Legal Information

Book Name: FlexNet Agent 5.8 Installation Guide
Part Number: FNA-058-IG01
Product Release Date: July 2021

Copyright Notice

Copyright © 2021 Flexera Software

This publication contains proprietary and confidential information and creative works owned by Flexera Software and its licensors, if any. Any use, copying, publication, distribution, display, modification, or transmission of such publication in whole or in part in any form or by any means without the prior express written permission of Flexera Software is strictly prohibited. Except where expressly provided by Flexera Software in writing, possession of this publication shall not be construed to confer any license or rights under any Flexera Software intellectual property rights, whether by estoppel, implication, or otherwise.

All copies of the technology and related information, if allowed by Flexera Software, must display this notice of copyright and ownership in full.

Intellectual Property

For a list of trademarks and patents that are owned by Flexera Software, see https://www.flexera.com/legal/intellectual-property.html. All other brand and product names mentioned in Flexera Software products, product documentation, and marketing materials are the trademarks and registered trademarks of their respective owners.

Restricted Rights Legend

The Software is commercial computer software. If the user or licensee of the Software is an agency, department, or other entity of the United States Government, the use, duplication, reproduction, release, modification, disclosure, or transfer of the Software, or any related documentation of any kind, including technical data and manuals, is restricted by a license agreement or by the terms of this Agreement in accordance with Federal Acquisition Regulation 12.212 for civilian purposes and Defense Federal Acquisition Regulation Supplement 227.7202 for military purposes. The Software was developed fully at private expense. All other use is prohibited.
## Contents

1. FlexNet Agent 5.8 Installation Guide .......................................................... 5
   1.1 Legal Information ............................................................................. 5
   1.2 Product Support Resources ............................................................ 6
   1.3 Contact Us ..................................................................................... 7

2. Introduction and Overview ........................................................................ 9
   2.1 Requirements .................................................................................. 9
   2.2 Data Flow Over the Ports ................................................................. 10

3. Installing FlexNet Agent 5.8 ..................................................................... 11
   3.1 Downloading FlexNet Agent 5.8 ...................................................... 11
   3.2 Installing FlexNet Agent 5.8 on UNIX ............................................ 12
   3.2.1 Installing Silently on UNIX ..................................................... 12
   3.2.2 Installing Using the InstallAnywhere Installation Wizard on UNIX. 12
   3.3 Installing FlexNet Agent 5.8 on Microsoft Windows ...................... 13
   3.3.1 Installing Using the InstallAnywhere Installation Wizard on Microsoft Windows .................................................. 13
   3.3.2 Installing Silently on Microsoft Windows .................................. 14
   3.4 Response File .................................................................................. 14
   3.4.1 Sample Response File ............................................................. 14
   3.4.2 Response File Properties .......................................................... 15
   3.5 FlexNet Agent 5.8 Installation Directory Structure .......................... 15

4. Starting and Stopping FlexNet Agent 5.8 ............................................... 17
   4.1 Starting and Stopping on Microsoft Windows ................................... 17
   4.2 Starting and Stopping as a Service Using a UNIX Service Script ....... 18

5. Upgrading to FlexNet Agent 5.8 ............................................................... 19
   5.1 Upgrading to FlexNet Agent 5.8 ...................................................... 19
Upgrading to FlexNet Manager for Engineering Applications 2021 R1 .............................. 20
Providing the Path to lmutil ................................................................. 20

6 Configuring FlexNet Agent 5.8 .............................................................. 21
   Configuring FlexNet Agent 5.8 Using the Agent Configurator ......................... 21
   Configuring FlexNet Agent 5.8 for Secure Sockets Layer .................................. 24
      Configuring Server-Side SSL .................................................................. 25
      Generating a Test Certificate ................................................................ 25
      Configuring FlexNet Manager for Engineering Applications with the Test Certificate ................................................................. 26
      Obtaining a Trusted Certificate .............................................................. 27
      Configuring FlexNet Manager for Engineering Applications with a Permanent Certificate ................................................................. 28
   Configuring Client-Side Secure Sockets Layer ............................................... 28
      Importing a Secure Sockets Layer Server's Certificate into the Truststore ........ 29
      Configuring FlexNet Manager for Engineering Applications with a New Truststore ................................................................. 29
      Verifying the Trusted Connection ........................................................... 30

7 Uninstalling FlexNet Agent 5.8 .............................................................. 31

Index ................................................................................................. 33
FlexNet Agent 5.8 Installation Guide

FlexNet Agent 5.8 retrieves and communicates data for Flexera Software’s usage-reporting web application, FlexNet Manager for Engineering Applications.

Table 1-1 • FlexNet Agent 5.8 Installation Guide

<table>
<thead>
<tr>
<th>Topic</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and Overview</td>
<td>Provides an overview of FlexNet Agent.</td>
</tr>
<tr>
<td>Installing FlexNet Agent 5.8</td>
<td>Provides steps for installing FlexNet Agent.</td>
</tr>
<tr>
<td>Starting and Stopping FlexNet Agent 5.8</td>
<td>Explains how to start and stop FlexNet Agent.</td>
</tr>
<tr>
<td>Upgrading to FlexNet Agent 5.8</td>
<td>Explains how to upgrade to FlexNet Agent 5.8 from previous release.</td>
</tr>
<tr>
<td>Configuring FlexNet Agent 5.8</td>
<td>Explains how to configure FlexNet Agent 5.8.</td>
</tr>
<tr>
<td>Uninstalling FlexNet Agent 5.8</td>
<td>Explains how to uninstall FlexNet Agent 5.8.</td>
</tr>
</tbody>
</table>

Legal Information

Copyright Notice

Copyright © 2021 Flexera Software

This publication contains proprietary and confidential information and creative works owned by Flexera Software and its licensors, if any. Any use, copying, publication, distribution, display, modification, or transmission of such publication in whole or in part in any form or by any means without the prior express written permission of Flexera Software is strictly prohibited. Except where expressly provided by Flexera Software in writing, possession of this publication shall not be construed to confer any license or rights under any Flexera Software intellectual property rights, whether by estoppel, implication, or otherwise.
All copies of the technology and related information, if allowed by Flexera Software, must display this notice of copyright and ownership in full.

**Intellectual Property**

For a list of trademarks and patents that are owned by Flexera Software, see https://www.flexera.com/legal/intellectual-property.html. All other brand and product names mentioned in Flexera Software products, product documentation, and marketing materials are the trademarks and registered trademarks of their respective owners.

**Restricted Rights Legend**

The Software is commercial computer software. If the user or licensee of the Software is an agency, department, or other entity of the United States Government, the use, duplication, reproduction, release, modification, disclosure, or transfer of the Software, or any related documentation of any kind, including technical data and manuals, is restricted by a license agreement or by the terms of this Agreement in accordance with Federal Acquisition Regulation 12.212 for civilian purposes and Defense Federal Acquisition Regulation Supplement 227.7202 for military purposes. The Software was developed fully at private expense. All other use is prohibited.

**Product Support Resources**

The following resources are available to assist you with using this product:

- Flexera Product Documentation
- Flexera Community
- Flexera Learning Center
- Flexera Support

**Flexera Product Documentation**

You can find documentation for all Flexera products on the Flexera Product Documentation site:

https://docs.flexera.com

**Flexera Community**

On the Flexera Community site, you can quickly find answers to your questions by searching content from other customers, product experts, and thought leaders. You can also post questions on discussion forums for experts to answer. For each of Flexera's product solutions, you can access forums, blog posts, and knowledge base articles.

https://community.flexera.com

**Flexera Learning Center**

Flexera offers a variety of training courses—both instructor-led and online—to help you understand how to quickly get the most out of your Flexera products. The Flexera Learning Center offers free, self-guided, online training classes. You can also choose to participate in structured classroom training delivered as public classes. You can find a complete list of both online content and public instructor-led training in the Learning Center.

https://learn.flexera.com
**Flexera Support**

For customers who have purchased a maintenance contract for their product(s), you can submit a support case or check the status of an existing case by making selections on the **Get Support** menu of the Flexera Community.

https://community.flexera.com

**Contact Us**

Flexera is headquartered in Itasca, Illinois, and has offices worldwide. To contact us or to learn more about our products, visit our website at:

http://www.flexera.com

You can also follow us on social media:

- Twitter
- Facebook
- LinkedIn
- YouTube
- Instagram
FlexNet Agent 5.8 retrieves and communicates data for Flexera Software’s usage-reporting web application, FlexNet Manager for Engineering Applications.

- **FlexNet Manager for Engineering Applications**—FlexNet Agent 5.8 provides secure, remote administration of one or more license servers to one or more FlexNet applications. The FlexNet applications may be running at your site or at your publisher’s site. One—and only one—FlexNet Agent is installed on each license server machine.

This manual provides installation and configuration information to get one or more FlexNet Agents running at your enterprise.

- **Requirements**

## Requirements

In order to install and configure the FlexNet Agent, you need a basic understanding of your system environment. FlexNet Agent has both application requirements and system requirements.

### FlexNet Manager Application Requirements

FlexNet Agent 5.8 is compatible with the following versions:

- FlexNet Manager for Engineering Applications 2021 R1

### System Requirements

For FlexNet Agent 5.8 system requirements, see the *FlexNet Agent 5.8 Release Notes*. 
Data Flow Over the Ports

The following diagram illustrates the data flow over the ports.

Figure 2-1: FlexNet Manager for Engineering Applications / Data Flow Over the Ports
Installing FlexNet Agent 5.8

You can install FlexNet Agent 5.8 from the command line, or—if you are installing on Windows—by double-clicking the installer executable file. By default, the installer runs silently on UNIX platforms and runs using the InstallAnywhere installation wizard on Windows platforms.

- Downloading FlexNet Agent 5.8
- Installing FlexNet Agent 5.8 on UNIX
- Installing FlexNet Agent 5.8 on Microsoft Windows
- Response File
- FlexNet Agent 5.8 Installation Directory Structure

Downloading FlexNet Agent 5.8

FlexNet Agent 5.8 installers are available from the Flexera Software Product and License Center:

https://flexerasoftware.flexnetoperations.com

**Important** • A 64-bit environment is required to install FlexNet Agent 5.8 on Windows and Linux machines.

Platform-Specific Installer Names

The .zip file available from the download site (FlexNet_Agent_5_8-All_Platforms.zip) contains all of the platform-specific installers for FlexNet Agent 5.8. All of the FlexNet Agent 5.8 installers are 64-bit installers.

**Table 3-1** • Platform-specific FlexNet Agent 5.8 installer names

<table>
<thead>
<tr>
<th>Platform</th>
<th>Installer File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Windows</td>
<td>FNMEA_Agent.exe</td>
</tr>
</tbody>
</table>
Installing FlexNet Agent 5.8 on UNIX

If you are installing FlexNet Agent 5.8 on a machine running UNIX, the installation will run silently by default. You can run using the default settings or specify settings using a response file. See the section, Installing Using the InstallAnywhere Installation Wizard on UNIX, for information about launching the installation wizard on UNIX.

Installing Silently on UNIX

Task To install FlexNet Agent 5.8 silently on UNIX:

1. Open a Command Prompt window and navigate to the location of the FlexNet Agent 5.8 installer file (referred to as <installer_file>).

2. Depending on whether you want to specify settings using a response file, use one of the following commands. See the section, Response File, for information on the content of the response file.
   - Use default settings: <installer_file>
   - Specify settings using a response file: <installer_file> -i silent -f <path to response file>

Installing Using the InstallAnywhere Installation Wizard on UNIX

Task To install FlexNet Agent 5.8 Using the InstallAnywhere installation wizard on UNIX:

1. Open a Command Prompt window and navigate to the location of the FlexNet Agent 5.8 installer file (referred to as <installer_file>).

2. Type the command:

   <installer_name> -i gui

3. On the Choose Install Folder panel, specify the location to which you want to install FlexNet Agent 5.8. This location is referred to as agent_install_dir.

4. On the Message Queue Configuration panel, specify the host name and port for the message queue broker. FlexNet Agent 5.8 communicates with the FlexNet Manager for Engineering Applications server using this message queue broker.

   These values must be the same as the Agent Host and Agent Port settings on the Add Agent screen in FlexNet Manager for Engineering Applications, to facilitate communication.
5. Enter the Java VM heap size values (default values shown):
   - Initial Heap Size: 512
   - Maximum Heap Size: 512

   \textit{Note} • \textit{The Maximum Heap Size value cannot be greater than 1024 MB.}

6. Review the installation settings on the \textbf{Pre-Installation Summary} panel. If you want to change any of the settings, click \textbf{Previous} to move back through the wizard.

7. Click \textbf{Install} to install FlexNet Agent 5.8.

\section*{Installing FlexNet Agent 5.8 on Microsoft Windows}

If you are installing FlexNet Agent 5.8 on a machine running Microsoft Windows, the installation will launch the InstallAnywhere installation wizard by default. See the section, \textit{Installing Silently on Microsoft Windows}, for information on running the installer silently.

\section*{Installing Using the InstallAnywhere Installation Wizard on Microsoft Windows}

\begin{tabular}{ll}
\textbf{Task} & \textbf{To install FlexNet Agent 5.8 using the InstallAnywhere installation wizard on Microsoft Windows:} \\
1. & To launch the InstallAnywhere installation wizard, do one of the following:
   - Open a Command Prompt window, and navigate to the location of the FlexNet Agent 5.8 installer file, then type the command: 
     \texttt{FNMEA-Agent.exe}
   - Double-click the installer-file executable: FNMEA_Agent.exe

2. & On the \textbf{Choose Install Folder} panel, specify the location to which you want to install FlexNet Agent 5.8. This location is referred to as \texttt{agent_install_dir}.

3. & On the \textbf{Message Queue Configuration} panel, specify the \textbf{Host name} and \textbf{Port} for the message queue broker. FlexNet Agent 5.8 communicates with the FlexNet Manager for Engineering Applications or FlexNet Manager for Cloud Infrastructure server using this message queue broker.
   These values must be the same as the \textbf{Agent Host} and \textbf{Agent Port} settings on the \textbf{Add Agent} page in FlexNet Manager for Engineering Applications.

4. & Enter the Java VM heap size values in MB (default values shown):
   - Initial Heap Size: 512
   - Maximum Heap Size: 512
\end{tabular}
Note • Maximum Heap Size cannot be greater than 1024 MB.

5. On the Install As Service panel, select the check box if you want FlexNet Agent 5.8 to be installed as a Windows service.

6. Review the installation settings on the Pre-Installation Summary panel. If you want to change any of the settings, click Previous to move back through the wizard.

7. Click Install to install FlexNet Agent 5.8, then click Done when the installation is complete.

Installing Silently on Microsoft Windows

To install FlexNet Agent 5.8 silently on Microsoft Windows:

1. Open a Command Prompt window and navigate to the location of the FlexNet Agent 5.8 installer file: FNMEA_Agent.exe

2. Depending on whether you want to specify settings using a response file, use one of the following commands. See the section, Response File, for information on the content of the response file.
   - Use the default settings:
     FNMEA_Agent.exe –i console
   - Specify settings using a response file:
     FNMEA_Agent.exe –i console –f <path to response file>

Response File

When you run the FlexNet Agent 5.8 installer silently, you can specify installation information using a response file. The following sample response file shows the default installation values. These are the values that are used if you do not specify the location of a response file when running the installer.

The response file location must be accessible from the location where you run the FlexNet Agent 5.8 installer.

Sample Response File

```
#Choose Install Folder
#---------------------
USER_INSTALL_DIR=C:\\Program Files (x86)\\FNMEA Agent

#Message Queue Configuration
#---------------------------
MQ_HOST=0.0.0.0
MQ_PORT=61616

#Install as service
#------------------
INSTALL_AS_SERVICE=1
```
Response File Properties

The following table lists the response file properties.

Table 3-2 • Response File Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER_INSTALL_DIR</td>
<td>Folder into which FlexNet Agent 5.7 will be installed.</td>
</tr>
<tr>
<td>MQ_HOST</td>
<td>The host and port for the message queue broker. FlexNet Agent 5.7 communicates with the FlexNet Manager for Engineering Applications server using the message queue. These values must be the same as the Agent Host and Agent Port settings on the Add Agent screen in FlexNet Manager for Engineering Applications, to facilitate communication.</td>
</tr>
<tr>
<td>INSTALL_AS_SERVICE</td>
<td>Indicates whether FlexNet Agent 5.8 should be installed as a Windows service. This must be set to 1 to install the FlexNet Agent 5.8 as a Windows service. Set this property to 0 if you do not want to install the FlexNet Manager for Engineering Applications as a Windows service. If the INSTALL_AS_SERVICE property is omitted from the response file, FlexNet Manager for Engineering Applications is installed as a Windows service by default.</td>
</tr>
<tr>
<td>UNIX_USER</td>
<td>(UNIX only) Identifies the user that is configured in the flexnet-service script, which is used to run the FlexNet Manager for Engineering Applications as a service in the UNIX platform. See the section, Starting and Stopping as a Service Using a UNIX Service Script, for more information.</td>
</tr>
</tbody>
</table>

FlexNet Agent 5.8 Installation Directory Structure

The following table describes the FlexNet Agent 5.8 directory structure.

Table 3-3 • FlexNet Agent Directory Structure

<table>
<thead>
<tr>
<th>Directory</th>
<th>Description and Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent_install_dir</td>
<td>The directory, specified during installation, into which FlexNet Agent 5.8 is installed. Contains agent script.</td>
</tr>
<tr>
<td>agent_configuration</td>
<td>Contains the uninstaller executable (Reconfigure_Agent.exe).</td>
</tr>
<tr>
<td>conf</td>
<td>Contains the configuration files.</td>
</tr>
<tr>
<td>data</td>
<td>Contains enterprise data. This directory is preserved when FlexNet Agent is re-configured or uninstalled.</td>
</tr>
<tr>
<td>Directory</td>
<td>Description and Contents</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>implementations</td>
<td>Contains FlexNet Agent and configured license server system files.</td>
</tr>
<tr>
<td>jre</td>
<td>Contains files for the bundled Java Virtual Machine.</td>
</tr>
<tr>
<td>lib</td>
<td>Contains third-party libraries and .jar files.</td>
</tr>
<tr>
<td>licenseFileTemp</td>
<td>Contains temporary license files from license servers.</td>
</tr>
<tr>
<td>logs</td>
<td>Contains all of the log files generated by the FlexNet Manager for Engineering Applications.</td>
</tr>
</tbody>
</table>
Starting and Stopping FlexNet Agent 5.8

This chapter describes how to start and stop FlexNet Agent 5.8, depending on the operating system of the machine to which the FlexNet Manager for Engineering Applications is installed.

- Starting and Stopping on Microsoft Windows
- Starting and Stopping as a Service Using a UNIX Service Script

Starting and Stopping on Microsoft Windows

You start and stop FlexNet Agent 5.8 from the command line. As described in the Response File Properties table, FlexNet Agent 5.8 is, by default, installed as a service on machines running Microsoft Windows. To start FlexNet Agent 5.8 as a service on UNIX machines, see the following section, Starting and Stopping as a Service Using a UNIX Service Script.

Task

To start FlexNet Agent 5.8:

1. Open a Command Prompt window, and change to the FlexNet Agent 5.8 installation directory (`agent_install_dir`).
2. To start FlexNet Manager for Engineering Applications, type the command: `Agent`.
3. Press Enter.

Important • If starting FlexNet Agent 5.8 as a Windows service triggers an error, it may be because the DLL `MSVCR71.dll` is not stored in the Windows system folder or folders in the PATH environment variable. This is an operating system–dependent DLL. Refer to your Microsoft Windows documentation and/or customer support for information on installing this DLL.

Task

To stop FlexNet Agent 5.8:

1. Open a Command Prompt window, and change to the FlexNet Agent 5.8 installation directory (`agent_install_dir`).
2. To stop FlexNet Manager for Engineering Applications, type the command: `AgentShutdown`
Starting and Stopping as a Service Using a UNIX Service Script

Task

To start FlexNet Agent 5.8 as a service using a UNIX service script:

1. Copy the service script `agent_install_dir/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.

   Note • Ensure that the `flexnet-service` script contains a user who can manage the FlexNet Manager for Engineering Applications. This user is identified in the response file using the property `UNIX_USER`.

2. Run the service script using one of the following commands:
   - `./flexnet-service start`
   - `./flexnet-service stop`
   - `./flexnet-service restart`
To upgrade to FlexNet Agent 5.8 from older versions, you must first:

- Upgrading to FlexNet Agent 5.8
- Upgrading to FlexNet Manager for Engineering Applications 2021 R1
- Providing the Path to lmutil

### Upgrading to FlexNet Agent 5.8

**Task**

<table>
<thead>
<tr>
<th>To upgrade to FlexNet Agent 5.8 from FlexNet Agent 3.5 or 4.x:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stop the existing FlexNet Agent, and disable the service. You <strong>do not</strong> need to remove the FlexNet Agent from FlexNet Manager for Engineering Applications.</td>
</tr>
<tr>
<td>2. Install FlexNet Agent 5.7 <strong>in a new location</strong>. Do not install to the previous FlexNet Agent installation location.</td>
</tr>
<tr>
<td>3. Using the FlexNet Manager for Engineering Applications user interface, migrate the FlexNet Agent configuration:</td>
</tr>
<tr>
<td>a. From the <strong>Servers</strong> tab, under <strong>Agents</strong>, click <strong>Agent Summary</strong>.</td>
</tr>
<tr>
<td>b. Find the FlexNet Agent and click <strong>Migrate</strong> for the agent.</td>
</tr>
<tr>
<td>c. On the Migrate Agent page, provide the values for the Agent Host and Agent Port settings.</td>
</tr>
<tr>
<td>d. Click <strong>Migrate</strong>.</td>
</tr>
<tr>
<td>4. See the section at the end of this chapter, <strong>Providing the Path to lmutil</strong>, if you are upgrading from FlexNet Agent 3.5 or 4.x.</td>
</tr>
</tbody>
</table>
Upgrading to FlexNet Manager for Engineering Applications 2021 R1

Refer to the FlexNet Manager for Engineering Applications 2021 R1 Installation Guide, Chapter 4, Upgrading to FlexNet Manager for Engineering Applications 2021 R1 for upgrading instructions.

Providing the Path to lmutil

When upgrading from FlexNet Agent 3.5 or 4.x, you must manually provide the path to lmutil. First, follow the instructions in the previous section, Upgrading to FlexNet Agent 5.8.

Important • You must have FlexNet Manager for Engineering Applications 15.5 or 15.3 (with patch 3 installed) to complete the task.

Task | To manually provide the path to lmutil:
--- | ---
1. | In the FlexNet Manager for Engineering Applications user interface, click the **Servers** tab. This displays the License Manager Summary page.
2. | Click the link for the license server for which you want to provide the lmutil path. This displays the Configure and Manage License Server page.
3. | In the lmutil Executable Location field, specify the path to lmutil.
4. | Click **Save**.
Configuring FlexNet Agent 5.8

FlexNet Agent 5.8 is used by both of Flexera Software’s enterprise usage-reporting web applications—FlexNet Manager for Engineering Applications and FlexNet Manager for Cloud Infrastructure. FlexNet Agent 5.8 retrieves data and communicates it to the relevant application.

- Configuring FlexNet Agent 5.8 Using the Agent Configurator
- Configuring FlexNet Agent 5.8 for Secure Sockets Layer

### Configuring FlexNet Agent 5.8 Using the Agent Configurator

You use the Agent Configurator to configure FlexNet Agent 5.8 for use with FlexNet Manager for Engineering Applications.

<table>
<thead>
<tr>
<th>Task</th>
<th>To configure FlexNet Agent 5.8 using the Agent Configurator:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>You can launch the Agent Configurator from the command line or by double-clicking the file AgentConfiguration.bat.</td>
</tr>
<tr>
<td></td>
<td>From the command line</td>
</tr>
<tr>
<td></td>
<td>a. Open a Command Prompt window, and change to the FlexNet Agent 5.8 installation directory.</td>
</tr>
<tr>
<td></td>
<td>b. Type the following command to launch the Agent Configurator:</td>
</tr>
<tr>
<td></td>
<td>AgentConfiguration.bat</td>
</tr>
<tr>
<td></td>
<td>From the file AgentConfiguration.bat</td>
</tr>
<tr>
<td></td>
<td>a. In a file explorer, navigate to the location: &lt;agent_install_dir&gt;</td>
</tr>
<tr>
<td></td>
<td>b. Double-click the file AgentConfiguration.bat.</td>
</tr>
</tbody>
</table>

The Agent Configurator opens.
2. In Step 1 of 3 (Agent Configuration and HTTP Upload Location), configure the following.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broker Protocol</td>
<td>Specify TCP or SSL.</td>
</tr>
<tr>
<td>Broker Hostname</td>
<td>Host name for the FlexNet Agent 5.8.</td>
</tr>
<tr>
<td>Broker port</td>
<td>Port for the FlexNet Agent 5.8.</td>
</tr>
<tr>
<td>Protocol</td>
<td>Specify whether to use HTTP or HTTPS to upload files.</td>
</tr>
<tr>
<td>Host name</td>
<td>Host name for the FlexNet Manager Admin server</td>
</tr>
<tr>
<td>Port</td>
<td>Port for the FlexNet Manager Admin server</td>
</tr>
<tr>
<td>Show Advanced Settings</td>
<td>Select this check box to display two additional configuration panels, where you can configure logging details, virtual machine heap size, and secure settings.</td>
</tr>
</tbody>
</table>

3. In Step 2 of 3 (License Servers), click Add to add license servers for this FlexNet Manager for Engineering Applications. This configures the FlexNet Manager for Engineering Applications's access to a license server on the FlexNet Manager for Engineering Applications host machine.

When you click Add, the Add License Server panel is displayed. Complete the license-server settings, then click Continue to add the license server.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure as lmadmin server</td>
<td>Select this check box if you are using lmadmin to configure the license server.</td>
</tr>
<tr>
<td>Alias</td>
<td>Enter a display name that is used to identify the license server. To ensure that the display name is unique, the FlexNet Manager for Engineering Applications host name followed by a dash is automatically prepended to this alias.</td>
</tr>
</tbody>
</table>

⚠️ **Caution** • If there are duplicate license server names in the FlexNet Manager for Engineering Applications’s config.xml file, the agent will fail to start. The FlexNet Manager for Engineering Applications log will display a FATAL "duplicate license server name" log message.

| License Manager        | The full path to the lmgrd executable for the license server. For lmadmin, specify the path for lmadmin.exe. |
| lmutil Executable      | The full path to the lmutil executable (lmutil.exe). FlexNet Manager for Engineering Applications needs this location in order to be able to obtain usage information, which is used in the Operational Dashboard, available from FlexNet Manager for Engineering Applications. |
| Debug Log              | If the license server has an existing debug log, specify it. If a debug log does not yet exist, specify the location where it should be written for lmgrd. For lmadmin, specify the path of lmadmin.log. |
Chapter 6  Configuring FlexNet Agent 5.8
Configuring FlexNet Agent 5.8 Using the Agent Configurator

4. If you selected the **Show Advanced Settings** check box in **Step 2**, the **Step 4 of 5** panel is displayed next. Configure the settings, as needed.

<table>
<thead>
<tr>
<th>Setting (Advanced)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>License Locations</strong></td>
<td>Click the <strong>Add</strong> button to open a file browser to add a license file or directory containing one or more .lic files. To add additional files or directories, repeat the process.</td>
</tr>
</tbody>
</table>

5. If you selected the **Show Advanced Settings** check box in **Step 1**, the **Step 5 of 5** panel is displayed next. Configure the settings, as needed.

<table>
<thead>
<tr>
<th>Setting (Advanced)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User Data Directory</strong></td>
<td>The directory in which all FlexNet Manager for Engineering Applications-specific data is kept. It is recommended that you back up this area on a regular basis, and before upgrading to a newer version of the FlexNet Manager for Engineering Applications. Use the default location or specify your own. The default directory is: <code>agent_install_dir/data</code></td>
</tr>
</tbody>
</table>
| **Logging Threshold** | The maximum level of detail for messages written to the FlexNet Manager for Engineering Applications log file. Only messages at or below the selected level of detail will appear in the log. Select the following options, as needed:  
  - **Enable Message Administration Server**—Enables the web server and UI to view and manage the ActiveMQ messaging queues, for diagnostics and support.  
  - **Enable Message Debugging**—Enables logging for the messages that FlexNet Manager for Engineering Applications is sending and receiving, for use in support and debugging.  
  - **Enable Queue Debugging**—Enables logging for message-queue statuses, for use in support and debugging. |
| **Virtual Machine Heap Size** | Specify the initial and maximum heap size (in MB). |

<table>
<thead>
<tr>
<th>Setting (Advanced)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECURE BROKER SETTINGS</strong></td>
<td>The Broker Username and Password settings can be used to password-protect the message queue communication.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Broker Username</strong></td>
<td>The Broker Username and Password settings can be used to password-protect the message queue communication.</td>
</tr>
<tr>
<td><strong>Broker Password</strong></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 6  Configuring FlexNet Agent 5.8
Configuring FlexNet Agent 5.8 for Secure Sockets Layer

24

FNA-058-IG01   FlexNet Agent 5.8 Installation Guide

6. Click Finish.

Configuring FlexNet Agent 5.8 for Secure Sockets Layer

Secure Sockets 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, FlexNet Manager for Engineering Applications itself can act as an SSL server to Web browsers or Web service client applications. FlexNet Manager for Engineering Applications 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, but the secure server keystore and the secure client truststore may need to be configured.

- Configuring Server-Side SSL
- Configuring Client-Side Secure Sockets Layer

<table>
<thead>
<tr>
<th>Setting (Advanced)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECURE SERVER SETTINGS</strong></td>
<td></td>
</tr>
<tr>
<td>SSL Keystore Location</td>
<td>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). 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 Admin installation.</td>
</tr>
<tr>
<td>SSL Keystore Password</td>
<td>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.</td>
</tr>
<tr>
<td><strong>SECURE CLIENT SETTINGS</strong></td>
<td></td>
</tr>
<tr>
<td>SSL Truststore Location</td>
<td>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). Use the default location only if you are using the bundled truststore. Otherwise, point to a location of a truststore outside the FlexNet Manager Admin installation.</td>
</tr>
<tr>
<td>SSL Truststore Password</td>
<td>The password used to secure the truststore. The same password is used to secure the certificate key. Provide confirmation for the password.</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Setting (Advanced)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECURE SERVER SETTINGS</strong></td>
<td></td>
</tr>
<tr>
<td>SSL Keystore Location</td>
<td>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). 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 Admin installation.</td>
</tr>
<tr>
<td>SSL Keystore Password</td>
<td>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.</td>
</tr>
<tr>
<td><strong>SECURE CLIENT SETTINGS</strong></td>
<td></td>
</tr>
<tr>
<td>SSL Truststore Location</td>
<td>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). Use the default location only if you are using the bundled truststore. Otherwise, point to a location of a truststore outside the FlexNet Manager Admin installation.</td>
</tr>
<tr>
<td>SSL Truststore Password</td>
<td>The password used to secure the truststore. The same password is used to secure the certificate key. Provide confirmation for the password.</td>
</tr>
</tbody>
</table>
Configuring Server-Side SSL

When a Web browser or Web service client connects directly to FlexNet Manager for Engineering Applications using HTTPS, SSL authenticates the credentials of FlexNet Manager for Engineering Applications. Certificates to authenticate the FlexNet Manager for Engineering Applications 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 with the Test Certificate
- Testing that the HTTPS Connection to FlexNet Manager for Engineering Applications Works (testing the SSL listener)
- Obtaining a Trusted Certificate
- Configuring FlexNet Manager for Engineering Applications with a Permanent Certificate (meaning the trusted certificate)
- Importing a Secure Sockets Layer Server’s Certificate into the Truststore
- Configuring FlexNet Manager for Engineering Applications with a New Truststore
- Verifying the Trusted Connection

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. If the shipped keystore has expired, you can generate another test keystore using keytool, a command-line utility provided in the Java JDK. Use the following instructions to generate a simple key pair and certificate keystore that is valid for three months. This keystore enables 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 using the keytool utility:

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 will be 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 with the Test Certificate, you will enter these passwords into the FlexNet Manager for Engineering Applications 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 6-1 • Certificate Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter keystore password</td>
<td>Password for the keystore. The default SSL keystore password for FlexNet Manager for Engineering Applications is flexnet. The password is displayed in plain text.</td>
</tr>
<tr>
<td>What is your first and last name?</td>
<td>Fully qualified domain name of the machine on which FlexNet Manager for Engineering Applications is installed.</td>
</tr>
<tr>
<td>What is the name of your organizational unit?</td>
<td>Name of your division or group in your company.</td>
</tr>
<tr>
<td>What is the name of your organization?</td>
<td>Your company name.</td>
</tr>
<tr>
<td>What is the name of your City or Locality?</td>
<td>City name.</td>
</tr>
<tr>
<td>What is the name of your State or Province?</td>
<td>State or province name.</td>
</tr>
<tr>
<td>What is the two-letter country code for this unit?</td>
<td>Two-letter code for your country.</td>
</tr>
<tr>
<td>Is entry correct?</td>
<td>Verify that the entries you provided are correct. Type yes or no.</td>
</tr>
<tr>
<td>Enter key password for &lt;tomcat&gt; (RETURN if same as keystore password):</td>
<td>Press Enter to use the same password for the Tomcat SSL key as the keystore uses. You must use the same password.</td>
</tr>
</tbody>
</table>

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

**Task**

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

1. Stop FlexNet Manager for Engineering Applications.
2. Copy the test keystore file that you just generated, keystore, to a location accessible from, but outside, the FlexNet Manager for Engineering Applications installation.
3. To reconfigure FlexNet Manager for Engineering Applications to use this new test keystore, navigate to the flexnet_agent_install_dir and click on the AgentConfiguration batch file. The FlexNet Manager for Engineering Applications Configurator appears.

4. On the first pane of the Configurator (Step 1), change the value in the Broker Protocol field to SSL and select the Show Advanced Settings check box.

5. Click Next three times to advance to the fourth pane (Step 4).

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 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.

Obtaining a Trusted Certificate

For optimal security, if users are connecting to FlexNet Manager for Engineering Applications 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.

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 the following:

   ```
   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 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 with a permanent trusted or self-signed certificate:

1. Stop FlexNet Manager for Engineering Applications.
2. Copy the keystore file that you just generated, keystore, to a location accessible from, but outside, the FlexNet Manager for Engineering Applications installation, or point to a keystore maintained by your organization.
3. To reconfigure FlexNet Manager for Engineering Applications to use this new keystore, navigate to the flexnet_agent_install_dir and click on the AgentConfiguration batch file. The FlexNet Manager for Engineering Applications Configurator appears.
4. On the first pane of the Configurator (Step 1), change the value in the Broker Protocol field to SSL and select the Show Advanced Settings check box.
5. Click Next three times to advance to the fourth pane (Step 4).
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 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.
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 Obtaining a Trusted 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 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.

Configuring Client-Side Secure Sockets Layer

FlexNet Manager for Engineering Applications can also be a client on an SSL connection to a remote server, such as an LDAP server. When FlexNet Manager for Engineering Applications connects to an SSL server as a client, FlexNet Manager for Engineering Applications receives a certificate of authentication from the SSL server. FlexNet Manager for Engineering Applications 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 at flexnet_agent_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 truststore before the connection can be established.
Importing a Secure Sockets 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 truststore:

1. Obtain a certificate from the SSL server administrator. Its file name will be `servcrt` in the rest of these instructions.
2. Copy the default truststore from `flexnet_agent_install_dir/jvm/lib/security/cacerts` to a location accessible from, but outside, the FlexNet Manager for Engineering Applications 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 with a New Truststore

This step is necessary if one of the following is true:

- 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 with a certificate for the SSL server to which you want FlexNet Manager for Engineering Applications to connect:

1. Stop FlexNet Manager for Engineering Applications.
2. To reconfigure FlexNet Manager for Engineering Applications to use this new keystore, navigate to the `flexnet_agent_install_dir` and click on the AgentConfiguration batch file. The FlexNet Manager for Engineering Applications Configurator appears.
3. On the first pane of the Configurator (Step 1), change the value in the Broker Protocol field to SSL and select the Show Advanced Settings check box.
4. Click Next three times to advance to the fourth pane (Step 4).
5. Modify the SSL Truststore Location setting to match the location where the truststore containing the SSL server’s certificate is located.
6. In the SSL Truststore Password field, enter and confirm the truststore password. By default, the password from the FlexNet Manager for Engineering Applications JRE is `changeit`.
7. Click Finish. When the Configurator window closes, the site directory is re-created.
8. After the site directory is re-created, restart FlexNet Manager for Engineering Applications.

Verifying the Trusted Connection

The same keystore and truststore that you created for FlexNet Agent should be configured with the FlexNet Manager for Engineering Applications Admin server in order to add the FlexNet Manager for Engineering Applications with SSL.
To remove FlexNet Agent 5.8, run the FlexNet Manager for Engineering Applications uninstallation wizard, then remove the FlexNet Manager for Engineering Applications from the application (FlexNet Manager for Engineering Applications or FlexNet Manager for Cloud Infrastructure).

**Task**  
**To uninstall FlexNet Agent 5.8:**

1. From the FlexNet Agent 5.8 installation directory (agent_install_dir), browse to Agent_configuration and run Reconfigure_Agent. This launches the FlexNet Configurator.

2. Click Next, then select the option Complete Uninstall, then click Next to uninstall the FlexNet Manager for Engineering Applications.

3. After running the FlexNet Manager for Engineering Applications uninstaller, remove the FlexNet Manager for Engineering Applications from your application, using the appropriate page in the user interface:

   - **FlexNet Manager for Engineering Applications**—Use the Remove button on the Agent Summary page, which is available from Servers | Agents | Agent Summary.

   This removes FlexNet Manager for Engineering Applications, along with its associated license servers and vendor daemons. For more information, refer to the FlexNet Manager for Engineering Applications Help Library.
Index

C
configuring FlexNet Agent 21

D
downloading FlexNet Agent installers 11

F
file names
installers 11
FlexNet Agent
configuring 21
configuring for Secure Sockets Layer (SSL) 24
uninstalling 31
upgrading 19
FlexNet Agent installers, downloading 11

I
installation directory structure 15
installer file names 11
installing
on Microsoft Windows 13
on Unix 12

L
legal information 5

M
Microsoft Windows

installing on 13
installing silently 14
starting FlexNet Agent 17
stopping FlexNet Agent 17

R
requirements, system 9
response file
sample file 14
response file for silent installation 14
response file properties 15

S
Secure Sockets Layer (SSL)
configuring FlexNet Agent 24
silent installation
on Microsoft Windows 14
on Unix 12
response file 14
starting FlexNet Agent
on Microsoft Windows 17
on Unix 18
stopping FlexNet Agent
on Microsoft Windows 17
on Unix 18
system requirements 9

U
uninstalling FlexNet Agent 31
Unix
installing on 12
installing silently 12
starting FlexNet Agent 18
stopping FlexNet Agent 18
Unix service script
to start and stop FlexNet Agent 18
upgrading FlexNet Agent 19