identify the hosts on which you will install FlexNet Manager for Engineering Applications Reporting and FlexNet Manager for Engineering Applications Reporting Database. See the *FlexNet Manager for Engineering Applications 15.5 Release Notes* for system requirements.
- 2. Run the FlexNet Manager for Engineering Applications Reporting Installer:** This installs FlexNet Manager for Engineering Applications Reporting.
- 3. Create an Empty FlexNet Manager for Engineering Applications Reporting Database:** This creates an empty FlexNet Manager for Engineering Applications Reporting database.
- 4. Configure FlexNet Manager for Engineering Applications Reporting:** After installation, some additional configuration steps may be required. See [Chapter 7, “Configuring FlexNet Manager for Engineering Applications”](#) for more information.

## Running the FlexNet Manager for Engineering Applications Reporting Installation Wizard

You can install FlexNet Manager for Engineering Applications Reporting using the installation wizard if you have a display set. When the installation wizard is run, it automatically runs the FlexNet Manager for Engineering Applications Reporting Configurator.

### Solaris 64-bit Users: Prerequisite and Post-Installation Requirement

If you are running the 64-bit Reporting server installer on a machine running Solaris 64-bit, you must be logged in as the root user to be able to install to a custom location. After the installation is complete, you will need to grant read, write, and execute permissions to the FlexNet Manager for Engineering Applications user who will manage the application.



**Task:** *To install FlexNet Manager for Engineering Applications Reporting using the installation wizard:*

1. Run the installer. If installing on Windows 2008 or Windows 7, make sure to right-click on the installer and select **Run as Administrator**. The file name of the installer has the form:

`flexnet_manager_reporting-<version number>-<platform>.<ext>`

The installer prepares to install the FlexNet Manager for Engineering Applications Reporting files. (It may take a few minutes for the FlexNet Manager for Engineering Applications Reporting installer to appear.)

2. For the first installer panel, verify that you have read the FlexNet Manager for Engineering Applications documentation and click **Next**.
3. Specify the directory in which to install FlexNet Manager for Engineering Applications Reporting, then click **Next**. The default installation directory depends on the platform:

- Windows: C:\Program Files\FLEXnet\manager\reporting
- Solaris: /opt/FLEXnet/manager/reporting
- Red Hat Linux: /opt/FLEXnet/manager/reporting

To install in the default location, you may need system privileges. The location you choose is referred to as *fnmea\_reporting\_install\_dir*.

4. Review the installation directory and the space requirements, and then click **Install**. The installer decompresses and installs FlexNet Manager for Engineering Applications Reporting files into the installation directory.

After the files are installed, the FlexNet Manager for Engineering Applications Reporting Configurator window opens. The installer window remains open.

5. In the FlexNet Manager for Engineering Applications Reporting Configurator window, provide configuration information sufficient for startup. Additional configuration can be done later by re-running the FlexNet Manager for Engineering Applications Configurator Reporting or using the FlexNet Manager for Engineering Applications user interface.

**32-bit installer users:** If you are running the 32-bit installer, select the Show Advanced Settings check box on the first panel to edit the Maximum Heap Size for Java on the Advanced Settings panel. You must change the heap size to 1024 MB.

**Table 3-4 • FlexNet Manager for Engineering Applications Reporting Configuration Information**

Field Name	Default Value	Description
FlexNet Manager for Engineering Applications Application License Source (Standard)		

**Table 3-4 •** FlexNet Manager for Engineering Applications Reporting Configuration Information


Field Name	Default Value	Description
<b>License File Path</b>  <b>or</b> <b>License Server Host and Port</b>		<p>The license certificate source.</p> <ul style="list-style-type: none"><li>• If license rights are not served, choose <b>License File Path</b>. Specify the location of the license certificate for FlexNet Manager for Engineering Applications Reporting that you received from Flexera Software and saved to disk. Browse to or type the location. The license file is copied to: <code>&lt;fnmea_reporting_install_dir&gt;\config\license\</code></li><li>• If license rights are served by a FlexNet license server system, choose <b>License Server Host and Port</b>. Specify the host and port from the SERVER line of the license certificate for FlexNet Manager for Engineering Applications Reporting that you received from Flexera Software and saved to disk.</li></ul>

**Table 3-4 • FlexNet Manager for Engineering Applications Reporting Configuration Information**

Field Name	Default Value	Description
<b>Application Settings (Standard)</b>		
<b>HTTP Port</b>	8898	The HTTP port on which FlexNet Manager for Engineering Applications Reporting listens. Use the port number for the embedded Web container, or supply a different value. Ensure that this port is open through the firewall on the machine where FlexNet Manager for Engineering Applications Reporting is installed, if the machine hosts a firewall.
<b>Stop Port</b>	1209	The port on which a message is sent to stop FlexNet Manager for Engineering Applications Reporting. This is the port on which FlexNet Manager for Engineering Applications Reporting listens for JNDI clients.
<b>Install As Service (Windows platforms)</b>	Not selected	If you want FlexNet Manager for Engineering Applications Reporting to run as a Windows service, select this check box. If it is installed as a Windows service, you can start and stop FlexNet Manager for Engineering Applications Reporting using the Services window available from Start   Control Panel   Administrative Tools   Services.  You can re-run the FlexNet Manager for Engineering Applications Reporting Configurator to configure and install the service later.
<b>Use Local System Account (Windows platforms)</b>	Selected	By default, if you install FlexNet Manager for Engineering Applications Reporting as a Windows service, the Local System account will run the service. Clear the <b>Use Local System Account</b> check box to configure another user account to run the service.
<b>Service User Name</b>	If the Local System account is not used, the user to run the service defaults to the OS user who is running the installer.	The user that runs the Windows service that manages FlexNet Manager for Engineering Applications Reporting. For this user to be able to start the service, the user must be listed in the security settings of the Log on as service policy in Windows (Control Panel   Administrative Tools   Local Security Policy   Security Settings   Local Policies   User Rights Assignment).
<b>Service User Password (Windows platforms)</b>		The password for the user that starts the Windows service that manages FlexNet Manager for Engineering Applications Reporting. Provide confirmation for the password.



**Table 3-4 • FlexNet Manager for Engineering Applications Reporting Configuration Information**

Field Name	Default Value	Description
<b>Service User Domain (Windows platforms)</b>		The network domain for the user that starts the Windows service that manages FlexNet Manager for Engineering Applications Reporting.
<b>Service User Name (UNIX platforms)</b>	Defaults to the operating system user who is running the installer.	The user that executes the service script.
<b>Show Advanced Settings</b>	Not selected	Enables or disables additional configuration screens to define advanced settings.  <b>32-bit installer users:</b> If you are running the 32-bit installer, select this check box to edit the Maximum Heap Size for Java on the Advanced Settings panel. You must change the heap size to 1024 MB.
<b>User Data Dictionary (Advanced)</b>		
<b>User Data Directory</b>	C:\Program Files\FLEXnet\manager\data	<p>The directory in which all enterprise-specific data is kept—for example, usage data and reports are stored here. Use the default location or specify your own.</p> <p>It is recommended that you back up this area on a regular basis and before upgrading to a later version of FlexNet Manager for Engineering Applications.</p>  <p><b>Important •</b> The data directory is shared between FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting. Ensure that this directory is accessible from both FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting.</p>
<b>Startup Logging Threshold (Advanced)</b>		
<b>Startup Logging Threshold</b>	Informational Messages	The maximum level of detail for the messages written to the FlexNet application log file before FlexNet Manager for Engineering Applications Reporting starts. Only messages at or below the selected level of detail appear in the log.

**Table 3-4 • FlexNet Manager for Engineering Applications Reporting Configuration Information**

Field Name	Default Value	Description
Virtual Machine Heap Size (Advanced)		
Initial Heap Size	512	See <a href="#">Setting the Java Heap Size for FlexNet Manager for Engineering Applications</a> .  <b>32-bit installer users:</b> By default, Maximum Heap Size is set to 4096 MB (4 GB). If you are running the 32-bit installer, you must change the heap size to 1024 MB (1 GB).
Maximum Heap Size	4096	
Secure Server Settings (Advanced)		
HTTPS Port	8453	These attributes and default values are reserved for future use.
SSL Keystore Location	fnmea_reporting_install_dir	
SSL Keystore Password	flexnet	
Secure Client Settings (Advanced)		
SSL Truststore Location	fnmea_reporting_install_dir	These attributes and default values are reserved for future use.
SSL Truststore Password	changeit	
Miscellaneous Ports (Advanced)		
AJP Port	8018	The port on which the AJP connector listens. The AJP connector is used to integrate FlexNet Manager for Engineering Applications with a full-function proxy (such as Apache or IIS) server for security or load balancing.
Performance Settings (Advanced)		
Database Connection Pool Size	300	The size of the database connection pool.  Ensure a minimum default size of 25. Also, ensure that your database is capable of creating the designated number of connections.
Number of Scheduler Threads	30	The number of threads allocated for the scheduler. Ensure a minimum default size of 30.

**Table 3-4 • FlexNet Manager for Engineering Applications Reporting Configuration Information**

Field Name	Default Value	Description
<b>Database Transaction Timeout (seconds)</b>	3600	The number of seconds that the database transaction will run before timeout. Ensure a minimum default size of 3600.
<b>Database Server (Standard)</b>		
<b>Database Type</b>	Specify	The brand name of the database server. The other database settings depend on the Database Type selected.
<b>Database Server Host</b>	localhost	Replace localhost with the host name of the machine that hosts the database. A fully qualified host name is not required.
<b>FlexNet Manager for Engineering Applications Reporting Database (Standard)</b>		
<b>Database Server Port</b>	<ul style="list-style-type: none"> <li>Oracle: 1521</li> <li>SQL Server: 1433</li> </ul>	The port on which the database server runs. Use the default value for your database server, if you did not change the database server port number when the database server was installed.
<b>FlexNet Manager for Engineering Applications Reporting Database (Standard) - Oracle</b>		
<b>Database Service Name</b>	<orcl>	Oracle global database name.
<b>Tablespace</b>	flexnetreporting	Name of the tablespace that will contain the FlexNet Manager for Engineering Applications Reporting. Tablespace must be created manually before running the command flexnet loaddb.
<b>FlexNet DB User</b>	flexnetreporting	The user that FlexNet Manager for Engineering Applications Reporting application uses to connect to the database. Running the command flexnet loaddb automatically creates the user.  FlexNet Manager for Engineering Applications Reporting manages end-user access.
<b>FlexNet DB User Password</b>	Flexnet0	The password to be assigned to the FlexNet DB User.  It is recommended that you change this password to comply with your organization's password policies. See <a href="#">Configuring a Database for FlexNet Manager for Engineering Applications</a> .

**Table 3-4 • FlexNet Manager for Engineering Applications Reporting Configuration Information**

Field Name	Default Value	Description
<b>FlexNet Manager for Engineering Applications Reporting Database (Standard) - MS SQL Server</b>		
<b>Database Name</b>	flexnetreporting	For SQL Server, the name of the database to create which will contain the tables used by FlexNet Manager for Engineering Applications Reporting.
<b>FlexNet DB User</b>	flexnetreporting	The user that FlexNet Manager for Engineering Applications Reporting application uses to connect to the database. Running the command <code>flexnet_tooladdb</code> automatically creates the user.  FlexNet Manager for Engineering Applications Reporting manages end-user access.
<b>FlexNet DB User Password</b>	Flexnet0	The password to be assigned to the FlexNet DB User.  It is recommended that you change this password to comply with your organization's password policies. See <a href="#">Configuring a Database for FlexNet Manager for Engineering Applications</a> .

- After you have finished entering configuration information, click **Finish**. The configuration information is processed and the new settings are merged into the site directory. This may take several seconds.
- After the configuration information is processed, the final installer window opens. Click **Done** to close the installer window.

## Installing FlexNet Manager for Engineering Applications Reporting from the Command Line

You can install FlexNet Manager for Engineering Applications Reporting from the command line (in *console mode*). When installing from the command line, you must run the installer and the Configurator separately.



**Task:** *To install FlexNet Manager for Engineering Applications Reporting from the command line:*

- Open a Command prompt and run the installer, using the following command:  
`flexnet_manager_reporting-<version number>-<platform>.<ext> -i console`
- After the installation finishes, change to the directory `fnmea_reporting_install_dir`.
- To start the FlexNet Manager for Engineering Applications Reporting Configurator, type `flexnet site console`.

The Configurator detects whether the display is set, and if it is not set, the Configurator runs in console mode.

See the [installation wizard](#) instructions for information about the questions you are asked during configuration.

# Creating an Empty FlexNet Manager for Engineering Applications Reporting Database

After installing FlexNet Manager for Engineering Applications Reporting for the first time, you must create a FlexNet Manager for Engineering Applications Reporting database. For this procedure you need the user name and password of an administrative user in the DBMS who has privileges to create a database. Additionally, parameters that you supplied through the FlexNet Manager for Engineering Applications Reporting Configurator are used.



**Note** • The scripts that create the flexnetreporting database and its tables will create a completely new database. As a result, any data in an existing database of the same name will be lost when you run the scripts.



## Task:

### To create the FlexNet Manager for Engineering Applications Reporting database:

1. If FlexNet Manager for Engineering Applications Reporting is running, stop it. It cannot be running when you run the command (lloaddb) to create the database.
2. Start the database server if it is not already running. Refer to documentation provided by the database server vendor. Ensure that the user who starts the database server has the same locale as the user who creates the database (see [Planning User Accounts](#)).
3. If you are using an Oracle database, a tablespace of the name specified during installation in the FlexNet Manager for Engineering Applications Reporting Configurator must be created before proceeding to the next step. See [Configuring Oracle](#) in [Chapter 3, "Installing FlexNet Manager for Engineering Applications"](#) for guidelines.
4. At the command line, change to the directory `fnmea_reporting_install_dir` and type the command `flexnet lloaddb`.



**Note** • Refer to [Appendix B, "Non-Critical Database-Related Issues,"](#) for any known issues for the database you are using.

5. Specify whether you want to partition the usage-related tables by typing **yes** or **no**. (Before specifying that you want to use database partitioning, verify that the database version your enterprise is using supports partitioning.)



**Important** • If you type **yes** here, the usage-related tables will be partitioned. To partition the remaining data warehouse tables, you must run the database-specific partitioning script as specified in the section, [Partitioning the Remaining Database Tables \(Data Warehouse Tables\)](#). The FlexNet Manager for Engineering Applications server will not start if some tables are partitioned, while other tables are not.

6. To create the flexnetreporting database and to add the flexnetreporting database user, you must initially connect to the DBMS as a database administrator.

7. When prompted, enter the name and password of the database administrative user. Depending on the database, `sa` (MS SQL Server) or `system` (Oracle) user account will be required to run `flexnet_1toaddb`.
8. If you want to use partitioned tables, follow the process outlined in the following section, [Partitioning the Remaining Database Tables \(Data Warehouse Tables\)](#).

The database-creation script drops the database (if it exists), creates the database, creates tables, adds the flexnetreporting DB user, adds a FlexNet Manager for Engineering Applications user, and adds configuration data.

When the FlexNet database is created, the following FlexNet Manager for Engineering Applications Reporting user is created automatically and assigned the system administrator role:

- User Name: admin
- Password: admin

## Partitioning the Remaining Database Tables (Data Warehouse Tables)

Flexera Software provides two database-specific scripts that partition the database tables for the FlexNet Manager for Engineering Applications Reporting server. You can run the partitioning script regardless of whether you chose to partition the usage-related tables during installation/upgrade.

- If you chose to create table partitions for the FlexNet Manager for Engineering Applications Reporting server database at installation or upgrade time, you *must* run the database-specific partitioning script provided by Flexera Software to partition the data warehouse tables. The FlexNet Manager for Engineering Applications server will not start if some tables are partitioned, while other tables are not.
- If you did *not* choose to create table partitions at installation or upgrade time, you can partition the database tables at any time by running the script. Running the partitioning script will partition both the usage-related tables and the data warehouse tables.

The partitioning script may take 12–18 hours to process up to one billion usage events in the database. A multi-CPU database server may show CPU usage between 30 and 40 percent. It is recommended that you increase the database space by 100 percent before running the partition-creation script.

Follow the instructions in the section that applies to the database type your enterprise uses. See the subsection, [Partitioned Tables](#), for a list of the database tables that are partitioned as a result of running the partition-creation script.

### Creating Table Partitions for a Microsoft SQL Server Database

To create table partitions for a Microsoft SQL Server database, follow the instructions in this section.



---

**Task:** *To run the partition-creation script:*

1. Stop the FlexNet Manager for Engineering Applications Admin and Reporting servers, if they are running.
2. Open the script file, located at the following location:

`<FNMEA_reporting_server_install_dir>/site/samples/db/PartitionNonPartitionedTableSQLFinal.sql`

3. Connect to the FlexNet Manager for Engineering Applications Reporting database in Microsoft SQL Management studio, then copy and paste the contents of the script into the SQL query window.
4. Execute the complete script.
5. Review the output to check for any errors.
6. Start the FlexNet Manager for Engineering Applications Reporting and Admin servers.

## Creating Table Partitions for an Oracle Database

To create table partitions for an Oracle database, follow the instructions in this section.



### Task:

#### *To run the partition-creation script:*

1. Stop the FlexNet Manager for Engineering Applications Admin and Reporting servers, if they are running.
2. Open the script file, located at the following location:  
  
`<FNMEA_reporting_server_install_dir>/site/samples/db/  
PartitionNonPartitionedTableOracleFinal.sql`
3. Assign the “dba” role to the FlexNet Manager for Engineering Applications Reporting database user. This role can be removed after the script has been executed.
4. Connect to the FlexNet Manager for Engineering Applications Reporting database using SQL\*Plus or SQL Developer, then copy and paste the contents of the script into the SQL client.
5. Execute the complete script.
6. Review the output to check for any errors.
7. Start the FlexNet Manager for Engineering Applications Reporting and Admin servers.

## Partitioned Tables

The following tables are partitioned, as a result of running the partition-creation script for the FlexNet Manager for Engineering Applications Reporting database:

RPT\_USAGE\_LIC\_EVENT\_153  
RPT\_USAGE\_LIC\_DEVENT\_153  
RPT\_USAGE\_NOLIC\_EVENT\_153  
RPTDW\_DAILY\_AVAILABILITY  
RPTDW\_DAILY\_MEASURE\_LEAF  
RPTDW\_DAILY\_TIER\_MEASURE  
RPTDW\_DAILY\_PRODUCT\_MEASURE  
RPTDW\_DAILY\_PRODUCT\_AVAIL  
RPTDW\_DAILY\_PRODFEAT\_MEASURE  
RPTDW\_DAILY\_MEASURE\_ORG  
RPTDW\_PRODUCT\_MEASURE\_ORG  
RPTDW\_PRODFEAT\_MEASURE\_ORG  
RPTDW\_MEASURE\_PRODUCT\_AVAIL  
RPTDW\_MEASURE\_AVAILABILITY

RPTDW\_HOURLY\_MEASURE\_ORG  
RPTDW\_HOURLY\_TIER\_MEASURE  
RPTDW\_HOURLY\_MEASURE\_LEAF  
RPTDW\_CPB\_HOURLY\_MEASURE  
RPTDW\_CPB\_DAILY\_MEASURE

## Running FlexNet Manager for Engineering Applications Reporting from the Command Line

In production, FlexNet Manager for Engineering Applications Reporting is started using a service script on UNIX or as a Windows service (see [Running FlexNet Manager for Engineering Applications Reporting As a Service](#)). You can also start and stop FlexNet Manager for Engineering Applications Reporting from the command line.



**Task:** *To start FlexNet Manager for Engineering Applications Reporting from the command line:*

1. Ensure that the database server is running and that you have [created the flexnetreporting database](#).
2. At the command line, change to the FlexNet Manager for Engineering Applications Reporting installation directory and type `flexnet start`.

A series of log messages is displayed in the command window, ending with the time in which the server started (Started in `NNs:nnms`).



**Task:** *To stop FlexNet Manager for Engineering Applications Reporting from the command line:*

1. Open a Command Prompt and change to the FlexNet Manager for Engineering Applications Reporting installation directory.

If you started FlexNet Manager for Engineering Applications Reporting from an already open Command Prompt window, open a new Command Prompt window to stop it.

2. Type `flexnet stop`.



**Note** • Do not stop FlexNet Manager for Engineering Applications Reporting from a Command Prompt using **Ctrl+C**. This leaves the server in an inconsistent state.

## Running FlexNet Manager for Engineering Applications Reporting As a Service

In production, FlexNet Manager for Engineering Applications Reporting is started using a service script on UNIX or as a Windows service. Logging information is written to `fnmea_reporting_install_dir`.



## Installing the UNIX Service Script

If you are running on UNIX, you can start FlexNet Manager for Engineering Applications Reporting using the service script, `flexnet-service`, after it has been renamed to `flexnet_reporting-service`. You configured the service script during the FlexNet Manager for Engineering Applications Reporting installation.



**Task:** *To start FlexNet Manager for Engineering Applications Reporting using the UNIX service script:*

1. Copy the service script `fnmea_reporting_install_dir/site/bin/flexnet-service` to an appropriate boot script directory such that it can be executed by root at startup time, for example, the `/etc/init.d` directory.
2. Rename the script to `<flexnet_reporting-service>`. You can rename the script to whatever name you want to use, as long as it is not `flexnet-service`.



**Important** • If the service script is not renamed, running it as `flexnet-service` will overwrite the script used for FlexNet Manager for Engineering Applications Admin.

3. Run FlexNet Manager for Engineering Applications Reporting by typing `flexnet_reporting-service start`.

## Installing the Windows Service

FlexNet Manager for Engineering Applications Reporting can run as a Windows service. The service is named FlexNet Manager for Engineering Applications Reporting and it is run as the user you specified in the FlexNet Manager for Engineering Applications Reporting Configurator. If you chose to install FlexNet Manager for Engineering Applications Reporting as a Windows service, start the service using the Windows Administrative Tools.

If you did not choose to install FlexNet Manager for Engineering Applications Reporting as a service during its installation, you can install it at any time by re-running the FlexNet Manager for Engineering Applications Reporting Configurator to configure and install the service.



**Task:** *To configure and install the Windows service:*

1. Stop FlexNet Manager for Engineering Applications Reporting:
  - a. Open a Command prompt and change to the FlexNet Manager for Engineering Applications Reporting installation directory.
  - b. Type the command `flexnet stop`.
2. To start the Configurator, from the same directory, type `flexnet site`.
3. Select **Install as Service** and configure the service user.
4. Click **Finish**. The `site` directory is re-created and the service is installed.

Because this method of installing the Windows service is recorded in the settings in the FlexNet Manager for Engineering Applications Reporting Configurator, if `flexnet site make` is run, the Windows service remains installed.

## Managing the Service


Manage the FlexNet Manager for Engineering Applications Reporting service using the command `flexnet service`.

### Syntax


`flexnet service <option>`

where *<option>* is one of the parameters described in the following table.

**Table 3-5 • flexnet service Parameters**

Parameter	Description
<code>reinstall</code>	Uninstalls and installs the installed service with the user configured in the FlexNet Manager for Engineering Applications Reporting Configurator. Make sure that the user running the service is configured correctly before running this command. If no option is specified, the Local System user is the default.
<code>install</code>	<p>Installs the service with the user configured in the FlexNet Manager for Engineering Applications Reporting Configurator. Make sure that the user running the service is configured correctly before running this command (the Local System user is the default). If the service is already installed, a message is returned.</p> <p>Because this method of installing the Windows service bypasses the Install as Service setting in the FlexNet Manager for Engineering Applications Configurator, if <code>flexnet site make</code> is run, the Windows service is uninstalled.</p>  <p><b>Note •</b> Note that because of Windows 2008 security features, even if a user was configured with Administrator privileges, command windows opened by that user do not also have Administrator privileges. As a result, running any command that requires registering a Windows service will fail. For Windows 2008, to install the FlexNet Manager for Engineering Applications Reporting Windows service, do the following:</p> <ol style="list-style-type: none"> <li>1. Click <b>Start</b>.</li> <li>2. Right-click <b>Command Prompt</b>.</li> <li>3. Select <b>Run as administrator</b>. The command window will open with Administrator privileges. You can now run <code>flexnet service install</code>.</li> </ol>

**Table 3-5 • flexnet service Parameters**

Parameter	Description
uninstall	Uninstalls the installed service.  <b>Note •</b> For Windows 2008, see the above note under the <b>install</b> option.
start	Starts the installed service.
stop	Stops the installed service.

## Stopping the Service

### UNIX Platforms

If you started FlexNet Manager for Engineering Applications Reporting with the UNIX service script, stop it with the following service script (using whatever name you gave the script in [Step 2](#) of the task for [starting Reporting using the UNIX service script](#):

```
<flexnet_reporting-service> stop
```

### Windows Platforms

If you started FlexNet Manager for Engineering Applications Reporting as a Windows service, stop the service through the Windows Administrative Tools.

## Signing In

Functionality provided by FlexNet Manager for Engineering Applications Reporting can be accessed using FlexNet Manager for Engineering Applications Admin Web interface. Follow the instructions to sign in to FlexNet Manager for Engineering Applications Admin in [Signing In](#), then click the **Reports** tab.

# FlexNet Manager for Engineering Applications Reporting Directory Structure

The following table lists the FlexNet Manager for Engineering Applications Reporting directory structure:

**Table 3-6 • FlexNet Manager for Engineering Applications Reporting directory structure**

Directory	Description
fnmea_reporting_install_dir	Directory, specified during installation, in which FlexNet Manager for Engineering Applications Reporting was installed. Contains flexnet script.

**Table 3-6 • FlexNet Manager for Engineering Applications Reporting directory structure**

Directory	Description
config	Contains the <code>site.properties</code> file, a <code>license</code> directory into which the FlexNet Manager for Engineering Applications Reporting license is copied and a <code>driver</code> directory into which a non-bundled JDBC driver is copied during installation.
custom	Contains customized versions of files in a directory structure that mimics the structure of the <code>site</code> directory. When FlexNet Manager for Engineering Applications Reporting starts, the files from this directory are copied into the <code>site</code> directory, augmenting or replacing existing files.  This directory and its subdirectories must be created as needed.
data	Contains enterprise data. This directory is preserved when FlexNet Manager for Engineering Applications Reporting is reconfigured or uninstalled.
importcache	Temporary space for report log imports, created when the first report log is imported.
rep	
lic	Contains subdirectories with copies of the license files for the license servers managed by FlexNet Manager for Engineering Applications Reporting.
opt	Contains subdirectories with copies of the options files for vendor daemons managed by FlexNet Manager for Engineering Applications Reporting.
r1	Contains subdirectories with report logs imported into FlexNet Manager for Engineering Applications Reporting.
reports	
output	Contains output files for usage reports generated through FlexNet Manager for Engineering Applications Reporting.
jvm	Files for the bundled Java Virtual Machine.
logs	Contains all of the log files generated by FlexNet Manager for Engineering Applications Reporting.
release	Contains files for individual modules installed with FlexNet Manager for Engineering Applications Reporting, before they are configured for running at your enterprise. Files in the <code>release</code> directory can be used to recover <code>site</code> directory files that have been overwritten by customized files.

**Table 3-6** • FlexNet Manager for Engineering Applications Reporting directory structure

Directory	Description
site	FlexNet Manager for Engineering Applications Reporting runs from this directory. Contains merged and configured versions of the installed FlexNet Manager for Engineering Applications Reporting files. This directory is re-created from files in the release and config directories when FlexNet Manager for Engineering Applications Reporting is reconfigured using the <code>flexnet site</code> command.
uninstaller	Files for the FlexNet Manager for Engineering Applications Reporting uninstaller—Run the uninstaller from the <code>uninstaller/flexnet</code> directory.

## Stopping FlexNet Manager for Engineering Applications Reporting

The way in which you stop FlexNet Manager for Engineering Applications Reporting depends upon the platform on which it is running.

### UNIX Platforms

If you started FlexNet Manager for Engineering Applications Reporting with the UNIX service script, stop it with the following service script (using whatever name you gave the script in [Step 2](#) of the task for [starting Reporting using the UNIX service script](#):

```
<flexnet_reporting-service> stop
```

### Windows Platforms

- If you started FlexNet Manager for Engineering Applications Reporting as a Windows service, stop the service through Administrative Tools.
- If you started it from the command line, open a different Command prompt from that used to start it, change to the `fnmea_reporting_install_dir` directory, and type **flexnet stop**

## The Next Step

After you have installed FlexNet Manager for Engineering Applications Admin, FlexNet Manager for Engineering Applications Reporting, and all FlexNet Agents, test your configuration. See [“Testing the FlexNet Manager for Engineering Applications Installation,”](#) for details.

# Upgrading to FlexNet Manager for Engineering Applications 15.5

You can upgrade to FlexNet Manager for Engineering Applications 15.5 from FlexNet Manager for Engineering Applications 15.x, 14.x, and 12. To determine which version your enterprise is currently using, see the System Information page in the FlexNet Manager for Engineering Applications user interface, available from the Admin tab. Look for the Manager and Reporting module versions.

For assistance with upgrading from a version of FlexNet Manager for Engineering Applications that is earlier than version 12, contact Flexera Software Support.

## Evaluate Upgrade to 15.5 from 15.2 and Earlier Versions

FlexNet Manager for Engineering Applications 15.5 introduces some changes to the data model that classic reports (including raw reports) use. These data-model changes may impact post-processing for classic reports. If your enterprise uses raw reports or any other classic reports for automatic processing in your back office, it is strongly recommended that you run tests with FlexNet Manager for Engineering Applications 15.5 in your test environment to verify that your back-office implementation works correctly with version 15.5.

The following data model changes may impact the post-processing of classic reports:

- The data model stores the user name *in uppercase only*. (This is the user name from the report logs, which is stored in the property USER\_NAME.)
- Report log–import and usage data–migration processes convert (split) multi-day usage events into single-day events. See the [FAQ regarding multi-day events](#) for more information.

Read the appendix in this manual, [Data Migration FAQs](#), for details about the changes in the FlexNet Manager for Engineering Applications 15.5 reporting data model. You can use the FAQ information to determine whether you need to make changes, prior to upgrading your enterprise's production version of FlexNet Manager for Engineering Applications to 15.5.

If your enterprise processes usage data directly from FlexNet Manager for Engineering Applications reporting database, review the [FAQ that describes the data model changes in FlexNet Manager for Engineering Applications 15.5](#).

Contact Flexera Software Support if you have any questions regarding upgrading.

# Preparing to Upgrade FlexNet Manager for Engineering Applications

The FlexNet Manager for Engineering Applications 15.5 installer's upgrade capability requires that you start with FlexNet Manager for Engineering Applications 15.x, 14.x, or 12. This section describes the steps you must take before upgrading to FlexNet Manager for Engineering Applications 15.5.



**Task:** *To prepare to upgrade to FlexNet Manager for Engineering Applications 15.5:*

1. If you are upgrading from FlexNet Manager for Engineering Applications 12.x, you must apply all of the available patches for the version you currently have. (Skip this step if you are upgrading from FlexNet Manager for Engineering Applications 14.x or 15.x.)
2. Stop FlexNet Manager for Engineering Applications.
3. To upgrade an Oracle installation, the CREATE VIEW permission is required for the flexnet, flexnetreporting DB User. Add CREATE VIEW permission to these users by using the Enterprise Manager console or SQL. This permission will be automatically added by FlexNet Manager for Engineering Applications if this is a new FlexNet Manager for Engineering Applications Admin/Reporting installation.

## Upgrade Steps

Upgrading FlexNet Manager for Engineering Applications Admin requires the following steps:

- [Upgrading FlexNet Manager for Engineering Applications Admin](#)
- [Upgrading the FlexNet Manager for Engineering Applications Admin Database Schema](#)
- [Upgrading FlexNet Manager for Engineering Applications Reporting](#)
- [Upgrading the FlexNet Manager for Engineering Applications Reporting Database Schema](#)

## Upgrading FlexNet Manager for Engineering Applications Admin

You must uninstall the previous version of FlexNet Manager for Engineering Applications Admin before installing FlexNet Manager for Engineering Applications 15.5 Admin. Read through the entire set of instructions before beginning the upgrade installation process.



**Task:** *To upgrade from FlexNet Manager for Engineering Applications Admin:*

1. Stop the earlier version of FlexNet Manager for Engineering Applications Admin.
2. Uninstall the earlier version of FlexNet Manager for Engineering Applications Admin using the instructions in the section, “[Uninstalling FlexNet Manager for Engineering Applications Admin](#),” in [Chapter 8, “Uninstalling FlexNet Manager for Engineering Applications Components.”](#)



**Important** • After the uninstaller finishes, do **not** delete the config, data, or logs directories from the FlexNet Manager for Engineering Applications Admin installation directory. These directories are required for the upgrade process to be successful.

3. Install FlexNet Manager for Engineering Applications 15.5 Admin to the same location where the earlier version of FlexNet Manager for Engineering Applications Admin was installed. See the section, “[Installing FlexNet Manager for Engineering Applications Admin](#),” in [Chapter 3, “Installing FlexNet Manager for Engineering Applications.”](#)

During the installation, the following configurations must be specified for the upgrade to succeed.

- The DATA repository path needs to be the absolute path to the new location where DATA repository is moved.
- The FlexNet Manager for Engineering Applications 15.5 Admin database needs to point to the previous FlexNet Manager for Engineering Applications Admin database. Ensure that the following database parameters are exactly the same as those used for the previous FlexNet Manager for Engineering Applications Admin database:
  - **Oracle**—Database Service Name, Tablespace, Database User Name, Database User Password.
  - **Microsoft SQL Server**—Database, Database User Name, Database User Password.

Because you retained the config, data, and logs directories, the FlexNet Manager for Engineering Applications 15.5 Admin installation will have the same configuration settings as the earlier FlexNet Manager for Engineering Applications Admin installation.

4. Upgrade the FlexNet Manager for Engineering Applications Admin database using the instructions in the following section, “[Upgrading the FlexNet Manager for Engineering Applications Admin Database Schema](#).”
5. Start FlexNet Manager for Engineering Applications 15.5 Admin.
6. After upgrading from FlexNet Manager for Engineering Applications 15.x, 14.x, or 12, you need to reconfigure SSL for Tomcat/JBoss. See “[Configuring FlexNet Manager for Engineering Applications Admin for Secure Socket Layer](#),” in [Chapter 7, “Configuring FlexNet Manager for Engineering Applications.”](#)



## Upgrading the FlexNet Manager for Engineering Applications Admin Database Schema

Part of the upgrade process includes upgrading the database schema used with FlexNet Manager for Engineering Applications. After installing FlexNet Manager for Engineering Applications Admin software and before starting it, you must upgrade the database schema to the new version. The schema upgrade is performed as the database user you supplied through the FlexNet Manager for Engineering Applications Admin Configurator.

The database upgrade script assumes that you are upgrading from an existing version 15.x, 14.x, or 12, to version 15.5 database. As a precaution, please backup the database before upgrading the database. The data in the database will be preserved and transformed if necessary.



**Task:** *To upgrade the FlexNet Manager for Engineering Applications database:*

1. Start the database server, if it is not already running.
2. At the command line, change to the `fnmea_admin_install_dir` directory and make sure that FlexNet Manager for Engineering Applications Admin is stopped. Also, make sure no database tables are being accessed.
3. Type `f1exnet upgradedb`. This command upgrades the FlexNet database schema, asks whether you want to use database partitioning for usage-related tables, and then migrates existing data and new configuration information to the new schema.

If there are any errors during the upgrade, they are written to the console. A log containing a record of the entire upgrade process is created at the following location:

```
<fnmea_admin_install_dir>/logs/upgradedb.log
```

## Upgrading FlexNet Manager for Engineering Applications Reporting

You must uninstall the previous version of FlexNet Manager for Engineering Applications Reporting before installing FlexNet Manager for Engineering Applications 15.5 Reporting. Read through the entire set of instructions before beginning the upgrade installation process.



**Important** • Read the section, [Evaluate Upgrade to 15.5 from 15.2 and Earlier Versions](#), before upgrading to FlexNet Manager for Engineering Applications 15.5 Reporting.

**Task:** *To upgrade FlexNet Manager for Engineering Applications Reporting:*

1. Stop the earlier version of FlexNet Manager for Engineering Applications Reporting.
2. Uninstall the earlier version of FlexNet Manager for Engineering Applications Reporting using the instructions in the section, “[Uninstalling FlexNet Manager for Engineering Applications Reporting](#),” in [Chapter 8](#), “[Uninstalling FlexNet Manager for Engineering Applications Components](#).”



**Important** • After the uninstaller finishes, do **not** delete the config, data, or logs directories from the Reporting installation directory. These directories are required for the upgrade process to be successful.

3. Install FlexNet Manager for Engineering Applications 15.5 Reporting to the same location where the earlier version of FlexNet Manager for Engineering Applications Reporting was installed. See the section, “[Installing FlexNet Manager for Engineering Applications Reporting](#),” in [Chapter 3](#), “[Installing FlexNet Manager for Engineering Applications](#).”

During the installation, the following configurations must be specified for the upgrade to succeed.

- The DATA repository path needs to be the absolute path to the new location where DATA repository is moved.
- The FlexNet Manager for Engineering Applications 15.5 Reporting database needs to point to the previous FlexNet Manager for Engineering Applications Reporting database. Ensure that the following database parameters are exactly the same as those used for the previous FlexNet Manager for Engineering Applications Reporting database:
  - **Oracle**—Database Service Name, Tablespace, Database User Name, Database User Password.
  - **Microsoft SQL Server**—Database, Database User Name, Database User Password.

Because you retained the config, data, and logs directories, the FlexNet Manager for Engineering Applications 15.5 Reporting installation will have the same configuration settings as earlier FlexNet Manager for Engineering Applications Reporting installation.

4. Upgrade the FlexNet Manager for Engineering Applications Reporting database using the instructions in the following section, “[Upgrading the FlexNet Manager for Engineering Applications Reporting Database Schema](#).”
5. Start FlexNet Manager for Engineering Applications 15.5 Reporting.

# Upgrading the FlexNet Manager for Engineering Applications Reporting Database Schema

Part of the upgrade process includes upgrading the database schema used with FlexNet Manager for Engineering Applications. After installing FlexNet Manager for Engineering Applications Reporting software and before starting it, you must upgrade the database schema to the new version. Before upgrading the database schema, you must complete the step described in the following section, [Before Upgrading the Database Schema: SQL Script Prerequisite](#).

The schema upgrade is performed as the database user you supplied through the FlexNet Manager for Engineering Applications Reporting Configurator. The database upgrade script assumes that you are upgrading from an existing version 15.x, 14.x, or 12, to version 15.5 database. As a precaution, please backup the database before upgrading the database. The data in the database will be preserved and transformed if necessary.

## Before Upgrading the Database Schema: SQL Script Prerequisite

Before running the command to upgrade the database (upgradedb), you must run the following SQL script on the flexnet reporting database. This script creates a new index. It may take a few hours to finish, depending on the amount of data in the reporting database.

### Microsoft SQL Server

If your enterprise uses Microsoft SQL Server, run the following SQL script. Replace *<dbname>* with the Microsoft SQL Server flexnet reporting database name.

```
use <dbname>;  
CREATE INDEX IDX_DEVENT_MIGRATE_TO_153 ON RPT_USAGE_LIC_EVENT (EVENT_TIME ASC, EVENT_ID ASC);
```

### Oracle

If your enterprise uses Oracle, run the following SQL script. Replace *<tablespace\_name>* with the Oracle flexnet reporting tablespace name.

```
CREATE INDEX IDX_DEVENT_MIGRATE_TO_153 ON RPT_USAGE_LIC_EVENT (EVENT_TIME ASC, EVENT_ID ASC)  
TABLESPACE <tablespace_name>;
```



---

**Task:** *To upgrade the FlexNet Manager for Engineering Applications Reporting database:*

1. Before beginning the upgrade process (using the upgradedb command), you must run complete the required step described in the section, [Before Upgrading the Database Schema: SQL Script Prerequisite](#). After this step is complete, you can continue with the rest of the process.
2. Start the database server, if it is not already running.
3. At the command line, change to the directory *fnmea\_reporting\_install\_dir* and ensure the following:
  - FlexNet Manager for Engineering Applications Reporting is stopped.
  - No database tables are being accessed.
4. Type `f1exnet upgradedb`.

This command upgrades the FlexNet database schema, and then migrates existing data and new configuration information to the new schema. See the section, [“Version-Specific Upgrade and Data-Migration Information,”](#) for version-specific information about the upgrade.

5. Specify whether you want to partition the usage-related tables by typing **yes** or **no**. (Before specifying that you want to use database partitioning, verify that the database version your enterprise is using supports partitioning.)



**Note** • The database tables for the Reporting server can be partitioned at any time. See the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\),”](#) for information.

6. If you want to use partitioned tables, follow the process outlined in the following section, [Partitioning the Remaining Database Tables \(Data Warehouse Tables\)](#).

### Version-Specific Upgrade and Data-Migration Information

#### Upgrading from FlexNet Manager for Engineering Applications 15.3

Note the following if you are upgrading from FlexNet Manager for Engineering Applications 15.3:

- No data migration is required if you are upgrading from version 15.3 to the current version of FlexNet Manager for Engineering Applications.
- If you selected to partition the usage-related database tables when installing version 15.3, you have an option to partition additional tables by following the instructions in the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#) Partitioning can be done at any time (during upgrade or at a later time). If you did not select the option to partition the tables when installing version 15.3, you can partition *all* tables (either during upgrade or at a later time) by following the instructions in the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#)

#### Upgrading from FlexNet Manager for Engineering Applications 15.2 or Earlier

Note the following if you are upgrading from FlexNet Manager for Engineering Applications 15.2 or an earlier version:

- After typing the command `flexnet upgradedb`, you will be asked whether you want to partition the usage-related (core transactional) tables. You may choose to partition the additional tables by following the instructions in the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#) If you choose not to partition the tables at upgrade time, you can partition *all* of the tables later by following the steps in section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#)
- You need to migrate usage data from the previous data model to the data model that was introduced in FlexNet Manager for Engineering Applications 15.3. For information on data migration, see the online help library.

If there are any errors during the upgrade, they are written to the console. A log containing a record of the entire upgrade process is created at: `<fnmea_reporting_install_dir>/logs/upgradedb.log`.

## Next Steps

After you have installed FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting and verified that you can sign in, configure FlexNet Manager for Engineering Applications using the information in the section [“Configuring FlexNet Manager for Engineering Applications Behavior After Installation,”](#) in Chapter 7, “Configuring FlexNet Manager for Engineering Applications.”

# Upgrading or Installing FlexNet Report Designer (Cognos)

FlexNet Report Designer (Cognos) provides functionality that enables you to quickly create customized reports. This chapter outlines the procedure for installing and configuring the FlexNet Report Designer components. Installing and properly configuring Report Designer enables the display of both the FlexNet Report Designer and Org Structures tabs in the FlexNet Manager for Engineering Applications interface.

- If you are upgrading from a previous version of FlexNet Report Designer, see the instructions in [Upgrading FlexNet Report Designer](#).
- If you are installing FlexNet Report Designer for the first time, see the instructions in [FlexNet Report Designer Installation Process](#).

See the *FlexNet Manager for Engineering Applications 15.5 Release Notes* for supported platforms and database versions.

## FlexNet Report Designer Components

FlexNet Report Designer has the following components:

- **Report Designer**—FlexNet Report Designer is a Java application server that handles requests from FlexNet Manager for Engineering Applications Admin. FlexNet Report Designer includes the Apache Tomcat servlet container and the Apache HTTP Web server.
- **Content Store Database**—The Content Store is a relational database used by the FlexNet Report Designer to store information about reporting models, folders, reports, and saved results.

For performance purposes, it is recommended that you install the FlexNet Report Designer and Content Store database components on different machines. However, you can install all FlexNet Manager for Engineering Applications components (including FlexNet Report Designer and Content Store database) on the same server.

## Time Zone Considerations

FlexNet Report Designer provides an Operational Dashboard, which enables you to view usage data from both FlexNet and LUM license servers. Because FlexNet Report Designer's Operational Dashboard functionality uses time zone information from both the reporting database server and the FlexNet Report Designer (Cognos) server to display usage data, it is important that both the reporting database server and the FlexNet Report Designer (Cognos) server are in the same time zone.

It is also recommended that the FlexNet Manager for Engineering Applications servers (Admin and Reporting) be in the same time zone.

## Upgrading FlexNet Report Designer

The process for upgrading to FlexNet Report Designer 15.5 involves exporting all custom reports, uninstalling the previous version of FlexNet Report Designer, and installing FlexNet Report Designer 15.5.

### How Upgrading Affects FlexNet Report Designer (Cognos) Permissions

As a result of upgrading to FlexNet Report Designer 15.5, all existing FlexNet Report Designer (Cognos)-related permissions will be reset. After upgrading to FlexNet Report Designer 15.5, a FlexNet Manager for Engineering Applications user with the Super Administrator role (or another role with the Assign Cognos Roles permission) can assign new Cognos roles to FlexNet Manager for Engineering Applications users.

To learn about the new Cognos roles available in FlexNet Manager for Engineering Applications 15.5, see the topic, "Cognos Roles", in the *FlexNet Manager for Engineering Applications 15.5 Help Library* or the *FlexNet Manager for Engineering Applications 15.5 User Guide*.

## Upgrading from FlexNet Report Designer 12.0, 14.x, and 15.x

To upgrade FlexNet Report Designer from version 12.0, 14.x, or 15.x to version 15.5, you must uninstall the earlier version of FlexNet Report Designer before installing FlexNet Report Designer 15.5.



### Task:

#### **To upgrade from FlexNet Report Designer 12.0, 14.x, or 15.x:**

1. Export any custom reports that were created using an earlier version of FlexNet Report Designer. These exported reports can be imported and used in FlexNet Report Designer 15.5 with appropriate modification. See the following section, "[Exporting Custom Reports](#)."
2. If you want to use the same content store database, note the following information from your current content store configuration:
  - Database type
  - Database server with port number

- User ID and password
  - Database name
3. Uninstall the previous version of FlexNet Report Designer using the instructions in the section, “[Uninstalling FlexNet Manager for Engineering Applications Report Designer \(Cognos\)](#),” in [Chapter 8, “Uninstalling FlexNet Manager for Engineering Applications Components.”](#)
  4. Install FlexNet Report Designer 15.5, as described in the section, [FlexNet Report Designer Installation Process](#).


## Exporting Custom Reports

You can export custom reports that you created using an earlier version of FlexNet Report Designer, then [import the custom reports](#) after you install FlexNet Report Designer 15.5. You must export each report individually.



---

**Task:** *To export a custom report:*

1. Go to the Cognos Reporting page of the FlexNet Manager for Engineering Applications interface, available from the Reports | Report Designer tab.
2. Go to the report that needs to be exported.
3. Click the “Open with Report Studio”  icon (in the Actions column). The report opens in Report Studio.
4. From the Tools menu, select **Copy Report to Clipboard**.
5. Open a text-editing tool (for example, Textpad), and paste the report contents.
6. Save the file as `<filename>.xml`.

For more information, refer to the Cognos documentation.

## FlexNet Report Designer Installation Process

The process of installing FlexNet Report Designer includes the steps listed here. Before installing, read [Chapter 2, “Before Installing FlexNet Manager for Engineering Applications”](#).

1. **Identify Hosts:** Identify the host machines on which you will install FlexNet Report Designer and the Content Store. It is strongly recommended that each of these components be installed on a separate host. The *FlexNet Manager for Engineering Applications 15.5 Release Notes* provide system requirements for each component.

Ensure that the host machine can be pinged from another machine on the network, using the host machine's hostname. IP address or localhost should not be used anywhere in the configuration.



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**Important** • Because FlexNet Report Designer's Operational Dashboard functionality uses time zone information from both the reporting database server and the FlexNet Report Designer (Cognos) server to



display usage data, it is important that both the reporting database server and the FlexNet Report Designer (Cognos) server are in the same time zone. It is also recommended that the FlexNet Manager for Engineering Applications servers be in the same time zone.

2. **Export custom reports** (optional): If you have custom reports that you want to retain, export them before upgrading to FlexNet Report Designer 15.5. See the section, [Exporting Custom Reports](#).
3. **Create the Content Store Database:**
  - a. On the Content Store host, create the Content Store database. This can be either a Microsoft SQL Server or Oracle database. See the section, [Creating the Content Store Database](#).
  - b. After creating the content store database, verify that you can connect from a remote machine to the database by using the login credentials for content store database.
4. **Install FlexNet Report Designer:** Download and run the FlexNet Report Designer installer. See the section, [Installing FlexNet Report Designer on Microsoft Windows](#).
5. **Import the FlexNet Report Designer (Cognos) packages:** Download the files and import them using the FlexNet Manager for Engineering Applications user interface. See the section, [Importing the FlexNet Report Designer \(Cognos\) Package](#).
6. **Import custom reports** (optional): If you exported custom reports prior to upgrading to FlexNet Report Designer 15.5, import them when the upgrade is complete. See the section, [Importing Custom Reports](#).
7. **Start FlexNet Report Designer:** Launch FlexNet Report Designer.
8. **Configure FlexNet Report Designer:** This step is performed using the FlexNet Manager for Engineering Applications user interface and the Cognos Configuration page in FlexNet Report Designer (Cognos).

## Creating the Content Store Database

The Content Store is a relational database used by FlexNet Report Designer server to store information about reporting models, folders, reports, and saved results.

## Creating a Microsoft SQL Server Content Store



**Task:** *To create a Microsoft SQL Content Store:*

1. Ensure that your installation of Microsoft SQL Server is configured as follows:
  - **UTF-8 or UTF-16 encoding is used**—For information about character sets, encoding, and collation, see the Microsoft SQL documentation.
  - **The collation sequence is case insensitive**—In a custom installation, you choose a collation, which includes character sets and sort order, during the SQL Server setup. In a Typical installation, the installation uses the locale identified by the installation program for the collation. This setting cannot be changed later.

- **The TCP/IP protocol is enabled**—This protocol is required by Cognos to access data.
2. Select mixed authentication (Windows and SQL Server) instead of Windows-only authentication.
  3. Create the database and name it appropriately (for example, contentstore).
  4. Create the user account that will be used to access the database:
    - a. Open Microsoft SQL Server Management Studio.
    - b. Under **Security**, right-click **Logins** and select **New Login**.
    - c. Specify a login name.
    - d. Select **SQL Server authentication** and specify the **Password**.
    - e. Clear **Enforce password policy**. This clears all three check boxes.
    - f. Click **OK**.
  5. Create a schema:
    - a. Under **Databases**, expand the database that you created in [Step 3](#).
    - b. Under **contentstore**, expand **Security**.
    - c. Right-click **Schemas** and select **New Schema**.
    - d. Specify the **Schema name** and click **OK**.
  6. Configure the database user:
    - a. Under **Databases** | **<Database Name>** | **Security**, right-click **Users** and select **New User**.
    - b. Specify the **User name**.
    - c. For **Login name**, browse and select the login that you created in step 4.
    - d. For **Default schema**, browse and select the schema that you created in step 5.
    - e. In the **Owned Schemas** list, select the same schema as **Default schema**.
    - f. In the **Role Members** list, select **db\_datareader**, **db\_datawriter**, and **db\_ddladmin**.
    - g. Click **OK**.

## Creating an Oracle Content Store



---

**Task:** *To create an Oracle Content Store:*

1. Create a database with the following settings:
  - Database character set: AL32UTF8
  - National character set: AL16UTF16



**Note** • FlexNet Report Designer will not work if the Oracle database is not created with these settings.

2. Create a user account that will be used to access the database and use an appropriate user name. (For example, csuser.) Ensure that the account has permission to do the following:
  - Connect to the database.
  - Create, alter, and drop tables, triggers, views, procedures, and sequence.
  - Insert, update, and delete data in the database tables.
3. Create a tablespace where the Content Store schema will be created. The tablespace should be at least 150 MB in size. For example, in SQL\*Plus, the command would be:

```
create tablespace CONTENTSTORE datafile 'path/contentstore.dbf' size 150M
autoextend on;
```

## Using FlexNet Report Designer with Oracle

Using FlexNet Report Designer with Oracle requires installation of the Oracle client and configuration of the file `tnsnames.ora`.



### **Task:** To use FlexNet Report Designer with Oracle:

1. Install the Oracle Instant Client on the FlexNet Report Designer machine. For installation instructions that are specific to using the client with FlexNet Report Designer, see the section, [Installing and Configuring the Oracle Client](#), in [Appendix A, "Configuring Database Servers."](#)
2. Verify that the net service name is configured in the file `tnsnames.ora` in the directory where the Oracle client was installed (`../oracle/product/10.2.0/client_1/NETWORK/ADMIN`). There should be an entry in `tnsnames.ora` that reflects the connection to the Reporting Database. For example, the following entry has the net service name of `ORCL_MACH1` with the database host name `MACH1`, port number 1521 and the Service Name (SID) `ORCL`:

```
ORCL_MACH1 =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = MACH1)(PORT = 1521))
    )
    (CONNECT_DATA =
      (SID = ORCL)
      (SERVER = DEDICATED))
  )
```

3. Ensure that FlexNet Manager for Engineering Applications Reporting and FlexNet Report Designer are both on the network and can access each other.
4. Check that you have the FlexNet Report Designer license. Verify that your FlexNet Manager for Engineering Applications license file contains the `FLEXnet.Report.Online` feature.

# Installing FlexNet Report Designer on Microsoft Windows

The FlexNet Report Designer installer installs the FlexNet Report Designer software and the Apache HTTP server to the designated host.

The FlexNet Report Designer server is installed as a service. Therefore, the account used to install FlexNet Report Designer must have Administrator permission.



---

**Task:** *To install FlexNet Report Designer on systems running Microsoft Windows:*

1. Launch the FlexNet Report Designer installer. The file name of the installer has the form:  
`flexnet_manager_reportdesigner-<version number>-i86_n3.exe`
2. Work through the InstallAnywhere installation wizard panels (described in the following table) to install FlexNet Report Designer. Note that some panels are displayed only if a specific selection was made in a previous panel.

Panel	Description
<b>Introduction</b>	Introduces the InstallAnywhere installation wizard.  Within the wizard, click <b>Next</b> to move to the next panel; click <b>Previous</b> to move to the previous panel.
<b>License Agreement</b>	Displays the Cognos license agreement. You must read and accept this agreement in order to continue with the installation.
<b>Installation Folder</b>	Specify (or browse to a location by clicking <b>Choose</b> ) the installation folder for the FlexNet Report Designer.  Ensure that there are no spaces in the installation path.

Panel	Description
<b>Apache Installer</b>	<p>Specify whether you want to install Apache or use an existing Apache installation. The panels displayed after this panel depend on the option selected here.</p> <ul style="list-style-type: none"> <li>• <b>Install Apache with default settings</b>—The installer will install Apache with the default settings for use with Cognos. Click <b>Next</b> to move to the Cognos Settings: Dispatcher Port panel.</li> <li>• <b>Install Apache with specified settings</b>—The installer will install Apache, but enables you to specify the gateway host name and port for the Apache instance. Click <b>Next</b> to move to the Apache Settings: Host Name and Port panel.</li> <li>• <b>Use existing Apache installation with settings unchanged</b>—Enables you to specify the location of an existing Apache instance and uses the existing settings. Click <b>Next</b> to move to the Apache Settings: Location panel.</li> <li>• <b>Use existing Apache installation with specified settings</b>—Enables you to specify the location of an existing Apache instance, and to specify the gateway host name and port. Click <b>Next</b> to move to the Apache Settings: Location panel.</li> </ul>
<b>Apache Settings: Location</b>	<p>This panel is displayed only if you selected one of the “Use existing Apache installation...” options in the Apache Installer panel.</p> <p>Specify the location of the existing Apache instance that you want to use as the Cognos gateway.</p> <p>Type a directory path or click Choose... to browse to a location.</p>
<b>Apache Settings: Host Name and Port</b>	<p>This panel is displayed only if you selected the “Install Apache with specified settings” or the “Use existing Apache installation with specified settings” option in the Apache Installer panel.</p> <p>Specify the host name and port to use for the Apache instance. If you want Apache to listen to requests from any host at the specified port, leave the Gateway hostname field blank. (The default port is 8889.)</p>
<b>Cognos Settings: Dispatcher Port</b>	<p>Specify the port that you want to be used for communication between FlexNet Manager for Engineering Applications and Cognos. It is recommended that you use the default port (9300) unless that port is already in use.</p>
<b>Cognos Settings: Select Database Type</b>	<p>Select the database that will be used as the Cognos Content Store. (The Cognos Content Store database stores report metadata.)</p> <p>The fields displayed on the following Cognos Settings: Content Store Settings panel are dependent on the selection you make in this panel.</p>

Panel	Description
<b>Cognos Settings: Content Store Settings</b>	Specify the location and credentials for the database that will be used as the Cognos Content Store.
<b>Mail Server Settings</b>	Specify the mail server to be used with Cognos. (This is used when you initiate the emailing of a report from within the Cognos user interface.)  A warning is displayed if the installer cannot establish a connection with the SMTP server.
<b>Product Authentication Information</b>	Select the FlexNet Manager applications that will be used with FlexNet Report Designer. These products—FlexNet Manager for Engineering Applications and/or FlexNet Manager Platform—will be used to authenticate user access to Cognos functionality.
<b>FlexNet Product Location</b>	Provide the host name and port number for your enterprise's FlexNet Manager for Engineering Applications Admin server. This serves as the authentication provider used to authenticate access to FlexNet Report Designer (Cognos).
<b>Pre-Installation Summary</b>	Review the installation settings you have provided before continuing with the installation. If you need to make any changes, click <b>Previous</b> to move backward through the wizard until you arrive at the panel where you want to change information.  If you the installation settings are correct, click <b>Install</b> . When the installation is complete, click <b>Done</b> .

- FlexNet Report Designer and the Apache Web server are now installed. Ensure that the Cognos and Apache services started successfully.
- See the section, [Post-Installation Configuration Steps](#), for information about the settings you need to configure using the FlexNet Manager for Engineering Applications user interface.

In case of errors, check the files `cogconfig_response.csv` and `cogserver.xml` (located in the folder `<ReportDesigner-install-dir>\c10\logs`) for errors.

**Next Steps:** [Importing the FlexNet Report Designer \(Cognos\) Package](#) and [Importing Custom Reports](#) (if necessary)

## Importing the FlexNet Report Designer (Cognos) Package



**Task:** *To import a FlexNet Report Designer (Cognos) package:*

1. If you are upgrading the Cognos package (importing a new Cognos package when you have a previous package version), make a backup of the Content Store database before importing the new package.
2. Download the FlexNet Report Designer package from the Flexera Software download site, FlexNet Operations On Demand (<http://flexerasoftware.flexnetoperations.com>):  
  
FlexNetManagerSuite.zip
3. Copy the FlexNet Report Designer (Cognos) package file to the following directory. Create a deployment folder if one does not exist.  
  
`<fnmea_reportdesigner_install_dir>\c10\deployment\`
4. Start FlexNet Manager for Engineering Applications, and sign in to the Web interface.
5. Click the **Reports** tab, then click **Report Designer**.
6. On the left side of the page, click the **Cognos Administration** link, then click the **Import Package** link.
7. Click the **Import Package** button.

## Importing Custom Reports

If you [exported your custom reports](#) prior to upgrading to FlexNet Report Designer 15.5, you can import them using the following steps. You must import each report individually.



**Task:** *To import a custom report:*

1. Go to the Cognos Reporting page of the FlexNet Manager for Engineering Applications interface, available from the Reports | Report Designer tab.
2. Expand the Launch menu (in the upper-right corner), then click Report Studio.
3. From the File menu, select **New**, then select **Blank** to create a blank report.
4. In a text editor (for example, Textpad), open the file containing the custom report content (`<filename>.xml`).
5. Select the contents of the file (by pressing **Ctrl+A**) and copy the contents (by pressing **Ctrl+C**).
6. From the Tools menu, select **Open Report from Clipboard**.
7. Run and save the report.

For more information, refer to the Cognos documentation.

## Starting and Stopping FlexNet Report Designer



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**Task:** *To start or stop FlexNet Report Designer:*

Start and stop FlexNet Report Designer by starting and stopping it as a service (using the Windows Control Panel). The default service name is IBM Cognos.

## Re-Configuring FlexNet Report Designer



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**Task:** *To re-configure FlexNet Report Designer:*

Browse to the installation directory `<fnmea_report_designer_install_dir>` and double-click on the shortcut `configure_flexnet_report_designer`. This launches the installation configurator.

## Post-Installation Configuration Steps

After the installation is complete, perform these steps using the FlexNet Manager for Engineering Applications user interface.



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**Task:** *To perform post-installation configuration for FlexNet Report Designer:*

1. From a Web browser, launch FlexNet Manager for Engineering Applications, then click the **Admin** tab.
2. Under **System Configuration**, click **Reporting**.
3. To configure the FlexNet Report Designer, provide values for the following settings.

Setting	Description
<b>Cognos Server Host</b>	Host name of the machine where FlexNet Manager for Engineering Applications Report Designer is installed.
<b>Cognos Server Port</b>	The port at which the Apache Web server is running. By default, the Apache Web server runs at port 8889.
<b>Cognos Web Services</b>	The port at which the Cognos Web services communicate. The default port is 9300.

4. Click **Save Configuration**.
5. Under Reports, click **Report Designer**. Click **Import Packages** to link the Reporting Database with the Report Designer Database.



6. Under Data Aggregation:
  - a. Select **Roll up** and specify the interval and start time for data aggregation.
  - b. Select the data aggregation interval based on your database size. For medium to large databases, once daily will be optimal.
  - c. Enter the time in *hh:mm* format. Optimally, data aggregation should be performed during non-peak times for the FlexNet Manager for Engineering Applications Reporting Server.
7. Click **Save**.

## FlexNet Manager for Engineering Applications Permissions for Accessing FlexNet Report Designer

In order to access FlexNet Report Designer, a user must have a role that contains one of the Report Designer permissions—"View and Create Cognos Reports" and/or Import Packages.

### Creating and Viewing FlexNet Report Designer (Cognos) Reports

FlexNet Manager for Engineering Applications provides a predefined, read-only role called Report Operator, which provides a user with access to all Classic Reporting functionality and to the Custom Reporting, Dashboard, and Test Cognos Connection screens within Report Designer.

To enable a user without the Report Operator report to create and view reports using Report Designer, assign the user to a role that contains the "View and Create Cognos Reports" permission.

### Importing FlexNet Report Designer (Cognos) Packages

FlexNet Manager for Engineering Applications provides one predefined, read-only role that contains the Import Packages permission—the Super Administrator role, which contains every permission that is available in FlexNet Manager for Engineering Applications.

To enable a user to import FlexNet Report Designer (Cognos) packages and to test the connection to Cognos, assign the user a role that contains the Import Packages permission.

## Accessing FlexNet Report Designer Directly from a Web Browser

Because FlexNet Manager for Engineering Applications limits the work area for FlexNet Report Designer, you may want to access FlexNet Report Designer independent of the FlexNet Manager for Engineering Applications user interface. FlexNet Report Designer provides a custom log-in page that enables you to do this.



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**Task:** *To access FlexNet Report Designer directly from a browser:*

1. Ensure that the FlexNet Manager for Engineering Applications Admin server is running. FlexNet Report Designer uses permissions defined in FlexNet Manager for Engineering Applications to authenticate access.
2. Open a supported Web browser and navigate to the following URL:

`http://<Cognos server host>:<Cognos server port>/cognos10/login.html`



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**Note** • For a list of supported Web browsers, see the *FlexNet Manager for Engineering Applications 15.5 Release Notes*.

3. Provide your FlexNet Manager for Engineering Applications user name and password.

If FlexNet Manager for Engineering Applications is configured to use LDAP for authentication, you must specify your domain name along with your user name. For example, if your domain name is *MyCompany* and your user name is *asmith*, your FlexNet user name would be *MyCompany\asmith*.

# Testing the FlexNet Manager for Engineering Applications Installation

To test that you can manage a license server using FlexNet Manager for Engineering Applications Admin, start your FlexNet components (Admin, Reporting, and Report Designer) using the startup scripts, boot scripts, or as Windows services in the following order:

1. **Database server**—If the database server is not already running, refer to the instructions from the database vendor to start the database server.
2. **FlexNet Manager for Engineering Applications Reporting**—For instructions on starting FlexNet Manager for Engineering Applications Reporting, see [Running FlexNet Manager for Engineering Applications Reporting As a Service](#)
3. **FlexNet Manager for Engineering Applications Admin**—For instructions on starting FlexNet Manager for Engineering Applications Admin, see [Running FlexNet Manager for Engineering Applications Admin As a Service](#)
4. **FlexNet Manager for Engineering Applications Report Designer**—For instructions on starting FlexNet Manager for Engineering Applications Report Designer, see [Starting and Stopping FlexNet Report Designer](#)
5. **FlexNet Agent on a license server machine**—For instructions on starting a FlexNet Agent, see the *FlexNet Agent Installation Guide*.

To check that you can start the license server using FlexNet Manager for Engineering Applications Admin, verify that the license server that was specified during the installation of the FlexNet Agent is not running.

## Logging In to FlexNet Manager for Engineering Applications



**Task:** *To log in to FlexNet Manager for Engineering Applications:*

1. Open a supported Web browser.
2. Type the following URL—

`http://manager_host:8888`

—where *manager\_host* is the name of the machine on which FlexNet Manager for Engineering Applications Admin is installed and *port* is the FlexNet Manager for Engineering Applications Admin port number. By default, the port number is 8888.

3. Log in to FlexNet Manager for Engineering Applications with the user name admin and password admin. Click the **Login** button.

This opens the FlexNet Manager for Engineering Applications Summary page. Now that you have installed a FlexNet Agent to communicate with FlexNet Manager for Engineering Applications Admin, the Summary page displays the status of the license server specified when you installed the FlexNet Agent. Because you stopped the license server before you installed a FlexNet Agent, the status of both the manager (1madmin or 1mgrd) and the vendor daemons should be *down*.

## Starting the License Server



### Task:

#### To start the specified license server:

1. Click the display name of the license server. The Configure and Manage License Server page appears and displays the license server information you specified when you installed the FlexNet Agent, or displays default settings.
2. By default, status and usage information for a license server is sent every five minutes. If performance is an issue, a longer refresh interval can be set for a license server by clicking **License Server Scheduling** and increasing the Refresh License Server Status interval. To display the refreshed status information, the Web browser display must be refreshed.
3. During the FlexNet Agent installation, you specified the location of a debug log file for this license server. This location is where a debug log file would be written if 1madmin or 1mgrd is started with debug logging enabled. Therefore, before starting the license server through FlexNet Manager for Engineering Applications Admin, make sure that debug logging is enabled for this license server (it is by default) and click **Save**.
4. Review all the configuration information for this license server. If you chose to install a license server that runs as a Windows service or from a boot script, now is the time to enter and save startup parameters to exactly match the service or script parameters.
5. Click a vendor daemon name on the Configure and Manage License Server page. The Configure and Manage Vendor Daemon page appears.

Assigning a vendor daemon group provides a way to group different vendor daemons on a page. The vendor daemon group defaults to the vendor daemon name, but can be changed or removed.

If you wanted to enable report logging for this vendor daemon, before installing the FlexNet Agent, you should have set up an options file for the vendor daemon that specifies the full path to a report log file. FlexNet Manager for Engineering Applications reads the options file and displays the report log file name. Note that you can schedule the rotation of report logs through FlexNet Manager for Engineering Applications Admin.

Review the rest of the configuration information for the vendor daemon.

6. Click the license server display name to return to the Configure and Manage License Server page. When you are ready to start the license server, click **Start**. A message is displayed to notify you that the start command is being processed.

7. Click the **Summary** tab after a few seconds. The status of both `lmgrd` and the vendor daemons should be up. If not, refresh the Web browser display after a few more seconds.

If the license server does not start:

- Verify that the license server runs with the same startup parameters from the command line, as a Windows service, or from a boot script, outside FlexNet Manager for Engineering Applications Admin.
- Check the `flexnet.log` and `flexnetagent.log` files and read the section, “Troubleshooting a FlexNet Agent” in the *FlexNet Agent Installation Guide*. You can also view these log files from the FlexNet Manager for Engineering Applications user interface.

## Stopping the License Server



### Task:

#### To stop the specified license server:

1. In the Summary page, click the display name of the license server. The Configure and Manage License Server page is displayed.
2. Click the **Stop** button. Confirm that you want to stop the license server. A message is displayed to notify you that the stop command is being processed.
3. Click the **Summary** tab after a few seconds. The status of both `lmgrd` and the vendor daemons should be down.

# Troubleshooting FlexNet Agents

Check both the FlexNet Manager for Engineering Applications and FlexNet Agent logs when there are problems with the FlexNet Agent.

A FlexNet Agent may not start if:

- More than one license file managed by the agent contains a `SERVER` line with the same port number.
- The options file path specified in a license file is incorrect. License files must contain fully qualified paths to options files and vendor daemon executables.
- A license file location specified for one of the FlexNet Agent's license servers is incorrect.

If FlexNet Manager for Engineering Applications Admin and a FlexNet Agent are running, but cannot contact each other, there may be connectivity problems.

A FlexNet Agent may not report the correct license server status, or not start and stop license servers if:

- The FlexNet Agent is down.
- More than one `lmgrd` managed by the FlexNet Agent is configured to run on an unspecified port in the default port range.
- The FlexNet Agent attempts to register a license server whose license file has an invalid number of `SERVER` lines. The registration of the license server will fail in FlexNet Manager for Engineering Applications Admin. Any

subsequent registration requests for vendor daemons on this (unregistered) license server will also fail in FlexNet Manager for Engineering Applications and an ERROR will be logged in the FlexNet Agent log. However, FlexNet Agent registration will continue.

- A license server name in a FlexNet Agent's `config.xml` file is a duplicate of a license server name already registered by another FlexNet Agent with FlexNet Manager for Engineering Applications Admin. This license server will not be registered (because doing so would result in a duplicate license server name in FlexNet Manager for Engineering Applications Admin). None of the vendor daemons under this duplicate license server will be registered either. An ERROR log message is written to both the FlexNet Manager for Engineering Applications Admin's log and the FlexNet Agent's log. Registration of other (non-duplicate) license servers on the agent will proceed.

If an existing FlexNet Agent is shut down and its host and port reused by another FlexNet Agent, the first agent will appear with a status of down in the FlexNet Manager for Engineering Applications Admin interface until it is removed using FlexNet Manager for Engineering Applications Admin (Agent Summary page). If the first agent is started, it will have a port conflict with the second FlexNet Agent. If the second agent is stopped before the first agent is re-started, the second agent will appear with a status of down in the FlexNet Manager for Engineering Applications Admin interface until it is removed using FlexNet Manager for Engineering Applications Admin.

# Configuring FlexNet Manager for Engineering Applications

This chapter contains instructions and guidelines for configuring FlexNet components.

- [Configuring FlexNet Manager for Engineering Applications Behavior After Installation](#) provides instructions for configuring FlexNet Manager for Engineering Applications after installation, both using the Web interface and the FlexNet Manager for Engineering Applications Configurator. The FlexNet Manager for Engineering Applications Configurator is especially useful to point to a different database after an installation.
- [Exporting Configuration Settings](#) describes how to export configuration settings to keep as backup.
- [Importing Configuration Settings](#) describes how to import configuration settings from an exported configuration zip file.
- [Setting Access Rights for FlexNet Manager for Engineering Applications Admin Users](#) describes how to set access rights for the License Server and Agent, and how to create and edit license server administrative sets.
- [Configuring FlexNet Manager for Engineering Applications for LDAP](#) introduces support for obtaining user information from one or more domains.
- [Configuring FlexNet Manager for Engineering Applications Admin for Secure Socket Layer](#) describes how to set up the FlexNet Manager for Engineering Applications to use secure socket layers.
- [Setting the Java Heap Size for FlexNet Manager for Engineering Applications](#) describes how to change the initial and maximum Java heap size.
- [Customizing an Alert Email Template](#) gives instructions for creating and specifying a customized alert email template.
- [Specifying Locales](#) deals with customizing the display of dates and times for users in different locales.
- [Customizing the Date and Time Format](#) describes how date and time formats can be set for each installation of FlexNet Manager for Engineering Applications.
- [FlexNet Log Files](#) describes the log files available for FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting.

# Configuring FlexNet Manager for Engineering Applications Behavior After Installation

During the FlexNet Manager for Engineering Applications Admin/Reporting installation process, you specified some of its behavior. After installation, you can change these settings and/or specify some additional settings that govern the behavior of FlexNet Manager for Engineering Applications Admin/Reporting. Changing some settings requires that FlexNet Manager for Engineering Applications Admin/Reporting be restarted for them to take effect.

- **Configuring FlexNet Manager for Engineering Applications Admin Behavior**—FlexNet Manager for Engineering Applications Admin settings can be configured through its web interface, or through the configurator.
- **Configuring FlexNet Manager for Engineering Applications Reporting Behavior**—FlexNet Manager for Engineering Applications Reporting settings can be configured only through the configurator.
- **FlexNet Platform Server**—The recommended way to change the behavior of the FlexNet Platform Server is through the application web interface (using the System Configuration page).
- **FlexNet database connection**—The connection between FlexNet Manager for Engineering Applications Admin/Reporting and the corresponding database server is configured using the FlexNet Manager for Engineering Applications Admin/Reporting configurators. Note that changing these settings is rarely necessary after installation.

## Modifying Settings Using the FlexNet Manager for Engineering Applications Admin Web Interface

The web application is the recommended way to change some of the behavior of the FlexNet Manager for Engineering Applications Admin and its FlexNet Platform Server.

To change the behavior of the FlexNet Platform Server, select **Admin | System Configuration | FlexNet Platform Server**.

To change the behavior of the rest of FlexNet Manager for Engineering Applications Admin, select **Admin | System Configuration**, and one of the other categories. The FlexNet Manager for Engineering Applications Admin Online Help provides instructions. Note that FlexNet Manager for Engineering Applications Admin must be restarted for some changes to take effect.

## Modifying Settings Using the FlexNet Manager for Engineering Applications Admin Configurator

The minimum number of settings that are required to run FlexNet Manager for Engineering Applications Admin are accessible through the FlexNet Manager for Engineering Applications Admin Configurator that appears during the FlexNet Manager for Engineering Applications Admin installation. You can run the FlexNet Manager for Engineering Applications Admin Configurator after installation to configure the FlexNet Manager for Engineering Applications Admin application when it is not running.





**Task:** *To use the FlexNet Manager for Engineering Applications Admin Configurator to change FlexNet Manager for Engineering Applications Admin settings:*

1. Stop FlexNet Manager for Engineering Applications Admin.
2. Open a Command Prompt window and change to `fnmea_admin_install_dir`.
3. Type `f1exnet site` to launch the FlexNet Manager for Engineering Applications Admin Configurator.
4. Change the settings.
5. Click **Save** to save the settings to the file `fnmea_admin_install_dir/config/site.properties`. The FlexNet Manager for Engineering Applications Admin Configurator closes and the new settings are merged into a recreated `site` directory.
6. Restart FlexNet Manager for Engineering Applications Admin.

You can change many configuration settings using the FlexNet Manager for Engineering Applications Admin interface. However, you must use the FlexNet Manager for Engineering Applications Admin Configurator to configure FlexNet Manager for Engineering Applications Admin's connection to a new database.



**Task:** *To configure the connection to a new database:*

1. Make a backup copy of the file `fnmea_admin_install_dir/config/site.properties`.
2. Install and configure the new database management system.
3. Note the location of the supported JDBC driver for the database, or verify that it is bundled in the FlexNet Manager for Engineering Applications Admin installation (see [Chapter 3, "Installing FlexNet Manager for Engineering Applications"](#)).
4. Stop FlexNet Manager for Engineering Applications Admin.
5. Open a Command Prompt window and change to `fnmea_admin_install_dir`.
6. Type `f1exnet site` to launch the FlexNet Manager for Engineering Applications Admin Configurator.
7. Change the settings to match the new database. For field descriptions, see the section on the FlexNet Manager for Engineering Applications Admin Configurator settings in [Chapter 3, "Installing FlexNet Manager for Engineering Applications"](#).
8. Click **Save** to save the settings to the file `fnmea_admin_install_dir/config/site.properties`. The FlexNet Manager for Engineering Applications Admin Configurator closes and the new settings are merged into a recreated `site` directory.
9. Make sure the new database server is running.
  - If you want to create a new, empty database, load the database (see [Creating an Empty FlexNet Manager for Engineering Applications Admin Database](#)).
  - If you configured an existing, non-empty database on a remote machine, make sure that a FlexNet DB User who can connect to the database exists in the DBMS.

10. Restart FlexNet Manager for Engineering Applications Admin and open a browser to the FlexNet Manager for Engineering Applications Admin login page.

If there are problems connecting to the new database and you want to reconnect to the old database, copy the old `site.properties` file back in place, re-run the FlexNet Manager for Engineering Applications Admin Configurator, and save the old settings.

## Modifying Settings Using the FlexNet Manager for Engineering Applications Reporting Configurator

The minimum number of settings that are required to run FlexNet Manager for Engineering Applications Reporting are accessible through the FlexNet Manager for Engineering Applications Reporting Configurator that appears during the FlexNet Manager for Engineering Applications Reporting installation. You can run the FlexNet Manager for Engineering Applications Reporting Configurator after installation to configure the FlexNet Manager for Engineering Applications Reporting application when it is not running.



**Task:** *To use the FlexNet Manager for Engineering Applications Reporting Configurator to change FlexNet Manager for Engineering Applications Reporting settings:*

1. Stop FlexNet Manager for Engineering Applications Reporting.
2. Open a Command Prompt window and change to `fnmea_reporting_install_dir`.
3. Type `flexnet site`  
The FlexNet Manager for Engineering Applications Reporting Configurator window appears.
4. Change the settings.
5. Click **Save** to save the settings to `fnmea_reporting_install_dir/config/site.properties`. The FlexNet Manager for Engineering Applications Reporting Configurator closes and the new settings are merged into a recreated site directory.
6. Restart FlexNet Manager for Engineering Applications Reporting.

You can change many configuration settings using the FlexNet Manager for Engineering Applications Reporting interface. However, you must use the FlexNet Manager for Engineering Applications Reporting Configurator to configure FlexNet Manager for Engineering Applications Reporting's connection to a new database.



**Task:** *To configure the connection to a new database:*

1. Make a backup copy of `fnmea_reporting_install_dir/config/site.properties`.
2. Install and configure the new database management system.
3. Note the location of the supported JDBC driver for the database, or verify that it is bundled in the FlexNet Manager for Engineering Applications Reporting installation (see [Running the FlexNet Manager for Engineering Applications Reporting Installation Wizard](#)).

4. Stop FlexNet Manager for Engineering Applications Reporting.
5. Open a Command Prompt window and change to `fnmea_reporting_install_dir`.
6. Type `flexnet site`  
  
The FlexNet Manager for Engineering Applications Reporting Configurator window appears.
7. Change the settings to match the new database. For field descriptions, see the section on the FlexNet Manager for Engineering Applications Reporting Configurator settings in [Running the FlexNet Manager for Engineering Applications Reporting Installation Wizard](#).
8. Click **Save** to save the settings to `fnmea_reporting_install_dir/config/site.properties`. The FlexNet Manager for Engineering Applications Reporting Configurator closes and the new settings are merged into a recreated site directory.
9. Make sure the new database server is running.
  - If you want to create a new, empty database, load the database (see [Creating an Empty FlexNet Manager for Engineering Applications Reporting Database](#) ).
  - If you configured an existing, non-empty database on a remote machine, make sure that a FlexNet Manager for Engineering Applications Reporting DB User who can connect to the database exists in the DBMS.
10. Restart FlexNet Manager for Engineering Applications Reporting.

If there are problems connecting to the new database and you want to reconnect to the old database, copy the old `site.properties` file back in place, re-run the FlexNet Manager for Engineering Applications Reporting Configurator, and save the old settings.

## Exporting Configuration Settings

The configuration export utility backs up the FlexNet Manager for Engineering Applications Admin/Reporting configuration settings visible in the Web application. Configurations are exported to a .zip file that contains FlexNet Platform Server, user interface, and application-specific settings in separate XML files. The configuration import utility uses the zip file to restore all configuration settings.

Before changing any configuration settings in a working FlexNet Manager for Engineering Applications Admin/Reporting installation, you may want to export configuration settings. Therefore, if there is a problem with the new settings, you have a backup of working settings to restore.

This section provides instructions for exporting configuration settings, both through the FlexNet Manager for Engineering Applications Admin interface and from the command line (FlexNet Manager for Engineering Applications Admin/Reporting).

## Exporting FlexNet Manager for Engineering Applications Admin Configuration Settings from the Web Application



**Task:** *To export FlexNet Manager for Engineering Applications Admin configuration settings through the FlexNet Manager for Engineering Applications Web interface:*

1. Select **Admin | System Configuration | Export** to open the Export Configurations page.
2. Click **Export** to export all configuration settings to a zip file.
3. Select to save the file to disk and click **OK** or **Save**.
4. Specify the location and file name for the file. By default, the configuration settings are saved to a file called `flexnet_configurations.zip`. It is recommended to save it to a safe location *outside* the `fnmea_admin_install_dir` directory.
5. Click **Save**.

## Exporting FlexNet Manager for Engineering Applications Admin Configuration Settings from the Command Line



**Task:** *To export FlexNet Manager for Engineering Applications Admin configuration settings from the command line:*

1. Change to `fnmea_admin_install_dir`.
2. Type `flexnet config export`. Configuration settings are saved to a zip file, `fnmea_admin_install_dir/config/flexnet_configurations.zip`.

You may want to copy this file to another location, but the configuration import utility will prompt for the zip file in the same location in which the configuration export utility created it.

# Exporting FlexNet Manager for Engineering Applications Reporting Configuration Settings from the Command Line



**Task:** *To export FlexNet Manager for Engineering Applications Reporting configuration settings from the command line:*

1. Change to `fnmea_reporting_install_dir`.
2. Type `flexnet config export`. Configuration settings are saved to a zip file, `fnmea_reporting_install_dir/config/flexnet_configurations.zip`.

You may want to copy this file to another location, but the configuration import utility will prompt for the zip file in the same location in which the configuration export utility created it.

## Importing Configuration Settings

The configuration import utility uses the .zip file created by the configuration export utility to restore all configuration settings.

This section provides instructions for importing configuration settings, both through the FlexNet Manager for Engineering Applications Admin interface and from the command line (FlexNet Manager for Engineering Applications Admin/Reporting).



**Note** • Before importing configuration settings into a working installation, [export the current settings](#).

## Importing Configuration Settings from the Web Application



**Task:** *To import configuration settings through the FlexNet Manager for Engineering Applications Admin interface:*

1. Select **Admin | System Configuration | Import** to open the Import Configurations page.
2. Specify the zip file that contains the configuration settings to restore.
3. Click **Import** to import all configuration settings from the specified zip file.
4. Restart FlexNet Manager for Engineering Applications Admin to make sure that all setting changes take effect.

## Importing FlexNet Manager for Engineering Applications Admin Configuration Settings from the Command Line



**Task:** *To import configuration settings from the command line:*

1. Verify that the zip file from which you want to restore configuration settings is located at `fnmea_admin_install_dir/config/flexnet_configurations.zip`.
2. Change to `fnmea_admin_install_dir`.
3. Type `flexnet config import`. Configuration settings are imported from the zip file.
4. Restart FlexNet Manager for Engineering Applications Admin to make sure that all setting changes take effect.

## Importing FlexNet Manager for Engineering Applications Reporting Configuration Settings from the Command Line



**Task:** *To import configuration settings from the command line:*

1. Verify that the zip file from which you want to restore configuration settings is located at `fnmea_reporting_install_dir/config/flexnet_configurations.zip`.
2. Change to `fnmea_reporting_install_dir`.
3. Type `flexnet config import`. Configuration settings are imported from the zip file.
4. Restart FlexNet Manager for Engineering Applications Reporting to make sure that all setting changes take effect.

## Setting Access Rights for FlexNet Manager for Engineering Applications Admin Users

Access rights determine which FlexNet Manager for Engineering Applications Admin users are able to view and manage information pertaining to specified entities within the license management domain. This enables you to define the license server sets and the FlexNet Agents which a particular FlexNet Manager for Engineering Applications Admin user can view and manage.



**Important** • By default, only the Super Administrator will be part of the access set when you perform a fresh installation. You therefore need to add license server admin sets and assign users to them to allow them to see license server information.

## License Server Access

FlexNet Manager for Engineering Applications Admin enables you to specify access to license servers based on the administrative needs of various users. You group license servers into license server administrative sets, then associate those sets with FlexNet Manager for Engineering Applications Admin users.

Users have access only to the information that pertains to the license servers in the License Server Administrative Set with which they are associated. For example:

- The information displayed using the Summary, Servers, Licenses and Activity tabs will pertain only to the license servers for which the user has access.
- License Server access rights work in conjunction with alert subscription to determine which alerts are displayed when a particular FlexNet Manager for Engineering Applications Admin user is signed in.

You can group one or many license servers in a license server administrative set. There is no limit to the number of license servers in a set.

### Universal License Server Admin Set

By default, FlexNet Manager for Engineering Applications Admin creates the Universal License Server Admin Set, which is interacted with by users in the Super Administrator role. When a license server is registered with FlexNet Manager for Engineering Applications Admin, it is automatically added to the Universal License Server Admin Set.

## Creating License Server Administrative Sets

Users assigned a role with the View and Manage License Server Admin Sets permission can create license server administrative sets and associate users with those sets.



### **Task:** To create a license server administrative set:

1. Click the **Access** tab, then click **License Server Admin Set** to display the License Server Administrative Set page.
2. Click **Add License Server Admin Set** to display the Add License Server Administrative Set page.
3. In the Name field, type a name for the set.
4. In the License Servers section, select the license servers that you want to add to the set and click the appropriate arrow.

5. In the Users section, select the users that you want to associate with the license server administrative set and click the appropriate arrow.
6. Click **Save**.

## Editing License Server Administrative Sets

Users assigned a role with the View and Manage License Server Admin Sets permission can edit license server administrative sets and associate users with those sets.



**Task:**

**To edit a license server administrative set:**

1. Click the **Access** tab, then click **License Server Admin Set** to display the License Server Administrative Set page.
2. Click a name link for the license server administrative set that you want to edit. This displays the Edit License Server Administrative Set page.
3. In the Name field, edit the name for the set if required.
4. In the License Servers section, select the license servers that you want to add to the set or remove from the set and click the appropriate arrow.
5. In the Users section, select the users that you want to associate with the license server administrative set or for whom you want to remove the association, and click the appropriate arrow.
6. Click **Save**.

## Agent Access Rights

Agent access rights provide individual FlexNet Manager for Engineering Applications Admin users with rights to view information and manage specified FlexNet Agents. The Agent Access Rights Management page enables you to see a list of the FlexNet Agents that are registered with FlexNet Manager for Engineering Applications Admin and the FlexNet Manager for Engineering Applications Admin users who have access rights for each agent.

When a FlexNet Agent starts up and is registered with FlexNet Manager for Engineering Applications Admin, the FlexNet Agent is automatically associated with all FlexNet Manager for Engineering Applications Admin users who have been assigned the Super Administrator role. This means that every user who has the Super Administrator role at the time FlexNet Agent is registered will have access rights to information about that FlexNet Agent.

Agent access rights work in conjunction with alert subscription to determine which alerts are displayed when a particular FlexNet Manager for Engineering Applications Admin user is signed in.

## Editing Agent Access Rights

Users assigned a role with the “View and Manage Agent Access Rights” permission can edit and define agent access rights.





**Task:** *To change access rights for a particular FlexNet Agent:*

1. Click the **Access** tab, then click the **Agent Access** subtab to display the Agent Access Rights Management page.
2. Click a FlexNet Agent *name* link to display the Edit Agent Access Rights page.
3. Add or remove users by selecting the user name and clicking the appropriate arrow. Users listed in the Selected Users box (on the right) are able to view information about the FlexNet Agent using the FlexNet Manager for Engineering Applications Admin interface.
4. Click **Save**.

## Configuring FlexNet Manager for Engineering Applications for LDAP

User information can be entered manually into FlexNet Manager for Engineering Applications or can be imported from a directory service. Only enough information from the directory service is imported to allow FlexNet Manager for Engineering Applications to contact the service; authentication information for a user in a directory service domain is maintained in the directory service.

To configure LDAP support, click **Admin**, then **Users**, then **Show Domains**. Details are provided in the online *FlexNet Manager for Engineering Applications Help Library*.

## Configuring FlexNet Manager for Engineering Applications Admin for Secure Socket Layer

Secure Socket Layer (SSL) enables Web servers and Web clients to communicate over a secured connection using the HTTPS protocol where both the server and the client encrypt data before sending it. If you choose not to have a full-featured Web server handle HTTPS requests for FlexNet Manager for Engineering Applications Admin, FlexNet Manager for Engineering Applications Admin itself can act as an SSL server to Web browsers or Web service client applications. FlexNet Manager for Engineering Applications Admin can also act as an SSL client to a remote server, such as an LDAP server. HTTPS is always enabled in FlexNet Manager for Engineering Applications Admin, but the secure server keystore and the secure client truststore may need to be configured.

## Configuring Server-Side Secure Socket Layer

When a Web browser or Web service client connects directly to FlexNet Manager for Engineering Applications Admin using HTTPS, SSL authenticates the credentials of FlexNet Manager for Engineering Applications Admin. Certificates to authenticate the FlexNet Manager for Engineering Applications Admin SSL server can be self-signed. Trusted certificates are issued by a recognized certificate authority.

The following steps are briefly described in this section:

- [Generating a Test Certificate](#)
- [Configuring FlexNet Manager for Engineering Applications Admin with the Test Certificate](#)
- [Testing that the HTTPS connection to FlexNet Manager for Engineering Applications Admin works](#) (testing the SSL listener)
- [Obtaining a Trusted Certificate](#)
- [Configuring FlexNet Manager for Engineering Applications Admin with a Permanent Certificate](#) (meaning the trusted certificate)

## Generating a Test Certificate

A keystore containing a public key/private key pair and an expiring, self-signed certificate for testing SSL is shipped with FlexNet Manager for Engineering Applications Admin. If the shipped keystore has expired, another test keystore can be generated using `keytool`, a command-line utility provided in the Java JDK. The following instructions allow you to generate a simple key pair and certificate keystore that is valid for three months. This keystore allows you to test that the SSL listener can run, but its certificate is also self-signed and is not trusted by the browser.



### **Task:** *To generate a test certificate from scratch:*

1. Install or locate a Java JDK. Verify that the `keytool` utility is accessible at the command line.
2. Generate a simple key pair and non-trusted certificate into a keystore file in the current directory named `keystore` by typing the following:

```
keytool -keystore keystore -alias tomcat -genkey -keyalg RSA
```

You are prompted to provide answers to several questions for the certificate. Press the **Enter** key to submit each of your answers. Note the password that you enter. In the next section, [Configuring FlexNet Manager for Engineering Applications Admin with the Test Certificate](#), you will enter these passwords into the FlexNet Manager for Engineering Applications Admin Configurator. If you answer these questions accurately for the test certificate, the certificate that you generate can be used as the basis of your trusted certificate that you obtain from a certificate authority.

**Table 7-1 •** Certificate Questions

Question	Description
<b>Enter keystore password:</b>	Password for the keystore. The default SSL keystore password for FlexNet Manager for Engineering Applications Admin is <code>f1exnet</code> . The password is displayed in plain text.
<b>What is your first and last name?</b>	Fully qualified domain name of the machine on which FlexNet Manager for Engineering Applications Admin is installed.

Table 7-1 • Certificate Questions

Question	Description
What is the name of your organizational unit?	Name of your division or group in your company.
What is the name of your organization?	Your company name.
What is the name of your City or Locality?	City name.
What is the name of your State or Province?	State or province name.
What is the two-letter country code for this unit?	Two-letter code for your country.
Is <i>entry</i> correct?	Verify that the entries you provided are correct. Type yes or no.
Enter key password for <tomcat> (RETURN if same as keystore password):	Press <b>Enter</b> to use the same password for the Tomcat SSL key as the keystore uses. You must use the same password.

## Configuring FlexNet Manager for Engineering Applications Admin with the Test Certificate



**Task:** *To configure FlexNet Manager for Engineering Applications Admin with the test certificate you just generated:*

1. Stop FlexNet Manager for Engineering Applications Admin.
2. Copy the test keystore file that you just generated, keystore, to a location accessible from, but outside, the FlexNet Manager for Engineering Applications Admin installation.
3. To reconfigure FlexNet Manager for Engineering Applications Admin to use this new test keystore, change to the `fnmea_admin_install_dir` in a command window and type **flexnet site**. The FlexNet Manager for Engineering Applications Admin Configurator appears.
4. On the first pane of the Configurator, select the **Show Advanced Settings** check box, and then click **Next** twice to advance to the third pane.
5. If you want the port to be something other than 8443, change the **HTTPS Port**.
6. Modify the **SSL Keystore Location** setting to match the location of the test keystore.
7. In the **SSL Keystore Password** field, enter and confirm the keystore password for the certificate. The default password for the bundled keystore is `flexnet`.

8. Click **Next** through to the last pane, and then click **Finish**. When the Configurator window closes, the site directory is re-created to reflect the new configuration settings.
9. Restart FlexNet Manager for Engineering Applications Admin.

## Verifying the Test Certificate

The previous steps configure FlexNet Manager for Engineering Applications Admin to accept HTTPS requests. You must now verify that you can log in to FlexNet Manager for Engineering Applications Admin using HTTPS.



### Task:

#### To verify the test certificate:

1. Because you generated your certificate yourself and you are not a known certificate authority, import the trusted certificate (exported from the keystore) into a browser or Web service client implementation. In Internet Explorer, select **Tools | Internet Options | Content | Certificates**. In Firefox, select **Edit | Preferences | Advanced | Security | View Certificates | Web Sites**.
2. Browse to the URL `https://<hostname>:<port number>/flexnet`, where:
  - a. `<hostname>` is the fully qualified domain name for *the host* that you specified when you generated the keystore.
  - b. `<port number>` is the HTTPS port number you configure.
3. The login page for FlexNet Manager for Engineering Applications Admin is displayed.



**Note** • If connections to FlexNet Manager for Engineering Applications Admin come only from inside your organization, a non-expiring, self-signed certificate that is added to each internal user's Web browser certificate store may be adequate. See the options for `keytool` to generate a non-expiring, self-signed certificate.

## Obtaining a Trusted Certificate

For optimal security, if users are connecting to FlexNet Manager for Engineering Applications Admin from outside your organization, you should obtain a trusted certificate from a certificate authority. A list of certificate authorities can be found in [SSL Configuration HOW-TO](#). Each certificate authority has its own instructions, but all require that you submit a certificate signing request (CSR) that you can generate from the test keystore using the `keytool` utility.



### Task:

#### To obtain a trusted certificate:

1. Generate a CSR in a file named `p.csr` for a key pair and certificate already in a keystore called `keystore` in the current directory by typing the following text:

```
keytool -certreq -keyalg RSA -alias tomcat -file tomcat.csr  
-keystore keystore
```

2. Submit this CSR as instructed by the certificate authority you chose.
3. After you receive a trusted certificate from the certificate authority, load the certificate authority's chain (or root) certificate (in a file named `rootcrt`) into the keystore used to generate the CSR. If the certificate is in a format understood by the `keytool` utility, type:

```
keytool -keystore <keystore> -import -alias root -file <rootcrt> -trustcacerts
```

If it is not in a format understood by the `keytool` utility, see [SSL Configuration HOW-TO](#) or documentation from the certificate authority.

4. After the root certificate has been loaded, load the new certificate (in a file named `newcrt`) into the keystore used to generate the CSR. If the certificate is in a format understood by the `keytool` utility, type:

```
keytool -keystore <keystore> -import -alias tomcat -file <newcrt> -trustcacerts
```

If it is not in a format understood by the `keytool` utility, see [SSL Configuration HOW-TO](#) or documentation from the certificate authority.

## Configuring FlexNet Manager for Engineering Applications Admin with a Permanent Certificate

This step is necessary to do the following:

- Point to a central repository of keystores or truststores maintained by your organization
- Configure the location of a permanent certificate, whether trusted or self-signed



**Task:**

**To configure FlexNet Manager for Engineering Applications Admin with a permanent trusted or self-signed certificate:**

1. Stop FlexNet Manager for Engineering Applications Admin.
2. Copy the keystore file that you just generated, `keystore`, to a location accessible from, but outside, the FlexNet Manager for Engineering Applications Admin installation, or point to a keystore maintained by your organization.
3. To reconfigure FlexNet Manager for Engineering Applications Admin to use this new keystore, change to the `fnmea_admin_install_dir` in a command window and type `flexnet site`. The FlexNet Manager for Engineering Applications Admin Configurator appears.
4. On the first pane of the Configurator, check the **Show Advanced Settings** check box, and then click **Next** twice.
5. If you want the port to be something other than 8443, change the HTTPS Port.
6. Modify the SSL Keystore Location setting to match the location of the permanent keystore.
7. In the SSL Keystore Password field, enter and confirm the keystore password for the certificate. The default password for the bundled keystore is `flexnet`.

8. Click **Next** through to the last pane, and then click **Finish**. When the Configurator window closes, the site directory is re-created to reflect the new configuration settings. After the site directory is re-created, restart FlexNet Manager for Engineering Applications Admin.
9. If you have received a trusted certificate from a known certificate authority, the certificate does not have to be imported into a browser or Web service client implementation. If you are using a self-signed certificate, import the certificate into browsers as described in [Verifying the Test Certificate](#). With a browser, connect to `https://<host>:<port number>/flexnet` to verify that the certificate is trusted, where `<host>` is the fully qualified domain name of the machine on which FlexNet Manager for Engineering Applications Admin is running, and `<port number>` is the port number specified when the certificate was generated. You can now log in to FlexNet Manager for Engineering Applications Admin.

## Configuring Client-Side Secure Socket Layer

FlexNet Manager for Engineering Applications Admin can also be a client on an SSL connection to a remote server, such as an LDAP server. When FlexNet Manager for Engineering Applications Admin connects to an SSL server as a client, FlexNet Manager for Engineering Applications Admin receives a certificate of authentication from the SSL server. FlexNet Manager for Engineering Applications Admin then checks the certificate against the set of certificates in its truststore (client keystore) to see if it is trusted. The default truststore is located in the JRE bundled with FlexNet Manager for Engineering Applications Admin at `fnmea_admin_install_dir/jvm/lib/security/cacerts`.

If the SSL server's certificate cannot be validated with the certificates in the default truststore, the SSL server's certificate must be added to the FlexNet Manager for Engineering Applications Admin truststore before the connection can be established.

## Importing a Secure Socket Layer Server's Certificate into the Truststore

This step is needed only if the SSL server's certificate cannot be validated with certificates already in the default truststore.



**Task:** *To import an SSL server's certificate into the FlexNet Manager for Engineering Applications Admin truststore:*

1. Obtain a certificate from the SSL server administrator. Its file name will be `servcert` in the rest of these instructions.
2. Copy the default truststore from `fnmea_admin_install_dir/jvm/lib/security/cacerts` to a location accessible from, but outside, the FlexNet Manager for Engineering Applications Admin installation. Its file name will be `<truststore>` in the rest of these instructions.
3. Install or locate the Java JDK. Verify that the `keytool` utility is accessible at the command line in the new truststore location.

4. Load the SSL server certificate into the new truststore location. If the certificate is in a format parse-able by the `keytool` utility, type the following:

```
keytool -keystore <truststore> -import -alias mykey  
-file servcrt -trustcacerts
```

If it is not in a format parsable by the `keytool` utility, consult the documentation from the SSL server administrator.

## Configuring FlexNet Manager for Engineering Applications Admin with a New Truststore

This step is necessary if:

- You want to point to a central repository of keystores or truststores maintained by your organization
- You load a new certificate into the default truststore and need to configure its new location



### Task:

**To configure FlexNet Manager for Engineering Applications Admin with a certificate for the SSL server to which you want FlexNet Manager for Engineering Applications Admin to connect:**

1. Stop FlexNet Manager for Engineering Applications Admin.
2. To reconfigure FlexNet Manager for Engineering Applications Admin and then re-create the `site` directory, change to the `fnmea_admin_install_dir` in a command window and type `flexnet site`. The FlexNet Manager for Engineering Applications Admin Configurator appears.
3. On the first pane of the Configurator, select the **Show Advanced Settings** check box and then click **Next** twice to advance to the third pane.
4. Modify the SSL Truststore Location setting to match the location where the truststore containing the SSL server's certificate is located.
5. In the SSL Truststore Password field, enter and confirm the truststore password. By default, the password from the FlexNet Manager for Engineering Applications Admin JRE is `changeit`.
6. Click **Next** through to the last pane, and then click **Finish**. When the Configurator window closes, the `site` directory is re-created.
7. After the `site` directory is re-created, restart FlexNet Manager for Engineering Applications Admin.

## Verifying the Trusted Connection

Now that you have reconfigured FlexNet Manager for Engineering Applications Admin to connect to the SSL server, verify that you can connect to the SSL server using FlexNet Manager for Engineering Applications Admin.

# Setting the Java Heap Size for FlexNet Manager for Engineering Applications

By default, both FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting run with an initial Java heap size of 8MB and a maximum Java heap size of 4096MB (the recommended java heap size is a minimum of 1024 MB) or more depending on the total RAM available on the machine. If you have system performance issues, you may want to increase the Java heap size. To change the Java heap size, you need to use the FlexNet Manager for Engineering Applications Admin Configurator. See [Running the FlexNet Manager for Engineering Applications Admin Installation Wizard](#) and [Running the FlexNet Manager for Engineering Applications Reporting Installation Wizard](#) for more information.



**Note** • The maximum Java heap size depends on the machines's total RAM, Operating System limitations and JRE 32/64-bit.

## Customizing an Alert Email Template

You can configure an alert handler to send email to a specified email address when an alert is triggered. Each alert type, or alert type family, has a default email template—an XSL file that is used to create email messages. You can have one email template path for each alert type. If you want to change this email template path, see [To modify an alert email template path for each alert](#):

The name of a default email template is usually composed of the:

- Module in which the alert is defined.
- Name or family name of the alert type.

For example, one of the templates is named `manager.licenseExpiringTemplate.xsl`. It is defined in the manager module for the family of License Expiring alerts. If there is no email template that matches the alert type or alert type family, the `genericAlert.xsl` template is used.

Default email templates are located in the `fnmea_admin_install_dir/site/webapps/flexnet/templates` directory. These email templates can be customized. Before renaming a customized email template, decide whether the customizations will apply to all emails that use this template.



**Important** • You should be familiar with XSLT before attempting to edit email templates.





**Task:** *To customize an alert email:*

1. Create a custom directory in the `fnmea_admin_install_dir` directory using `mkdir`, creating the following directory structure in the `custom` directory to mimic the path to the default email templates:  
`custom/webapps/flexnet/templates`
2. Locate the default email template and copy it to the `custom templates` directory that you just created.
3. Edit the copy of the email template and save the file.
4. Rename the customized file if necessary.
  - If the changes to the email template apply to all email messages that are generated using this template, do not rename the template file. If it is not renamed, it will replace the default template in the `site` directory, but the original will remain intact in the `releases` directory in case it has to be recovered.
  - If you want to target your edits to the email template used for only one of a family of alerts, rename the email template.
5. Stop FlexNet Manager for Engineering Applications Admin.
6. To load files from the `custom` directory into the `site` directory, in the `fnmea_admin_install_dir` directory, type **Flexnet site make**
7. Restart FlexNet Manager for Engineering Applications Admin.
8. Log in to FlexNet Manager for Engineering Applications Admin.
9. In the Set Alert Handlers page, configure an alert handler.
10. If you renamed the custom email template, change the Email template file name to the custom file name.
11. Click **Save**.



**Task:** *To modify an alert email template path for each alert:*

1. Go to the Alert Subscription page, and subscribe to the alert type and set up 1 to 3 email addresses.
2. In the FlexNet Manager for Engineering Applications Admin interface (as system administrator or someone with the correct permissions), go to **Alerts | Configure Alerts | Configure** to edit the Configure Alerts Definition page for the alert you are interested in.
3. Modify the information in the email template field.

# Specifying Locales

Locale settings are a combination of language and date/time display formats as supported by the Java 2 platform. FlexNet Manager for Engineering Applications ships with the en\_US locale, which enables FlexNet Manager for Engineering Applications to display dates and times as is customary in the United States.

If you add additional locales, user accounts can be associated with a locale in order to customize the display of dates and times.

For example, if you add the Great Britain locale (en\_GB), the date November 20, 2010 appears as:

- 11/20/2010 in the en\_US locale
- 20/11/2010 in the en\_GB locale

See the section [Adding Locales](#) for more information.

## Associating User Accounts with Locales



**Task:** *To associate a user account with a locale:*

1. Log in to FlexNet Manager for Engineering Applications Admin.
2. Click the **Admin** tab, then click **Users**.
3. Click the name of the user account you want to edit. This displays the Edit User page.
4. Select a value from the Locale menu.

The Locale setting is displayed only if you have more than one locale. See the section [Adding Locales](#) for more information.

5. Click **Save**.

The next time this user logs in to FlexNet Manager for Engineering Applications, dates and times will be displayed using the selected locale.

## Adding Locales



**Task:** *To add locales:*

1. Ensure that your locale is supported by the Java 2 platform (See <http://java.sun.com/javase/reference/index.jsp>.)
2. Browse to following folder in the FlexNet Manager for Engineering Applications Admin installation directory:  
`<fnmea_installation_directory>\site\conf\localization.`
3. In the folder, copy the file en\_US. (This is an empty file.)

4. Rename the copy of en\_US to the locale code of your selected language. For example, to specify Canadian French, rename the copy of en\_US to fr\_CA.
5. Repeat [Step 3](#) and [Step 4](#) for all of the locales that you want to add.

## Customizing the Date and Time Format

Date and time formats can be set for each installation of FlexNet Manager for Engineering Applications, and the formats chosen affect how *all* users view date and time information. FlexNet Manager for Engineering Applications provides four formats for date and time display, configured in the FLEXnetManagerText.properties file.

Modifying the default format is considered a customization and requires running the flexnet site make command.



---

**Task:** *To customize the date and time formats:*

1. Open fnmea\_admin\_install\_dir/site/jetty/webapps/flexnet/WEB-INF/classes/FLEXnetManagerText.properties in a text editor.
2. Locate the following section:

```
#  
# date time style values allowed : short,medium,long,full  
#  
common.format.dateStyle=short  
common.format.timeStyle=short
```

The values specified in this section (bold font in the previous snippet) for the properties dateStyle and timeStyle determine how dates and times are displayed.

3. Depending on your preference, replace the term short in this section with medium, long, or full; or leave as it is. If you make no changes to this file, you need not follow the steps below.

The following table describes the format that each value maps to:

Value	Date Format	Time Format
<b>short</b>	mm:dd:yy for example, 04:14:08 for April 14 2008	hh:mm am/pm for example, 3:30 pm
<b>medium</b>	Mth. dd, yyyy for example, Apr 14, 2008	
<b>long</b>	Month dd, yyyy for example, April 14, 2008	hh:mm:ss am/pm for example, 3:30:32 pm

Value	Date Format	Time Format
<b>full</b>	Day_of_week, Month dd, yyyy AD for example, Monday, April 14, 2008 AD	hh:mm:ss am/pm timezone for example, 3:30:32 pm PST

All dates are in the order Month, Date, Year. All times are displayed using a 12-hour clock.

4. Save the file to the following location:

```
fnmea_admin_install_dir/custom/jetty/webapps/flexnet/WEB-INF/classes/
FLEXnetManagerText.properties
```

5. From the fnmea\_admin\_install\_dir, run:

```
flexnet site make
```

## FlexNet Log Files

FlexNet Manager for Engineering Applications logs are useful sources of debugging information. Both FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting have individual FlexNet logs that capture system information for the respective servers. Active log files are rotated each day at midnight, by default. FlexNet Manager for Engineering Applications uses the Apache log4j logging services for all but the request logs; for a detailed description of how to customize the log4j log files, beyond what is found in this chapter, see the [log4j documentation](#).

When FlexNet Manager for Engineering Applications runs, messages are written to a set of four log files:

- FlexNet Manager for Engineering Applications application logs
- Third-party component logs
- JBoss logs
- FlexNet database creation and upgrade logs

## FlexNet Manager for Engineering Applications Log File

Messages from FlexNet Manager for Engineering Applications, including some error messages caused by problems in other components, are written to the FlexNet Manager for Engineering Applications application log files. These are the most useful log files and are the first places to look if there are problems starting or running FlexNet Manager for Engineering Applications.

The maximum level of detail for the messages logged in flexnet.log can be specified in two ways:

- Through the FlexNet Manager for Engineering Applications Configurator for messages written before FlexNet Manager for Engineering Applications starts.

- Through the Web application in the FlexNet Application Logging Level field in **Administer Manager | System Configuration | FlexNet Platform Server** for messages written by FlexNet Manager for Engineering Applications after it starts.

**Table 7-2 • FlexNet Manager for Engineering Applications Log File Messages**

Log Message Detail	Description
<b>Log location</b>	fnmea_admin_install_dir/logs/flexnet.log fnmea_reporting_install_dir/logs/flexnet.log
<b>Default logging threshold</b>	INFO
<b>Log type</b>	log4j logging services. The name of the active file does not contain a date component; names of inactive files contain a date component. For example, flexnet.log.2006_03_31.

## Third-Party Component Log File

Messages from the third-party libraries are written to the third-party log files.

**Table 7-3 • Log File Messages**

Log File Message	Description
<b>Log location</b>	fnmea_admin_install_dir/logs/3rdparty.log fnmea_reporting_install_dir/logs/3rdparty.log
<b>Default logging threshold</b>	WARN
<b>Log type</b>	log4j logging services. The name of the active file does not contain a date component; names of inactive files contain a date component. For example, 3rdparty.log.2006_03_31.

## JBoss Log File

Messages from the Web container are logged in the JBoss log files.

**Table 7-4 • Log File Messages**

Log File Message	Description
<b>Log location</b>	fnmea_admin_install_dir/logs/flexnet.log fnmea_reporting_install_dir/logs/flexnet.log

**Table 7-4 • Log File Messages**

Log File Message	Description
<b>Default logging threshold</b>	INFO
<b>Log type</b>	log4j logging services. The name of the active file does not contain a date component; names of inactive files contain a date component. For example, server.log.2006_03_31.

## Database Creation and Upgrade Log

Commands executed during the creation or upgrade of the FlexNet and FlexNet Reporting databases are logged in the database upgrade log.

**Table 7-5 • Log File Messages**

Log File Message	Description
<b>Log location</b>	fnmea_admin_install_dir/logs/upgradedb.log fnmea_reporting_install_dir/logs/upgradedb.log

## Managing flexnet Log Files

The following sections discuss optimal management of FlexNet log files.

### Logging Levels

Each message generated by FlexNet Manager for Engineering Applications is designated with a level of severity. [Table 7-6](#) describes logging levels from most to least severe. A log4j log file is configured with a threshold severity level. Messages of levels of severity equal to or more severe than the threshold level are written to the log file.

**Table 7-6 • FlexNet Manager for Engineering Applications Logging Levels**

Logging Level	Message Description
<b>Error</b>	Message written when a problem is detected and not handled by the application, but application can run. This level is recommended for production systems.
<b>Warn</b>	Message written when a problem is detected and handled by the application.
<b>Info</b>	Informational messages. For example, the application started or a user logged in.
<b>Debug</b>	Messages appropriate to development-oriented debugging.

## Log Rotation and File Names

Many FlexNet log4j log files use the `DailyRollingFileAppender` class to automatically roll the log files each day at midnight. When a log file is rolled, a new file is started whose name does not contain a date component. The older log file is renamed to append a date component of the format specified by the appender's `DatePattern` value.

The primary log file is `flexnet.log`, which is backed up whenever it reaches 10 megabytes in size, or if the file date is changed.

## Log Management

There is no automated method of deleting old log4j log files. Therefore, you should manually move or delete old log files at regular intervals.

# Uninstalling FlexNet Manager for Engineering Applications Components

Follow the instructions in this chapter to uninstall FlexNet Manager for Engineering Applications Admin, FlexNet Manager for Engineering Applications Reporting, and/or FlexNet Report Designer.

## Uninstalling FlexNet Manager for Engineering Applications Admin

Uninstall the Admin module using the platform-specific uninstaller and the process described in this section. Deleting the installation directory alone will not properly uninstall the application.

**Task:*****To uninstall FlexNet Manager for Engineering Applications Admin:***

1. Export your FlexNet Manager for Engineering Applications Admin configuration. See the section [“Exporting Configuration Settings,”](#) in [Chapter 7, “Configuring FlexNet Manager for Engineering Applications.”](#)
2. Save any custom files to another location.
3. Stop FlexNet Manager for Engineering Applications Admin.
  - If FlexNet Manager for Engineering Applications Admin was installed to run as a Windows service, the uninstaller also stops and uninstalls the Windows service.
  - If you set up FlexNet Manager for Engineering Applications Admin to start on boot on UNIX, delete the service script from where you installed it.
4. Close all files and folders in the FlexNet Manager for Engineering Applications installation directory.
5. Run the uninstaller.
  - **UNIX platforms**—Run the product's uninstaller from the FlexNet Manager for Engineering Applications Admin installation directory using the command `flexnet_uninstall`. The UNIX uninstaller is not interactive.



- **Windows platforms**—Uninstall by doing one of the following. The Windows uninstaller is interactive.
  - Uninstall FlexNet Manager for Engineering Applications Admin using the Add or Remove Programs panel, available from the Control Panel.
  - Run the product's uninstaller from the FlexNet Manager for Engineering Applications Admin installation directory using the command `flexnet_uninstall`.
- 6. The uninstaller removes all files in the `fnmea_admin_install_dir` tree except those in the `config`, `custom`, `data`, `logs` directories. Depending on whether you are upgrading to FlexNet Manager for Engineering Applications 15.5 Admin, you may need to retain the `config`, `data`, and `logs` directories.
- **Upgrading to FlexNet Manager for Engineering Applications 15.5:** If you are upgrading to FlexNet Manager for Engineering Applications 15.5 Admin, delete *only* the `custom` directory.



**Important** • Do not delete the `config`, `data`, or `logs` directories because these directories are required for the upgrade process to be successful.

- **Not Upgrading:** If you are simply uninstalling FlexNet Manager for Engineering Applications Admin and are not planning on upgrading to FlexNet Manager for Engineering Applications 15.5 Admin, you can delete the entire FlexNet Manager for Engineering Applications Admin directory if you do not want to retain any of the files contained in the `config`, `custom`, `data`, or `logs` directories.

## Uninstalling FlexNet Manager for Engineering Applications Reporting

Uninstall the Reporting module using the platform-specific uninstaller and the process described in this section. Deleting the installation directory alone will not properly uninstall the application.



---

**Task:** *To uninstall FlexNet Manager for Engineering Applications Reporting:*

1. Export your FlexNet Manager for Engineering Applications Reporting configuration. See the section “Exporting Configuration Settings,” in Chapter 7, “Configuring FlexNet Manager for Engineering Applications.”
2. Save any custom files to another location.
3. Stop FlexNet Manager for Engineering Applications Reporting.
  - If FlexNet Manager for Engineering Applications Reporting was installed to run as a Windows service, the uninstaller also stops and uninstalls the Windows service.
  - If you set up FlexNet Manager for Engineering Applications Reporting to start on boot on UNIX, delete the service script from where you installed it.
4. Close all files and folders in the FlexNet Manager for Engineering Applications Reporting installation directory.
5. Run the uninstaller.

- **UNIX platforms**—Run the product's uninstaller in the FlexNet Manager for Engineering Applications Reporting installation directory using the command `flexnet_uninstall`. The UNIX uninstaller is not interactive.
  - **Windows platforms**—Uninstall by doing one of the following. The Windows uninstaller is interactive.
    - Uninstall FlexNet Manager for Engineering Applications Reporting using the Add or Remove Programs panel, available from the Control Panel.
    - Run the product's uninstaller in the FlexNet Manager for Engineering Applications Reporting installation directory using the command `flexnet_uninstall`.
6. The uninstaller removes all files from the FlexNet Manager for Engineering Applications Reporting installation directory, *except* the files contained in the following directories: `config`, `custom`, `data`, and `logs`. Depending on whether you are upgrading to FlexNet Manager for Engineering Applications 15.5 Reporting, you may need to retain the `config`, `data`, and `logs` directories.
- **Upgrading to FlexNet Manager for Engineering Applications 15.5:** If you are upgrading to FlexNet Manager for Engineering Applications 15.5 Reporting, delete *only* the `custom` directory.



**Important** • Do not delete the `config`, `data`, or `logs` directories because these directories are required for the upgrade process to be successful.

- **Not Upgrading:** If you are simply uninstalling FlexNet Manager for Engineering Applications Reporting and are not planning on upgrading to FlexNet Manager for Engineering Applications 15.5 Reporting, you can delete the entire FlexNet Manager for Engineering Applications Reporting directory if you do not want to retain any of the files contained in the `config`, `custom`, `data`, or `logs` directories.

## Uninstalling FlexNet Manager for Engineering Applications Report Designer (Cognos)

Uninstall FlexNet Manager for Engineering Applications Reporting using the uninstaller and the process described in this section. Deleting the installation directory alone will not properly uninstall the application.



### **Task:** To uninstall FlexNet Manager for Engineering Applications Report Designer:

Run the uninstaller by doing one of the following:

- On Windows—Uninstall FlexNet Manager for Engineering Applications Report Designer using the Add or Remove Programs panel, available from the Control Panel.
- To uninstall FlexNet Report Designer 12.0, 14.0, or 14.2, run the product's uninstaller from the directory: `<fnmea_reportdesigner_install_dir>\Uninstall_ReportDesigner\`
- To uninstall FlexNet Report Designer 14.2.0.2 or 15.x:

## Chapter 8: Uninstalling FlexNet Manager for Engineering Applications Components

Uninstalling FlexNet Manager for Engineering Applications Report Designer (Cognos)

- a. From the directory `<fnmea_reportdesigner_install_dir>`, run the FlexNet Report Designer Configurator (Configure\_Flexnet\_Report\_Designer).
- b. Select the **Uninstall Product** option.

---

# Configuring Database Servers

This appendix explains how to configure the following database servers for use with FlexNet Manager for Engineering Applications 15.5:

- [Configuring Oracle](#)
- [Configuring Microsoft SQL Server](#)

For information about supported database versions and disk space requirements, see the *FlexNet Manager for Engineering Applications 15.5 Release Notes*.

## Configuring Oracle

This section assumes that you have already obtained the installer for the supported Oracle database version you want to use.



---

**Note** • Running the Oracle database in the ARCHIVELOG mode may result in additional hard-drive space requirements. See the Oracle documentation for more information about ARCHIVELOG mode.

## Installing the Oracle Database Server

Follow the Oracle product documentation to install the Oracle DBMS and create a database instance. This manual states only the assumptions and requirements of the Oracle database server installation that allow it to work correctly with FlexNet Manager for Engineering Applications Admin/Reporting/Report Designer.

## Character Settings

FlexNet Manager for Engineering Applications Admin/Reporting/Report Designer has been tested with a database with the following character settings:

- **Database character set:** AL32UTF8
- **National character set:** AL16UTF16

## OPEN\_CURSORS Value

The Oracle database initialization parameter value for OPEN\_CURSORS should be set to at least 1000. Both of the tablespaces for FlexNet Manager for Engineering Applications (Admin and Reporting) may need, in total, up to 1,000 open cursors. If the Oracle database is being used by other applications, set this value accordingly.

## PROCESSES Value

The Oracle database initialization parameter value for PROCESSES should be set to at least 1000.

## Administrative User Credentials

Make note of the login name and password of an Oracle administrative user (for example, SYSTEM) because you will need to connect to Oracle as that user to create the FlexNet Manager for Engineering Applications Admin/Reporting/Report Designer database and the corresponding database user.

# Creating a Tablespace for the FlexNet Manager for Engineering Applications Admin Database

Before you run the FlexNet Manager for Engineering Applications Admin installer, you must create a tablespace where the FlexNet Manager for Engineering Applications Admin schema will be created. It is recommended that you allocate at least 150 MB for this tablespace. You are prompted for this tablespace name when you install FlexNet Manager for Engineering Applications Admin. For example, in SQL\*Plus, the command would be:

```
create bigfile tablespace FLEXNET datafile 'path/flexnet.dbf' size 150M
autoextend on;
```

# Creating a Tablespace for the FlexNet Manager for Engineering Applications Reporting Database

Before you run the FlexNet Manager for Engineering Applications Reporting installer, you must create a tablespace where the FlexNet Manager for Engineering Applications Reporting schema will be created. It is recommended that you allocate at least 300 MB for this tablespace. You are prompted for this tablespace name when you install FlexNet Manager for Engineering Applications Reporting. For example, in SQL\*Plus, the command would be:

```
create bigfile tablespace FLEXNETREPORTING datafile 'path/flexnetreporting.dbf' size 300M
autoextend on;
```

## Installing and Configuring the Oracle Client

To install the FlexNet Manager for Engineering Applications Report Designer Server and the Oracle database (containing the FlexNet Manager for Engineering Applications Reporting database) on different machines on your network, you need to install the Oracle Instant Client on the machine that will host the FlexNet Manager for Engineering Applications Report Designer Server. This enables FlexNet Manager for Engineering Applications Report Designer to connect to the Oracle database.

The version of the Oracle Client should be same as that of the Oracle Database version. For information about the Oracle Client, visit <http://www.oracle.com>.



**Note** • Note the following:

- *The Oracle client version must be the same as the Oracle database version.*
- *Only the 32-bit Oracle client is supported on 64-bit operating systems.*



**Task:**

**To configure Oracle to work with FlexNet Manager for Engineering Applications Report Designer when installed on different machines:**

1. Install the Oracle Client on the machine on which you will install the FlexNet Manager for Engineering Applications Report Designer.
  - a. At the prompt that asks “What type of installation do you want?”, select Administrator.
  - b. Complete the installation.
2. Use the Oracle Net Configuration Assistant to configure Local Net Service Name configuration. This local service should point to the service where the flexnetadmin/flexnetreporting database is running.
3. Select Add and provide details to set up Net Service Name.

# Configuring Microsoft SQL Server

This appendix assumes that you have already obtained a SQL Server installer from Microsoft.

## Installing the SQL Server Database Server

Follow Microsoft's instructions to install SQL Server. (This guide states only the assumptions and requirements of the SQL Server database server installation that allow it to work correctly with FlexNet Manager for Engineering Applications Admin/Reporting.)

In the database installer, accept the default settings, with the following exceptions:

- Select mixed authentication (Windows and SQL Server) instead of Windows-only authentication.
- Enable the TCP/IP network protocol. This is required because network protocols are disabled by default during installation.

# Non-Critical Database-Related Issues

You may encounter some database-related issues when installing or upgrading to FlexNet Manager for Engineering Applications 15.5.

If you encounter the errors described in this section, you can disregard them. Contact Flexera Software Support if, while upgrading to FlexNet Manager for Engineering Applications 15.5, you encounter any errors not mentioned here.

## Error Running flexnet loaddb

Running the command `flexnet loaddb` generates an error message if the database does not already exist. This error may occur for both FlexNet Manager for Engineering Applications Admin and FlexNet Manager for Engineering Applications Reporting.

## Error Running flexnet upgradedb for FlexNet Manager Admin

When you run the command `flexnet upgradedb` for FlexNet Manager for Engineering Applications Admin, the upgrade process completes, but triggers the following error messages. This occurs when upgrading from FlexNet Manager for Engineering Applications 12 or FlexNet Manager for Engineering Applications 14.x.

The following SQL errors may occur:

```
ERROR: Error execution: INSERT INTO <TableName> (.....) VALUES (.....)
ERROR: Violation of PRIMARY KEY constraint '<PRIMARY_KEY_CONSTRAINT>__xxxxxxx'.
Cannot insert duplicate key in object 'dbo.<TableName>
```

- Where `xxxxxxx` is the randomly generated alphanumeric key
- Where `<TableName>` may be any of the following:

```
PLT_ALERTTYPE
PLT_ALERT_JOBCONFIG
PLT_ALERT_JOBCONFIGPROP
```



- Where `<PRIMARY_KEY_CONSTRAINT>` may be any of the following:

PK\_\_PLT\_ALERTTYPE  
PK\_\_PLT\_ALERT\_JOBCON

## Error Running flexnet upgradedb for FlexNet Manager Reporting

When you run the command `flexnet upgradedb` for FlexNet Manager for Engineering Applications Reporting, the upgrade process completes, but triggers the following error messages. This occurs when upgrading from FlexNet Manager for Engineering Applications 12 or FlexNet Manager for Engineering Applications 14.x.

The following SQL errors may occur:

```
ERROR: Error execution: INSERT INTO <TableName> (.....) VALUES (.....)
ERROR: Violation of PRIMARY KEY constraint '<PRIMARY_KEY_CONSTRAINT>__xxxxxxx'.
Cannot insert duplicate key in object 'dbo.<TableName>'
```

- Where `xxxxxxx` is the randomly generated alphanumeric key
- Where `<TableName>` may be any of the following:

PLT\_MODULE  
PLT\_PERMISSION  
PLT\_ROLE\_PERMISSION  
PLT\_EXTPROPMETADATA  
PLT\_RANGEVALUES  
PLT\_VALIDVALUE  
PLT\_EXTPROP  
PLT\_EXTPROPSET  
PROD\_MODEL\_PROPERTY\_CONFIG  
PROD\_LICENSE\_MODEL

- Where `<PRIMARY_KEY_CONSTRAINT>` may be any of the following:

PK\_\_PLT\_MODULE  
PK\_\_PLT\_PERMISSION  
PK\_\_PLT\_ROLE\_PERMISS  
PK\_\_PLT\_EXTPROPMETAD  
PK\_\_PLT\_RANGEVALUES  
PK\_\_PLT\_VALIDVALUE  
PK\_\_PLT\_EXTPROP  
PK\_\_PLT\_EXTPROPSET  
PK\_\_PROD\_MODEL\_PROPE  
PK\_\_PROD\_LICENSE\_MOD

# Data Migration FAQs

## Version-Specific Upgrade and Data-Migration Information

### *Upgrading from FlexNet Manager for Engineering Applications 15.3*

Note the following if you are upgrading from FlexNet Manager for Engineering Applications 15.3:

- No data migration is required if you are upgrading from version 15.3 to the current version of FlexNet Manager for Engineering Applications.
- If you selected to partition the database tables when installing version 15.3, you have an option to partition additional tables by following the instructions in the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#) Partitioning can be done at any time (during upgrade or at a later time). If you did not select the option to partition the tables when installing version 15.3, you can partition *all* tables (either during upgrade or at a later time) by following the instructions in the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#)

### *Upgrading from FlexNet Manager for Engineering Applications 15.2 or Earlier*

Note the following if you are upgrading from FlexNet Manager for Engineering Applications 15.2 or an earlier version:

- After typing the command `flexnet upgradedb`, you will be asked whether you want to partition the core transactional tables. You may choose to partition the additional tables by following the instructions in the section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#) If you choose not to partition the tables at upgrade time, you can partition them later by following the steps in section, [“Partitioning the Remaining Database Tables \(Data Warehouse Tables\).”](#)
- You need to migrate usage data from the previous data model to the data model that was introduced in FlexNet Manager for Engineering Applications 15.3.

## **What *Big Data Maintenance* capabilities were introduced in FlexNet Manager for Engineering Applications 15.3?**

In past releases, the retention policy for usage data was implemented based on SQL Delete statements. This approach is good enough to maintain small amounts of data. However, over time when the usage data set in the database grows to a particular size, FNM-EA cannot remove old data efficiently. (SQL DELETE operations take as

much time as SQL INSERT operations.) When FNM-EA is under high load, the volume of data imported into a database may exceed the amount of old data that FNM-EA can delete during the same time period. This is because the priority of the retention policy process is lower than that of the report generation, report log import, and aggregation processes. When these FNM-EA processes are continually under high load, the reporting database continues to grow and FNM-EA loses control of the database size. The data-maintenance capabilities introduced in FNM-EA 15.3 address this issue.

The problem of managing the old data out of the big databases is not new and is not unique to FNM-EA. The best practice to manage databases with “big data” is to use data-model partitioning. Partitioning is a more efficient mechanism for removing old data because a partition that may contain millions of records can be dropped instantaneously. The same operation using SQL DELETE statements may take hours.

### **Does FlexNet Manager for Engineering Applications support both models: partitioned and un-partitioned?**

Yes, FlexNet Manager for Engineering Applications (version 15.3 and later) supports both options for the reporting model: partitioned and un-partitioned. At installation time, you select the desired option during the <flexnet upgradedb> step in case of upgrade from a pre-15.3 version, or during the <flexnet loadadb> step in case of a new installation.

If you do not opt to partition the database tables at installation time, you can partition the tables later. For information, see the section, [Partitioning the Remaining Database Tables \(Data Warehouse Tables\)](#), in [Chapter 3, “Installing FlexNet Manager for Engineering Applications.”](#)

### **How do we know if the volume of data the enterprise is managing is large enough to require the partitioned model?**

It is always safe to go with partitions. If the enterprise’s total report log size for the desired time period is 5 GB or more, it is strongly recommended that the enterprise use the partitioned data model.

Use the following calculation to determine the report log size:

$$\text{total size of report logs} = \text{daily size of report logs} * \text{number of years to keep the data} * 365$$

### **How are partitions defined?**

The partitions for transactional data are defined based on the event time, and span one week each. For usage data (stored in the table RPT\_USAGE\_LIC\_EVENT\_153), the partitions are based on the checkout time. For denials (stored in the table RPT\_USAGE\_LIC\_DEVENT\_153), the partitions are based on the event time.

### **How does FNM-EA create new partitions for new usage data?**

If the FNM-EA data model is partitioned, FNM-EA continually creates new partitions three weeks ahead of time to ensure that there are always partitions for new usage data.

### **If the enterprise does not use partitioning, is data migration still necessary?**

Usage data migration is a required step if you are upgrading from FNM-EA 15.2 or earlier, regardless of whether the enterprise chooses partitioning. Data migration serves two purposes:

1. Support for the data model-optimization changes introduced in version 15.3
2. Support for partitioning

The amount of time that the data migration takes does not depend on the partitioning option.

### **Are there any specific requirements to the SQL Server and Oracle databases to support partitions?**

It depends on the database and version.

- **SQL Server**—SQL Server Standard Edition does not support tables partitioning. To use partitioning, the enterprise must have SQL Server Enterprise Edition 2008 or later.
- **Oracle**—All Oracle database versions that are supported for use with FNM-EA 15.3 support tables partitioning.

### **Is there any additional cost associated with using partitions in the FNM-EA reporting database?**

FNM-EA can take advantage of the database tables partitioning option supported by Oracle or SQL Server Enterprise Edition 2008 and later. Note, however, that there may be additional costs.

- **SQL Server**—There might be additional charges associated with upgrading from SQL Server Standard Edition to SQL Server Enterprise Edition.
- **Oracle**—If the enterprise begins using the table partitioning feature on an Oracle database server, Oracle may charge additional fees.

The enterprise should check with their IT department or database vendor for any costs associated with using table partitioning capabilities provided by database servers.

There is no additional charge for FlexNet Manager for Engineering Applications license.

### **What changes were made to the reporting data model for FNM-EA 15.3?**

There were significant changes to the reporting data model in version 15.3. These changes included the following:

- The usage tables in the transaction model were merged with Client and User tables.
- Optimized tables for usage events, denials, and unsupported events.
- Removed a number of indices and replaced them with new ones.
- The property USER\_NAME is stored in the reporting database *in uppercase only*. (This is the user name provided in report log files.) In earlier versions, FNM-EA used two different properties to store the user name—one property which stored the user name as entered (whether uppercase, lowercase, or mixed case) and one property which stored the user name in uppercase. As a result of this change, all classic reports will display user names only in uppercase. (This is consistent with Cognos reporting.)
- The data size of the property LIC\_COUNT increased to accommodate the number of tokens requested in a single checkout.

### **Is the usage data migration process part of <flexnet upgradedb>?**

No. The upgradedb step prepares the data model changes, but it does not migrate the usage data. Usage data migration is a process that a user can start and pause when FNM-EA 15.3 or later is installed and running.

**Is there any downtime for FNM-EA while the usage data migration is in progress?**

There is no downtime for the usage data migration to the 15.3 or later data model. The data migration is not done during the software or data model upgrade (FNM-EA version upgrade process). After upgrading to FNM-EA 15.3 or later, a user can start the data migration process when FNM-EA is running.

During data migration, a user can pause and resume the migration. FNM-EA could be restarted, and the migration will continue automatically. The usage data is migrated in the direction from the most recent day (today) to the earliest usage date selected by the user. This approach enables FNM-EA to have the most recent usage data available quickly for reporting.

**Can I import report logs during usage data migration?**

Yes.

**Does FNM-EA show migration progress?**

Yes, on the Data Migration page, FNM-EA shows the progress as a percentage, along with the current date of the data that has been migrated.

**Can I run usage data aggregation during usage data migration?**

Yes, you can run incremental aggregation, but you must pay attention to special cases. The following example describes how an attempt to re-aggregate data during migration might result in incomplete report data.

***Example Case: Re-Aggregating Data During Migration***

The Data Migration page provides information about the data-migration progress. If the progress shows that data has been migrated from 2012 June 16, it means that all the data from June 16 (up to the current date) is in the new model, and is available for aggregation and classic reports. If you try to re-aggregate the data starting from 2012 May 1, the data from May 1 through June 15 will be missing from the Cognos model. This is because the aggregation process is run on the new transactional model and the transactional model will have not all of the up-to-date data.

**Will my Cognos reports be affected by usage data migration?**

FNM-EA is not migrating the usage data in the Cognos data model. If, as described in the previous FAQ, you re-aggregate data for a timeframe that contains dates for which transactional data has not been migrated, Cognos reports may contain some incorrect data. These reports may be empty or have partial data. You may need to re-do the aggregation, and re-run such reports later when the transactional usage data has been migrated to generate the correct Cognos reports.

**Will my classic reports be affected by usage data migration?**

Classic reports are run on the data model introduced in version 15.3. If usage data for a particular timeframe has not been migrated, reports requesting data for that timeframe will contain no data or will contain partial data.

It is recommended that you check the usage data migration progress periodically (using the Data Migration page as shown on the previous image) to ensure that the reports will not be compromised. If a report contains incorrect data because the migration for the requested time period was not complete, you should re-run the report when all the data is available in the new data model.

**If I started usage data migration after selecting the un-partitioned option, can I opt for partitioning before the migration is over?**

You cannot change it before data migration is complete; however, you can partition the database tables by following the instructions in the section, [Partitioning the Remaining Database Tables \(Data Warehouse Tables\)](#), in Chapter 3, “Installing FlexNet Manager for Engineering Applications.”

**If FNM-EA usage data migration is done with the un-partitioned model, can I convert to the partitioned model?**

Yes, you can partition the database tables at any time. See the instructions in the section, [Partitioning the Remaining Database Tables \(Data Warehouse Tables\)](#) in Chapter 3, “Installing FlexNet Manager for Engineering Applications.”

**Is there any usage data transformation during usage data migration? (Multi-day events)**

Yes. The current data model provides additional transformations for the multi-day usage events. If usage spans more than one day, FNM-EA splits the usage into multiple single-day events. This algorithm is applied to both report log import and usage data migration. This is not entirely new—a similar process already takes place on a license server when during a start/stop or report log rotation. Based on Flexera Software’s testing, we can see that the number of multi-days usage events is a lot less than 1% of the total number of events. Therefore, the resulting number of events in the data model might be more than the number of events in the previous version of the model, but the increase is very small. This change will not affect the total time in use or the maximum used values for features in reports.

Splitting the multi-day events helps in reducing the time for queries during classic report generation and aggregation.

**Does FNM-EA migrate all the usage events from the previous model?**

FNM-EA migrates all the usage events for the time specified in the usage data migration configuration.

**Does FNM-EA migrate all denial events?**

You define the events to be migrated:

- Using the Data Migration page, you can specify the timeframe for the data to be migrated.
- FNM-EA can be configured to migrate all denials or only ultimate denials. The option of migrating only ultimate denials is applicable for vendor daemons version 9.2 and later. For earlier versions of vendor daemons, there are no ultimate denials, and all the denials will be migrated regardless of the options selected for migration.

It is recommended that you do not migrate regular denials for two main reasons:

- FlexNet Manager for Engineering Applications does not process regular denials when ultimate denials are available.
- The number of regular denials might be very high for some applications. Not storing them reduces the overall database size.

The option regarding regular denials is available on the System Configuration page of the FlexNet Manager for Engineering Applications user interface. It affects both new report log import and usage data migration.

**Does FNM-EA migrate unsupported events?**

No.

**What is typical ratio between number of usage events, denials, and unsupported events?**

The following table shows results from testing with a typical semiconductor licensing environment.

Event Type	Number
Usage events	1.5 billion
Regular denials	0.8 billion
Ultimate denials	0.4 billion
Unsupported events	1.0 billion

**What is the earliest FNM-EA version that can be upgraded to FNM-EA 15.5?**

FNM-EA 12.0 Patch 5.

**Does FNM-EA support a crash recovery scenario for the usage data migration?**

Yes. A user can restart FNM-EA, and the usage data migration will continue.

**How will retention policy work after data migration to FNM-EA 15.5 is complete?**

A: FNM-EA would detect whether the tables in the reporting database are partitioned. If the tables are partitioned, the retention policy will take advantage of the model and the old data will be dropped instantaneously according to the retention policy configuration. If the tables are not partitioned, FNM-EA will apply the previous logic of removing the old usage data using DELETE SQL statements.

The following table provides data from our retention-policy performance testing. It shows how much time various operations take using the different data models.

Operation	15.2 Data Model	15.3 Data Model: Partitioned	15.3 Data Model: Un-partitioned
Usage data maintenance: Deleting 1 month of .rl files when total size of .rl files imported is from past 2 years (average 1-5 GB per month).	25–35 days  Assumes the Reporting server is performing other activities: aggregation, classic report generation, .rl file daily scheduled rotation.	Within a few seconds  Note: This may take longer if you opt to import unsupported events, because the table containing these events is not partitioned in 15.3.	20–25 days

**What are the database hard drive size requirements for the reporting database in FNM-EA?**

There are two use cases with regard to the reporting database requirements.

- During data migration—The migration process requires about 30% additional space to run to completion.
- Post migration—After migration, FNM-EA requires about 15% less hard drive space. (SQL Server Enterprise Edition and Oracle also provide data-compression options, which may provide savings of up to 40% of the hard drive space.)

**How much load is on FNM-EA reporting server and database server during usage data migration?**

In all of our testing, the CPU consumption on the dedicated database server is less than 10%. The CPU consumption for the usage data migration on FNM-EA reporting server is low, because 90% of the usage data is migrated directly on the database server.

**Are there any additional ways to reduce the database size requirements in FNM-EA?**

One option (configurable) is “Do not import regular denials.” This is applied to both usage data migration and report log import. In addition, you can choose to not import unsupported events for report log import. These options are available on the System Configuration page.

Another way to save the space in the database is to use the data-compression options provided by SQL Server Enterprise Edition and Oracle. Data compression capability may allow saving up to 40% of the hard drive space. Contact your database vendor for cost and configuration information.

**Is there any performance improvement for report log import, reports, and aggregation in FNM-EA?**

After data migration is complete, the database queries are expected to run approximately 20 percent faster. However, the numbers may vary depending on the environment, system load, and report configurations.



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