



Micro Focus File Reporter 3.0 Installation Guide

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About This Guide

This installation guide is written to provide network administrators the conceptual and procedural information for installing and configuring Micro Focus File Reporter 3.0.

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- ◆ Chapter 2, “Deployment Planning,” on page 9
- ◆ Chapter 3, “Licensing the Product,” on page 15
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Audience

This guide is intended for network administrators who manage network storage resources.

Feedback

We want to hear your comments and suggestions about this guide and the other documentation included with this product. Please use the User Comment feature at the bottom of each page of the online documentation, or go to www.novell.com/documentation/feedback.html and enter your comments there.

Documentation Updates

For the most recent version of the *Micro Focus File Reporter 3.0 Installation Guide*, visit the [Novell File Reporter Documentation Web site](http://www.novell.com/documentation/filereporter3) (<http://www.novell.com/documentation/filereporter3>).

Additional Documentation

For additional Micro Focus File Reporter 2.6 documentation, see the following guides at the [Novell File Reporter Documentation Web site](http://www.novell.com/documentation/filereporter3) (<http://www.novell.com/documentation/filereporter3>)

- ◆ *Micro Focus File Reporter 3.0 Administration Guide*
- ◆ *Micro Focus File Reporter 3.0 Database Schema and Custom Queries Guide*

1 Upgrading from a Previous Version

- ◆ Section 1.1, “Database,” on page 7
- ◆ Section 1.2, “License,” on page 7
- ◆ Section 1.3, “Engine, Scan Processor, and Web Application,” on page 7
- ◆ Section 1.4, “Agents,” on page 8

1.1 Database

In previous releases of File Reporter, we supported deployments of the database and Engine on the same Windows Server host. However, subsequent performance testing, along with some notable technical support incidents, have demonstrated the potential for significant performance issues when utilizing a single host.

In addition, we previously shipped a package of PostgreSQL for Windows as well as the publicly available generic installer for PostgreSQL on Linux. This caused two specific issues:

- ◆ PostgreSQL on Windows is generally the most performance limited of the supported database configurations, as opposed to PostgreSQL on Linux or SQL Server on Windows. For customers with performance concerns running PostgreSQL for Windows, we typically recommend moving to PostgreSQL on Linux as part of an initial performance tuning strategy.
- ◆ The generic PostgreSQL installer for Linux is not distribution aware, causing issues with standard service scripts.

Beginning with the release of File Reporter 3.0, we are making the following changes:

- ◆ We are strongly recommending that the database and Engine be hosted on separate servers.
- ◆ We are strongly recommending the use of a Linux host when utilizing PostgreSQL as the database.
- ◆ We are no longer including any PostgreSQL installation packages for Windows or Linux. PostgreSQL may be installed using the Linux distribution’s built-in package channels, or by downloading an installer from <http://www.postgresql.org/download/>.

1.2 License

Micro Focus File Reporter 3.0 requires an updated license. For procedures on updating the license, see [Section 3.2, “Replacing a License,” on page 17](#).

1.3 Engine, Scan Processor, and Web Application

Upgrade the Engine and Web Application and install the newly-introduced Scan Processor by installing the updated software on top of the existing Engine and Web Application software.

To upgrade an Engine where Active Directory is the primary identity system, follow the procedures in [Chapter 6, “Installing and Configuring the Engine, Database, and Web Application in an Active Directory Environment,” on page 33](#).

To upgrade an Engine where eDirectory is the primary identity system, follow the procedures in [Chapter 7, “Installing and Configuring the Engine, Database, and Web Application in an eDirectory Environment,”](#) on page 57.

1.4 Agents

Upgrade your existing Agents by installing the Micro Focus File Reporter 3.0 Agent software on top of the existing Agent software.

To upgrade an Agent on a Windows server, follow the procedures in [Chapter 8, “Installing and Configuring the Windows Agent,”](#) on page 83.

To upgrade an Agent on a Linux server, follow the procedures in [Chapter 9, “Installing and Configuring the Linux Agent,”](#) on page 87.

2 Deployment Planning

File Reporter can be installed to work in a variety of configurations. Before proceeding with the installation, you should understand how to deploy File Reporter to best meet the needs of your organization.

- ◆ [Section 2.1, “Understand the Technologies and Expertise You Need,” on page 9](#)
- ◆ [Section 2.2, “Determine the Scope and Choose a Primary Identity System,” on page 10](#)
- ◆ [Section 2.3, “Decide Where to Host the Engine,” on page 11](#)
- ◆ [Section 2.4, “Decide Which Database to Utilize,” on page 11](#)
- ◆ [Section 2.5, “Create a Worksheet,” on page 12](#)
- ◆ [Section 2.6, “Develop a Plan for Deploying the Agents,” on page 13](#)
- ◆ [Section 2.7, “Database Deployment Recommendations,” on page 13](#)

2.1 Understand the Technologies and Expertise You Need

Before you install File Reporter, review the following table to understand how different technologies might affect how you proceed.

Technology	Notes
Windows and Windows Networking	The Engine runs on a Windows operating system and uses basic TCP/IP networking inherent to the operating system.
Microsoft Internet Information Server (IIS)	File Reporter is accessed and managed via a Web browser. The Web service is an ASP.NET application that runs in conjunction with IIS. The installer and configuration utilities automatically configure IIS and manage most aspects of the installation for you. The Engine and Web service must run on the same system in this release of the software.
DNS	In order to access the File Reporter Web service with a browser, the Web site name as registered with IIS must be used. In other words, the raw IP address does not work. You need to create a DNS entry for the name in the environment, or the entry needs to be added to the hosts file on every machine accessing the File Reporter system.
Database	File Reporter utilizes a Microsoft SQL Server or PostgreSQL database as the back end data store. The database must be accessible from the server running the Engine. If you choose to use SQL Server, the instance must be configured according to the parameters specified in Chapter 5, “Installing an SQL Server Instance that Supports File Reporter,” on page 25 .

Technology	Notes
Active Directory and Windows Server (Option)	<p>You can use File Reporter to report on Active Directory and Windows file systems. If so, File Reporter makes use of a proxy object and group in Active Directory that is used by the system as part of day-to-day operations.</p> <p>You should be familiar with the Windows network that you will be reporting against with File Reporter as well as with basic Windows file system and Active Directory terminology and operations.</p>
eDirectory and NetWare / OES (Option)	<p>You can use File Reporter to report on eDirectory and Micro Focus (formerly Novell) file systems. If so, File Reporter makes use of a proxy object and group in eDirectory that is used by the system as part of day-to-day operations.</p> <p>You should be familiar with the Micro Focus network that you will be reporting against with File Reporter as well as with basic Micro Focus file system and eDirectory terminology and operations.</p>

2.2 Determine the Scope and Choose a Primary Identity System

You need to decide the scope of your installation and decide whether you will use eDirectory or Active Directory as your primary identity system.

The primary identity system is used by File Reporter for licensing, administrative authentication, and authorization. It is also the source for user email address information used by the notification subsystem.

Scope	Primary Identity System
Single eDirectory tree	The given eDirectory tree
Multiple eDirectory trees	Choose one of the eDirectory trees
Single Active Directory forest	The given AD forest
Single Active Directory forest and single eDirectory tree	<p>Pick one:</p> <ul style="list-style-type: none"> ◆ The given AD forest ◆ The given eDirectory tree <p>Note: Changing the primary identity system between eDirectory and Active Directory is non-trivial.</p>
Single Active Directory forest and multiple eDirectory trees	<p>Pick one:</p> <ul style="list-style-type: none"> ◆ The given AD forest ◆ One of the eDirectory trees <p>Note: Changing the primary identity system between eDirectory and Active Directory is non-trivial.</p>

2.3 Decide Where to Host the Engine

- ♦ The Engine server host should have significant CPU, disk, and memory for all but the smallest installations.
- ♦ The Engine runs on any of the following 64-bit Windows Servers:
 - ♦ Windows Server 2016
 - ♦ Windows Server 2012 R2
 - ♦ Windows Server 2012
 - ♦ Windows Server 2008 R2

NOTE: If possible, the Engine should not be installed on a Domain Controller.

Scope	Engine Host Server Configuration Requirement
eDirectory only	Client for Open Enterprise Server Installed
Active Directory only	Joined to the domain
Both eDirectory and Active Directory	Both: <ul style="list-style-type: none">♦ Client for Open Enterprise Server installed♦ Joined to the domain

2.4 Decide Which Database to Utilize

IMPORTANT: Database deployment recommendations are detailed in [Section 2.7, “Database Deployment Recommendations,”](#) on page 13.

You can utilize either a PostgreSQL database or a Microsoft SQL Server database. Here are some considerations for choosing one over the other:

- ♦ You might prefer to utilize Microsoft SQL Server if you have a Microsoft Licensing Agreement that entitles you to Microsoft SQL Server.
- ♦ You might prefer to utilize the PostgreSQL database if you are proficient with Linux and have any of the following already deployed:
 - ♦ SUSE Linux Enterprise Server 11 SP3
 - ♦ SUSE Linux Enterprise Server 11 SP4
 - ♦ SUSE Linux Enterprise Server 12
 - ♦ SUSE Linux Enterprise Server 12 SP1
 - ♦ SUSE Linux Enterprise Server 12 SP2
 - ♦ Open Enterprise Server 11 SP2
 - ♦ Open Enterprise Server 2015
 - ♦ Open Enterprise Server 2015 SP1
 - ♦ CentOS7
 - ♦ Red Hat Linux Enterprise Server 7

Name of Target Volume or Share	Scan File System Data? (Yes No)	Scan Security Data? (Yes No)	Scan Trending Data? (Yes No)

2.6 Develop a Plan for Deploying the Agents

Target File System to be Scanned	Agent can be Installed Locally?	Potential Proxy Agents
NetWare	No	Any of the following: <ul style="list-style-type: none"> ◆ Open Enterprise Server 2015 ◆ Open Enterprise Server 11 ◆ Windows (with the Client for Open Enterprise Server)
Open Enterprise Server	Yes	Any of the following: <ul style="list-style-type: none"> ◆ Open Enterprise Server 2015 ◆ Open Enterprise Server 11 ◆ Windows (with the Client for Open Enterprise Server)
Windows	Yes	Windows
Network Attached Storage (NAS) Device (CIFS-based)	No	Windows

When you decide whether to install the agent locally on an Open Enterprise Server or Windows server, or to have the Agent service run through a proxy, be aware of the following:

- ◆ Locally installed Agents perform scans faster than proxy-based agents.
- ◆ Locally installed Agents share CPU and memory resources with other software running on the system. If a server is already constrained for resources, consider using a proxy instead of installing the Agent locally. For procedures, see [“Micro Focus File Reporter 3.0 Administration Guide.”](#)

2.7 Database Deployment Recommendations

You should consider the following guidelines before installing and configuring any database system for File Reporter.

- ◆ [Section 2.7.1, “Use a Dedicated Server,” on page 14](#)
- ◆ [Section 2.7.2, “Use a Dedicated Database Instance,” on page 14](#)
- ◆ [Section 2.7.3, “Provide Sufficient I/O Bandwidth,” on page 14](#)

2.7.1 Use a Dedicated Server

Due to the potential size of the collected scan data and the I/O processing needed for large database installations, we strongly recommend that you install the database on a dedicated server.

- ♦ For minimum requirements for PostgreSQL, see [Section 4.1.1, “Minimum Requirements,” on page 21](#).
- ♦ For minimum requirements for a SQL Server host, see [Section 5.2, “Minimum Requirements,” on page 25](#).

2.7.2 Use a Dedicated Database Instance

In addition to sizing requirements, we recommend that you use a dedicated SQL Server instance or PostgreSQL cluster to prevent conflicts with other vendor software. File Reporter needs access to manage the database security principals and roles, which requires access at the instance level. In addition, future developments of File Reporter might include other instance-specific updates such as CLR extensions for SQL server, security principal and role management for delegation purposes, and custom extensions, all of which require management at the instance or cluster level.

In short, do not install the File Reporter database in an instance or cluster that shares databases with other software.

2.7.3 Provide Sufficient I/O Bandwidth

Relation Database Management Systems are by nature very I/O intensive, especially when it comes to persisted storage on disk. For best performance, consider the following:

- ♦ Provide SSD-backed storage if possible for the database tablespaces or filegroups*.
- ♦ Alternatively, provide RAID-10 spindle storage for database tablespaces or filegroups*.
- ♦ Do not use RAID-5 storage for database storage.
- ♦ Do not use Network Attached Storage for database storage.
- ♦ If using a SAN, be sure to provide at least 10 GB or more throughput (ideally, the SAN link should be faster than the I/O capacity of the backend storage system, so that it is not the bottleneck).
- ♦ Be sure to enable battery-backed cache for RAID and SAN controllers.
- ♦ Optionally, place the transaction logs on a separate RAID-1 or SSD.

This can be done either during the installation of the SQL Server instance, or afterwards.

For procedures on moving database files after the installation of an SQL Server instance, see <https://msdn.microsoft.com/en-us/library/ms189133.aspx>.

For PostgreSQL, moving database files is a simple process of stopping the database server, relocating the `pg_xlog` folder, and then creating a symbolic link to the new path.

The need for separate disks for transaction logs is minimized if the main storage is already on RAID-10 or SSD, and the I/O channel is not already saturated.

*For basic information on SQL Server filegroups, see <https://msdn.microsoft.com/en-us/library/ms189563.aspx>.

*For basic information on PostgreSQL tablespaces, see <http://www.postgresql.org/docs/9.4/static/manage-ag-tablespaces.html>.

3 Licensing the Product

- ◆ Section 3.1, “Obtaining a License File,” on page 15
- ◆ Section 3.2, “Replacing a License,” on page 17

3.1 Obtaining a License File

Micro Focus File Reporter requires a production license file or evaluation license file that you obtain from Micro Focus.

- 1 In a web browser, go to www.filereportersupport.com.
- 2 On the left side of the Web page, click **Licensing**.

A new Web page appears with options for obtaining the license in either eDirectory or Active Directory network environments.

File Reporter Support Home License Software Documentation Support File Reporter Support

License

Enter the required information below and click 'Submit' to generate your license file. After verification, a link to the license file will be sent to the e-mail address entered below.

Customer Details

Organization Name:

Contact

First Name:

Last Name:

Email:

Telephone:

Address

Street:

Street2:

City:

State/Province: **Zip/Postal Code:**

Country:

Product Version

Product: File Reporter

Version:

License Details

Directory Service: eDirectory Active Directory

eDirectory Info

Tree Name:

The license keys are based on the eDirectory tree name (not O=), so it must be correct. Example: MYTREE

License Type: Evaluation Activation

Evaluation License Policy

Notice: Evaluation licenses are for the express purpose of product evaluation and testing. All features of the software may not be active or available when using evaluation licenses. Any use of the product using this license in a production network for production purposes or work is expressly prohibited.

I certify acceptance of this policy on behalf of my company, school, or organization.

Form Verification

Verify:

DCGR2

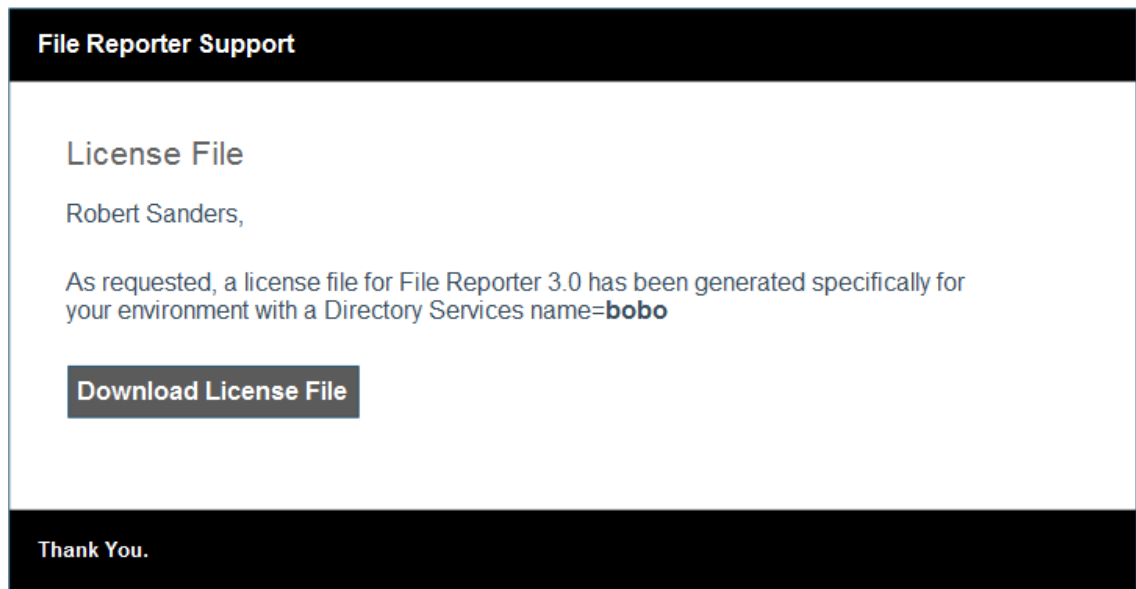
Enter the text above in the box below.

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The File Reporter directory type license you select is based on the directory service you use to authenticate to your network. Although File Reporter can simultaneously report on storage devices residing in both eDirectory and Active Directory networks, you only authenticate to one directory service or “identity system.”

3 Complete the fields and click **Submit.**

An email from File Reporter Support is automatically sent to you with an embedded link for accessing the license.



- 4 In the email, click **Download License File**.
A new Access web page is opened.
- 5 From the Access page, select the listed license file and click the arrow icon to download the license.
- 6 Note where the license file is saved.
You need to retrieve the license during the installation of the File Reporter Engine.

3.2 Replacing a License


You use the File Reporter Configuration Dashboard to replace a File Reporter license, including an evaluation license.

NOTE: The Engine generates web and email notifications 60, 30, and 15 days before a license expires. License expiration checks are done every 24 hours at midnight.


When the license expires, you cannot log in through the File Reporter Web application until the license is replaced; this can only be done through the File Reporter Engine Configuration utility.

- 1 On the File Reporter Configuration Dashboard, click **Install or Update Licensing**.


MFR Configuration Dashboard - 3.0.0

 **License** ⚠ Valid license - expiring soon [Install or Update License](#)


Product: Micro Focus File Reporter
 License Type: Evaluation
 Expiration: 8/7/2016
 Identity System: nfms.utopia.novell.com
 Platform: Active Directory
 Features: Active Directory Reporting, eDirectory Reporting

 **Database** ✔ Configured [Configure Database](#)

Database Type: PostgreSQL
 Database Version: PostgreSQL 9.4.5 on x86_64-suse-linux-gnu, compiled by gcc (SUSE Linux) 4.3.4 [gcc-4_3-branch revision 152973], 64-bit
 Database Name: srsdb
 Database User: srsadmin
 Address: 172.17.2.180:5432
 Schema Version: 3.0.0.6

 **Engine** ✔ Running [Configure Engine](#)
[Stop Engine](#)
[Stop Scan Processor](#)

Address: 0.0.0.0:3035
 Admin Group: NFMS\srsadmins
 Communications Group: NFMS\SRSCommunications
 Proxy User: NFMS\FRProxy
 Rights Group: NFMS\FRProxyRights
 Engine Timezone: (UTC +01:00) GMT Daylight Time

 **Web Application** ✔ Running [Configure Web Application](#)
[Stop Web Service](#)
[Stop Web Site](#)
[Stop Application Pool](#)

Web Site: SRS Site
 AppPool: SRS AppPool
 AppPool Identity: NFMS\SRSApPoolSvc
 Disk Path: C:\inetpub\srs_root\
 Https Listeners: [All IP Addresses]:443
 Hostname: mfr.nfms.utopia.novell.com
 AppPool Recycle Time: 03:00:00
<https://mfr.nfms.utopia.novell.com>

✔ Active Directory forest 'nfms.utopia.novell.com' available - joined to domain NFMS
✔ eDirectory available via Novell Client 2 SP3 for Windows Server 2012 (IR4) 5.1 SP 3 Build 20130930
[Refresh](#)

A page similar to the following appears:

License

Product: Micro Focus File Reporter

License Type: Evaluation

Licensed Identity System: nfms.utopia.novell.com

Expiration Date: 8/7/2016

Identity System Type: Active Directory

Licensed Features: Active Directory Reporting, eDirectory Reporting

Load License

[Get a license](#)

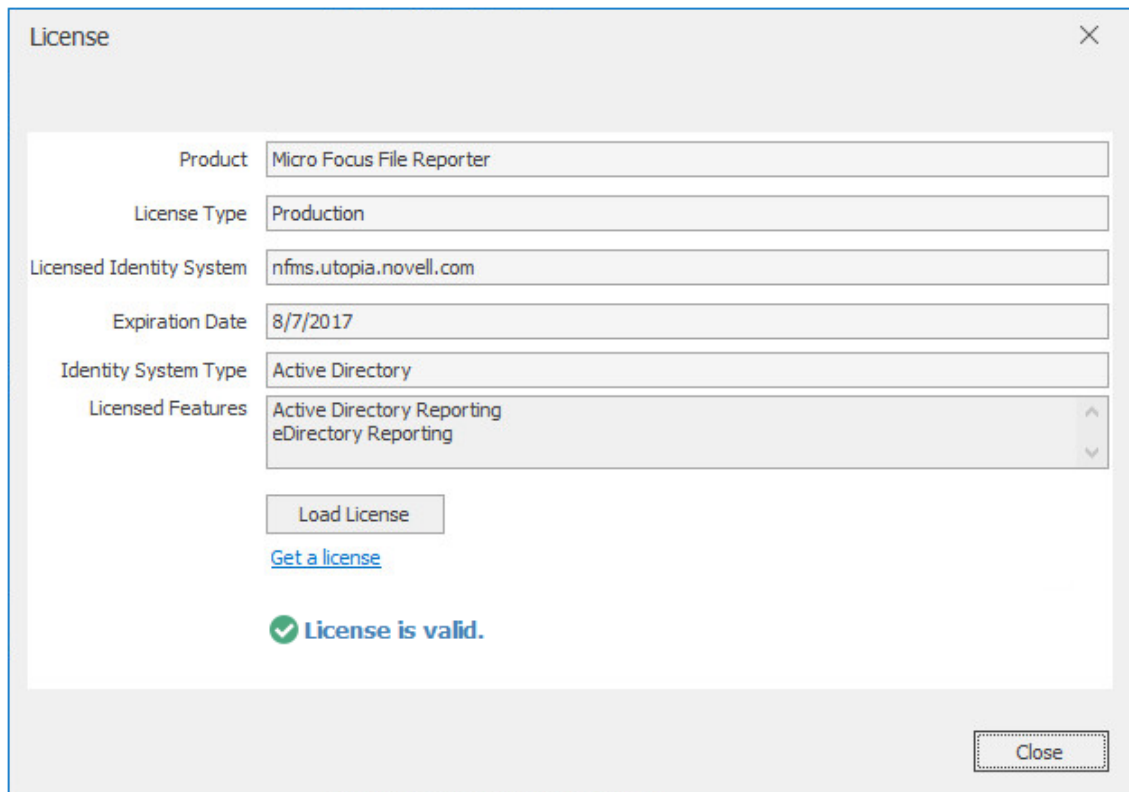
i License expires soon.

Close

2 Click **Load License**, then browse to and select the production license file.

3 When the confirmation prompt appears, click **Yes**.

The fields on the License page are filled in according to the data in the license file.



4 Click Close.

4 Installing and Configuring the PostgreSQL Database

This section provides procedures for installing and configuring the PostgreSQL database on a Linux server host.

IMPORTANT: Due to the significant performance degradation of PostgreSQL running on a Windows Server host, Micro Focus strongly recommends that PostgreSQL be hosted on a Linux server.

4.1 Installing and Configuring the PostgreSQL Database on a Linux Server

- ♦ [Section 4.1.1, “Minimum Requirements,” on page 21](#)
- ♦ [Section 4.1.2, “Installing and Configuring the PostgreSQL Database,” on page 22](#)
- ♦ [Section 4.1.3, “Set Up PostgreSQL to Accept Remote Database Connections,” on page 22](#)

4.1.1 Minimum Requirements

- ♦ Any of the following 64-bit versions of PostgreSQL with the latest service packs:
 - ♦ 9.2
 - ♦ 9.3
 - ♦ 9.4
 - ♦ 9.5
- ♦ Any of the following 64-bit Linux server hosts with the latest support packs:
 - ♦ SUSE Linux Enterprise Server 11 SP3
 - ♦ SUSE Linux Enterprise Server 11 SP4
 - ♦ SUSE Linux Enterprise Server 12
 - ♦ SUSE Linux Enterprise Server 12 SP1
 - ♦ SUSE Linux Enterprise Server 12 SP2
 - ♦ Open Enterprise Server 11 SP2
 - ♦ Open Enterprise Server 2015
 - ♦ Open Enterprise Server 2015 SP1
 - ♦ CentOS7
 - ♦ Red Hat Linux Enterprise Server 7
- ♦ Minimum of 16 GB of RAM

Depending on size and frequency of your scans, this amount might need to be significantly increased.

- ♦ Minimum of 150 MB of disk space
Depending on the size and frequency of your scans, this amount might need to be significantly increased.

4.1.2 Installing and Configuring the PostgreSQL Database

- 1 On the Linux server host, install PostgreSQL from the distribution repository by typing:
`zypper in postgresql94-server postgresql94-contrib` and press Enter.
Accept the dependencies.
- 2 Switch the user to PostgreSQL by typing:
`su - postgres` and press Enter.
- 3 Initialize the database by typing:
`initdb` and press Enter.
- 4 Start the database by typing:
`pg_ctl start` and press Enter.
- 5 Run the PostgreSQL command line client by typing:
`psql` and press Enter.
- 6 Type the following to change the PostgreSQL user password:
`alter user postgres password 'postgres';` and press Enter.
If the password change was successful, you will see `ALTER ROLE` appear.
- 7 Type the following to quit:
`\q` and press Enter.

4.1.3 Set Up PostgreSQL to Accept Remote Database Connections

- 1 Add the following line to the `/var/lib/pgsql/data/pg_hba.conf` file:
`host all all 0.0.0.0/0 md5`
- 2 In the `/var/lib/pgsql/data` directory, create a new file named `ccpostgresql.conf`.
- 3 In the `ccpostgresql.conf` file, add the following lines:

```
listen_addresses = '*'
port = 5432
shared_buffers = 1968MB
effective_cache_size = 3936MB
checkpoint_segments = 32
```

Listen address should contain the IP Address of the server, or list `*` for all addresses.

The PostgreSQL daemon listens on port 5432 by default.

Shared Buffers is calculated to one quarter (1/4) of the system memory.

Effective Cache Size is calculated to one half (1/2) of the system memory.

Checkpoint Segments are part of the Write-Ahead-Logging used by postgresql to one help recover in the event of a disaster, and two speed up how fast the database can be written to. With 16GB of memory you may need more than 64 segments.

4 Include the `ccpostgresql.conf` file as part of the postgres configuration by typing:

```
echo include \'ccpostgresql.conf\' >> postgresql.conf
```

5 Restart the database by typing:

```
pg_ctl restart and press Enter.
```

6 Type the following to log out the postgresSQL user:

```
exit
```


5 Installing an SQL Server Instance that Supports File Reporter

This section provides procedures for installing a Microsoft SQL Server 2012 or SQL Server 2014 instance with the settings needed to support File Reporter.

NOTE: File Reporter supports the Standard, Business Intelligence, and Enterprise versions of SQL Server 2012 and 2014. It does not support the Express version.

IMPORTANT: In previous releases of File Reporter, we supported deployments of the database and Engine on the same Windows Server host. However, subsequent performance testing, along with some notable technical support incidents, have demonstrated the potential for significant performance issues when utilizing a single host. Beginning with the release of File Reporter 3.0, we are therefore strongly recommending that the database and Engine be hosted on separate servers.

5.1 Prerequisites

- ◆ Verify that you have installed the latest SQL Server updates.

5.2 Minimum Requirements

Microsoft SQL Server Software

- ◆ SQL Server 2016
- ◆ SQL Server 2014 64-bit SP1 or later
- ◆ SQL Server 2012 64-bit SP3 or later

Server Host

- ◆ Any of the following 64-bit multi-core processor machines:
 - ◆ Windows Server 2016
 - ◆ Windows Server 2012 R2
 - ◆ Windows Server 2012
 - ◆ Windows Server 2008 R2 SP1 or later with latest service pack / update
- ◆ Minimum 16 GB RAM

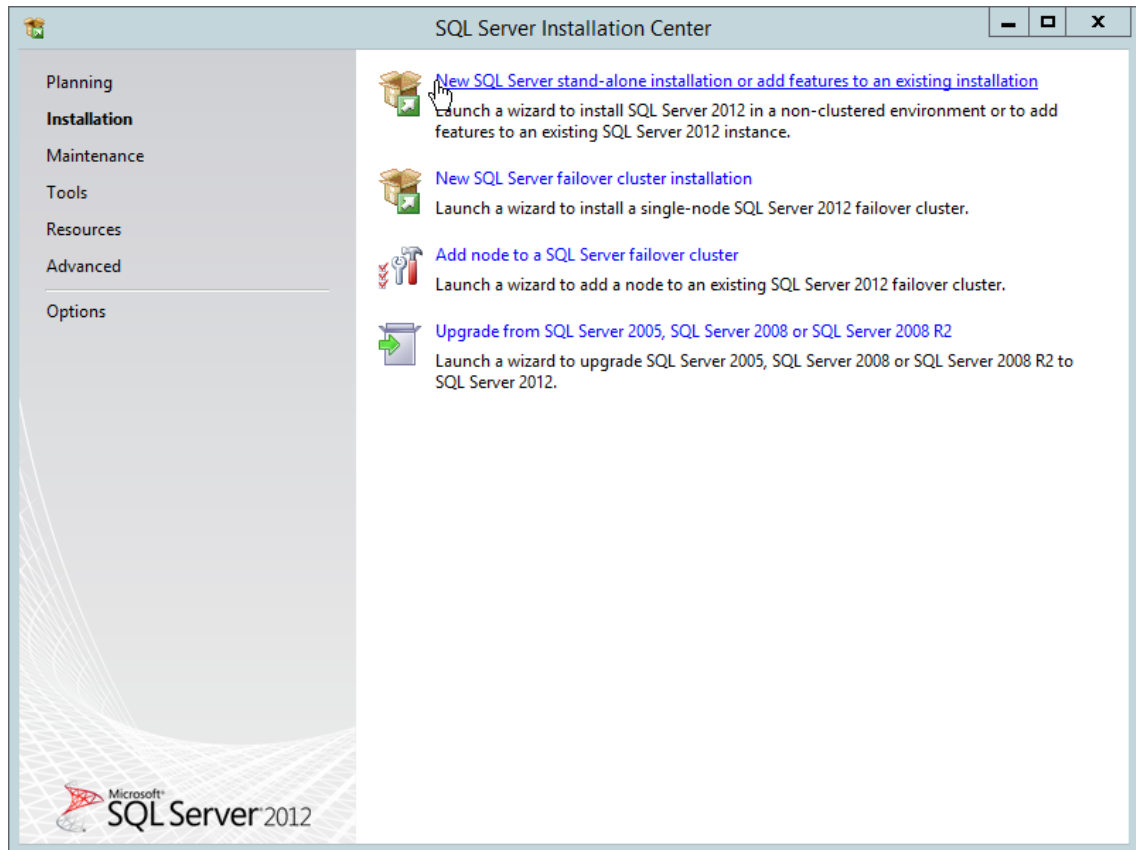
Depending on the size and frequency of your scans, you might need significantly more RAM.

- ◆ Minimum 100 GB free space; Use RAID-10 if possible; RAID-5 not recommended.

For additional requirements, including operating system support, refer to Microsoft's Hardware and Software Requirements for Installing SQL Server at: [https://msdn.microsoft.com/en-us/library/ms143506\(v=sql.120\).aspx](https://msdn.microsoft.com/en-us/library/ms143506(v=sql.120).aspx).

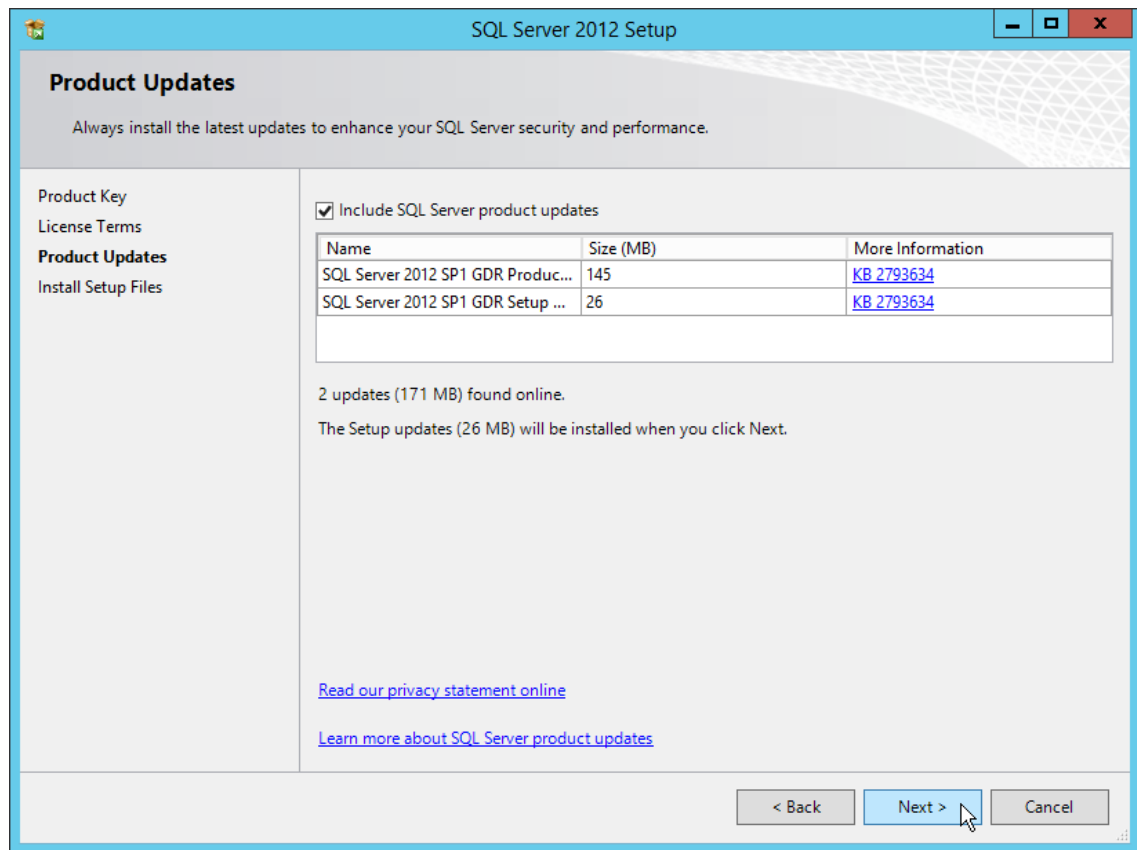
5.3 Installing a New Instance that Supports File Reporter

- 1 From the Microsoft SQL Server ISO, double-click `setup.exe`.
- 2 On the SQL Server Installation page, click **Installation**.
- 3 Select **New SQL Server stand-alone installation or add features to an existing installation**.



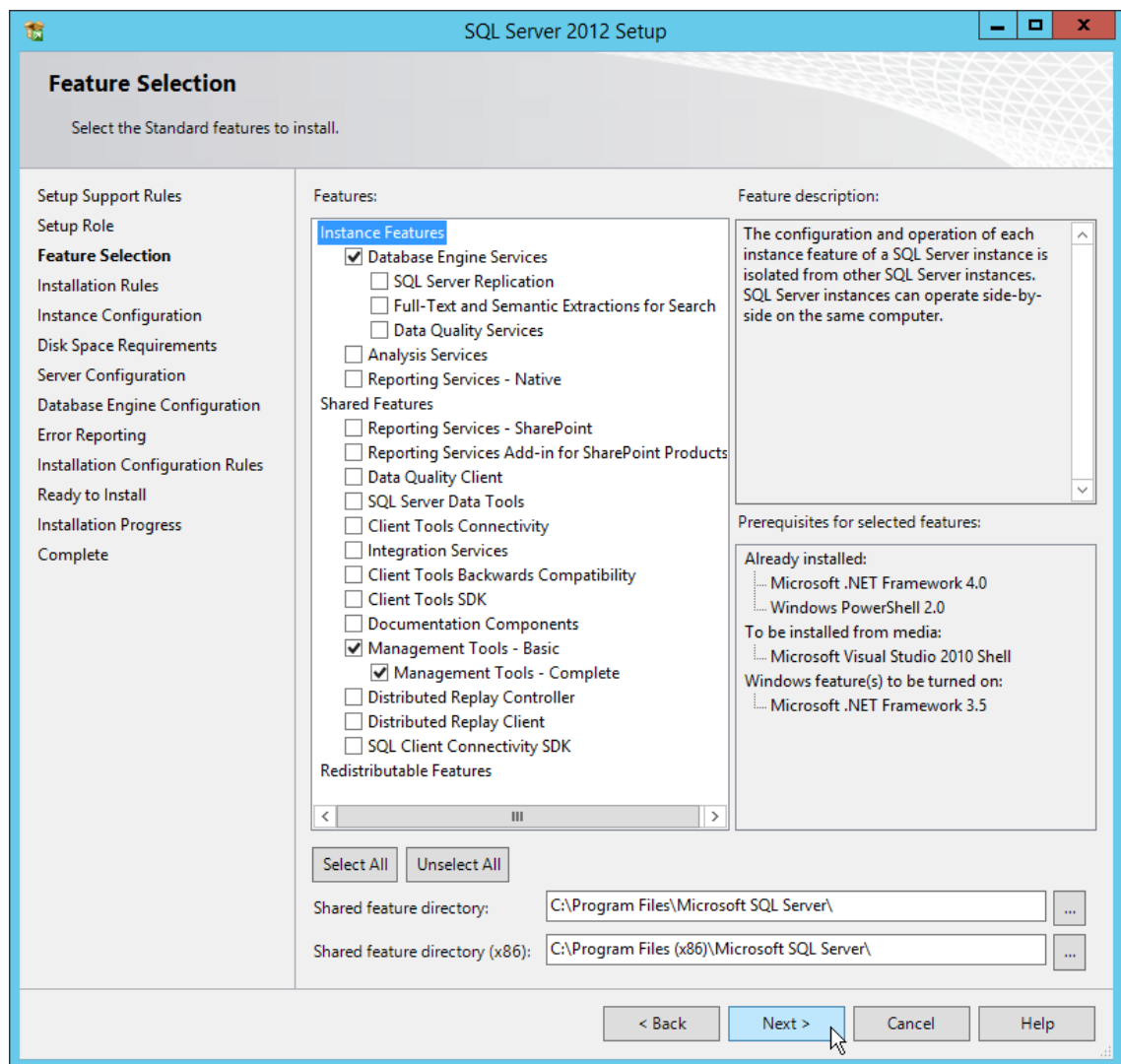
The Setup Support Rules operation is run.

- 4 When the operation has completed, click **OK**.
- 5 When prompted, enter your product key, then click **Next**.
- 6 Accept the license terms, then click **Next**.
- 7 Include all Microsoft SQL Server product updates, then click **Next**.

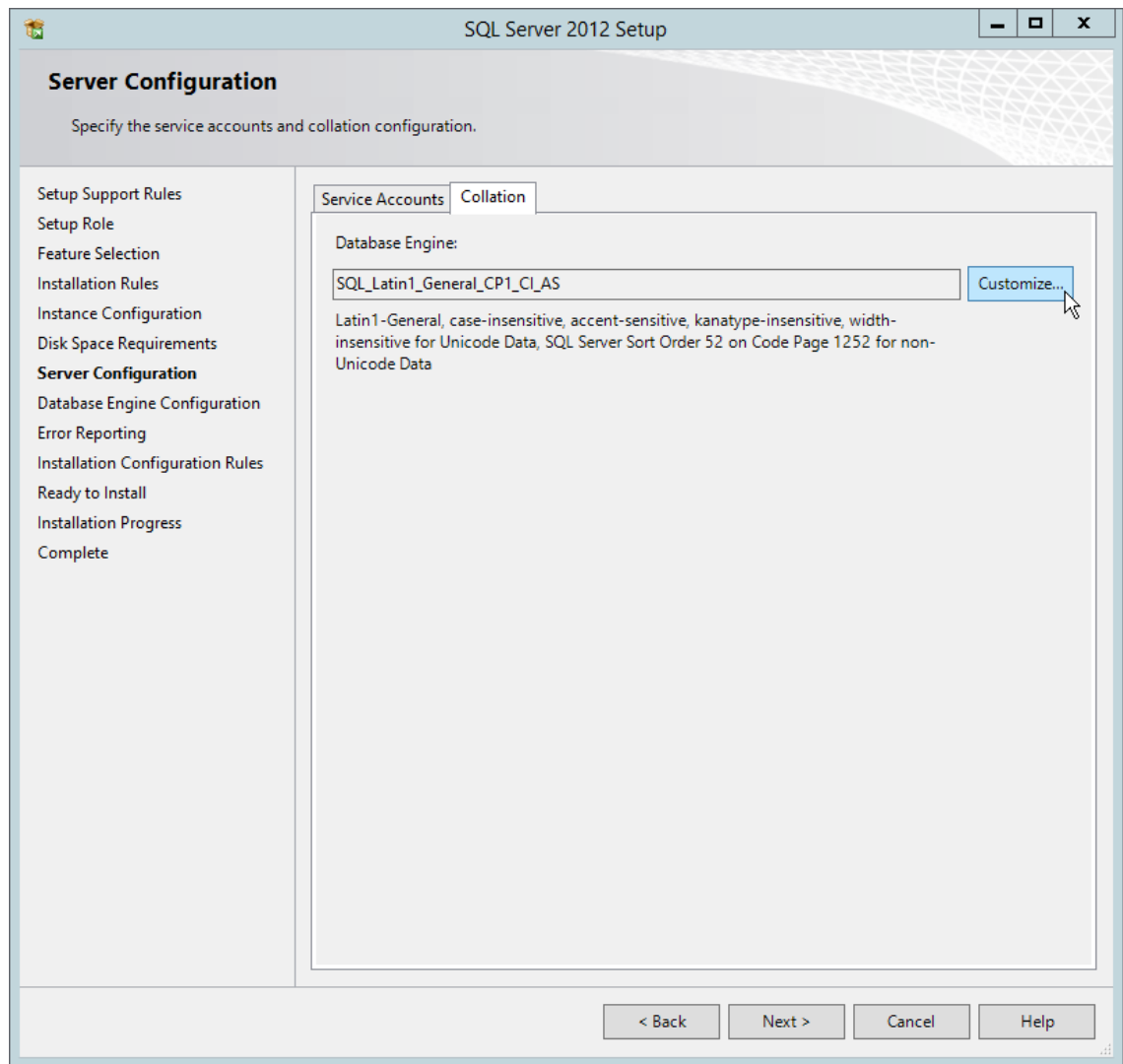


The Setup Support Rules operation is run again.

- 8 When the operation has completed, click **Next**.
- 9 On the Setup Role page, verify that the **SQL Server Feature Installation** option is selected, then click **Next**.
- 10 On the Feature Selection page, select the following check boxes:
 - ◆ **Database Engine Services**
 - ◆ **Management Tools - Basic**
 - ◆ **Management Tools - Complete**



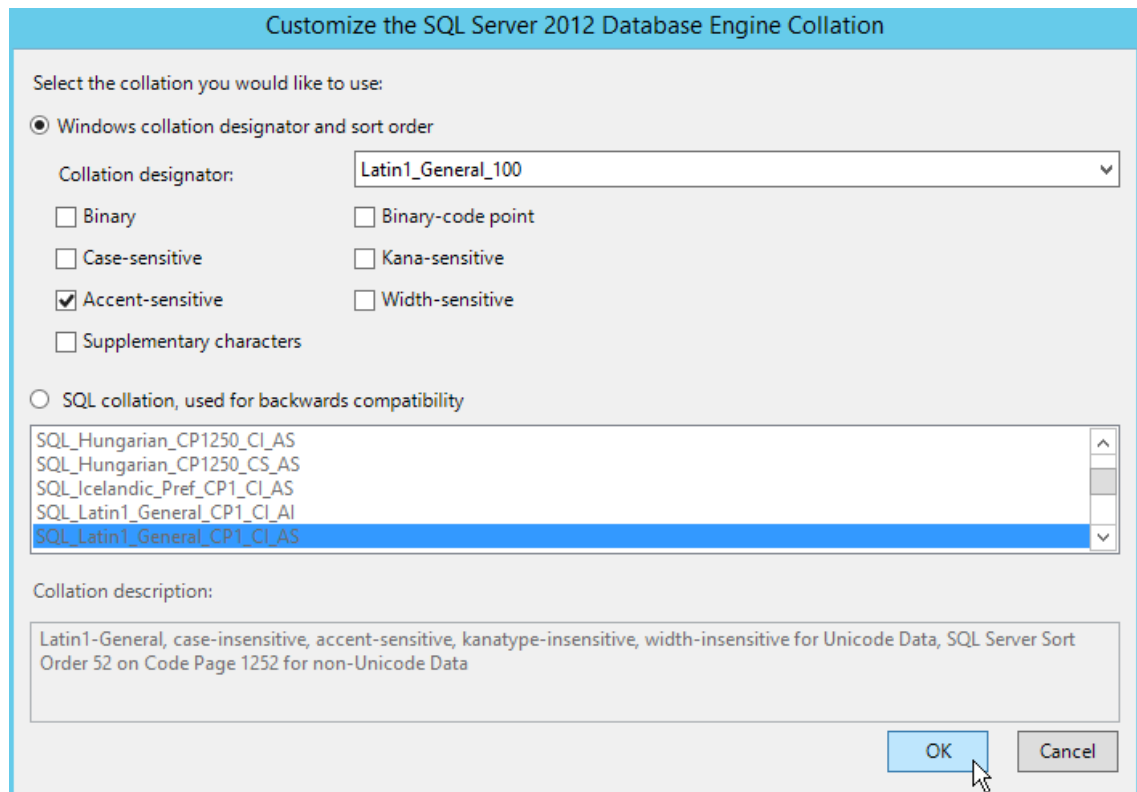
- 11 Click **Next**.
The Installation Rules operation is run.
- 12 When the operation has completed, click **Next**.
- 13 On the Instance Configuration page, accept all of the default settings, then click **Next**.
- 14 On the Disk Space Requirements page, review the disk space summary, then click **Next**.
- 15 On the **Service Accounts** tab of the Server Configuration page, accept the service account configurations, then click the **Collation** tab.
- 16 Click **Customize**.



- 17 From the drop-down menu, select an acceptable collation and settings for your locale. For example, in North America, an acceptable collation would be **Latin1_General_100** with the **Accent-sensitive** check box selected.

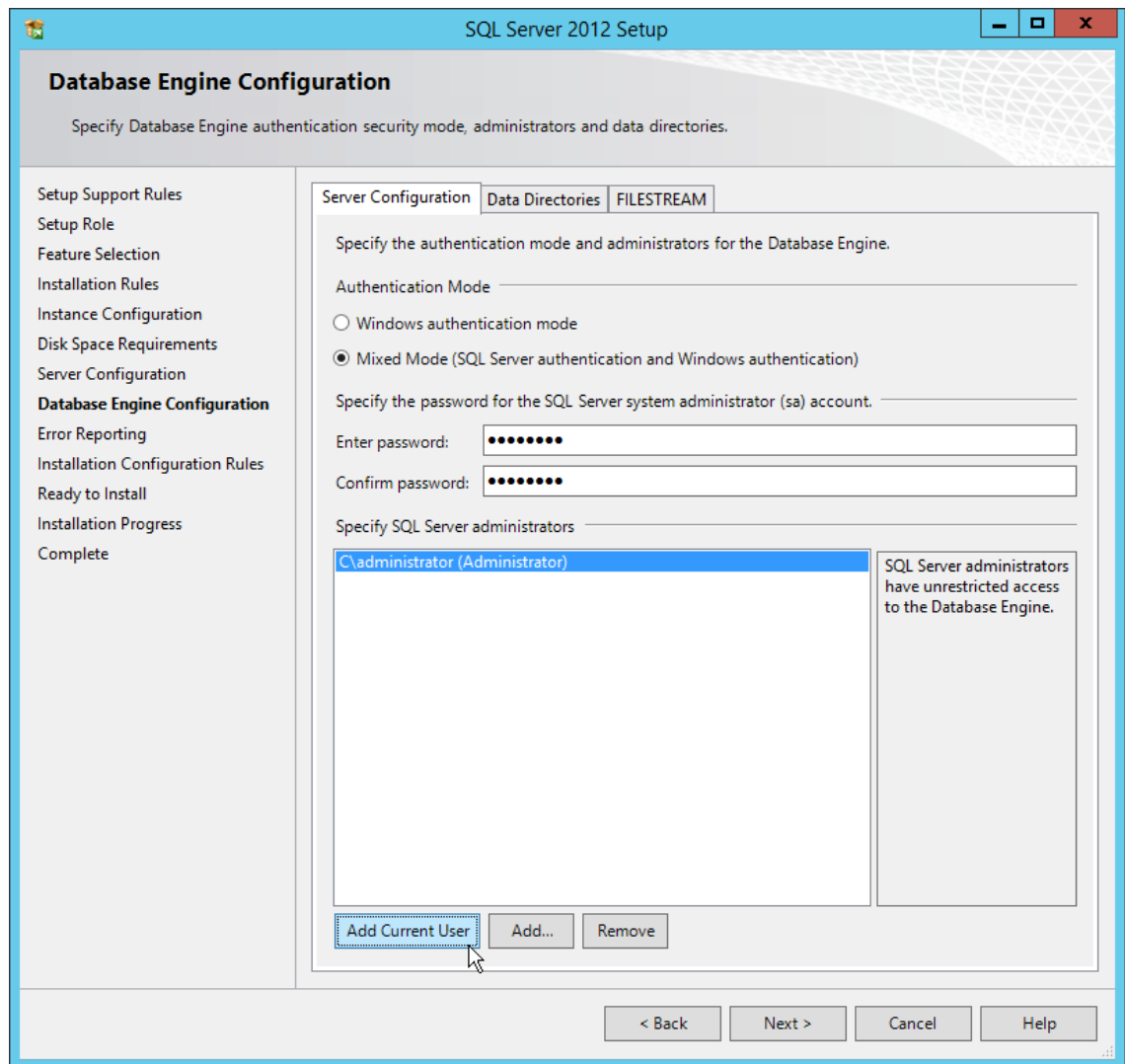
We recommend that you select a collation that aligns with the Windows locale of the server where the Engine is installed.

For more information on collation and locales, refer to this [Microsoft document \(http://technet.microsoft.com/en-us/library/ms175194%28v=sql.105%29.aspx\)](http://technet.microsoft.com/en-us/library/ms175194%28v=sql.105%29.aspx).



- 18 Click **OK**.
- 19 Click **Next**.
- 20 On the Database Engine Configuration page, select the **Mixed Mode (SQL Server authentication and Windows authentication)** option, enter and confirm the SQL Server administrator password, then click **Add Current User**.

File Reporter does not support Windows authentication mode (also known as Integrated Security).



21 Click **Next**.

22 Review the data directories that are to be created, then click **Next**.

For best performance, the data directories should be located on a dedicated drive or drive array. For other best performance tips, refer to (<http://condreycorp.com/support/bp>).

23 Click **Next**.

The installation setup runs a rules operation.

24 When the operation has completed, click **Next**.

25 Click **Install**.

26 When the installation has completed, click **Close** to close the wizard.

5.4 Post Configuration Considerations

Review these points and make any needed adjustments to your SQL database settings before installing and configuring the File Reporter Engine and Web Application:

- ♦ The SQL Server service must be listening via TCP/IP v4, because the Engine and Web Service requires that for access.
- ♦ Some editions of SQL Server do not have TCP/IP enabled by default. If there are multiple instances, the instance that you just installed and configured might not be listening on the default port of 1433.
- ♦ Firewall rules might need to be modified.

6 Installing and Configuring the Engine, Database, and Web Application in an Active Directory Environment

Procedures in this section include those needed for installing and configuring the Engine, configuring the database, and configuring the Web Application in an Active Directory network environment.

This assumes that Active Directory is to be the primary identity system for File Reporter. In other words, authentication is to take place via Active Directory. Additionally, the Engine requires a license for the Active Directory version of File Reporter.

- ◆ [Section 6.1, “Minimum Requirements,” on page 33](#)
- ◆ [Section 6.2, “Prerequisites,” on page 34](#)
- ◆ [Section 6.3, “Installing the Engine,” on page 34](#)
- ◆ [Section 6.4, “Installing the License,” on page 36](#)
- ◆ [Section 6.5, “Configuring the Database,” on page 38](#)
- ◆ [Section 6.6, “Configuring the Engine,” on page 42](#)
- ◆ [Section 6.7, “Configuring the Web Application,” on page 48](#)

NOTE: Although Active Directory is the primary identity system, you can still have File Reporter scan and report on storage resources residing in eDirectory. See [Section 6.2, “Prerequisites,” on page 34](#).

6.1 Minimum Requirements

- ◆ Quad core 64-bit processor or better
- ◆ Minimum 16 GB RAM
 - Depending on the size and frequency of your reports, you might need significantly more RAM.
- ◆ Minimum 20 GB free space for installation files and scan processing space
- ◆ Supported operating systems:
 - ◆ Windows Server 2016
 - ◆ Windows Server 2012 R2
 - ◆ Windows Server 2012
 - ◆ Windows Server 2008 R2
- ◆ Directory Services requirements:
 - ◆ Requires either Microsoft Active Directory or NetIQ eDirectory
 - ◆ Active Directory requirements:
 - ◆ The server must be joined to Active Directory
 - ◆ Minimum forest functional level of Windows 2003 or later in native mode

- ♦ eDirectory requirements:
 - ♦ Latest Client for Open Enterprise Server on the Engine server

6.2 Prerequisites

- ♦ Create a new host record in DNS for use with the Web Application.

For example: fr.cctec.org

6.2.1 Prerequisites for Reporting on eDirectory Storage Resources

- ♦ If you want to report on storage resources that reside in an eDirectory network in addition to the Active Directory storage resources you report on, you must install the Client for Open Enterprise Server software on the same Windows server where you install the Engine:

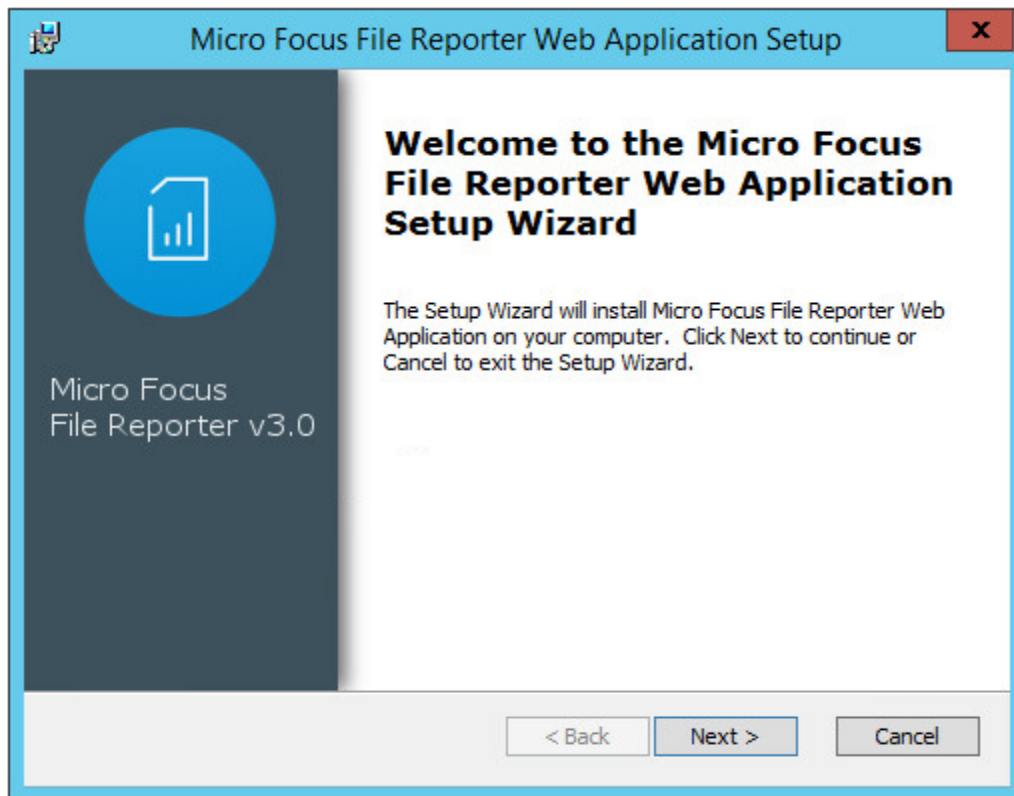
Having the Client for Open Enterprise Server installed allows File Reporter to connect to eDirectory and view the storage resources within.

- ♦ On the same Windows server, configure the Service Location Protocol settings within the Client for Open Enterprise Server software.
- ♦ Review [Appendix A, “eDirectory Universal Password Settings,” on page 93](#) and complete any necessary prerequisite eDirectory Universal Password configurations.

6.3 Installing the Engine

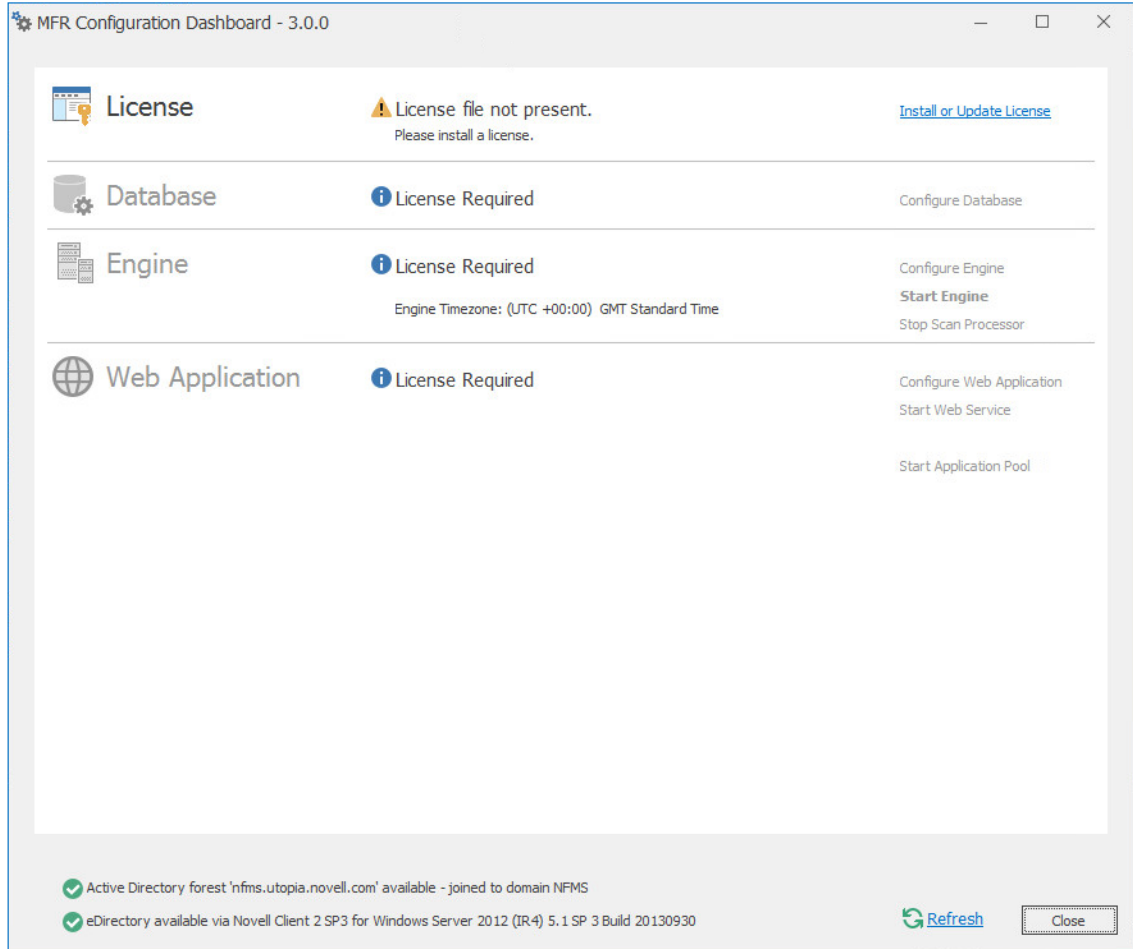
IMPORTANT: In order to successfully install the Engine, you must be logged in as a domain administrator for the domain the computer is a member of. If you are not, the rights are not sufficient.

- 1 At the root of the `MFR_3_0_0.iso` image, double-click the `Windows` folder.
- 2 Double-click `MFREngine-Installer-3.0-x64-xxxx`.
- 3 When you are asked if you want to run this file, click **Run**.
- 4 Agree to the license terms and conditions and click **Install**.



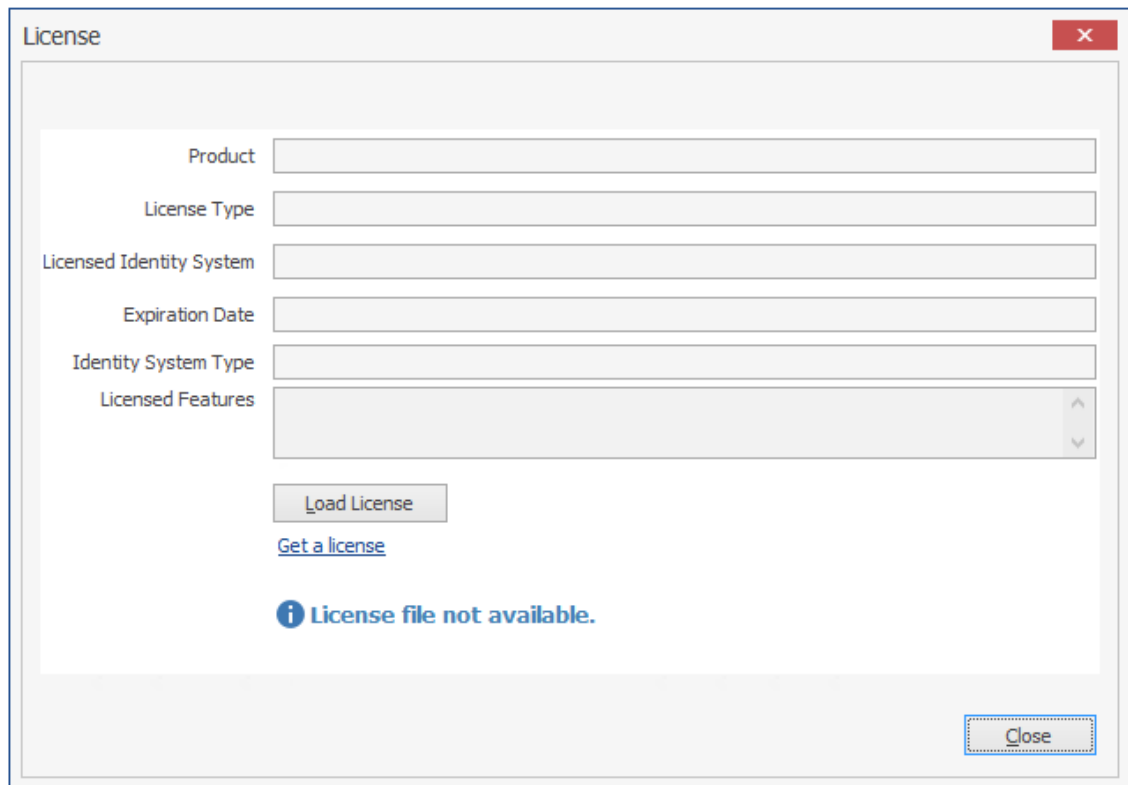
- 5 Click **Next**.
- 6 Accept the installation path or indicate a new path by using the **Browse** button.
- 7 Click **Install**.
- 8 Click **Finish**.
- 9 Click **Run Config Utility**.

The File Reporter Configuration Dashboard appears.



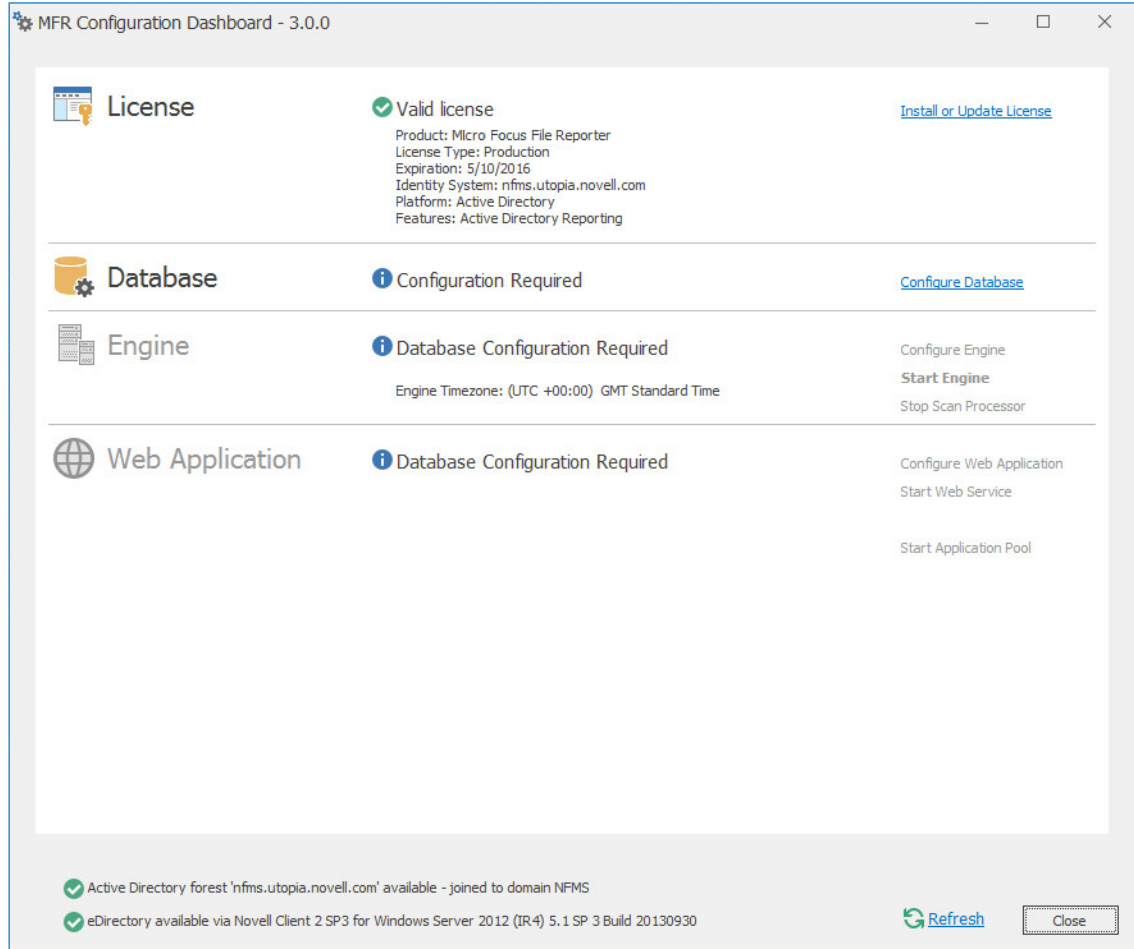
6.4 Installing the License

- 1 Click [Install or Update License](#).



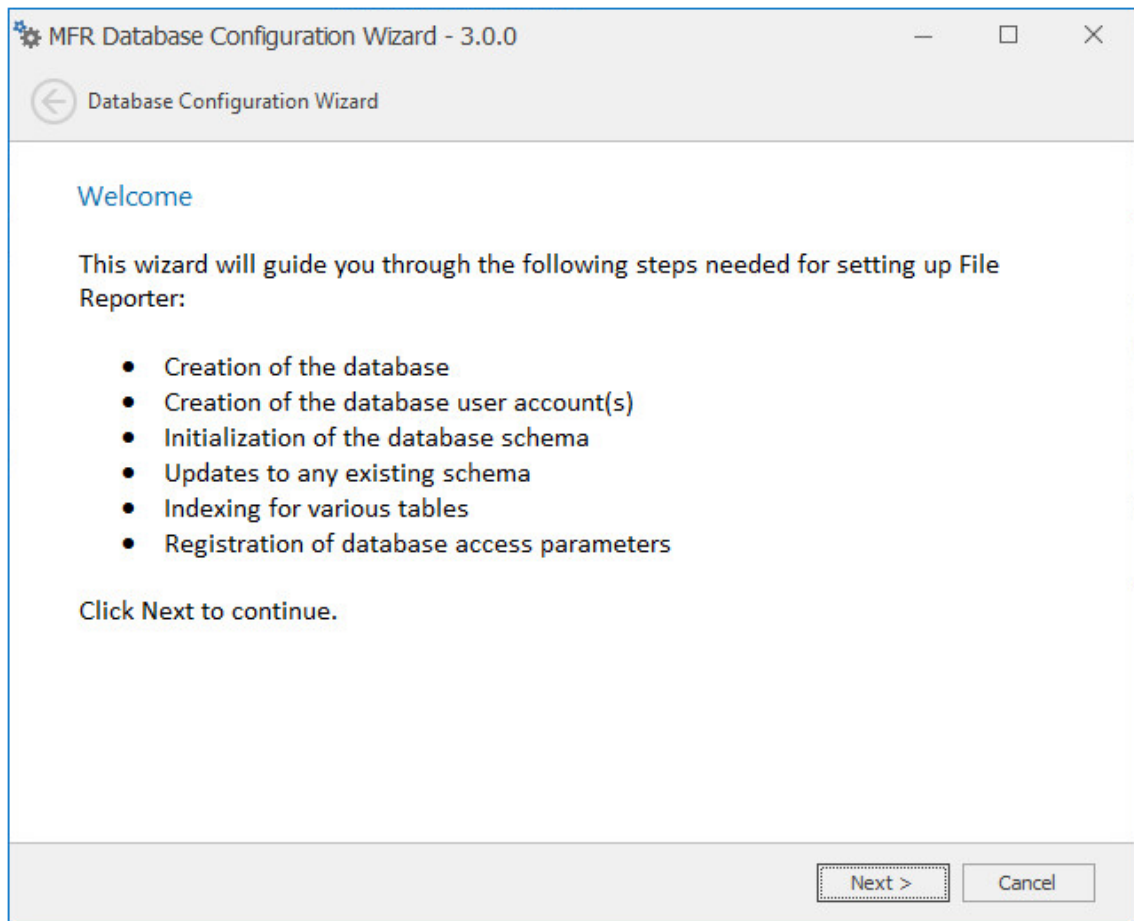
- 2 Click **Load License**, then browse to and select the license file.
You must have a Micro Focus File Reporter license for Active Directory.
- 3 When the confirmation prompt appears, click **Yes**.

4 Click Close.



6.5 Configuring the Database

1 Click **Configure Database**.



The page indicates what database configuration tasks are to be completed in this wizard.

- 2 From the wizard page, read the overview of what will be configured and click **Next**.

This page lets you establish the settings needed for the Engine and IIS to communicate with the database.

Database Properties: Displays information on the database name and version.

Type: Depending on the database you are using, select either **PostgreSQL 9.2** or **SQLServer 2012**.

NOTE: These selections specify the minimum supported versions of the databases. If you had Microsoft SQL Server 2014 for example, you would select **SQLServer 2012**.

Communication: Specifies address, port number, and name of the database.

Database Host Address: Specify the host address of the server where the database is installed.

Port: The default PostgreSQL database port setting is 5432. The default SQL Server port setting is 1433. If there is a port conflict, you can change it.

Initial Database: The default name of the File Reporter database.

Database Service Accounts: Use this region to set authentication information for the Database Service User and Database Report User.

Database Service User: This field specifies the database account name that is used by File Reporter to manage data in the database. This account has both read and write access to the database.

Set Password: Click **Set Password** to establish the password for the Database Service User.

Database Report User: This field specifies the database account name that File Reporter uses to read data in the database while reporting.

Set Password: Click **Set Password** to establish the password for the Database Report User.

Database Report Role: This field specifies the account name of the role used to manage access for Report Users.

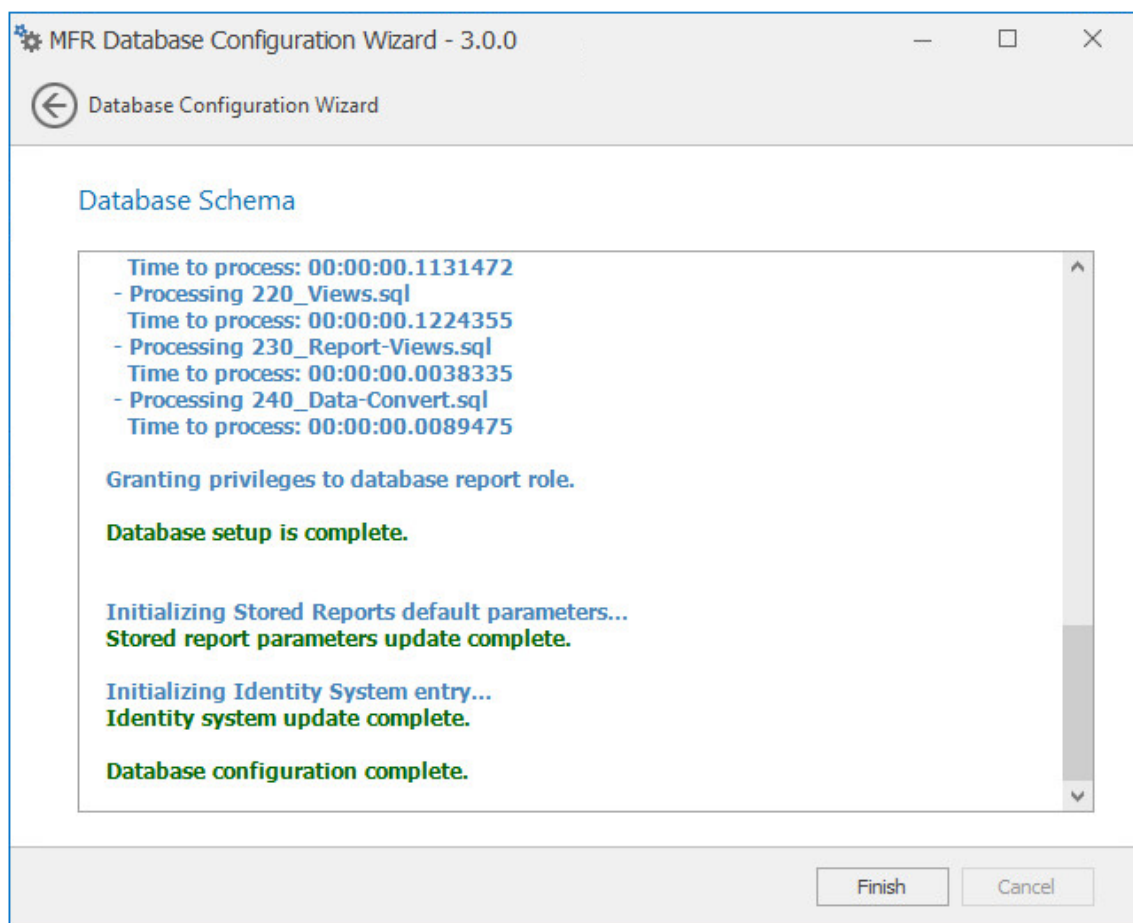
Database Admin Credentials: Use this region to establish the database administrator name and credentials.

Database Administrator: If you are using a PostgreSQL database, specify the superuser name. If you are using an SQL Server 2012 or later database, specify the administrator name.

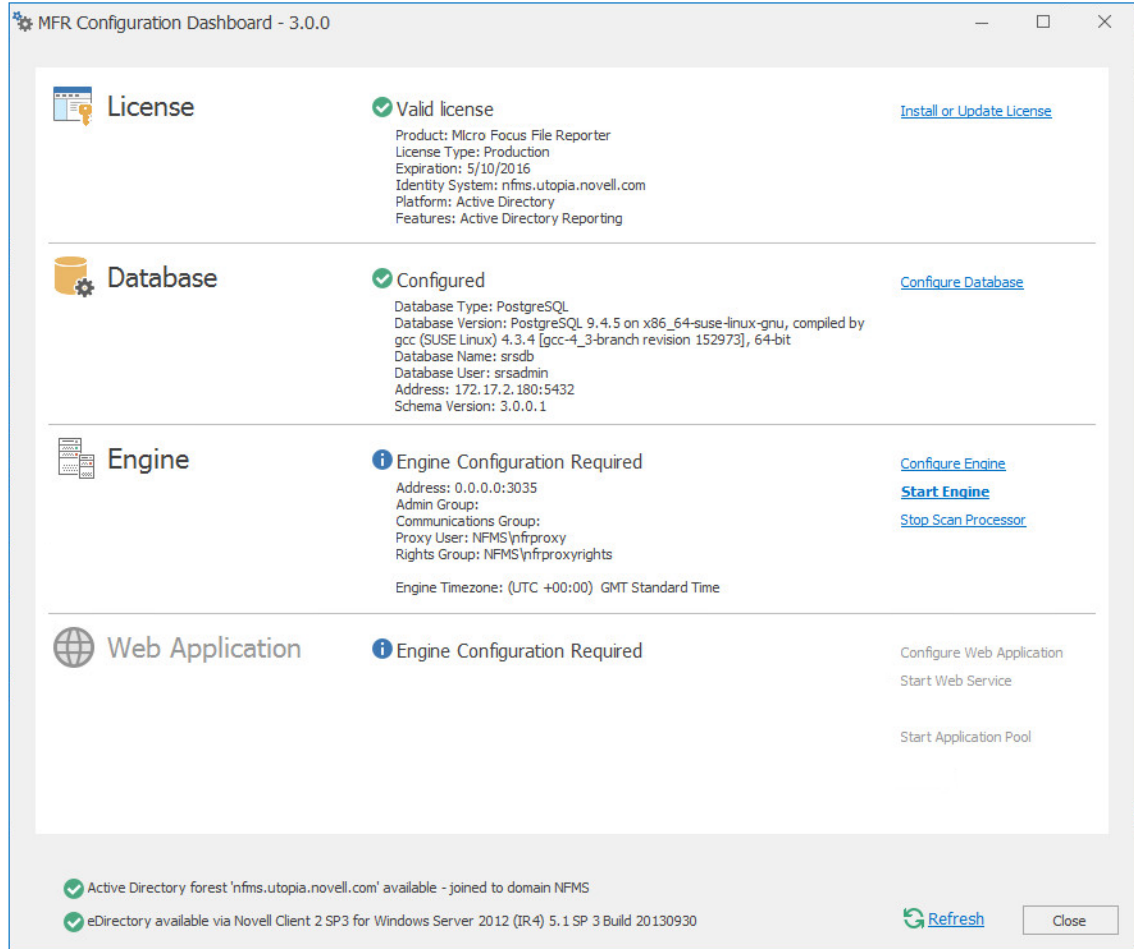
Password: If you are using a PostgreSQL database, specify the superuser password. If you are using an SQL Server 2012 or later database, specify the database administrator password.

Test Credentials: Clicking this lets you quickly confirm that the entries in the **Database Service Accounts** region are accurate before advancing in the wizard.

3 Click **Next**.

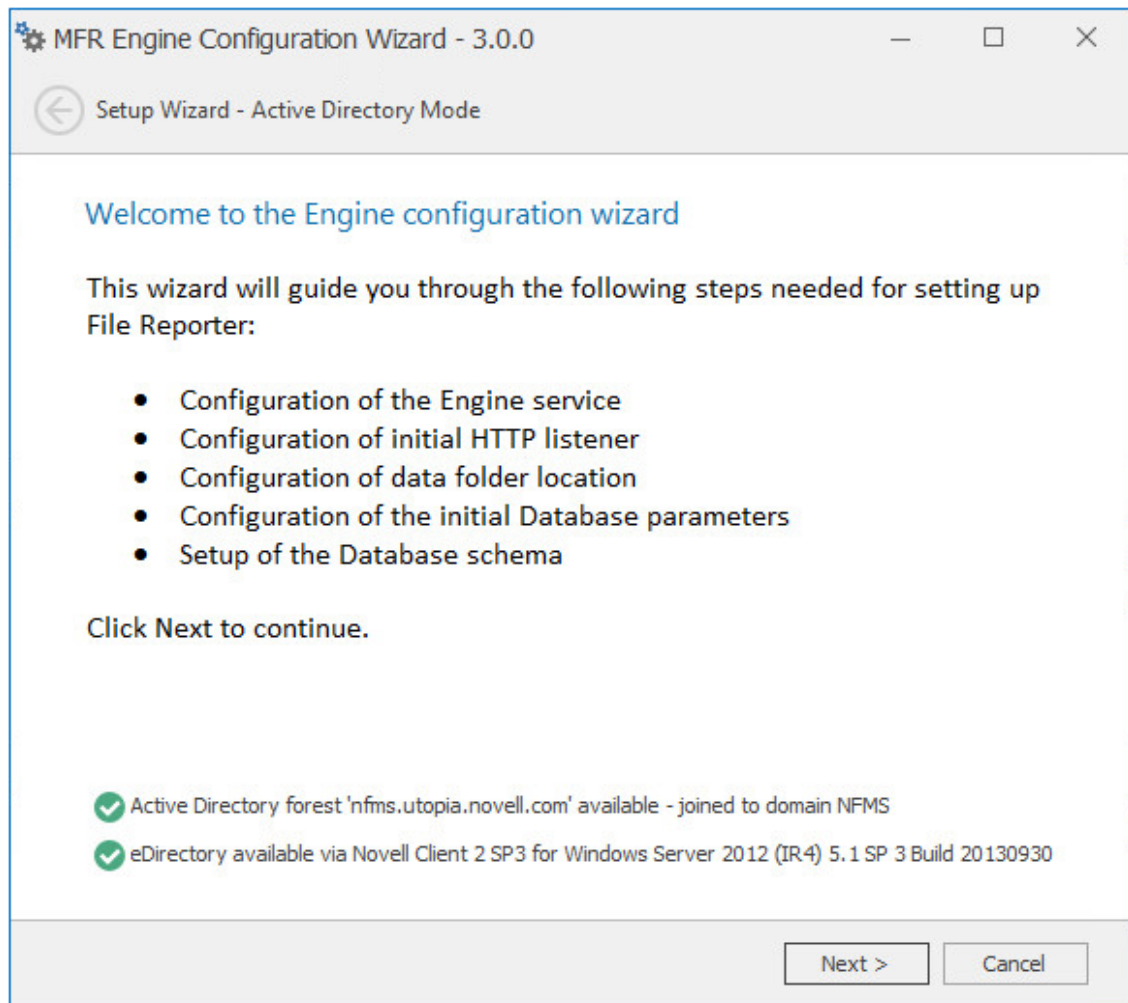


4 Review the configuration log and click **Finish**.



6.6 Configuring the Engine

1 Click **Configure Engine**.



2 From the wizard page, read the overview of what will be configured and click **Next**.

MFR Engine Configuration Wizard - 3.0.0

Setup Wizard - Active Directory Mode

Basic Options

HTTP Listener

Host Address: 0.0.0.0

SSL Port: 3035

SSL Certificate

Subject Name: fmsadutp

Expiration Days: 3,650 Expiration Date: 2/25/2024 12:54:27 PM

Key Length: 2048

Details Generate

Data

Data Folder: C:\ProgramData\Micro Focus\SRS\Engine\data

Move data from C:\ProgramData\Micro Focus\SRS\Engine\data

Next > Cancel

This page lets you confirm or change basic Engine configuration settings.

HTTP Listener: Communication parameters for the Engine.

Host Address: Unless you want the Engine to only listen on a certain IP address, leave this setting as it is.

SSL Port: Unless there is a port conflict, leave the setting at 3035.

SSL Certificate: Details for the SSL certificate that will be generated.

Subject Name: The name of the certificate that will be generated. The server name is listed by default.

Expiration Days: The life span of the security certificate, which is set at 10 years by default.

Key Length: The SSL certificate encryption setting, which is set at 2048 by default.

Details: Click the button to view the certificate data.

Generate: If you modify any of the settings in the SSL Certificate region, click this button to generate a new certificate.

Data Folder: The default location of the Data folder. The Data folder is used for a variety of tasks, including storing Agent configuration data, serving as a temporary repository for scans, and mail spooling.

Move data from (Enabled only during an upgrade): Having this check box selected indicates that content from the Engine's `data` folder for the previous version of File Reporter, will be moved to the path specified in the **Data Folder** field and the original path will be removed. If this check box is not selected, it will use whatever path is specified in the **Data Folder** field, including the original path.

- 3 Edit any needed parameters settings and click **Next**.

MFR Engine Configuration Wizard - 3.0.0

Setup Wizard - Active Directory Mode

Active Directory Service Accounts

Proxy Account
Enter the name of a service account used by the Engine and Agents for all operations.

Proxy Rights Group
Enter the name of a service group used for rights assignments for access to server, share, and file resources. The Proxy Account will automatically be assigned as the initial member of this group.

Communications Group
Enter the name of a service group used for communications control of various components.

Proxy Account: NFMS\srscopy

Proxy Rights Group: NFMS\srscopyrights

Communications Group: NFMS\SRSCcommunications

Next > Cancel

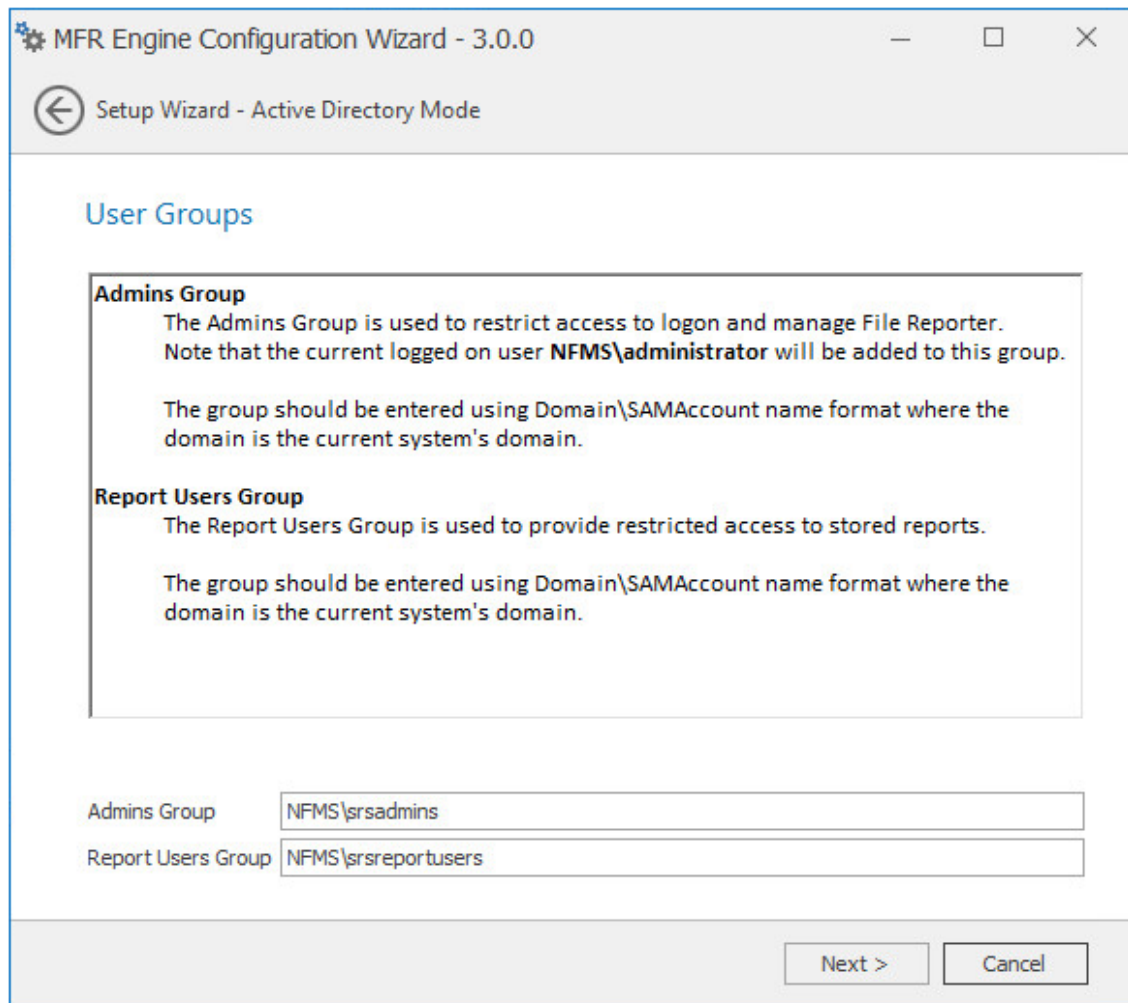
This page lets you establish a name for the proxy account, proxy rights group, and the communications group.

File Reporter uses a proxy account so that Agents can access all of the servers for scanning. A proxy rights group makes it easier to manage the rights of the proxy account. The Scan Processor uses the communications group to secure who can access its service.

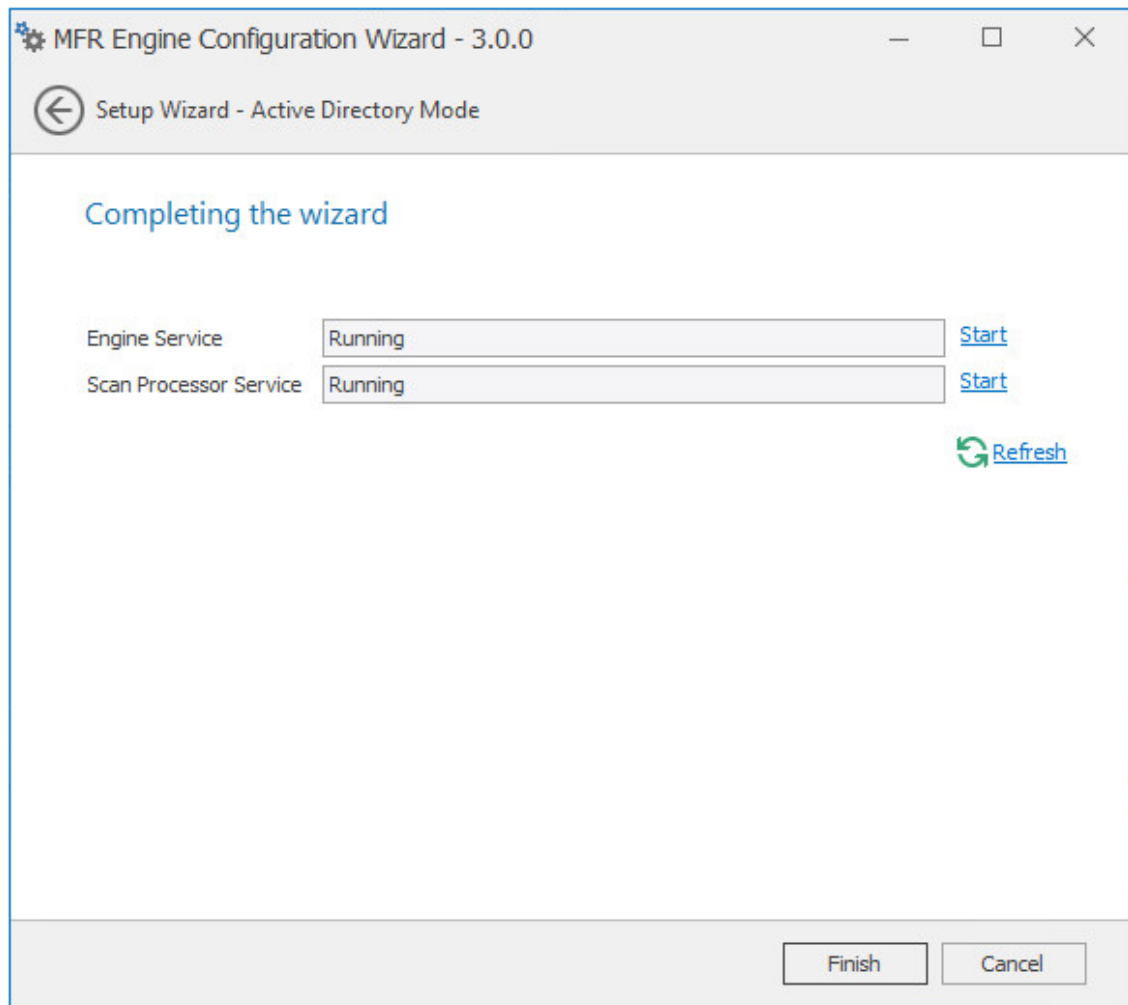
The Configuration Wizard establishes default account and group names, which you can modify.

If you are upgrading from a previous version of File Reporter, the **Proxy Account** and **Proxy Rights Group** fields will specify the existing proxy account and proxy rights group such as `nfrproxy` and `nfrproxyrights` respectively.

- 4 Click **Next**.

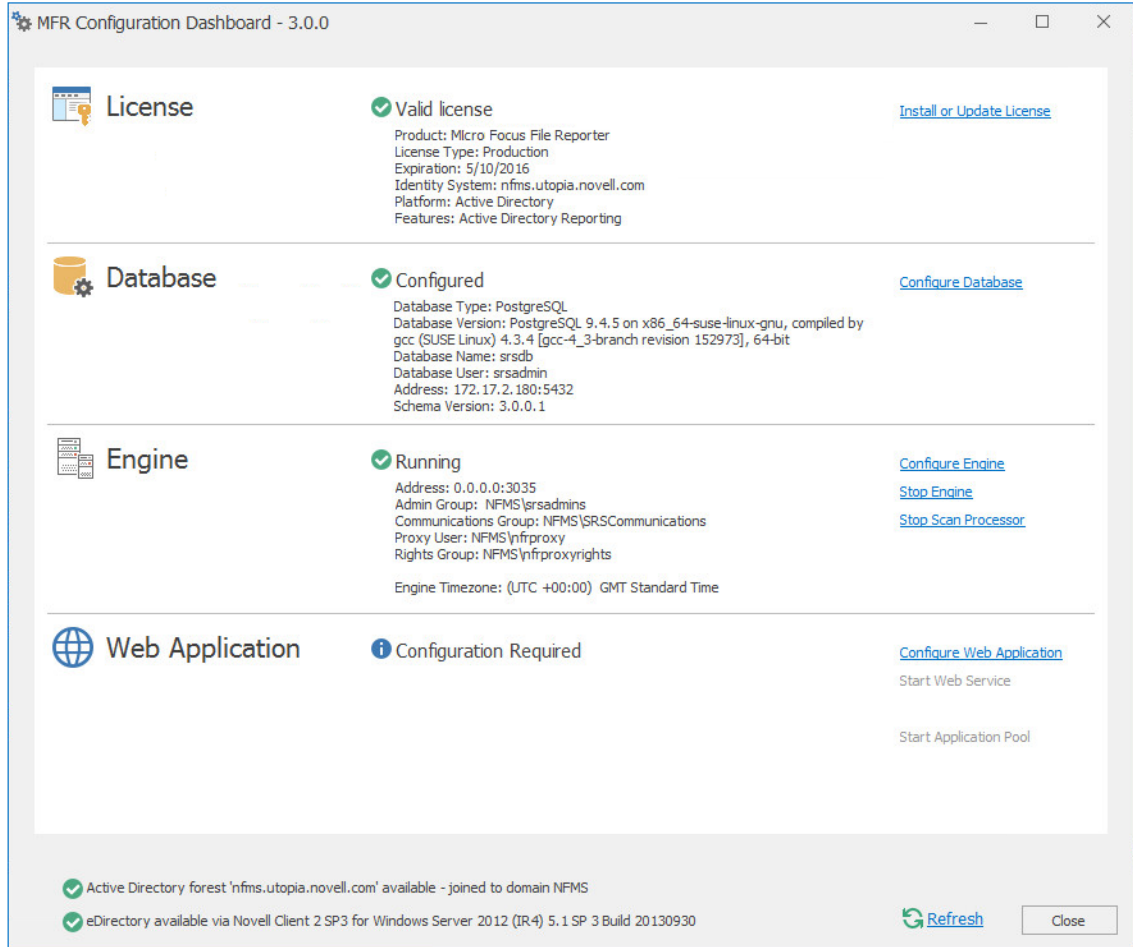


- 5 Specify the name for the Admins Group and Report Users Group, or use the default names. The Report Users Group is a group that File Reporter creates in Active Directory. Members of this group have access to all stored reports.
- 6 Click **Next** to create the two groups.



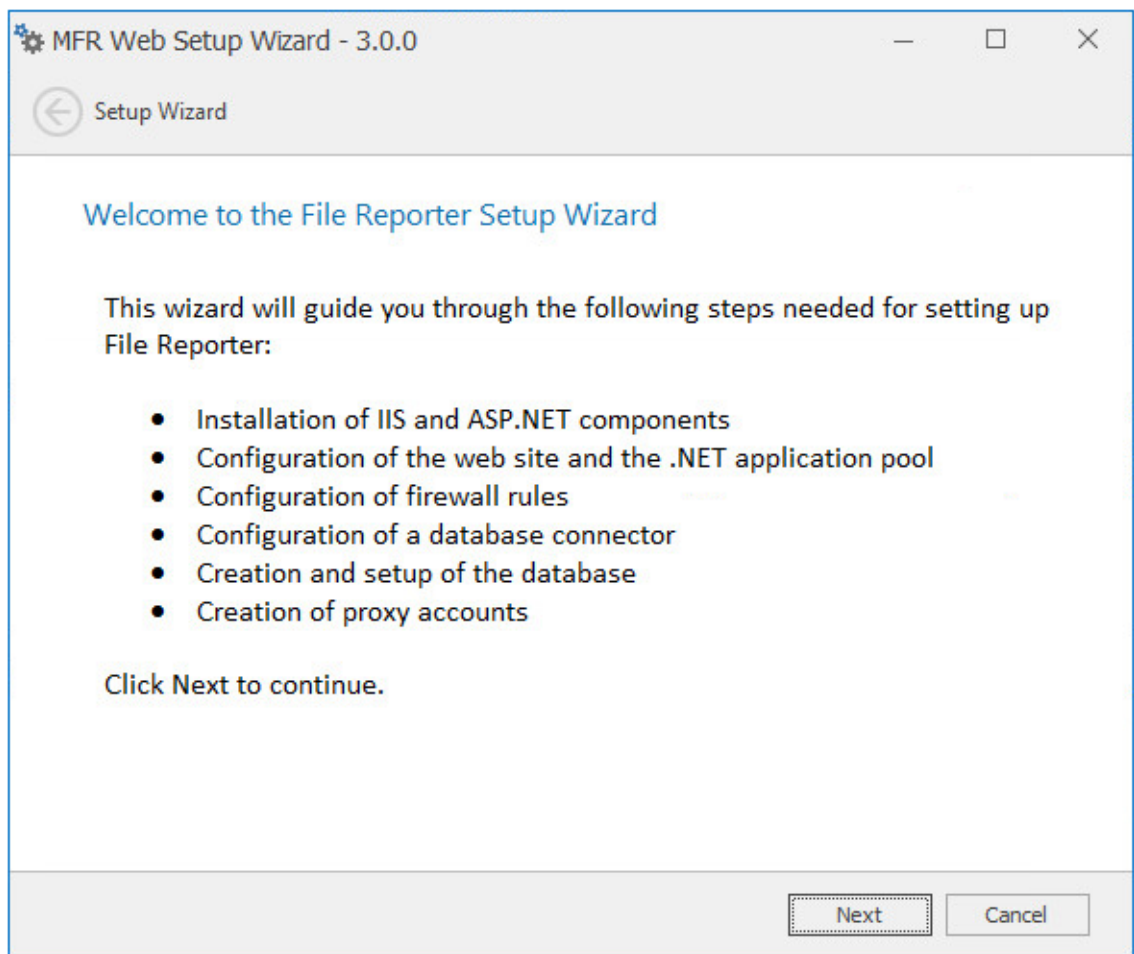
7 Click Finish.

The Engine is now installed, configured, and running.

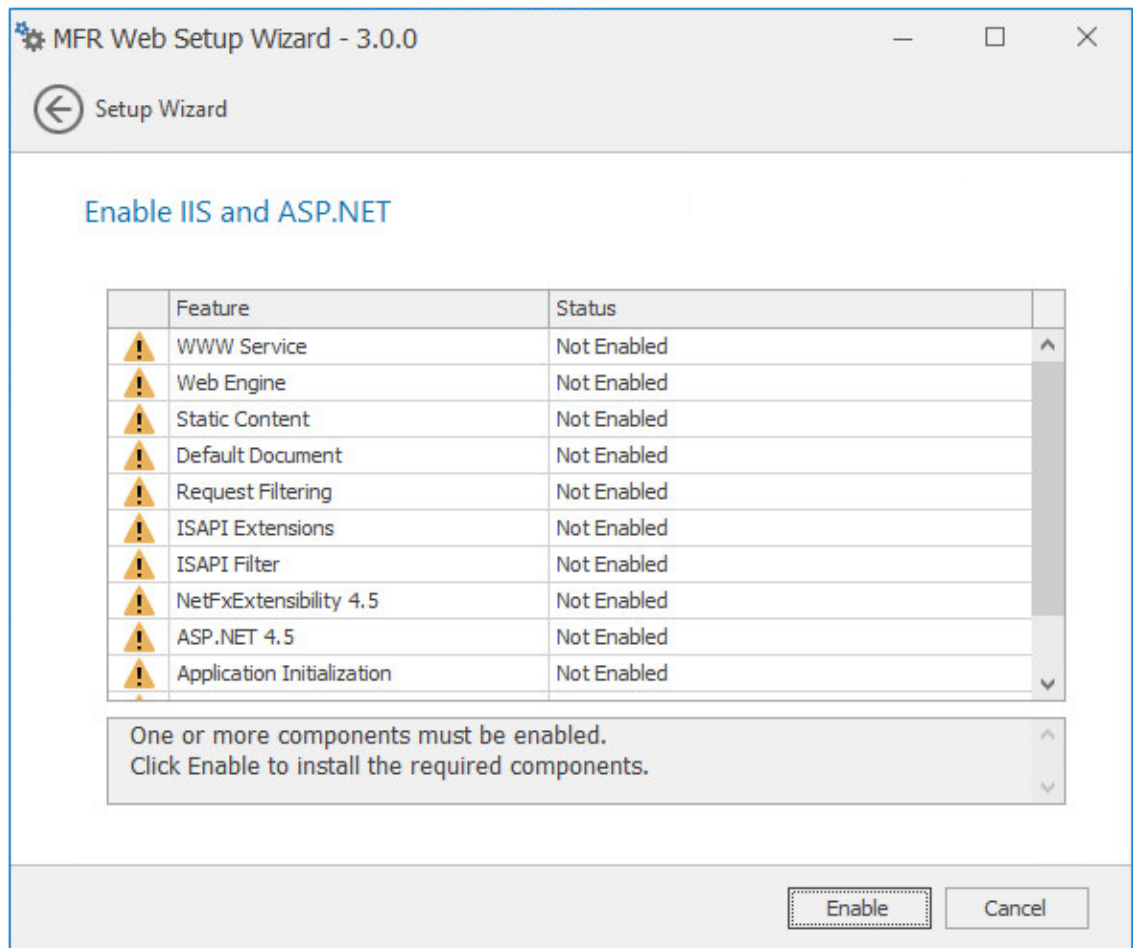


6.7 Configuring the Web Application

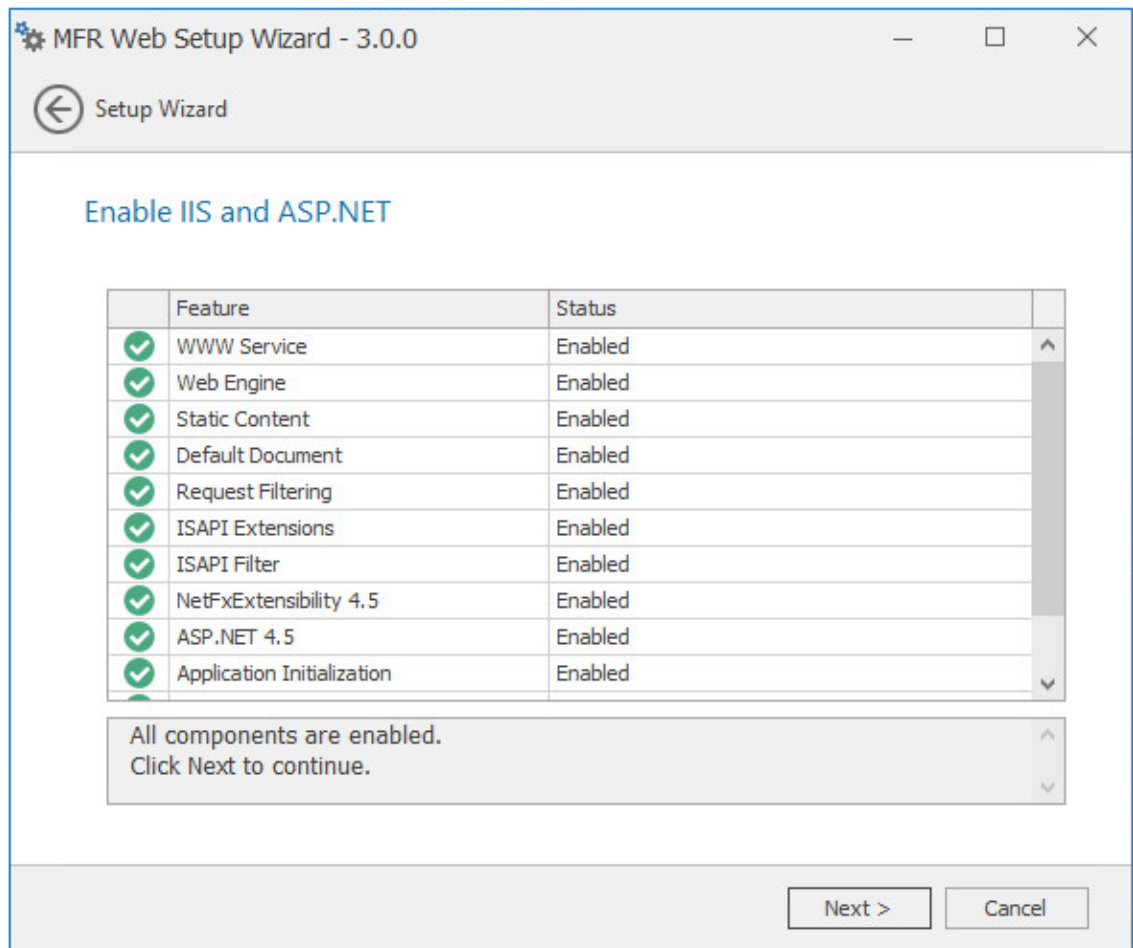
- 1 Click **Configure Web Application**.



2 From the wizard page, read the overview of what will be configured and click **Next**.



3 Click Enable.



4 Click Next.

MFR Web Setup Wizard - 3.0.0

Setup Wizard

Web Site Parameters

Web Site

Web Site: SRS Site

Physical Path: C:\inetpub\srs_root\

IP Address: All Unassigned Addresses | SSL Port: 443

Host Name: mfr.nfms.utopia.novell.com

Application Pool

Name: SRS AppPool

Service Account: NFMS\SRSAppPoolSvc

Next | Cancel

This page lets you review or edit settings applicable to the File Reporter Web application. Unless there is a need to change a setting, we recommend that you leave the settings as they are currently established.

Web Site: Settings for the Microsoft IIS Web site.

Web Site: The default name for the File Reporter Web site. If the default name does not conform to your organization's naming standards, you can edit it.

Physical Path: This path was specified in [Step 6 on page 35](#) and is the location where files on the Web site are served up. You cannot edit this path.

IP Address: By default, this field indicates that Web requests will be responded to from any IP address available on the server. If the server has multiple IP addresses, you can specify which one you want to use.

SSL Port: The default port is 443. If there is a conflict, you can select another port.

Host Name: The host name as defined in DNS that you specified in [Section 6.2, "Prerequisites," on page 34](#).

If a warning sign appears next to the Host Name entry, the host name is not fully resolved. Verify that there is a DNS entry for the File Reporter Web application and that the resolved IP address or addresses are located on the host machine.

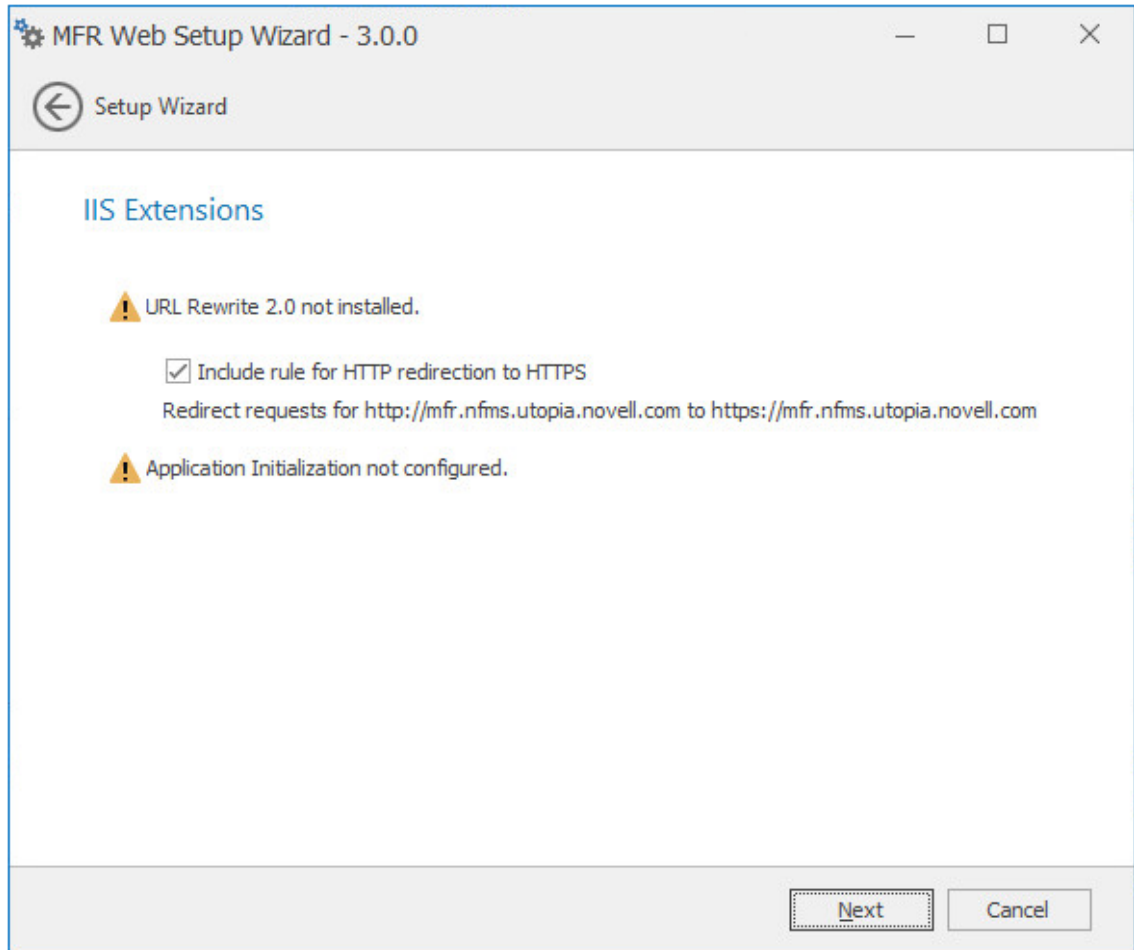
Application Pool: Settings pertaining to the File Reporter application pool in Microsoft IIS.

Name: The default name for the application pool. If the default name does not conform to your organization's naming standards, you can edit it.

Service Account: This field specifies the service account name used by the application pool.

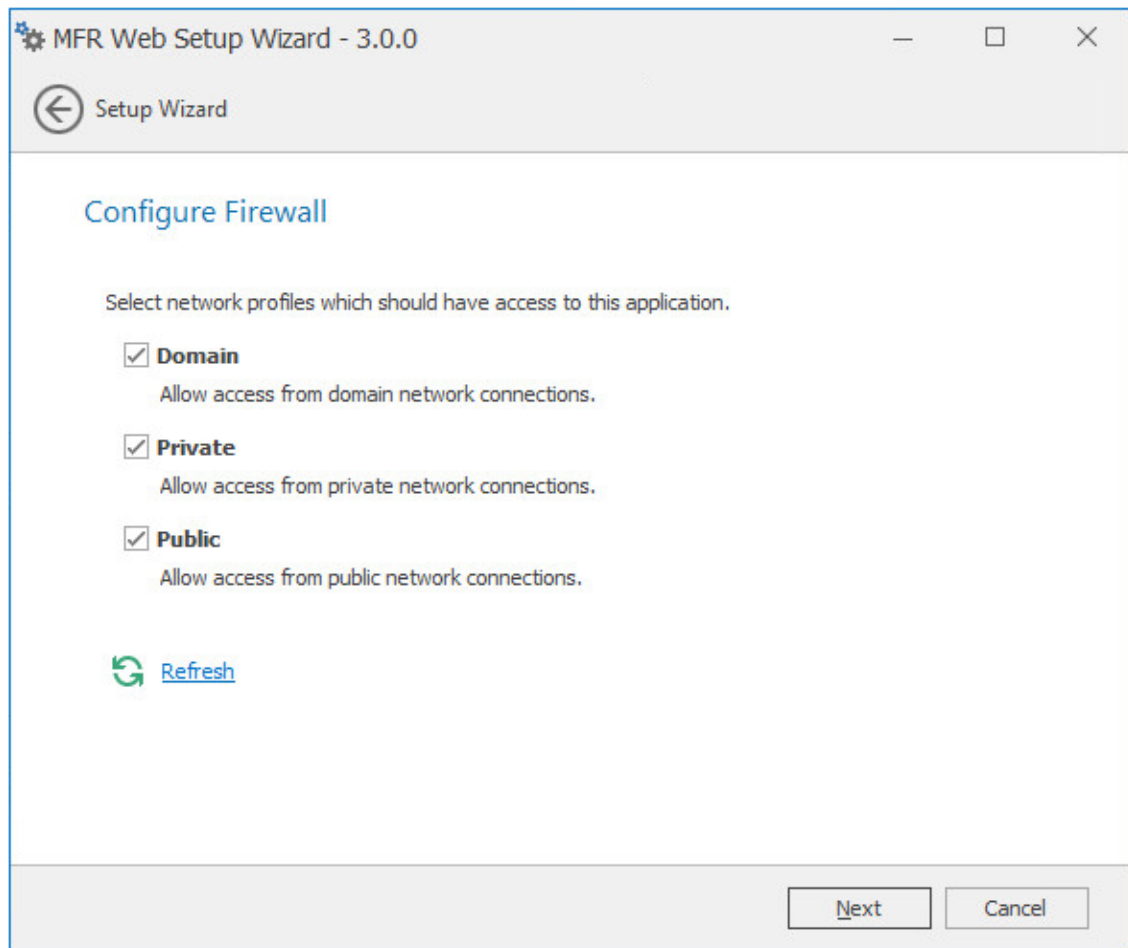
5 (Conditional) If the components are not enabled, click **Enable**.

6 Edit the fields as needed and click **Next**.

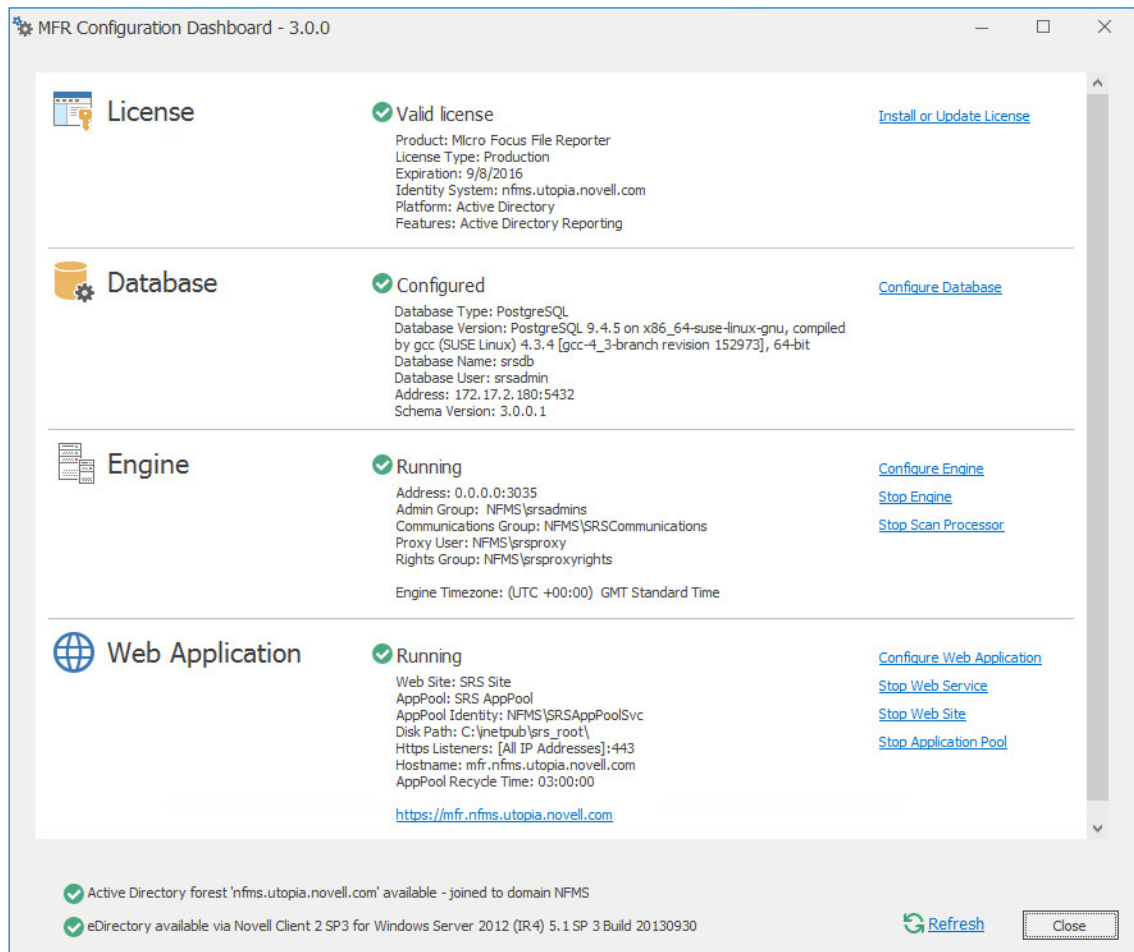


This page lets you install Microsoft IIS URL Rewrite Module 2.0, which will redirect the File Reporter login page from an entered HTTP protocol, to HTTPS. For example, if you enter `http://mfr.nvb.local`, you would be redirected to the secure login page at `https://mfr.nvb.local`.

7 Unless your organization has a policy against redirects, leave the check box selected and click **Next**.



- 8 Set the network profiles according to your organization's security policies and click **Next**.
- 9 When you are notified that the initial setup for the Web Application is complete, click **Finish**.
The database, Engine, and Web Application are now configured.



10 (Optional) Click the hyperlink to launch the Web-based administrative interface.

The hyperlink is located below the listed Web Application details.

11 Install the Agents by referring to the following chapters:

- ◆ To install Agents on Windows servers, refer to [Chapter 8, "Installing and Configuring the Windows Agent,"](#) on page 83.
- ◆ To install Agents on Linux servers, refer to [Chapter 9, "Installing and Configuring the Linux Agent,"](#) on page 87.

7 Installing and Configuring the Engine, Database, and Web Application in an eDirectory Environment

Procedures in this section include those needed for installing and configuring the Engine, configuring the database, and Web Application in an eDirectory network environment.

This assumes that eDirectory is to be the primary identity system for File Reporter. In other words, authentication is to take place via eDirectory. Additionally, the Engine requires a license for the eDirectory version of File Reporter.

- ◆ [Section 7.1, “Minimum Requirements,” on page 57](#)
- ◆ [Section 7.2, “Prerequisites,” on page 58](#)
- ◆ [Section 7.3, “Installing and Configuring the Engine,” on page 58](#)
- ◆ [Section 7.4, “Install the License,” on page 59](#)
- ◆ [Section 7.5, “Configuring the Database,” on page 61](#)
- ◆ [Section 7.6, “Configuring the Engine,” on page 65](#)
- ◆ [Section 7.7, “Configuring the Web Application,” on page 74](#)

NOTE: Although eDirectory is the primary identity system, you can still have File Reporter scan and report on storage resources residing in Active Directory. See [Section 6.1, “Minimum Requirements,” on page 33](#).

7.1 Minimum Requirements

- ◆ Quad core 64-bit processor or better
- ◆ Minimum of 16 GB RAM
 - Depending on the size and frequency of your scans, this amount might need to be significantly increased.
- ◆ Minimum 20 GB free space for installation files and scan processing space
- ◆ Supported operating systems:
 - ◆ Windows Server 2016
 - ◆ Windows Server 2012 R2
 - ◆ Windows Server 2012
 - ◆ Windows Server 2008 R2
- ◆ (Optional) If you want File Reporter to report on storage devices that reside in Active Directory, the server on which you are installing the Engine must be part of a domain.

7.2 Prerequisites

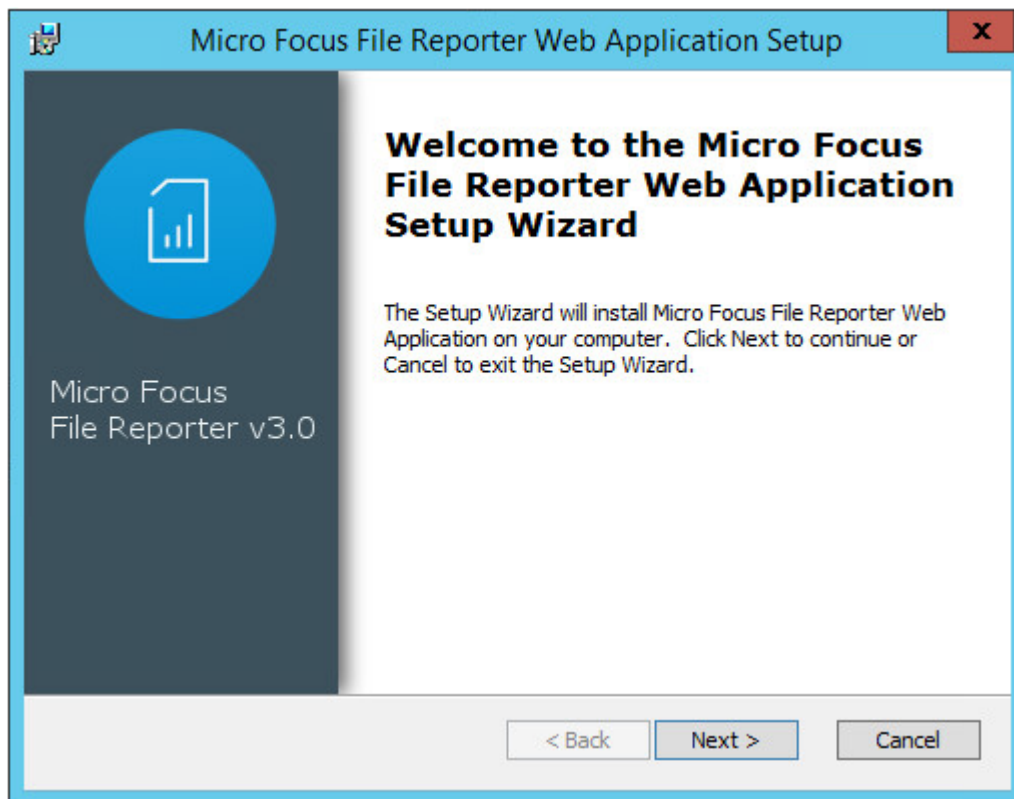
- ◆ Install the latest Client for Open Enterprise Server software on the same Windows server where you install the Engine:

Having the Client for Open Enterprise Server installed allows File Reporter to connect to eDirectory and view the storage resources.

- ◆ On the same Windows server, configure the Service Location Protocol settings within the Client for Open Enterprise Server software.
- ◆ Create a new host record in DNS for File Reporter.
For example: mfr.cctec.org
- ◆ Review [Appendix A, “eDirectory Universal Password Settings,” on page 93](#) and complete any necessary prerequisite eDirectory Universal Password configurations.

7.3 Installing and Configuring the Engine

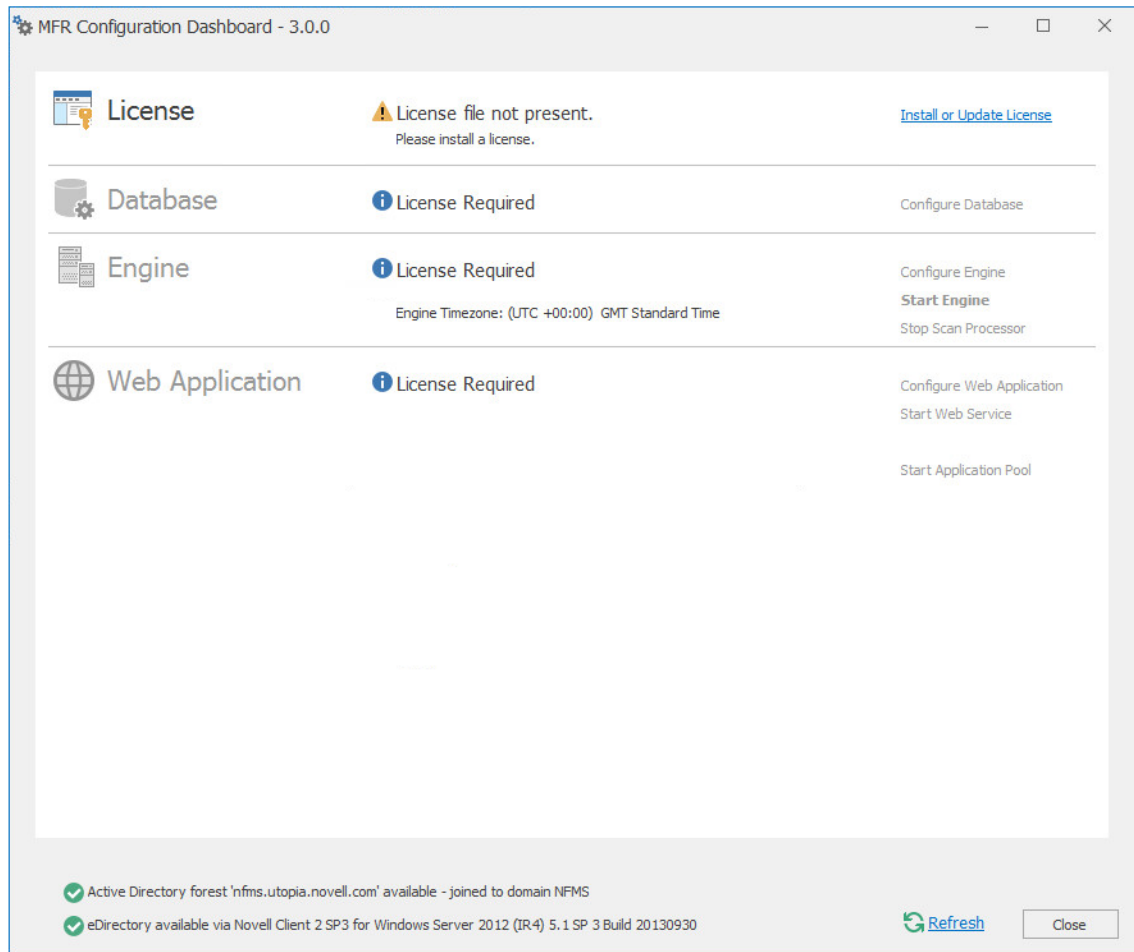
- 1 At the root of the MFR_3_0_0.iso image, double-click the windows folder.
- 2 Double-click MFREngine-Installer-3.0-x64-xxxx.exe.
- 3 When you are asked if you want to run this file, click **Run**.
- 4 Agree to the license terms and conditions and click **Install**.



- 5 Click **Next**.
- 6 Accept the installation path or indicate a new path by using the **Browse** button.
- 7 Click **Install**.

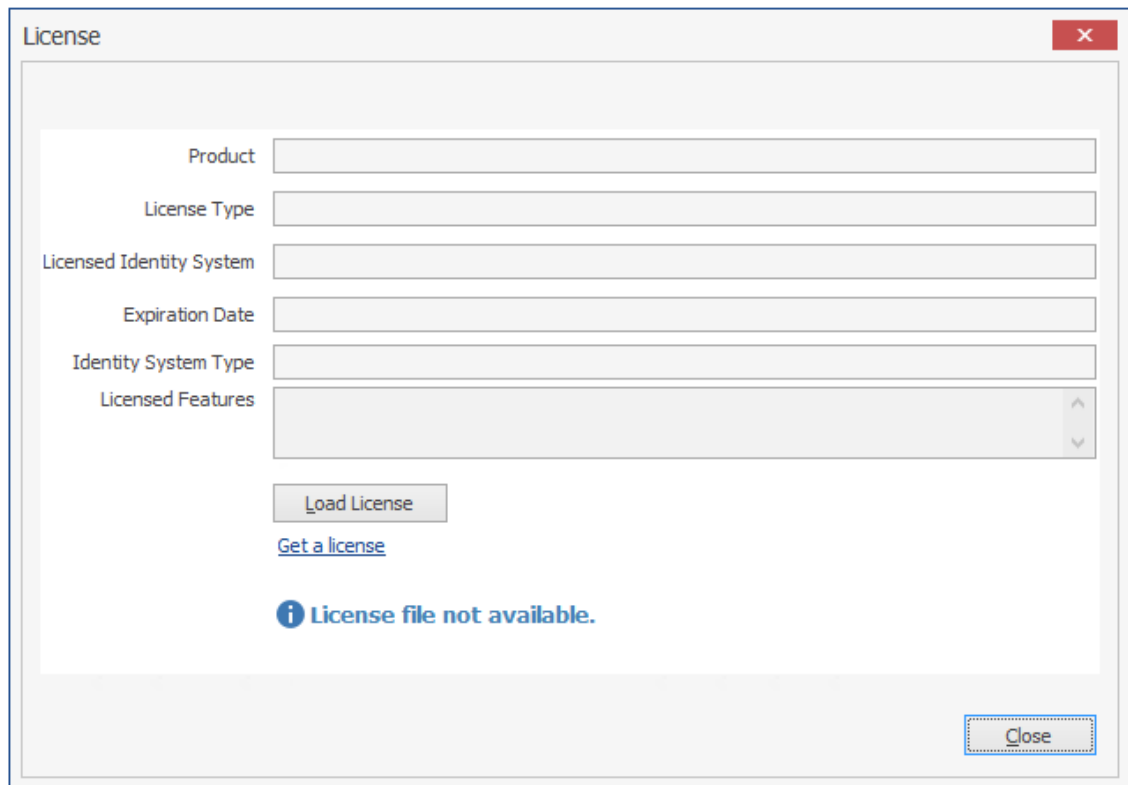
- 8 Click **Finish**.
- 9 Click **Run Config Utility**.

The File Reporter Configuration page appears.



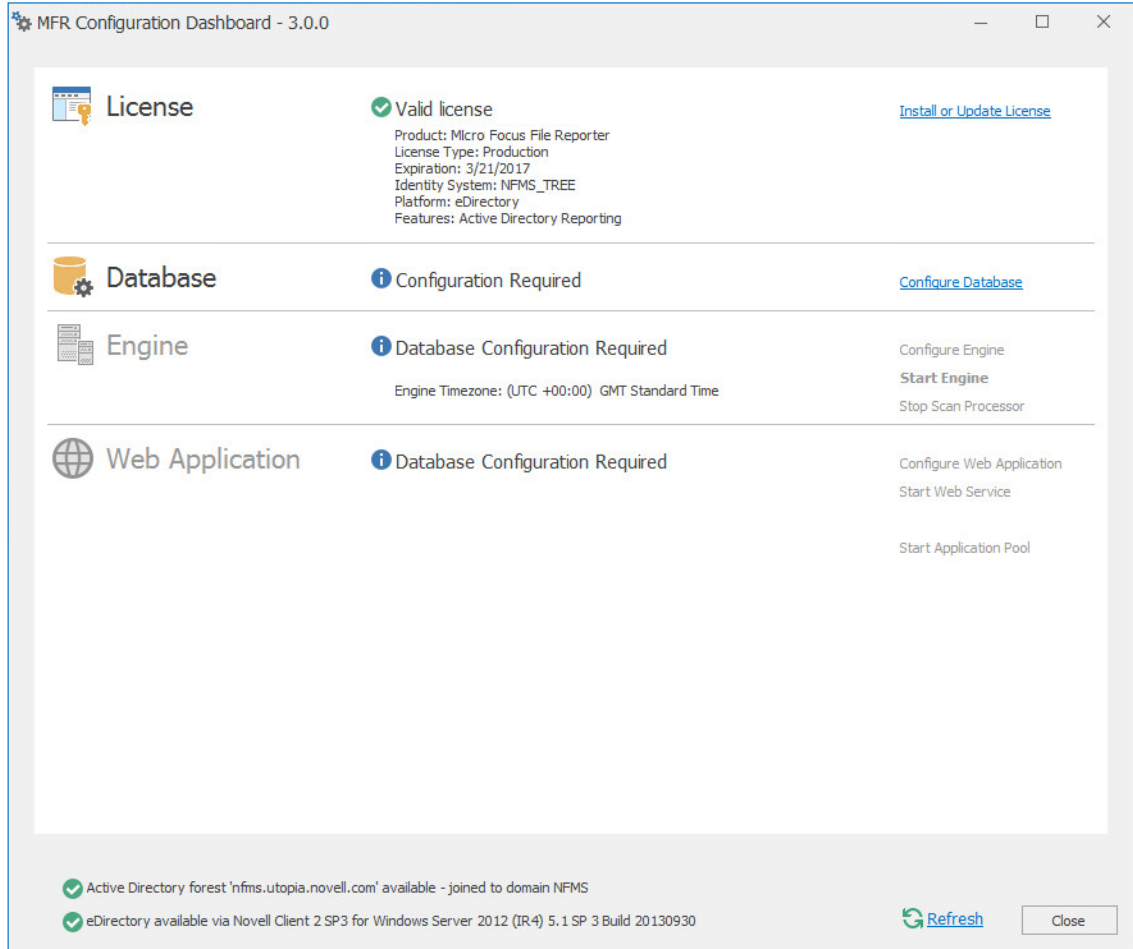
7.4 Install the License

- 1 Click **Install or Update License**.



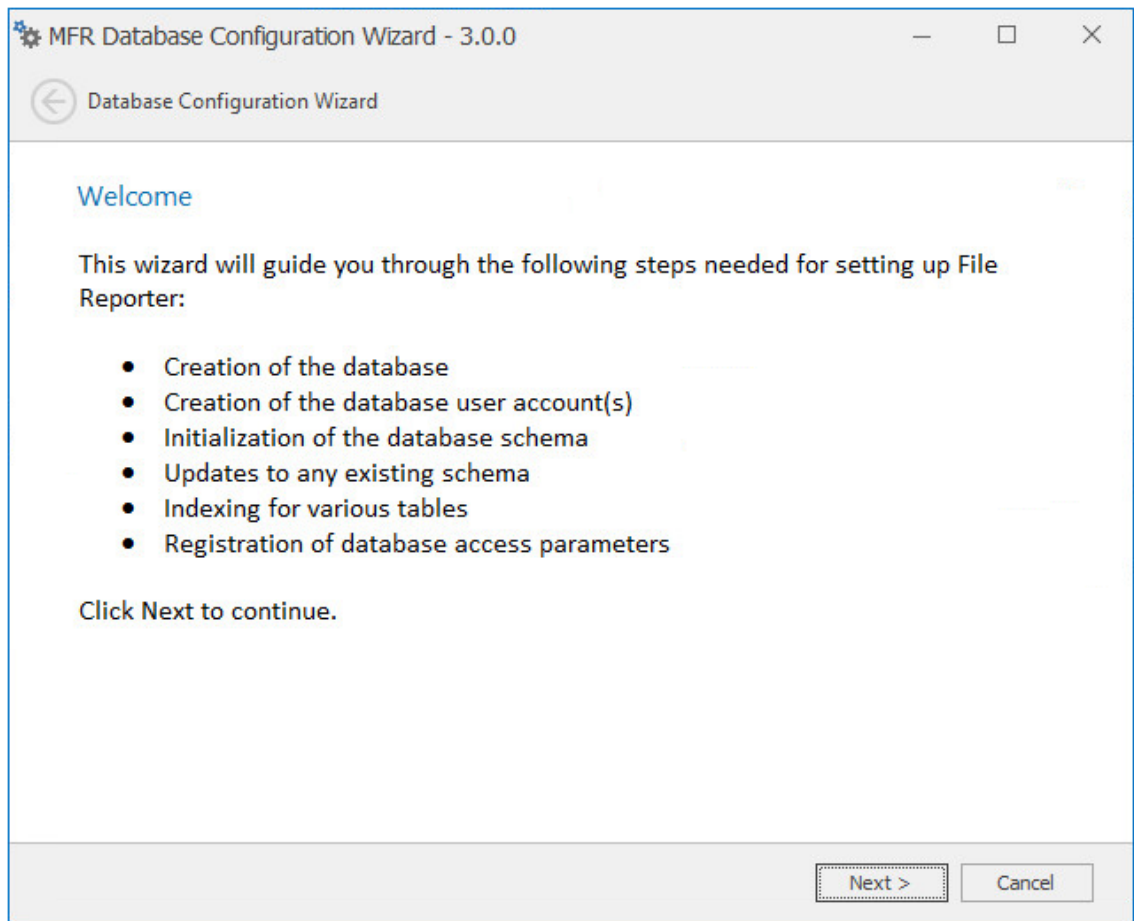
- 2 Click **Load License**, then browse to and select the license file.
You must have a File Reporter license for eDirectory.
- 3 When the confirmation prompt appears, click **Yes**.

4 Click Close.



7.5 Configuring the Database

1 Click **Configure Database**.



The page indicates what database configuration tasks are to be completed in this wizard.

- 2 From the wizard page, read the overview of what will be configured and click **Next**.

The page lets you establish the settings needed for the Engine and IIS to communicate with the database.

Database Properties: Displays information on the database name and version.

Type: Depending on the database you are using, select either **PostgreSQL 9.2** or **SQLServer 2012**.

NOTE: These selections specify the minimum supported versions of the databases. If you had Microsoft SQL Server 2014 for example, you would select **SQLServer 2012**.

Communication: Specifies address, port number, and name of the database.

Database Host Address: Specify the host address of the server where the database is installed.

Port: The default PostgreSQL database port setting is 5432. The default SQL Server port setting is 1433. If there is a port conflict, you can change it.

Initial Database: The default name of the File Reporter database.

Database Service Accounts: Use this region to set authentication information for the Database Service User and Database Report User.

Database Service User: This field specifies the database account name that is used by File Reporter to manage data in the database. This account has both read and write access to the database.

Set Password: Click **Set Password** to establish the password for the Database Service User.

Database Report User: This field specifies the database account name that File Reporter uses to read data in the database while reporting.

Set Password: Click **Set Password** to establish the password for the Database Report User.

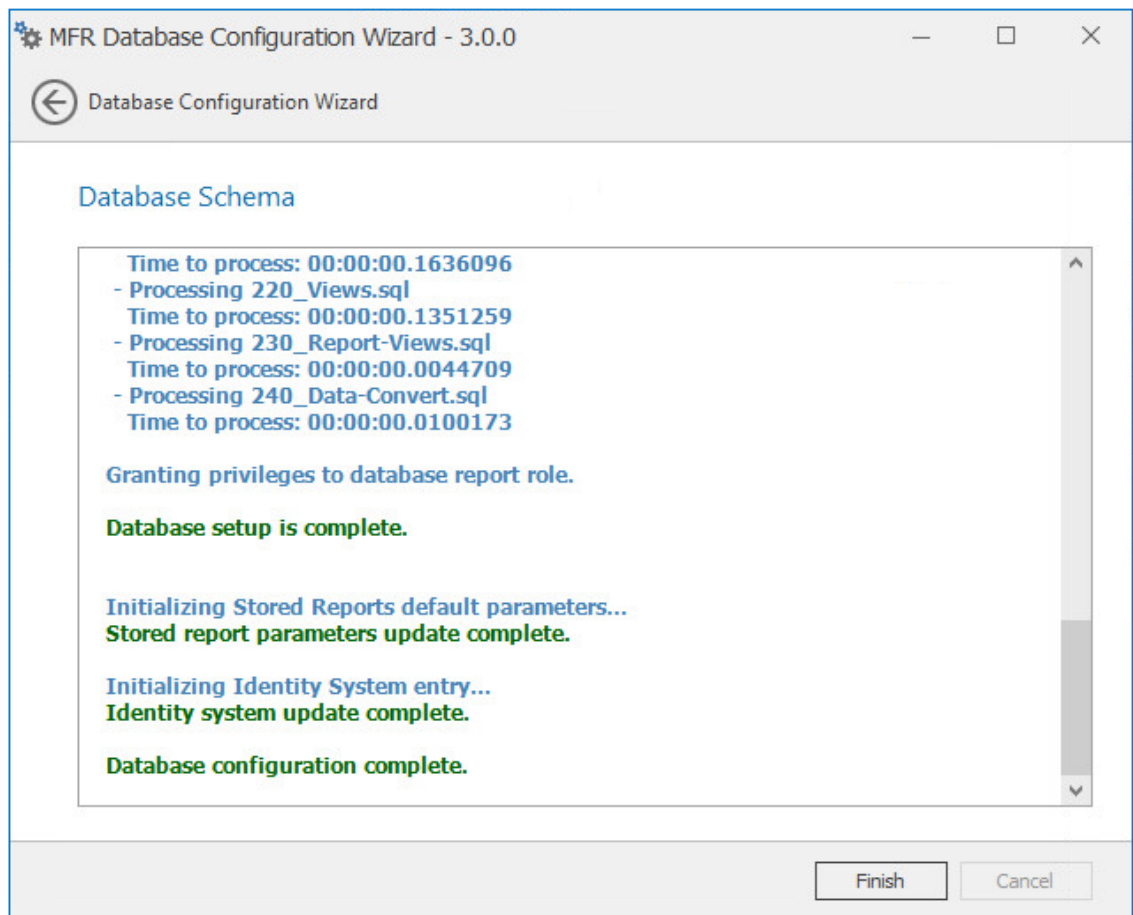
Database Report Role: This field specifies the account name of the role used to manage access for Report Users.

Database Admin Credentials: Use this region to establish the database administrator name and credentials.

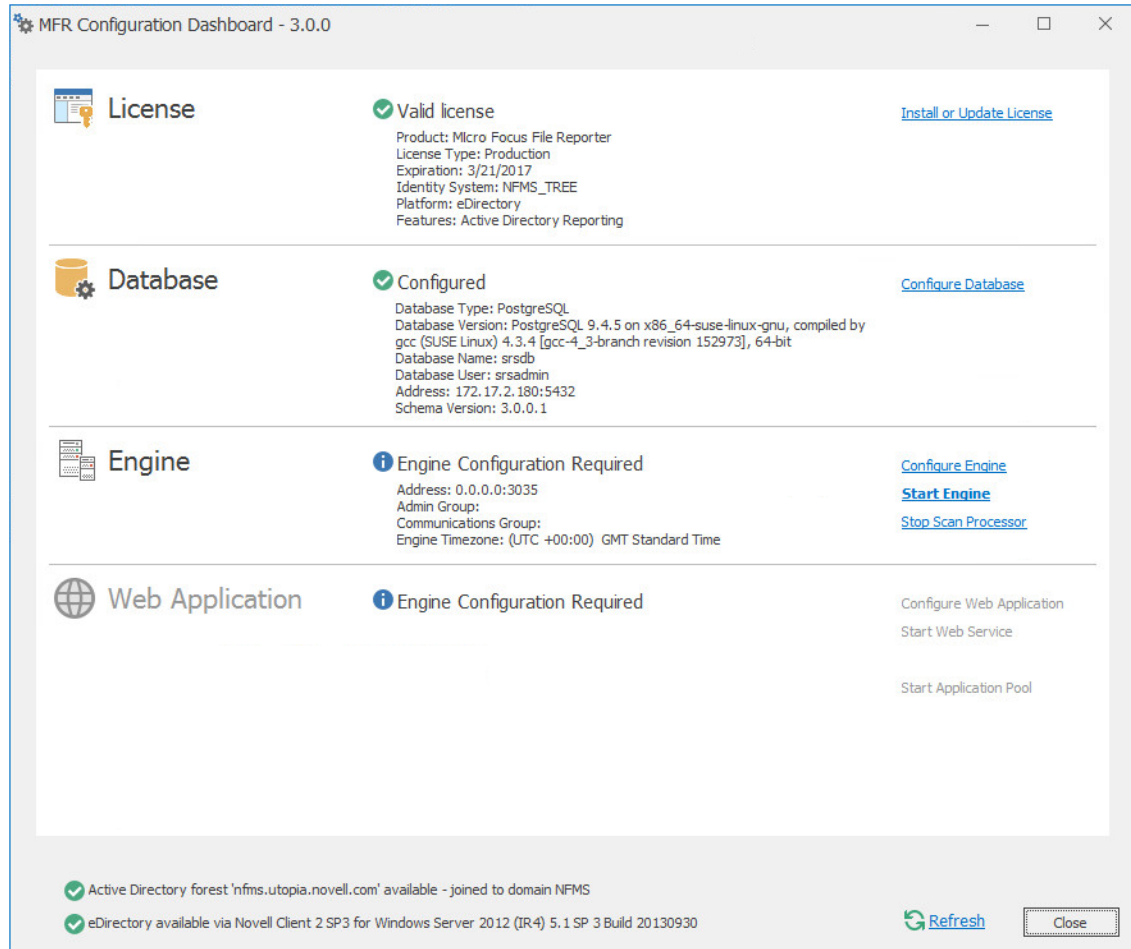
Database Administrator: If you are using a PostgreSQL database, specify the superuser name. If you are using an SQL Server 2012 database, specify the administrator name.

Password: If you are using a PostgreSQL database, specify the superuser password. If you are using an SQL Server 2012 database, specify the database administrator password.

3 Click **Next**.

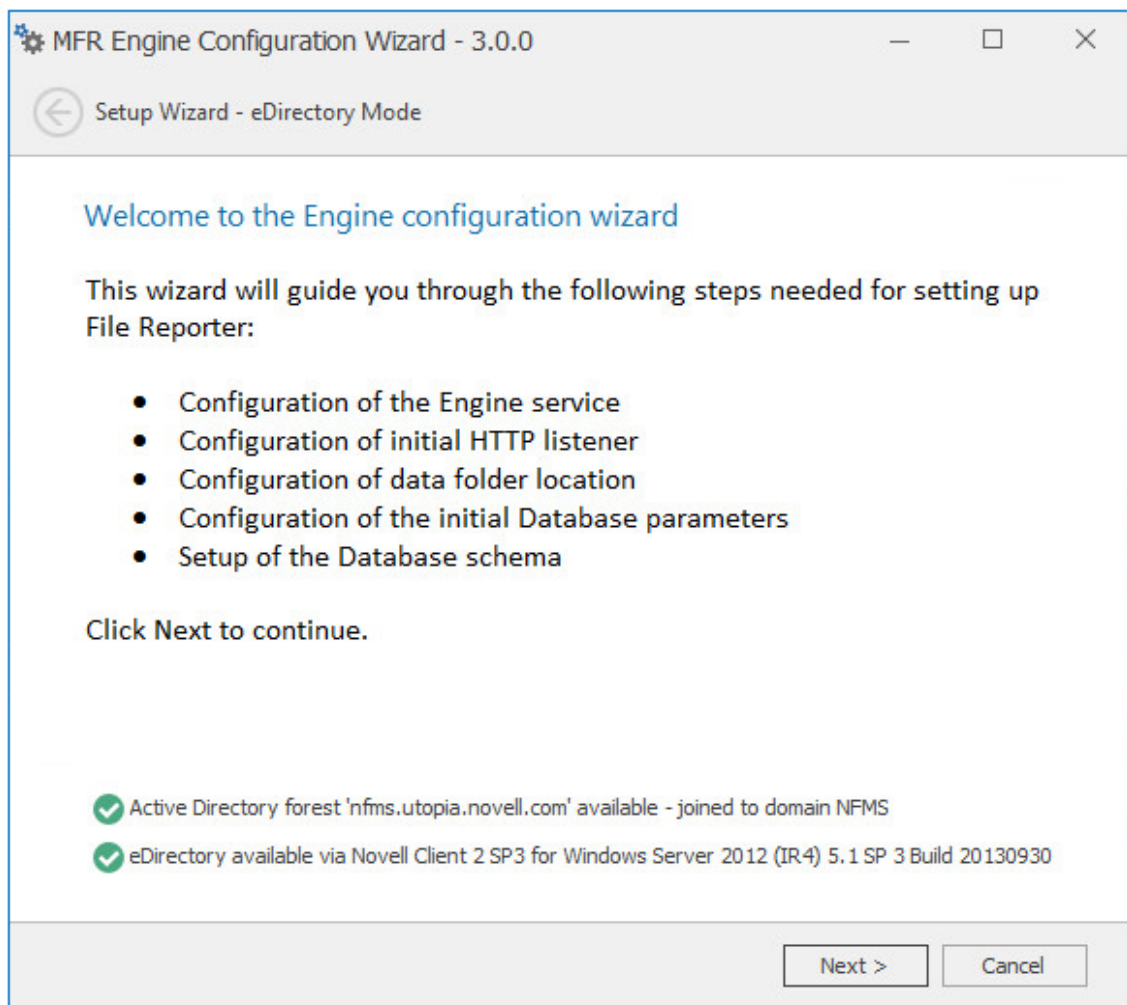


4 Review the configuration log and click **Finish**.



7.6 Configuring the Engine

- 1 Click **Configure Engine**.



2 From the wizard page, read the overview of what will be configured and click **Next**.

MFR Engine Configuration Wizard - 3.0.0

Setup Wizard - eDirectory Mode

Basic Options

HTTP Listener

Host Address: 0.0.0.0

SSL Port: 3035

SSL Certificate

Subject Name: fmsadutp

Expiration Days: 3,650 Expiration Date: 3/20/2026 9:19:02 PM

Key Length: 2048

Details Generate

Data

Data Folder: C:\ProgramData\Micro Focus\SRS\Engine\data

Move data from C:\ProgramData\Micro Focus\SRS\Engine\data

Next > Cancel

This page lets you confirm or change basic Engine configuration settings.

HTTP Listener: Communication parameters for the Engine.

Host Address: Unless you want the Engine to only listen on a certain IP address, leave this setting as it is.

SSL Port: Unless there is a port conflict, leave the setting at 3035.

SSL Certificate: Details for the SSL certificate that will be generated.

Subject Name: The name of the certificate that will be generated. The server name is listed by default.

Expiration Days: The life span of the security certificate, which is set at 10 years by default.

Key Length: The SSL certificate encryption setting, which is set at 2048 by default.

Details: Click the button to view the certificate data.

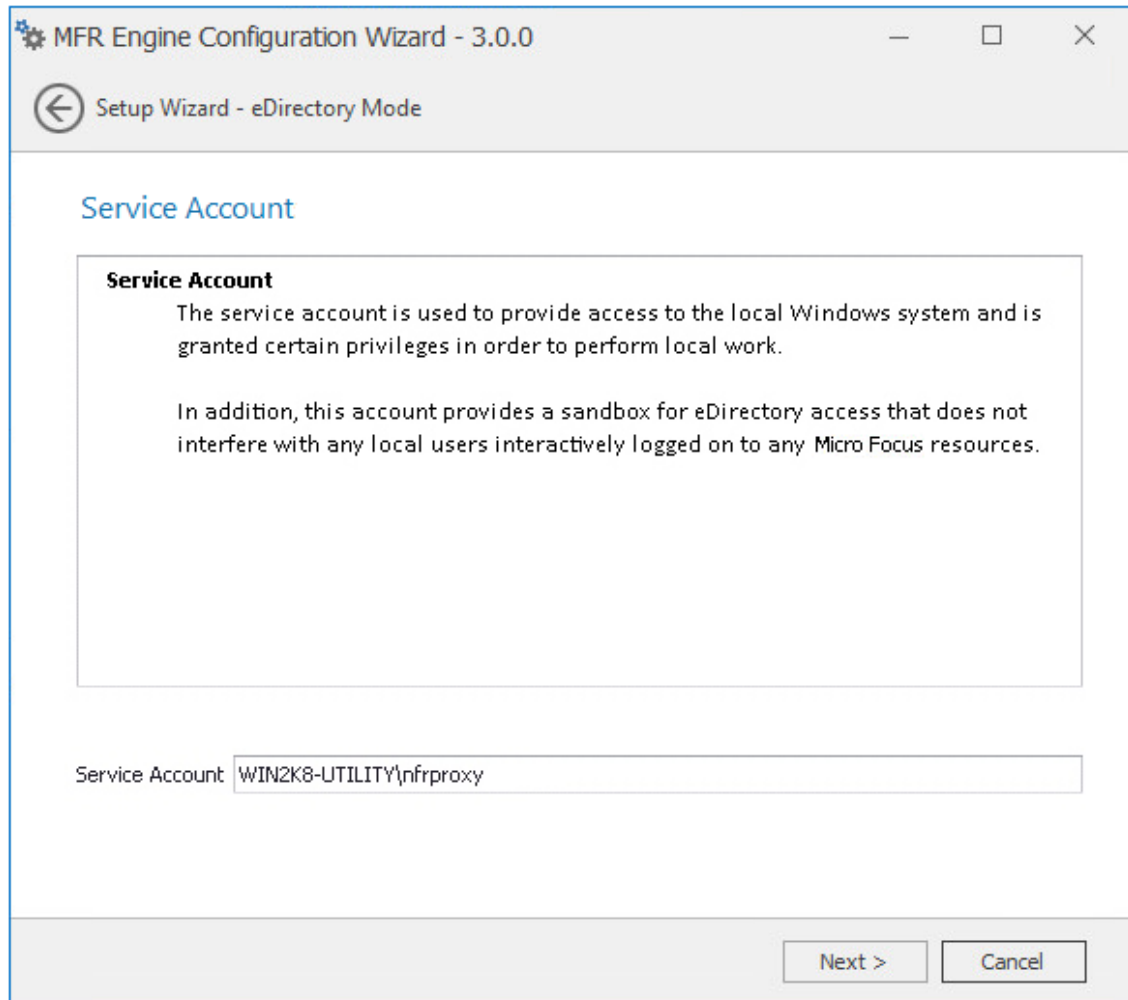
Generate: If you modify any of the settings in the SSL Certificate region, click this button to generate a new certificate.

Data Folder: The default location of the `Data` folder. The `Data` folder is used for a variety of tasks, including storing Agent configuration data, serving as a temporary repository for scans, and mail spooling.

Move data from (Enabled only during an upgrade): Having this check box selected indicates that content from the Engine's data folder for the previous version of File Reporter, will be moved to the path specified in the **Data Folder** field and the original path will be removed. If this check box is not selected, it will use whatever path is specified in the **Data Folder** field, including the original path.

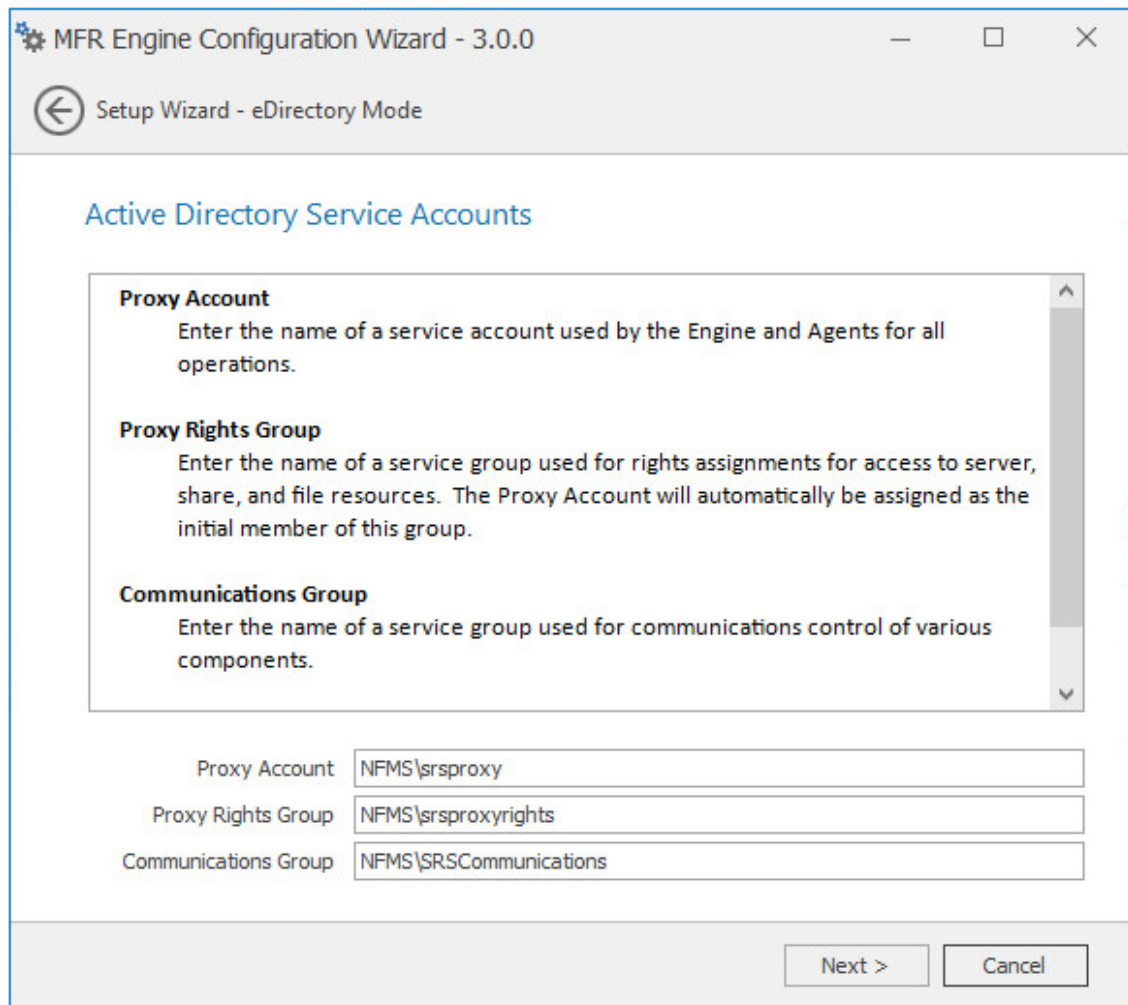
- 3 Edit any needed parameters settings and click **Next**.

If you have installed the Engine and Web Application on a server that is not in a domain, the following page appears:



This page lets you establish a local service account.

If, in addition to being logged in to eDirectory as the primary identity system, you are logged into Active Directory, the following page appears:



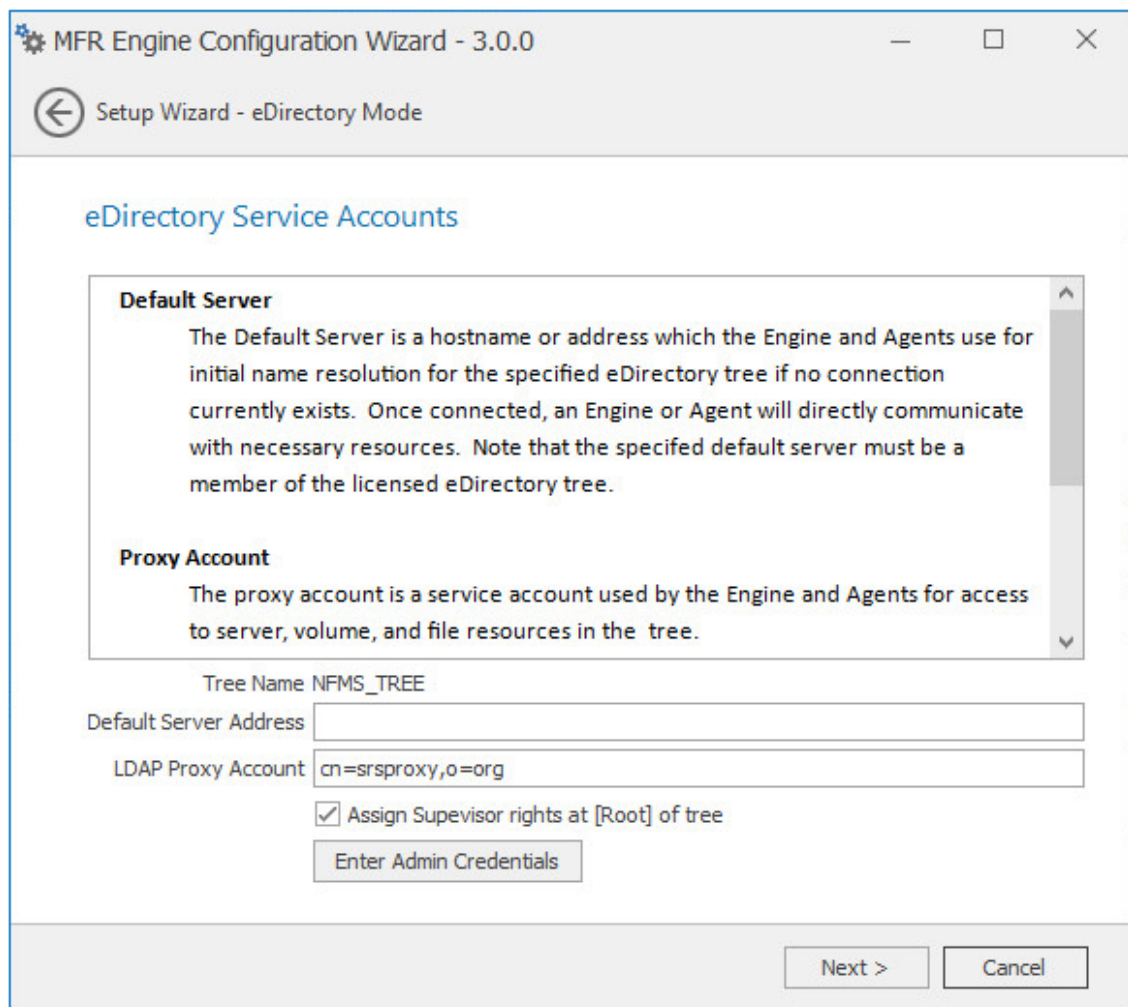
This page lets you establish a name for the proxy account, proxy rights group, and the communications group.

File Reporter uses a proxy account so that Agents can access all of the servers for scanning. A proxy rights group makes it easier to manage the rights of the proxy account. The Scan Processor uses the communications group to secure who can access its service.

The Configuration Wizard establishes default account and group names, which you can modify.

If you are upgrading from a previous version of File Reporter, the **Proxy Account** and **Proxy Rights Group** fields will specify the existing proxy account and proxy rights group such as `nfrproxy` and `nfrproxyrights` respectively.

- 4 Click **Next**.



In this page, you create the eDirectory service accounts. These service accounts are needed to access the file system for the files that File Reporter reports on.

Tree Name: Displays the name of the eDirectory tree you are logged in to.

Default Server Address: Specify an IP address or DNS name to any server belonging to the eDirectory tree.

LDAP Proxy Account: Modify the typeful naming to correspond to your organizational structure.

For example, `cn=srsproxy,o=system`

Assign Supervisor rights at [Root] of tree: By default, the proxy account has Supervisor rights at the [Root] of the directory tree and can therefore report on any network volume. If this option is not selected, File Reporter can only report on volumes where the proxy account is assigned rights.

Enter Admin Credentials: Click this button to access the following dialog box:

The screenshot shows a dialog box titled "eDirectory LDAP Credentials". It contains the following fields and controls:

- LDAP Server Address:** A text input field.
- Port:** A spin box currently set to 636.
- Connection Type:** A dropdown menu currently set to SSL.
- LDAP Admin FDN:** A text input field.
- Password:** A text input field.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

LDAP Server Address: Specify an IP address to any server belonging to the eDirectory tree.

Port: Unless there is a conflict, leave the port setting at 636.

Connection Type: Verify that the setting is **SSL**.

LDAP Admin FDN: Specify the fully distinguished LDAP name for an administrator.

For example: `cn=admin,o=system`

Password: Specify the password for the administrator.

- 5 Specify the default server address, LDAP proxy account, and eDirectory LDAP credentials and click **Next**.

MFR Engine Configuration Wizard - 3.0.0

Setup Wizard - eDirectory Mode

User Groups

Admins Group
 The Admins Group restricts which users in the primary eDirectory tree **NFMS_TREE** may logon and manage File Reporter.
 The group should be entered using LDAP FDN format.

Report Users Group
 The Report Users Group is used to provide restricted access to stored reports.
 The group should be entered using LDAP FDN format.

LDAP Admins Group FDN

LDAP Report Users Group FDN

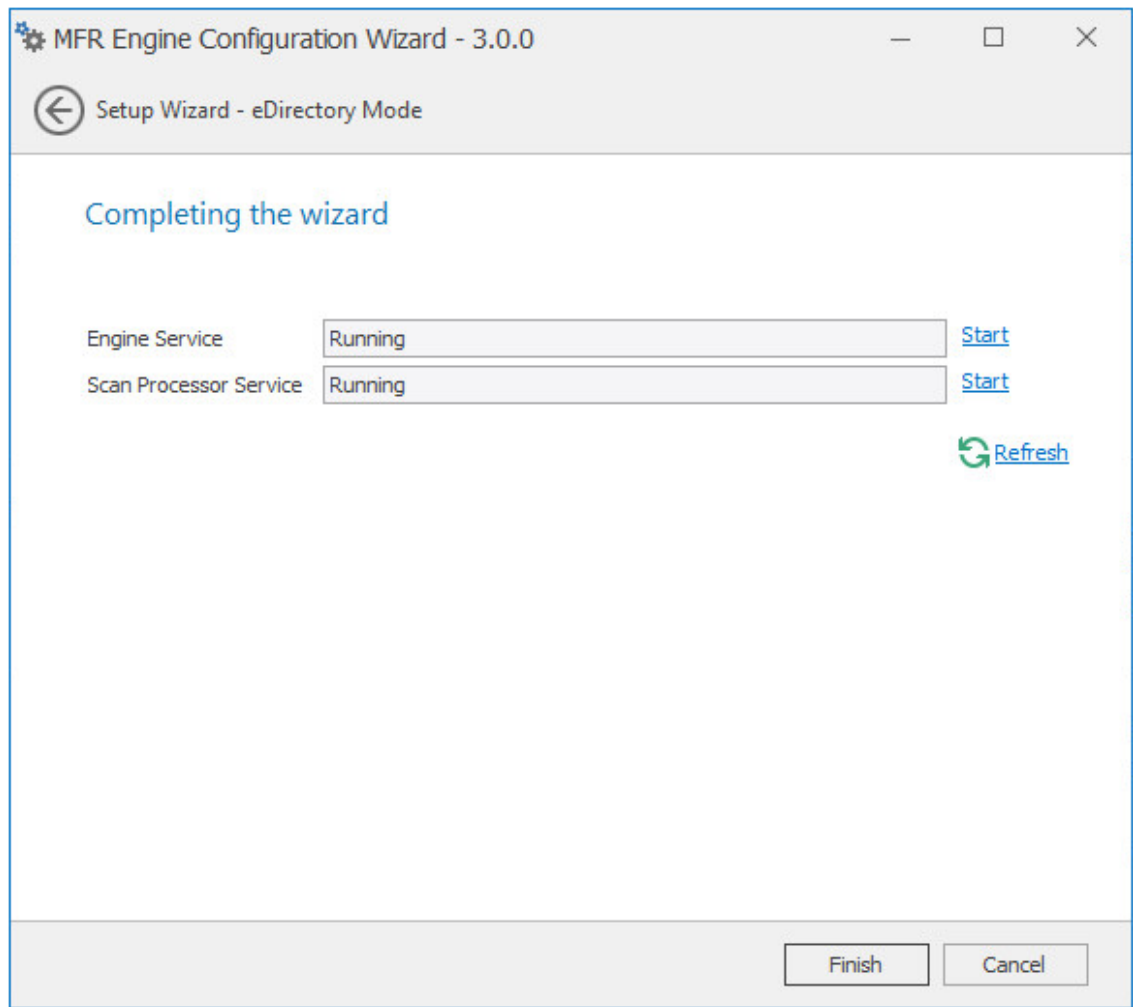
LDAP Member FDN

LDAP Admins Group FDN: Based on your organizational structure, modify the path for an admins group that File Reporter will create with LDAP fully distinguished naming.

LDAP Report Users Group FDN: Based on your organizational structure, modify the path for an report users group that File Reporter will create with LDAP fully distinguished naming.

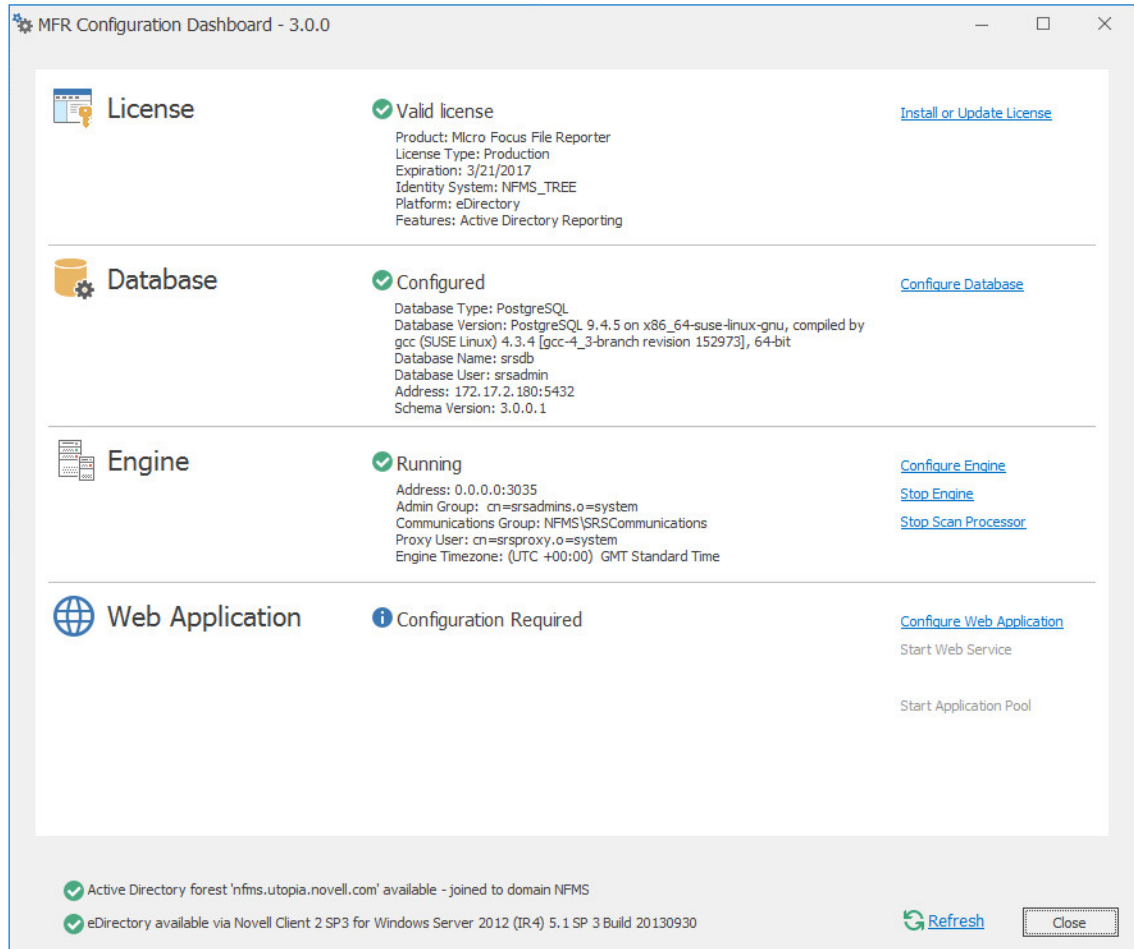
LDAP Member FDN: Specify the LDAP fully distinguished name of an administrator.

- 6 Complete the fields and click **Next**.



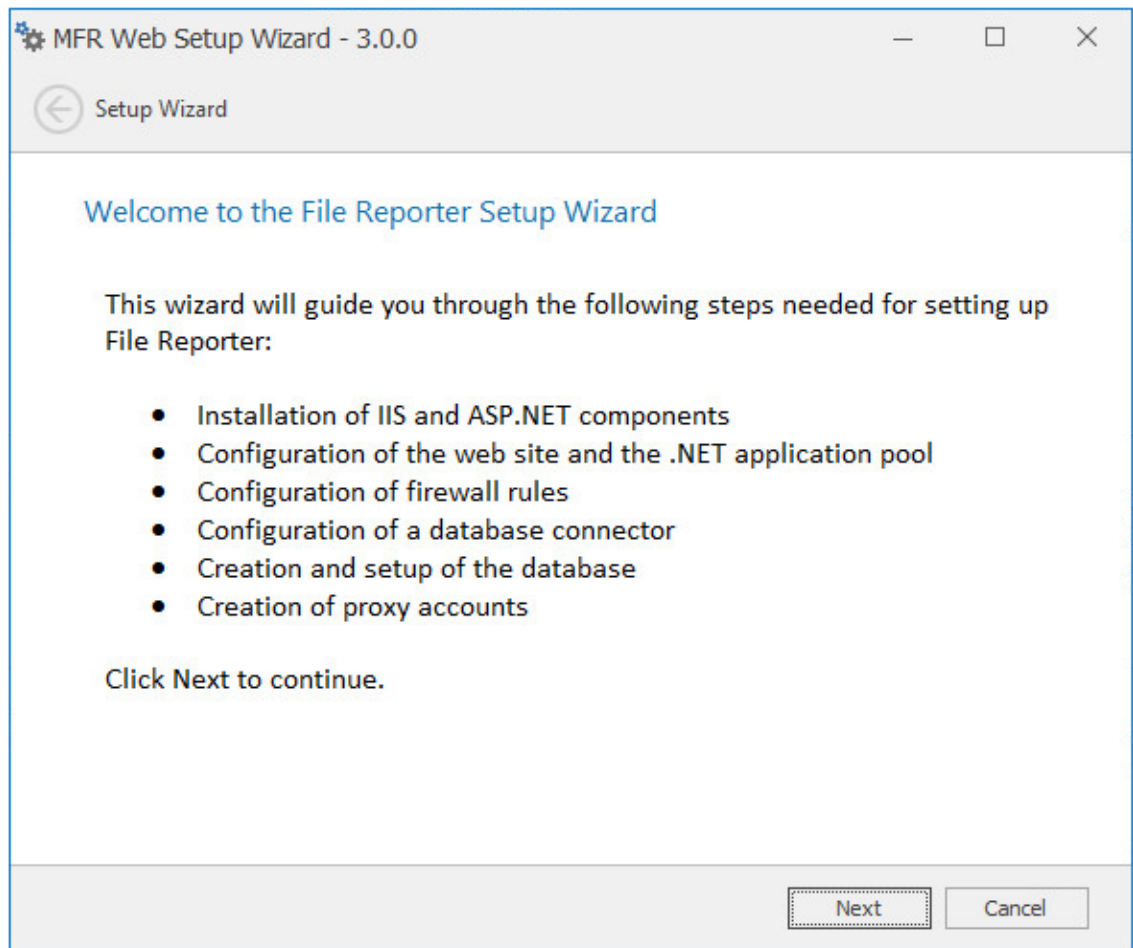
7 Click Finish.

The Engine is now installed, configured, and running.

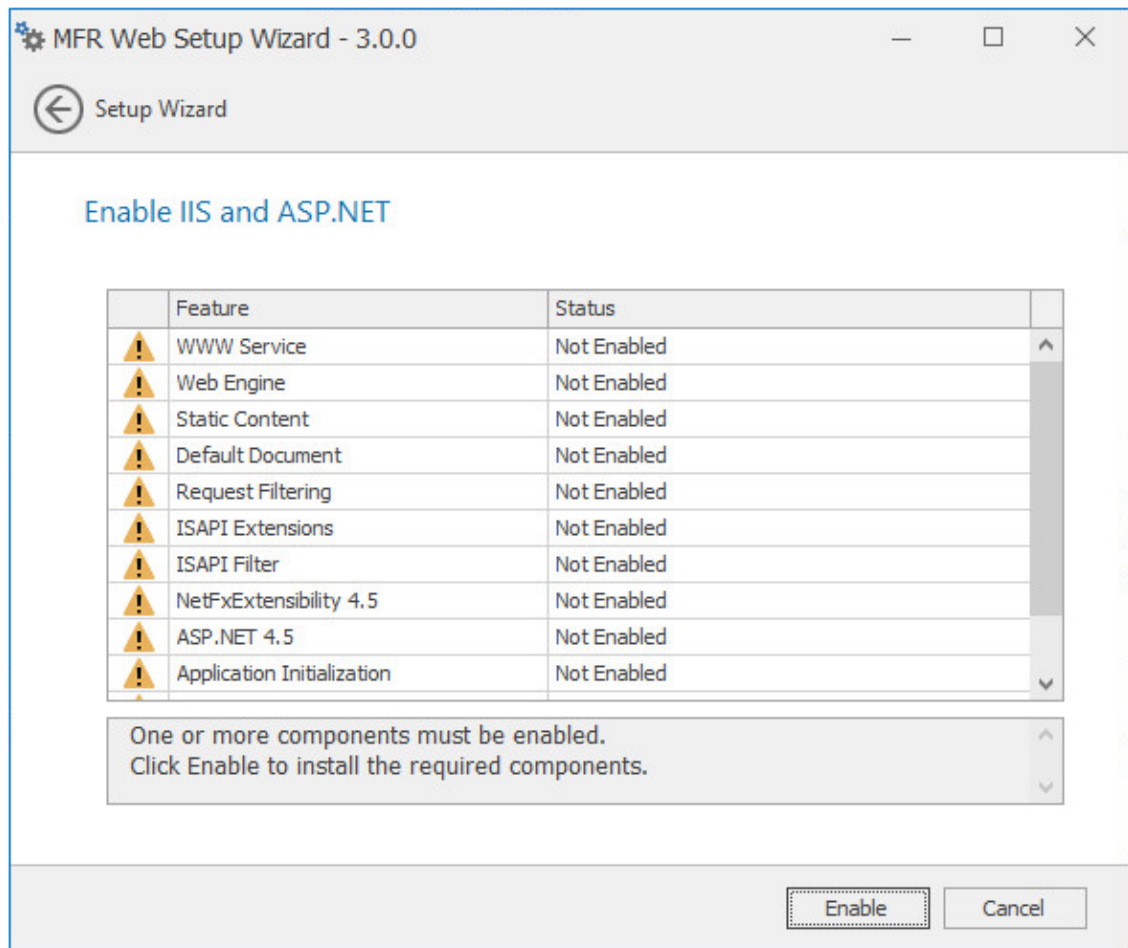


7.7 Configuring the Web Application

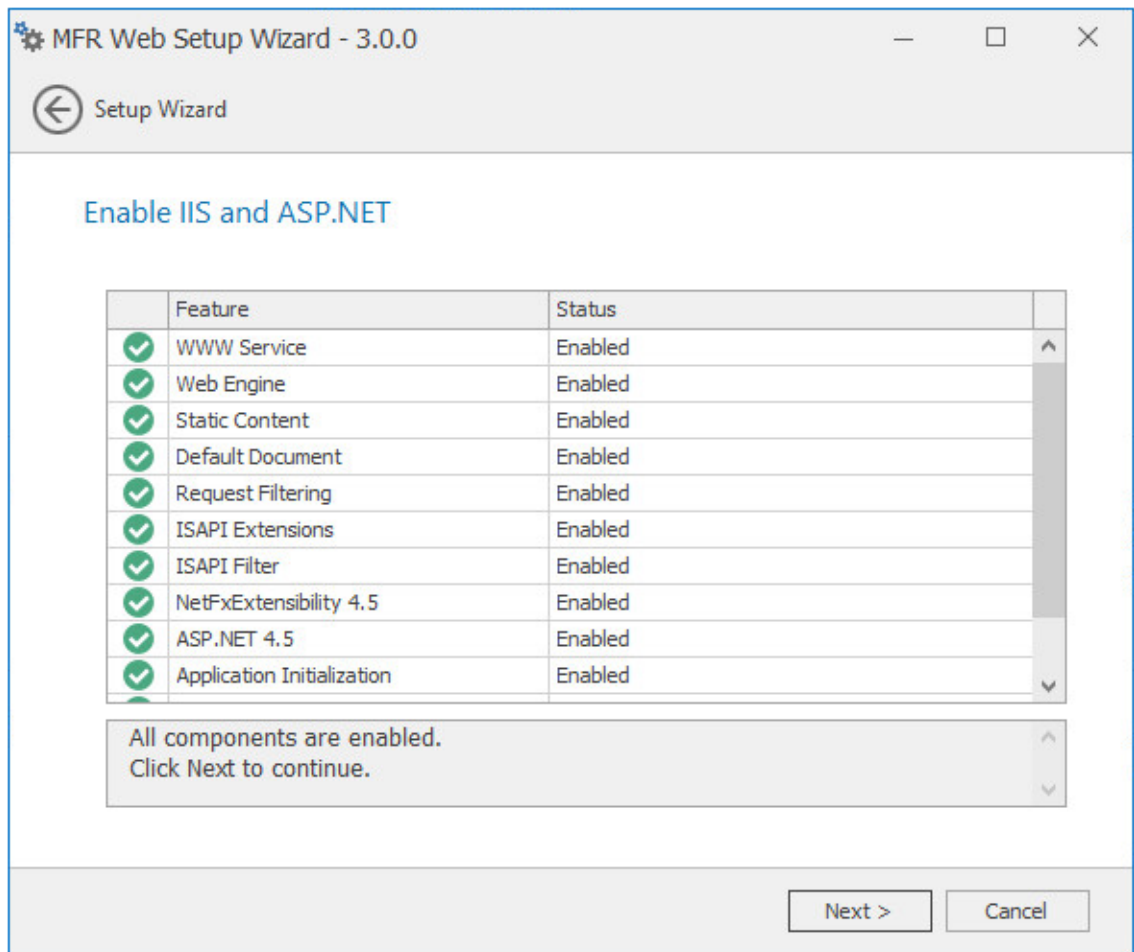
- 1 Click **Configure Web Application**.



- 2 From the wizard page, read the overview of what will be configured and click **Next**.



3 Click Enable.



4 Click Next.

Web Site Parameters

Web Site

Web Site: SRS Site

Physical Path: C:\inetpub\srs_root\

IP Address: All Unassigned Addresses | SSL Port: 443

Host Name: mfr.nfms.utopia.novell.com

Application Pool

Name: SRS AppPool

Service Account: NFMS\SRSAppPoolSvc

Next | Cancel

This page lets you review or edit settings applicable to the File Reporter Web application. Unless there is a need to change a setting, we recommend that you leave the settings as they are currently established.

Web Site: Settings for the Microsoft IIS Web site.

Web Site: The default name for the File Reporter Web site. If the default name does not conform to your organization’s naming standards, you can edit it.

Physical Path: This path was specified in [Step 6 on page 35](#) and is the location where files on the Web site are served up. You cannot edit this path.

IP Address: By default, this field indicates that Web requests will be responded to from any IP address available on the server. If the server has multiple IP addresses, you can specify which one you want to use.

SSL Port: The default port is 443. If there is a conflict, you can select another port.

Host Name: The host name as defined in DNS that you specified in [Section 7.2, “Prerequisites,” on page 58](#).

If a warning sign appears next to the Host Name entry, the host name is not fully resolved. Verify that there is a DNS entry for the File Reporter Web application and that the resolved IP address or addresses are located on the host machine.

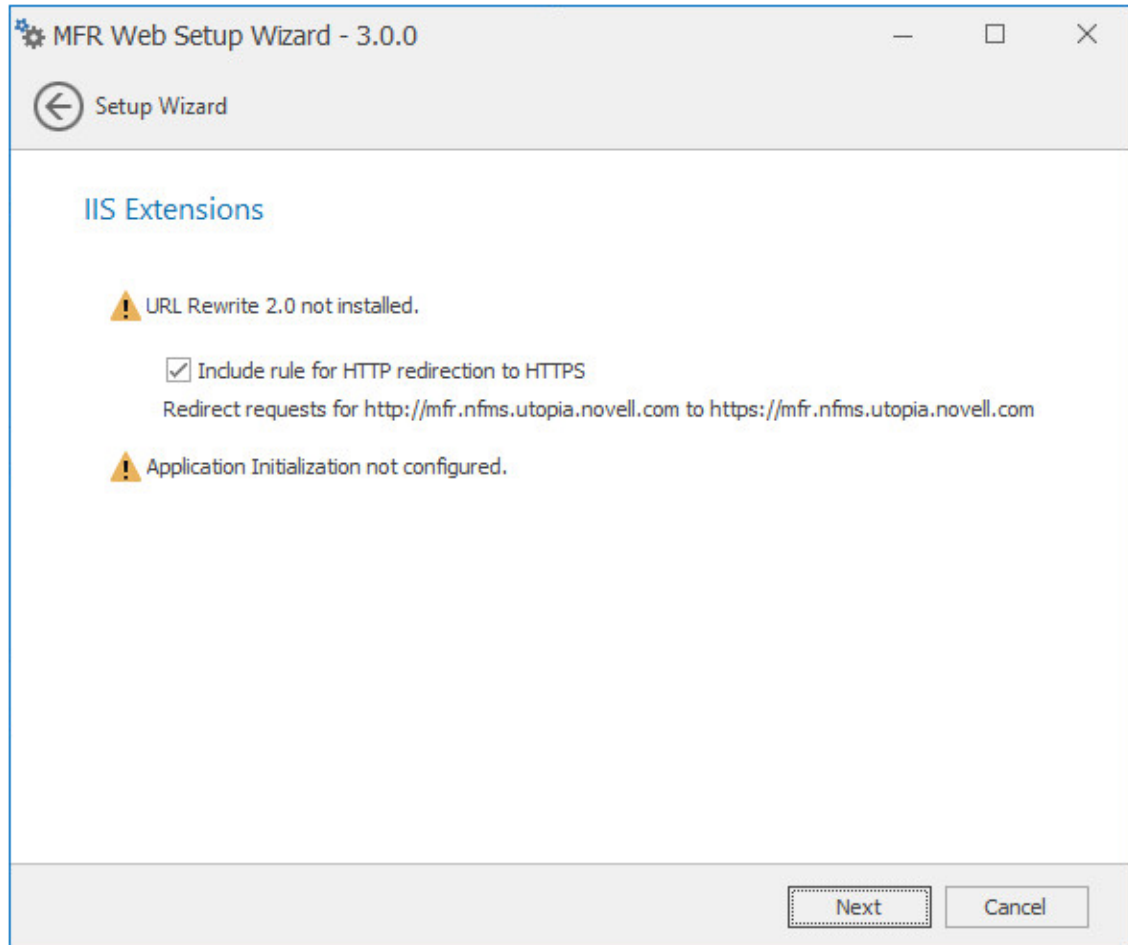
Application Pool: Settings pertaining to the File Reporter application pool in Microsoft IIS.

Name: The default name for the application pool. If the default name does not conform to your organization’s naming standards, you can edit it.

Managed Pipeline Mode: Microsoft IIS 7 and later uses the Integrated managed pipeline mode, meaning that requests are handled through a unified pipeline, rather than the classic mode in IIS 6 that utilized two pipelines.

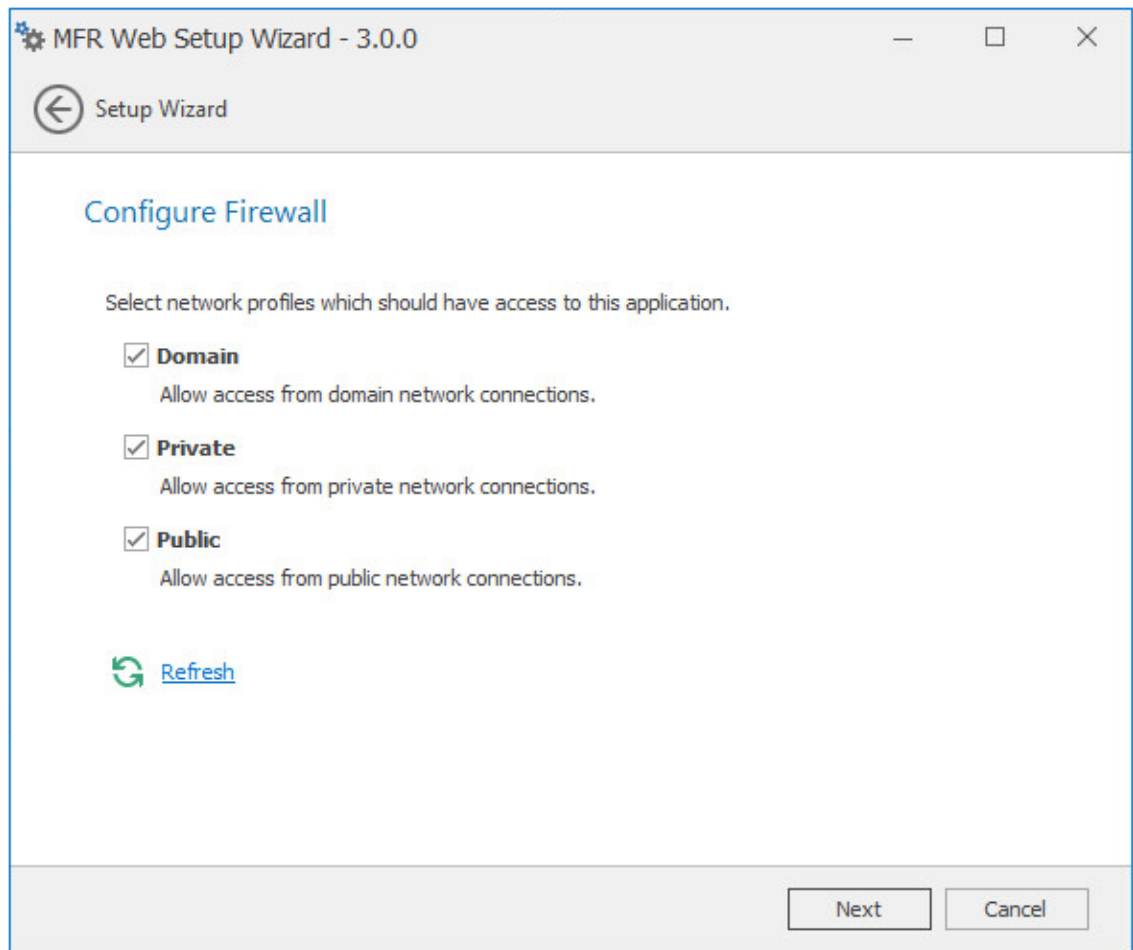
Service Account: This field specifies the service account name used by the application pool.

- 5 (Conditional) If the components are not enabled, click **Enable**.
- 6 Edit the fields as needed and click **Next**.



This page lets you install Microsoft IIS URL Rewrite Module 2.0, which will redirect the File Reporter login page from an entered HTTP protocol, to HTTPS. For example, if you enter `http://mfr.nvb.local`, you would be redirected to the secure login page at `https://mfr.nvb.local`.

- 7 Unless your organization has a policy against redirects, leave the check box selected and click **Next**.



- 8 Set the network profiles according to your organization's security policies and click **Next**.
- 9 When you are notified that the initial setup for the Web Application is complete, click **Finish**.
The database, Engine, and Web Application are now configured.

The screenshot displays the MFR Configuration Dashboard - 3.0.0. It is divided into four main sections, each with a status indicator and a list of details:

- License:** Status: Valid license. Details: Product: Micro Focus File Reporter, License Type: Production, Expiration: 3/21/2017, Identity System: NFMS_TREE, Platform: eDirectory, Features: Active Directory Reporting. Action: [Install or Update License](#).
- Database:** Status: Configured. Details: Database Type: PostgreSQL, Database Version: PostgreSQL 9.4.5 on x86_64-suse-linux-gnu, compiled by gcc (SUSE Linux) 4.3.4 [gcc-4_3-branch revision 152973], 64-bit, Database Name: srsdb, Database User: srsadmin, Address: 172.17.2.180:5432, Schema Version: 3.0.0.1. Action: [Configure Database](#).
- Engine:** Status: Running. Details: Address: 0.0.0.0:3035, Admin Group: cn=srsadmins.o=system, Communications Group: NFMS\SRSCommunications, Proxy User: cn=srsproxy.o=system, Engine Timezone: (UTC +00:00) GMT Standard Time. Actions: [Configure Engine](#), [Stop Engine](#), [Stop Scan Processor](#).
- Web Application:** Status: Running. Details: Web Site: SRS Site, AppPool: SRS AppPool, AppPool Identity: NFMS\SRSAppPoolSvc, Disk Path: C:\inetpub\sr_root, Https Listeners: [All IP Addresses]:443, Hostname: mfr.nfms.utopia.novell.com, AppPool Recycle Time: 03:00:00. Action: [Configure Web Application](#). Additional actions: [Stop Web Service](#), [Stop Web Site](#), [Stop Application Pool](#). URL: <https://mfr.nfms.utopia.novell.com>.

At the bottom, there are two status messages:

- Active Directory forest 'nfms.utopia.novell.com' available - joined to domain NFMS
- eDirectory available via Novell Client 2 SP3 for Windows Server 2012 (IR4) 5.1 SP 3 Build 20130930

There are also [Refresh](#) and [Close](#) buttons at the bottom right.

10 (Optional) Click the hyperlink to launch the Web-based administrative interface.

The hyperlink is located below the listed Web Application details.

11 Install the Agents by referring to the following chapters:

- ◆ To install Agents on Windows servers, refer to [Chapter 8, “Installing and Configuring the Windows Agent,”](#) on page 83.
- ◆ To install Agents on Linux servers, refer to [Chapter 9, “Installing and Configuring the Linux Agent,”](#) on page 87.

8

Installing and Configuring the Windows Agent

Procedures in this section include those needed for installing and configuring the Windows Agent on a Windows server.

- ◆ [Section 8.1, “Minimum Requirements,” on page 83](#)
- ◆ [Section 8.2, “Active Directory Requirements,” on page 83](#)
- ◆ [Section 8.3, “Prerequisites,” on page 83](#)
- ◆ [Section 8.4, “Installing and Configuring the Windows Agent,” on page 84](#)

8.1 Minimum Requirements

- ◆ Any of the following dual core 64-bit processor servers:
 - ◆ Windows Server 2016
 - ◆ Windows Server 2012 R2
 - ◆ Windows Server 2012
 - ◆ Windows Server 2008 R2 SP1 or later
- ◆ The server must be joined to Active Directory
- ◆ Minimum of 100 MB RAM per concurrent scan

For example, if you planned on your Agent conducting scans on 4 volumes or shares concurrently, you would need a minimum of 400 MB of RAM.

NOTE: Performance depends not only the number of concurrent scans, but also the size of the directory structure for each volume or share. Adding more RAM than the minimum requirement can obviously increase performance.

- ◆ Minimum of 10 GB free disk space for installation and scans
This size might need to be adjusted based on number of concurrent scans this agent performs, as well as the size of the scans themselves.

8.2 Active Directory Requirements

File Reporter supports a minimum forest functional level of Windows 2003 or later in native mode.

8.3 Prerequisites

- ◆ If you want to report on storage resources that reside in an eDirectory network, you must install the Client for Open Enterprise Server software on the same Windows server where you install the Agent:

Having the Client for Open Enterprise Server installed allows File Reporter to connect to eDirectory and view the storage resources.

- ♦ At the same Windows server, configure the Service Location Protocol settings within the Client for Open Enterprise Server software.

8.4 Installing and Configuring the Windows Agent

- 1 At the root of the `MFR_3_0_0.iso` image, double-click `MFRAgent-Installer-3.0.x64-xx.exe`.
- 2 Agree to the license terms and conditions and click **Install**.
- 3 When you are notified that the setup was successful, click **Run Setup Utility**.
- 4 From the wizard page, read the overview of what will be installed and configured and click **Next**.

MFR Agent Configuration Wizard - 3.0.0

Agent Wizard

General Options

HTTP Listener

Host Address: 0.0.0.0

SSL Port: 3037

SSL Certificate

Subject Name: fmsadutp

Expiration Days: 3,650 Expiration Date: 3/19/2026 10:08:51 PM

Key Length: 2048

Details Generate

Data

Data Folder: C:\ProgramData\Micro Focus\SRS\Agent\data

Move data from C:\ProgramData\Micro Focus\SRS\Agent\data

Next > Cancel

This page lets you confirm or change basic Agent configuration settings.

HTTP Listener: Communication parameters for the Agent.

Host Address: Unless you want the Agent to only listen on a certain IP address, leave this setting as it is.

SSL Port: Unless there is a port conflict, leave the setting at 3037.

SSL Certificate: Details for an SSL certificate that will be generated.

Subject Name: The name of the certificate that will be generated. The server name is listed by default.

Expiration Days: The life span of the security certificate, which is set at 10 years by default.

Key Length: The SSL certificate encryption setting, which is set at 2048 by default.

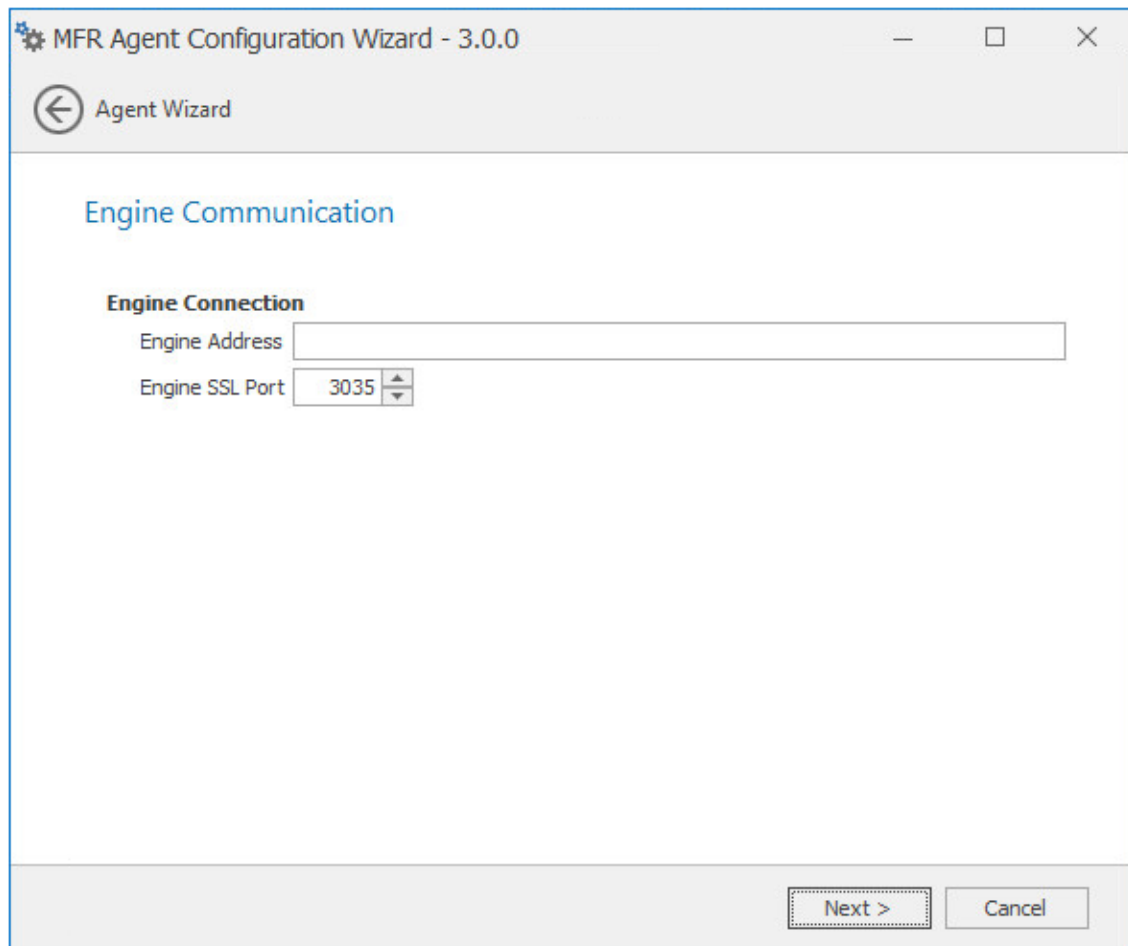
Details: Click the button to view the certificate data.

Generate: If you modify any of the settings in the SSL Certificate region, click this button to generate a new certificate.

Data Folder: The default location of the Data folder. The Data folder is used for a variety of tasks, including the storage of temporary scan data.

Move data from (Enabled only during an upgrade): Having this check box selected indicates that content from the Agent's `data` folder for the previous version of File Reporter, will be moved to the path specified in the **Data Folder** field and the original path will be removed. If this check box is not selected, it will use whatever path is specified in the **Data Folder** field, including the original path.

- 5 Edit any needed parameters settings and click **Next**.



MFR Agent Configuration Wizard - 3.0.0

Agent Wizard

Engine Communication

Engine Connection

Engine Address

Engine SSL Port

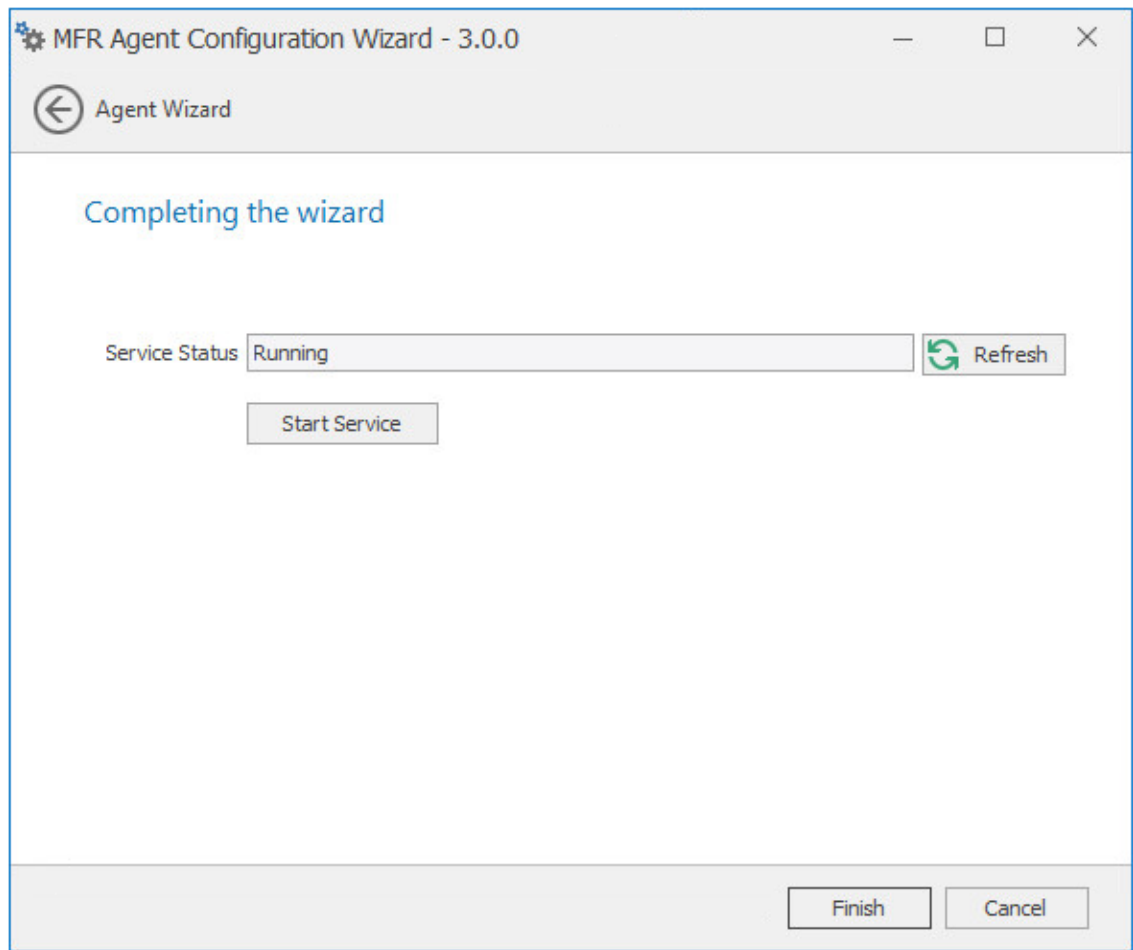
Next > Cancel

This page lets you set parameters for the Agent to communicate with the Engine.

Engine Address: Specify the DNS name or IP address to the server hosting the Engine here.

Engine SSL Port: Specify the SSL port for the Engine here.

- 6 Enter the Engine connection settings and click **Next**.



7 Click **Finish**.

The Windows Agent is now installed, configured, and running.

9 Installing and Configuring the Linux Agent

Procedures in this section include those needed for installing and configuring the Agent on a server running Micro Focus Open Enterprise Server.

- ♦ [Section 9.1, “Minimum Requirements,” on page 87](#)
- ♦ [Section 9.2, “Installing and Configuring the Linux Agent,” on page 87](#)

9.1 Minimum Requirements

- ♦ Any of the following dual core 64-bit processor servers:
 - ♦ Open Enterprise Server 2015 SP1
 - ♦ Open Enterprise Server 2015
 - ♦ Open Enterprise Server 11 SP2

- ♦ Minimum 100 MB RAM per concurrent scan

For example, if you planned on your agent conducting scans on 4 volumes or shares concurrently, you would need a minimum of 400 MB of RAM.

Performance depends not only the number of concurrent scans, but also the size of the directory structure for each volume or share. Adding more RAM than the minimum requirement can increase performance.

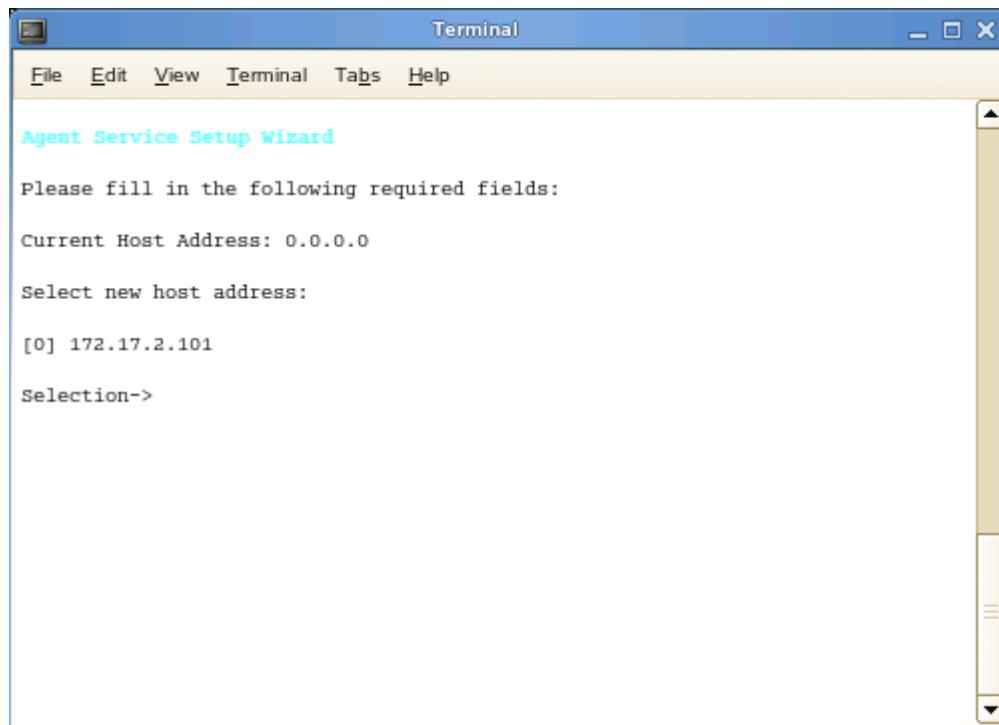
- ♦ Minimum of 10 GB free disk space

This size might need to be adjusted based on number of concurrent scans this agent performs, as well as the size of the scans themselves.

9.2 Installing and Configuring the Linux Agent

- 1 At the Open Enterprise Server machine, launch a terminal session.
- 2 At the terminal console, do one of the following:
 - ♦ Install the Linux Agent by typing the following command: `rpm -ivh microfocus-filereporter-agent-3.0.0-xx.x86_64.rpm`
 - ♦ Upgrade the Linux Agent by typing the following command: `rpm -Uvh microfocus-filereporter-agent-3.0.0-xx.x86_64.rpm`
- 3 Type `srsagent-config` and press Enter.

The console is updated and appears similar to the one below.



```
Terminal
File Edit View Terminal Tabs Help

Agent Service Setup Wizard

Please fill in the following required fields:

Current Host Address: 0.0.0.0

Select new host address:

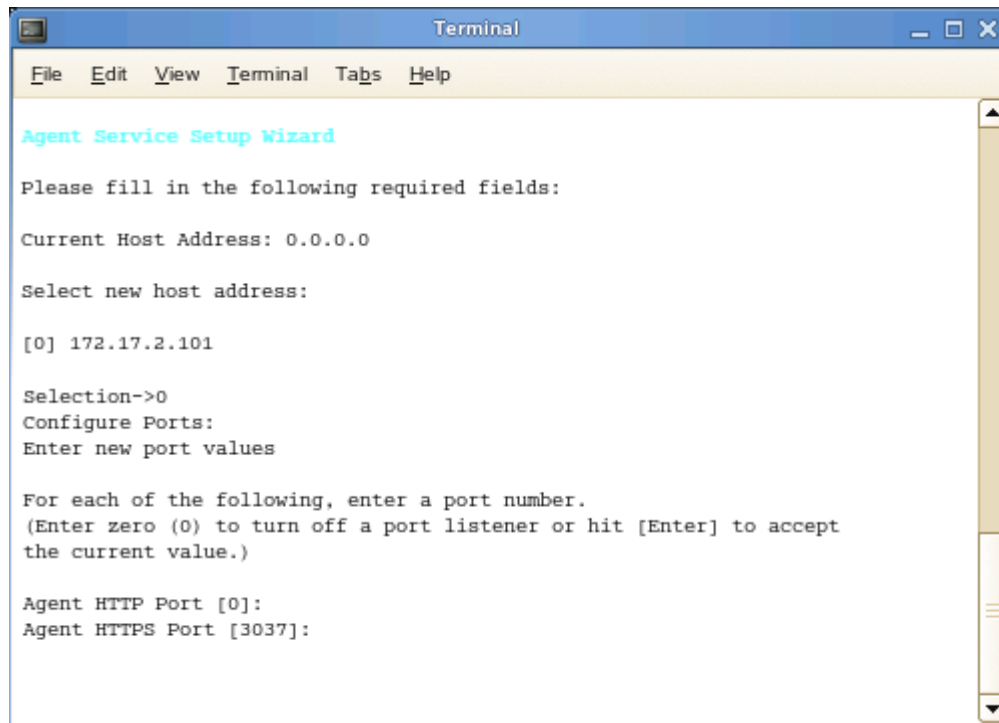
[0] 172.17.2.101

Selection->
```

4 Specify the IP address option you want (such as 0 in the example above) and press Enter.

5 When the HTTP Port [0] option appears, type 0 and press Enter.

The console is updated and looks similar to the one below:



```
Terminal
File Edit View Terminal Tabs Help

Agent Service Setup Wizard

Please fill in the following required fields:

Current Host Address: 0.0.0.0

Select new host address:

[0] 172.17.2.101

Selection->0
Configure Ports:
Enter new port values

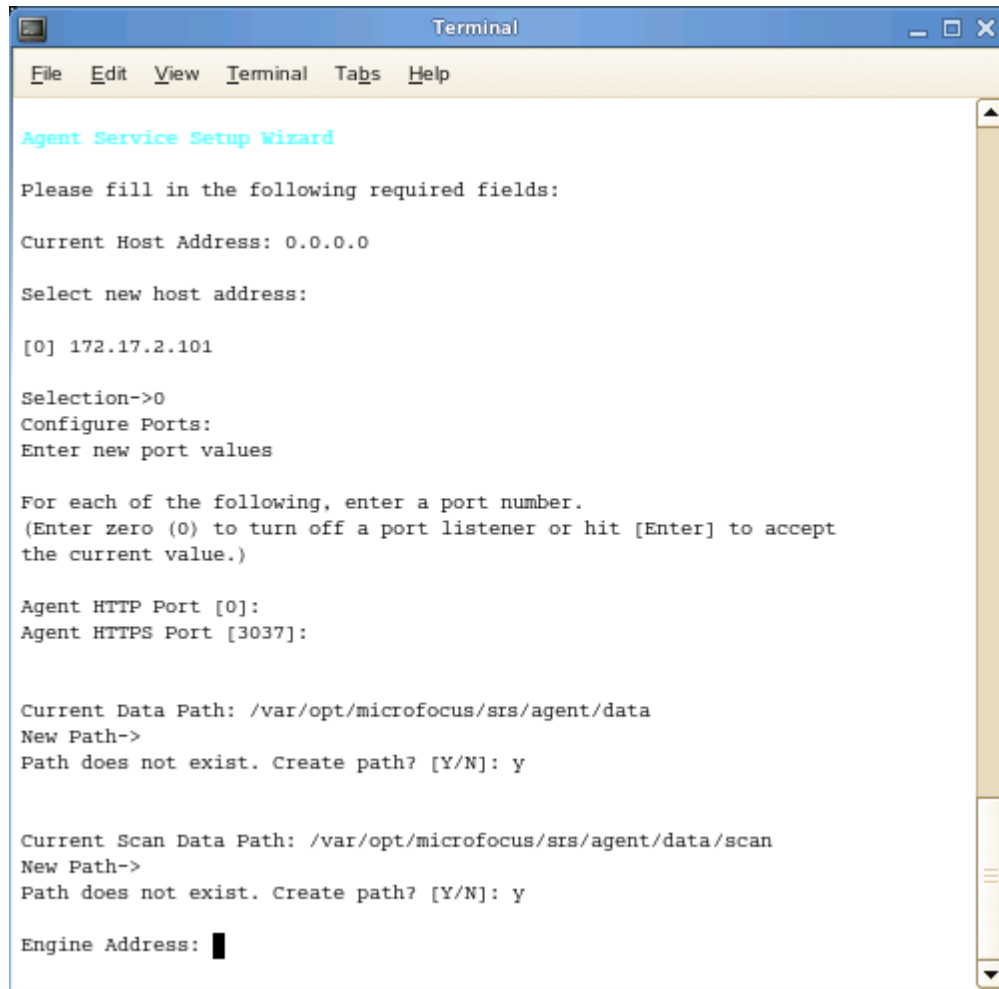
For each of the following, enter a port number.
(Enter zero (0) to turn off a port listener or hit [Enter] to accept
the current value.)

Agent HTTP Port [0]:
Agent HTTPS Port [3037]:
```

6 Unless there is a conflict, accept the default HTTPS port number of 3037 by pressing Enter. If you need to use another port number, provide the new port number.

- 7 Accept the specified data path by pressing Enter.
- 8 When you are prompted to create the path, type `y` and then press Enter.
- 9 Accept the specified scan data path by pressing Enter.
- 10 When you are prompted to create the path, type `y` and then press Enter.

The console is updated and looks similar to the one below:



```
Terminal
File Edit View Terminal Tabs Help

Agent Service Setup Wizard

Please fill in the following required fields:

Current Host Address: 0.0.0.0

Select new host address:

[0] 172.17.2.101

Selection->0
Configure Ports:
Enter new port values

For each of the following, enter a port number.
(Enter zero (0) to turn off a port listener or hit [Enter] to accept
the current value.)

Agent HTTP Port [0]:
Agent HTTPS Port [3037]:

Current Data Path: /var/opt/microfocus/srs/agent/data
New Path->
Path does not exist. Create path? [Y/N]: y

Current Scan Data Path: /var/opt/microfocus/srs/agent/data/scan
New Path->
Path does not exist. Create path? [Y/N]: y

Engine Address: █
```

- 11 Type the IP address of the server hosting the Engine and press Enter.
- 12 Press Enter to accept the specified port number.
- 13 When prompted to use SSL, type `y` and then press Enter.

The console is updated and looks similar to the one below:

```
Terminal
File Edit View Terminal Tabs Help

Please fill in the following required fields:

Current Host Address: 0.0.0.0

Select new host address:

[0] 172.17.2.101

Selection->0
Configure Ports:
Enter new port values

For each of the following, enter a port number.
(Enter zero (0) to turn off a port listener or hit [Enter] to accept
the current value.)

Agent HTTP Port [0]:
Agent HTTPS Port [3037]:

Current Data Path: /var/opt/microfocus/srs/agent/data
New Path->
Path does not exist. Create path? [Y/N]: y

Current Scan Data Path: /var/opt/microfocus/srs/agent/data/scan
New Path->
Path does not exist. Create path? [Y/N]: y

Engine Address: 172.17.2.150
Engine Port [3035] :
Use SSL (Y/N) [Y]: y

-----
Create OpenSSL Certificate

Use the default server name for the common name of the certificate? (oeslinux) (y/n) [n]
```

- 14 Do one of the following:
 - ◆ Type `Y` and then press Enter to select oeslinux as the name for the SSL certificate.
 - ◆ Type `N`, type a certificate name, and press Enter.
- 15 After the private key has been created, press Enter to continue.
- 16 After the certificate has been created, press Enter to continue.
- 17 When you are prompted to start the service, type `Y` and then press Enter.
The Agent Service Config screen appears.
- 18 Type `Q` and then press Enter to close the Agent Service Config screen.
The Linux Agent is now installed, configured, and running on the server.

10 Installing the Report Viewer and Client Tools

- ◆ [Section 10.1, “Minimum Requirements,” on page 91](#)
- ◆ [Section 10.2, “Install the Report Viewer,” on page 91](#)
- ◆ [Section 10.3, “Install the Client Tools,” on page 92](#)

The Report Viewer lets you to view all stored reports locally from a Windows workstation. Because the Report Viewer utilizes the resources of a Windows workstation, rather than those of the Engine, the Report Viewer can display stored reports much faster in most instances.

The Client Tools are designed to provide members of the administrators group expanded abilities in designing reports and analyzing data. The Client Tools include the Report Designer and the Analytics Tools.

NOTE: You must be a member of the srsadmins group to use the Client Tools. The name srsadmins is the default name (which you can change) of the File Reporter administrators group created during the installation of the Engine.

10.1 Minimum Requirements

- ◆ Any 64-bit multi-core processor Windows workstation with the .NET 4.5.2 framework.

Note that significant analytic workloads with the Data Analytics tool might be directly impacted by the number and speed of available cores.

- ◆ A DirectX 10 compatible graphics card required for use with the Data Analytics tool.
- ◆ Minimum of 4 GB RAM.

Depending on the size of report loading, exporting, and processing, this number might need to be significantly increased.

- ◆ Minimum of 8 GB RAM for the Data Analytics tool.

Note that for the Data Analytics tool, a minimum of about 1KB per scan data entry (or 1GB per million entries) is required. Depending on the type of analysis, such as Pivot Grid, and the number of entries in a single scan, this number might need to be significantly increased.

- ◆ Minimum of 250 MB disk space.
- ◆ Report Designer and Data Analytics users must be members of the srsadmins group.

10.2 Install the Report Viewer

- 1 From the root of the `MFR_3_0_0.iso` image, copy the `MFR-ReportViewer-Installer-3.0-x64-xx.exe` file to all Windows workstations where you will run the Report Viewer.
- 2 From the Windows workstation, double-click `MFR-ReportViewer-Installer-3.0-x64-xx.exe`.
- 3 Agree to the license terms and conditions, then click **Install**.

- 4 When notified that the setup was successful, click **Close**.

The Report Viewer icon is added to the list of Micro Focus applications on the desktop.

10.3 Install the Client Tools

- 1 From the root of the `MFR_3_0_0.iso` image, copy the `MFR-ClientTools-Installer-3.0-x64--xx.exe` file to all Windows workstations where you will run the Client Tools.
- 2 From the Windows workstation, double-click `MFR-ClientTools-Installer-3.0-x64-xx.exe`.
- 3 Agree to the license terms and conditions, then click **Install**.
- 4 When notified that the setup was successful, click **Close**.

The MFR Data Analytics and MFR Report Designer icons are added on the desktop.

A eDirectory Universal Password Settings

To function properly, File Reporter proxy objects require that Universal Password Policy settings in eDirectory meet certain conditions.

A.1 Universal Password Policy Settings

If you will enable File Reporter in eDirectory and you have Universal Passwords set up for all users in your tree, do the following before installing and configuring any File Reporter components:

- 1 Before installing the Engine, create a new container in eDirectory to store the proxy objects.
- 2 Create a Universal Password Policy using iManager.
- 3 Make sure that the following settings are met:
 - Number of days before password can be changed: 0 or not set
 - Number of days before password expires: 0 or not set
 - Use Microsoft complexity policy OR
 - Use syntax with the following settings:
 - Maximum number of characters in password: 36 or greater
 - Minimum number of unique characters: 1+
 - Maximum number of times a specific character can be used: NOT SET
 - Maximum number of times a specific character can repeat sequentially: NOT SET
 - Allow the password to be case-sensitive
 - Allow numeric characters in password
 - Allow non-alphanumeric characters in the password
 - Allow non-US ASCII characters
- 4 Associate the Universal Password Policy with the new container you created in [Step 1](#).
- 5 When creating your proxy objects during the installation of the Engine, make sure that you specify the FDN of this container.

B Documentation Updates

This section contains information about documentation content changes that were made in this *Micro Focus File Reporter 3.0 Installation Guide* after the initial release of File Reporter 2.0. The changes are listed according to the date they were published.

The documentation for this product is provided on the web in two formats: HTML and PDF. The HTML and PDF documentation are both kept up-to-date with the changes listed in this section.

If you need to know whether a copy of the PDF documentation that you are using is the most recent, the PDF document includes a publication date on the title page.

The documentation was updated on the following dates:

B.1 January 12, 2017

Updates were made to the following section:

Location	Update Description
Chapter 4, "Installing and Configuring the PostgreSQL Database," on page 21.	Corrected an incorrectly documented command.

B.2 July 19, 2016

Updates were made to the following sections:

Location	Update Description
Section 1.1, "Database," on page 7.	Updated this section with new recommendations.
Section 2.4, "Decide Which Database to Utilize," on page 11.	Updated the list of supported Linux servers. Removed mention of support for the PostgreSQL database on Windows.

B.3 November 10, 2015

Updates were made to the following sections:

Location	Update Description
Installation requirements for PostgreSQL, Engine, Web Application, and Agents.	Removed references of support for these on Windows 7 and 8 workstations.

B.4 April 27, 2015

Updates were made to the following sections:

Location	Update Description
Section 2.7, "Database Deployment Recommendations," on page 13.	New section.
Section 5.2, "Minimum Requirements," on page 25.	New section.

B.5 October 7, 2014

Updates were made to the following sections:

Location	Update Description
Section 6.5, "Configuring the Database," on page 38.	Added descriptions of updated fields in the Database Configuration Wizard.
Section 6.7, "Configuring the Web Application," on page 48.	Provided procedures for installing the URL Rewrite Module 2.0 for IIS.
Section 7.5, "Configuring the Database," on page 61.	Added descriptions of updated fields in the Database Configuration Wizard.
Section 7.7, "Configuring the Web Application," on page 74.	Provided procedures for installing the URL Rewrite Module 2.0 for IIS.
Chapter 10, "Installing the Report Viewer and Client Tools," on page 91.	New section.

B.6 February 18, 2014

Updates were made to the following sections:

Location	Update Description
Section 2.4, "Decide Which Database to Utilize," on page 11.	New section.
Section 3.2, "Replacing a License," on page 17.	New procedures.
Chapter 5, "Installing an SQL Server Instance that Supports File Reporter," on page 25.	New section.
Chapter 6, "Installing and Configuring the Engine, Database, and Web Application in an Active Directory Environment," on page 33.	New procedures.
Section 6.2.1, "Prerequisites for Reporting on eDirectory Storage Resources," on page 34.	New section.
Chapter 7, "Installing and Configuring the Engine, Database, and Web Application in an eDirectory Environment," on page 57.	New procedures.

B.7 November 26, 2013

Updates were made to the following sections:

Location	Update Description
Section 8.1, "Minimum Requirements," on page 83.	Changed the RAM requirements.

B.8 July 30, 2013

Updates were made to the following sections:

Location	Update Description
Appendix A, "eDirectory Universal Password Settings," on page 93.	Changed --- Maximum number of characters in password: 32 or greater to --- Maximum number of characters in password: 36 or greater

B.9 April 25, 2013

Updates were made to the following sections:

Location	Update Description
Chapter 1, "Upgrading from a Previous Version," on page 7.	New chapter.
Section 2.3, "Decide Where to Host the Engine," on page 11.	Added that the Engine can be hosted on a sufficiently enabled 64-bit Windows 7 or Windows 8 workstation. Inserted a recommendation to not install the Engine on a Domain Controller.
Section 4.1.1, "Minimum Requirements," on page 21.	Updated requirements.
Section 4.1.2, "Installing and Configuring the PostgreSQL Database," on page 22.	Updated the procedures.
Section 6.1, "Minimum Requirements," on page 33.	Updated requirements.
Section 7.1, "Minimum Requirements," on page 57.	Updated requirements.
Section 8.1, "Minimum Requirements," on page 83.	Updated requirements.
Section 9.1, "Minimum Requirements," on page 87.	Updated requirements.
Appendix A, "eDirectory Universal Password Settings," on page 93.	New appendix.

B.10 February 13, 2013

Updates were made to the following sections:

Location	Update Description
Section 4.1, "Installing and Configuring the PostgreSQL Database on a Linux Server," on page 21.	Expanded the section to include procedures for installing the PostgreSQL database on a Linux host server.