

Installation Guide

Novell File Reporter 1.0.2

June 22, 2012

Novell.

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About this Guide

This installation guide provides network administrators with comprehensive information for installing Novell® File Reporter.

- ♦ Chapter 1, “Installation Roadmaps,” on page 7
- ♦ Chapter 2, “Novell File Reporter Deployment Options,” on page 11
- ♦ Chapter 3, “Licensing the Product,” on page 15
- ♦ Chapter 4, “Installing and Configuring an NFR Engine in an Active Directory Environment,” on page 21
- ♦ Chapter 5, “Installing and Configuring an NFR Engine in an eDirectory Environment,” on page 35
- ♦ Chapter 6, “Installing NFRAdmin,” on page 49
- ♦ Chapter 7, “Installing NFR Agents,” on page 51
- ♦ Chapter 8, “Configuring Proxy Agents for NAS Devices,” on page 59
- ♦ Chapter 9, “Configuring Proxy Agents for Clustering,” on page 67
- ♦ Appendix A, “Documentation Updates,” on page 77

Audience

This manual is intended for network administrators who manage user and collaborative storage.

Feedback

We want to hear your comments and suggestions about this manual 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 *Novell File Reporter 1.0.2 Installation Guide*, visit the [Novell File Reporter Documentation Web site \(http://www.novell.com/documentation/filereporter10/index.html\)](http://www.novell.com/documentation/filereporter10/index.html).

Additional Documentation

For additional Novell File Reporter documentation, see the following guides at the [Novell File Reporter Documentation Web site \(http://www.novell.com/documentation/filereporter10/index.html\)](http://www.novell.com/documentation/filereporter10/index.html):

- ♦ *Administration Guide*

Documentation Conventions

In this documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

A trademark symbol (® , ™, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

1 Installation Roadmaps

Novell® File Reporter can be deployed and configured to work in various types of networks including Microsoft Active Directory managed networks, Novell eDirectory managed networks, either of these networks configurations with Novell Storage Manager, and non-directory services managed networks.

Roadmaps for deployment in each of these network environments are outlined below.

- ♦ [Section 1.1, “Microsoft Active Directory Managed Networks,” on page 7](#)
- ♦ [Section 1.2, “Microsoft Active Directory Managed Networks with Novell Storage Manager,” on page 7](#)
- ♦ [Section 1.3, “Novell eDirectory Managed Networks,” on page 8](#)
- ♦ [Section 1.4, “Novell eDirectory Managed Networks with Novell Storage Manager,” on page 8](#)
- ♦ [Section 1.5, “Non-Directory Service Managed Networks,” on page 9](#)

1.1 Microsoft Active Directory Managed Networks

- 1 Become acquainted with deployment options (see [Chapter 2, “Novell File Reporter Deployment Options,” on page 11](#)).
- 2 Obtain the license file (see [Chapter 3, “Licensing the Product,” on page 15](#)).
- 3 Install the DSI (see [Section 4.8, “Installing the DSI \(Conditional\),” on page 26](#)).
- 4 Install the NFR Engine (see [Section 4.9, “Installing the NFR Engine,” on page 31](#)).
- 5 Configure the NFR Engine (see [Section 4.10, “Configuring the NFR Engine,” on page 32](#)).
- 6 Install NFRAdmin (see [Chapter 6, “Installing NFRAdmin,” on page 49](#)).
- 7 Install the NFR Agents (see [Chapter 7, “Installing NFR Agents,” on page 51](#)).

1.2 Microsoft Active Directory Managed Networks with Novell Storage Manager

- 1 Become acquainted with deployment options (see [Chapter 2, “Novell File Reporter Deployment Options,” on page 11](#)).
- 2 Obtain the license file (see [Chapter 3, “Licensing the Product,” on page 15](#)).
- 3 Create the NFRAdmins and NFRUsers groups (see [Section 4.5, “Creating NFRAdmins and NFRUsers Groups \(Conditional\),” on page 23](#)).
- 4 Configure Novell Storage Manager to work with Novell File Reporter (see [Section 4.6, “Configuring Novell Storage Manager to Work with Novell File Reporter \(Conditional\),” on page 23](#)).

- 5 Install the NSM Policy Path Reporter Plug-in (see [Section 4.7, “Installing the NSM Policy Path Reporter Plug-In into NSMAdmin \(Conditional\),”](#) on page 25).
- 6 Install the NFR Engine (see [Section 4.9, “Installing the NFR Engine,”](#) on page 31).
- 7 Configure the NFR Engine (see [Section 4.10, “Configuring the NFR Engine,”](#) on page 32).
- 8 Install NFRAdmin (see [Chapter 6, “Installing NFRAdmin,”](#) on page 49).
- 9 Install the NFR Agents (see [Chapter 7, “Installing NFR Agents,”](#) on page 51).

1.3 Novell eDirectory Managed Networks

- 1 Become acquainted with deployment options (see [Chapter 2, “Novell File Reporter Deployment Options,”](#) on page 11).
- 2 Obtain the license file (see [Chapter 3, “Licensing the Product,”](#) on page 15).
- 3 Create the NFRAdmins and NFRUsers groups (see [Section 5.4, “Creating the NFRAdmins and NFRUsers Groups,”](#) on page 36).
- 4 Create an NFR proxy account [Section 5.5, “Creating an NFR Proxy Account,”](#) on page 36).
- 5 Install the DSI (see [Section 5.9, “Installing the DSI \(Conditional\),”](#) on page 40).
- 6 Configure the DSI (see [Section 5.10, “Configuring the DSI \(Conditional\),”](#) on page 41).
- 7 Install the NFR Engine (see [Section 5.11, “Installing the NFR Engine,”](#) on page 44).
- 8 Configure the NFR Engine (see [Section 5.12, “Configuring the NFR Engine,”](#) on page 44).
- 9 Install NFRAdmin (see [Chapter 6, “Installing NFRAdmin,”](#) on page 49).
- 10 Install the NFR Agents (see [Chapter 7, “Installing NFR Agents,”](#) on page 51).

1.4 Novell eDirectory Managed Networks with Novell Storage Manager

- 1 Become acquainted with deployment options (see [Chapter 2, “Novell File Reporter Deployment Options,”](#) on page 11).
- 2 Obtain the license file (see [Chapter 3, “Licensing the Product,”](#) on page 15).
- 3 Create the NFRAdmins and NFRUsers groups (see [Section 5.4, “Creating the NFRAdmins and NFRUsers Groups,”](#) on page 36).
- 4 Create an NFR proxy account (see [Section 5.5, “Creating an NFR Proxy Account,”](#) on page 36).
- 5 Configure Novell Storage Manager to work with Novell File Reporter (see [Section 5.7, “Configuring Novell Storage Manager to Work with Novell File Reporter \(Conditional\),”](#) on page 37).
- 6 Install the NFR Engine (see [Section 5.11, “Installing the NFR Engine,”](#) on page 44).
- 7 Configure the NFR Engine (see [Section 5.12, “Configuring the NFR Engine,”](#) on page 44).
- 8 Install NFRAdmin (see [Chapter 6, “Installing NFRAdmin,”](#) on page 49).
- 9 Install the NFR Agents (see [Chapter 7, “Installing NFR Agents,”](#) on page 51).

1.5 Non-Directory Service Managed Networks

- 1 Become acquainted with deployment options (see [Chapter 2, “Novell File Reporter Deployment Options,”](#) on page 11).
- 2 Obtain the license file (see [Chapter 3, “Licensing the Product,”](#) on page 15).
- 3 Create NFRAdmins and NFRUsers groups (see [Section 5.4, “Creating the NFRAdmins and NFRUsers Groups,”](#) on page 36).
- 4 Create an NFR proxy account (see [Section 5.5, “Creating an NFR Proxy Account,”](#) on page 36).
- 5 Install the DSI (see [Section 5.9, “Installing the DSI \(Conditional\),”](#) on page 40).
- 6 Configure the DSI (see [Section 5.10, “Configuring the DSI \(Conditional\),”](#) on page 41).
- 7 Install the NFR Engine (see [Section 5.11, “Installing the NFR Engine,”](#) on page 44).
- 8 Configure the NFR Engine (see [Section 5.12, “Configuring the NFR Engine,”](#) on page 44).
- 9 Install NFRAdmin (see [Chapter 6, “Installing NFRAdmin,”](#) on page 49).
- 10 Install the NFR Agents (see [Chapter 7, “Installing NFR Agents,”](#) on page 51).

2 Novell File Reporter Deployment Options

Novell® File Reporter 1.0.2 includes multiple deployment options that you should understand before proceeding with your installation.

- ♦ [Section 2.1, “Deployment Environments,” on page 11](#)
- ♦ [Section 2.2, “Directory Service Managed Networks,” on page 11](#)
- ♦ [Section 2.3, “Directory Service Managed Networks with Novell Storage Manager,” on page 12](#)
- ♦ [Section 2.4, “Non-Directory Service Managed Networks,” on page 13](#)

2.1 Deployment Environments

Novell File Reporter was developed to be easy to install and configure with specific installation modules written for deploying the product in different environments:

- ♦ Directory service managed network environments
- ♦ Directory service managed network environments with Novell Storage Manager
- ♦ Non-directory service managed network environments

An optimal deployment of Novell File Reporter includes its deployment within a network environment managed through either Novell eDirectory™ or Microsoft* Active Directory* along with Novell Storage Manager. However, you can deploy Novell File Reporter without Novell Storage Manager and a network-wide directory service deployment. In the latter scenario, for licensing and authentication purposes, you need a single machine running Windows* or Novell Open Enterprise Server 2 running eDirectory.

Before proceeding with the installation and configuration of Novell File Reporter, you should understand each of the deployment environments to understand the benefits and limits of each and then determine how you will deploy Novell File Reporter.

2.2 Directory Service Managed Networks

For network authentication and authorization, Novell File Reporter can utilize the network’s eDirectory and Active Directory deployment for Novell and Microsoft networks. A Novell File Reporter Directory Service Interface (DSI) specific to eDirectory or Active Directory interacts with the

directory to verify that users are authorized to perform tasks within Novell File Reporter. For example, if a user wants to generate a report on a particular network volume, the DSI verifies with the directory that the user has access rights to the volume.

With Novell File Reporter leveraging the directory, all volumes and shares that make up the directory are discovered. This makes it easier to identify the servers where these volumes or shares reside and then install an NFR Agent for monitoring and reporting on them.

The DSI is installed separately from the NFR Engine installation. Generally, the DSI is installed on a server in the eDirectory tree or on a server that is a member of an Active Directory domain.

Table 2-1 Supported data sources for directory service managed networks

Microsoft Active Directory Data Sources	Windows Server* 2003
	Windows Server 2008
	DAS devices, external storage devices operating in either SAN or NAS mode (see Chapter 8, “Configuring Proxy Agents for NAS Devices,” on page 59 for information on supported NAS devices)
Novell eDirectory Data Sources	NetWare® running with NSS volumes
	Open Enterprise Server with NSS volumes
	Open Enterprise Server with NCP™ volumes
	DAS devices, external storage devices operating in SAN mode

2.3 Directory Service Managed Networks with Novell Storage Manager

Novell Storage Manager—a product sold separately—automates the full life cycle management of user and group storage by automating a comprehensive set of storage management tasks based on identity, directory events, and policies. Novell Storage Manager utilizes eDirectory and Active Directory in Novell and Microsoft networks respectively.

In a Novell Storage Manager environment, Novell File Reporter utilizes the DSI (Directory Services Interface) that is already built into Novell Storage Manager for authentication and authorization. Consequently, DSI configuration requirements for Novell File Reporter are minimal.

Volumes and shares comprising the network directory are discovered automatically so you can identify the servers on which these volumes or shares reside and then plan to install the NFR Agents for monitoring and reporting.

Novell Storage Manager was built with Novell File Reporter integration in mind. For example, when a network has both products installed, the NSMAdmin administration tool for Novell Storage Manager can generate Novell Storage Manager policy reports directly from the administration tool itself. Additionally, integration between the two products enables your Novell Storage Manager deployment to be more efficient, based on what Novell File Reporter reports. For example, the reports can help you decide the following:

- ◆ If a new policy should be created
- ◆ If a policy should be modified

- ♦ If a volume has sufficient space to be a target path
- ♦ If home directory allocations are too large or too small
- ♦ If file grooming actions should be invoked with more frequency

Table 2-2 Supported data sources for directory service managed networks with Novell Storage Manager

Microsoft Active Directory Data Sources	Windows Server 2003 Windows Server 2008 Novell Storage Manager policies DAS devices, external storage devices operating in either SAN or NAS mode (see Chapter 8, “Configuring Proxy Agents for NAS Devices,” on page 59 for information on supported NAS devices)
Novell eDirectory Data Sources	NetWare running with NSS volumes Open Enterprise Server with NSS volumes Open Enterprise Server with NCP volumes Novell Storage Manager policies DAS devices, external storage devices operating in SAN mode

2.4 Non-Directory Service Managed Networks

For environments that do not have a network-wide directory service implementation, which might be a Windows network not being managed through Active Directory or a network comprised of SUSE® Linux Enterprise Servers, the DSI (Directory Services Interface) can be configured for manual interaction with a Windows Server running Active Directory or a Novell Open Enterprise Server 2 running eDirectory. One of these servers running its directory service is needed for license management and authentication.

Manual DSI integration for authentication does not offer the robust capabilities for automatic discovery and event-driven management that are in eDirectory or Active Directory, but does provide directory service-based security.

Table 2-3 Supported data sources for non-directory service managed networks

Data Sources	SUSE Linux Enterprise Server with the ext3 file system SUSE Linux Enterprise Server with the Reiser file system External storage devices operating in SAN mode Windows servers that are not part of Active Directory
--------------	---

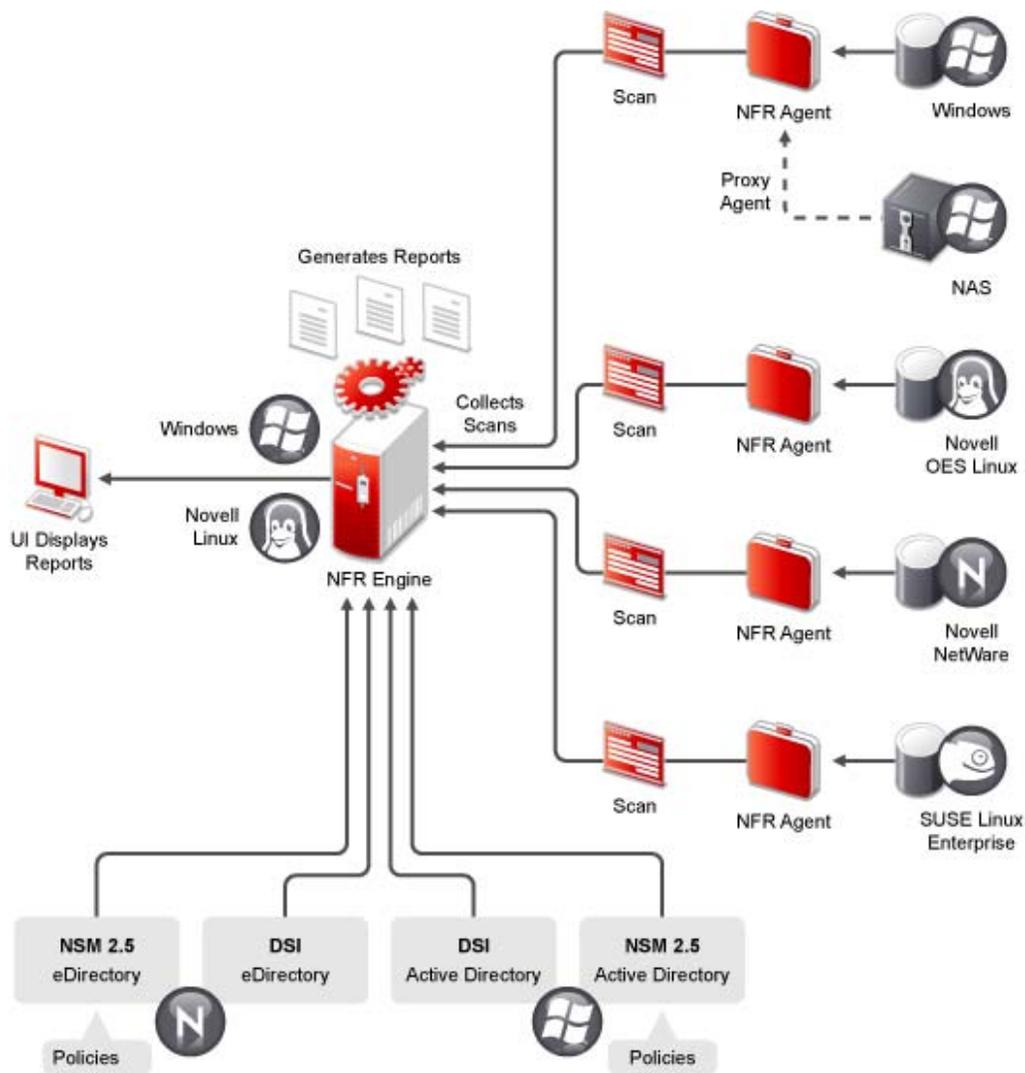
IMPORTANT: A deployment of Novell File Reporter in a non-directory service managed environment cannot be easily upgraded to a directory service managed environment or a directory service managed environment with Novell Storage Manager. Upgrading to either of these two

environments involves the complete redeployment of Novell File Reporter. If your environment supports a directory service or a directory service with Novell Storage Manager, we highly recommend that you install Novell File Reporter using one of those deployment options.

Furthermore, if your network is comprised of servers running different network operating systems, you might want to consider segmenting your Novell File Reporter deployment. For example, if you have a Novell network with some servers running Open Enterprise Server and others running NetWare and Novell eDirectory for managing the security, authentication and authorization, and you also have some SUSE Linux Enterprise Servers that are not part of the eDirectory management infrastructure, you could segment your deployment into two environments. The first would be the eDirectory-managed servers that use eDirectory for authentication and authorization with Novell File Reporter. The second would be the SUSE Linux Enterprise Servers that use the manually configured DSI only for license management and user authentication.

In this example, each environment requires a separate NFR Engine. However, each segment could be managed by the same workstation running NFRAdmin.

Figure 2-1 Novell File Reporter components



3 Licensing the Product

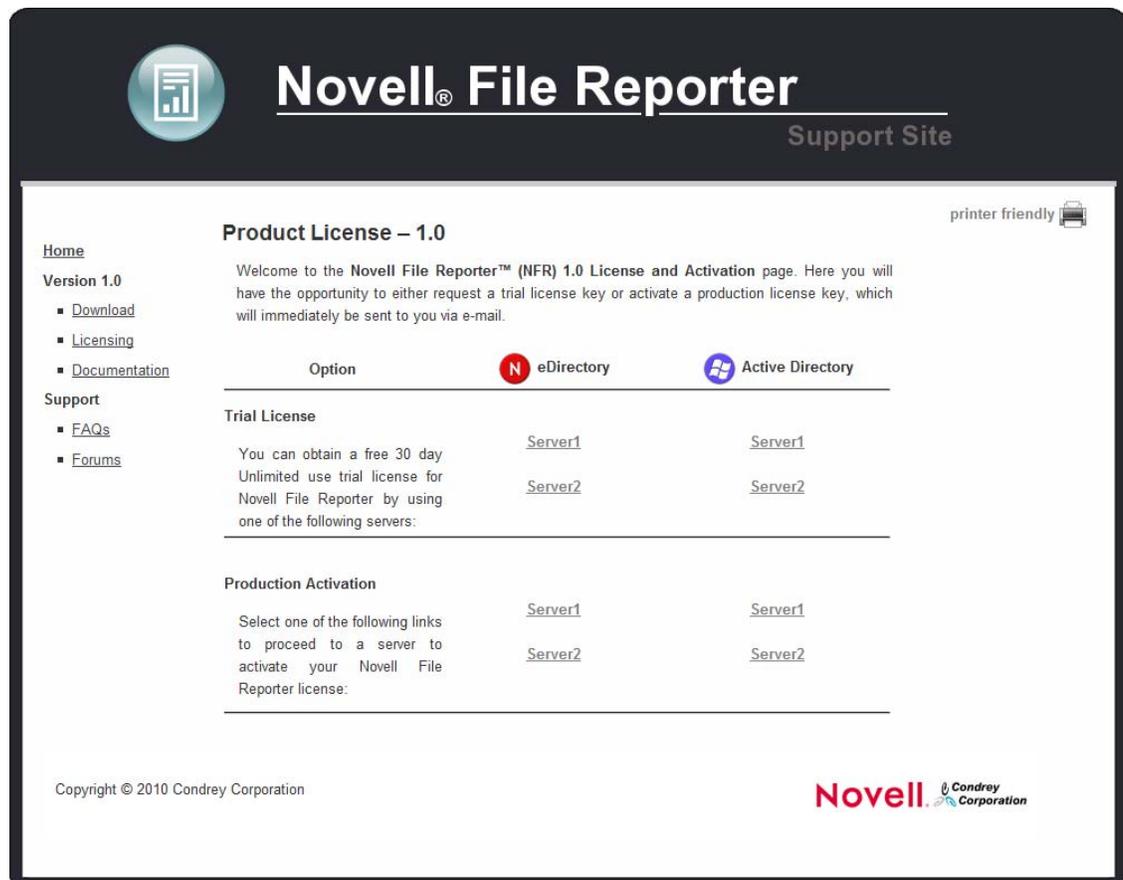
- ♦ Section 3.1, “Obtaining a License File,” on page 15
- ♦ Section 3.2, “Replacing an Evaluation License with a Production License,” on page 16

3.1 Obtaining a License File

Novell® File Reporter requires a production license file or evaluation license file that you obtain from Novell.

- 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 managed network environments.



The screenshot shows the Novell File Reporter Support Site. The page title is "Novell® File Reporter" with "Support Site" below it. A navigation menu on the left includes "Home", "Version 1.0" (with sub-items "Download", "Licensing", and "Documentation"), and "Support" (with sub-items "FAQs" and "Forums"). The main content area is titled "Product License – 1.0" and includes a "printer friendly" icon. The text reads: "Welcome to the Novell File Reporter™ (NFR) 1.0 License and Activation page. Here you will have the opportunity to either request a trial license key or activate a production license key, which will immediately be sent to you via e-mail." Below this is a table with columns for "Option", "eDirectory", and "Active Directory".

Option	eDirectory	Active Directory
Trial License		
You can obtain a free 30 day Unlimited use trial license for Novell File Reporter by using one of the following servers:	Server1	Server1
	Server2	Server2
Production Activation		
Select one of the following links to proceed to a server to activate your Novell File Reporter license:	Server1	Server1
	Server2	Server2

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3 Do one of the following:

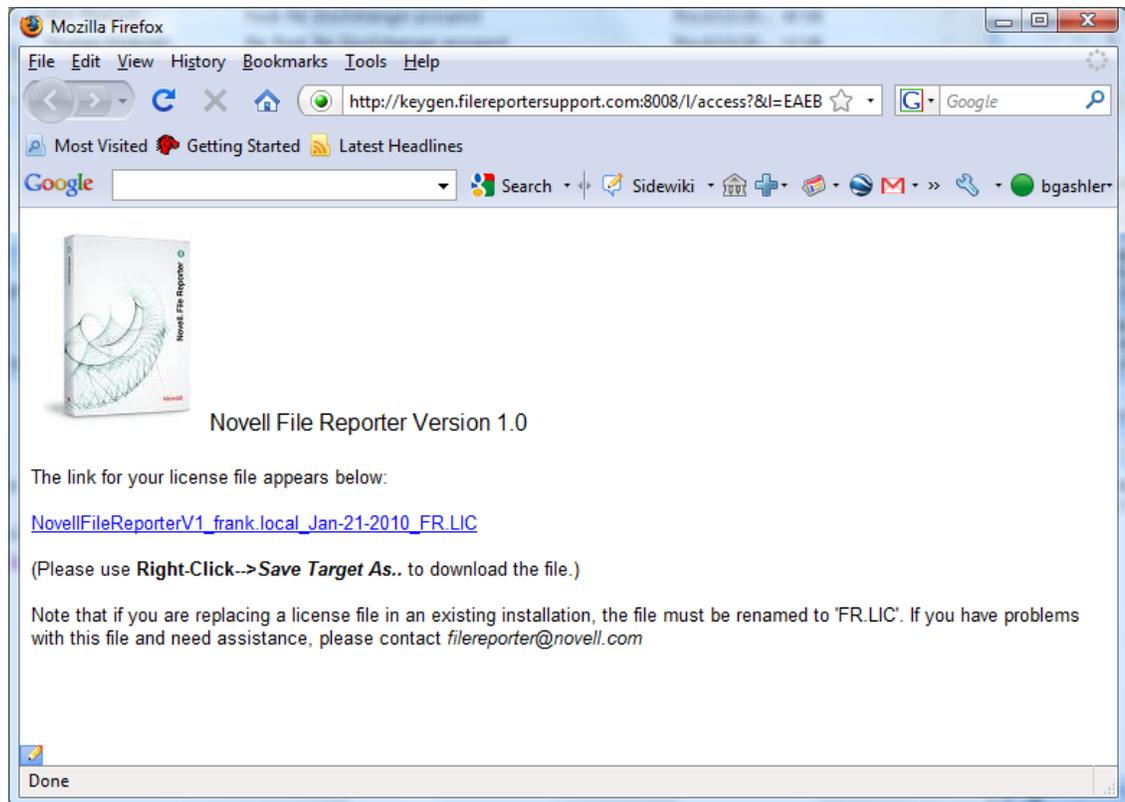
- ◆ Request a trial license by clicking one of the server links in the *Trial License* region.
- ◆ After you purchase Novell File Reporter, activate your production license by clicking one of the server links in the *Production Action* region.

A new Web page appears with registration fields for you to complete.

4 Complete the fields and click *Submit*.

An e-mail from the License Generator is automatically sent to you with an embedded link for accessing the license.

5 Click the link to access a new Web page with an embedded license file.



6 Right-click the license file and select *Save Target As*, then save the license file to a directory of your choice.

7 Note where the license file is saved.

You need to retrieve the license during the installation of the DSI for Active Directory or eDirectory managed networks without Novell Storage Manager, or within NSMAdmin when you are configuring Novell Storage Manager to work with Novell File Reporter.

3.2 Replacing an Evaluation License with a Production License

- ◆ Section 3.2.1, "Active Directory Managed Network That Does Not Include Novell Storage Manager," on page 17
- ◆ Section 3.2.2, "Active Directory Managed Network That Includes Novell Storage Manager," on page 17

- ♦ [Section 3.2.3, “eDirectory Managed Network without Novell Storage Manager,”](#) on page 17
- ♦ [Section 3.2.4, “eDirectory Managed Network with Novell Storage Manager,”](#) on page 18

Procedures for replacing an evaluation license with a product license vary, depending on your network platform and whether you are running Novell File Reporter with Novell Storage Manager.

3.2.1 Active Directory Managed Network That Does Not Include Novell Storage Manager

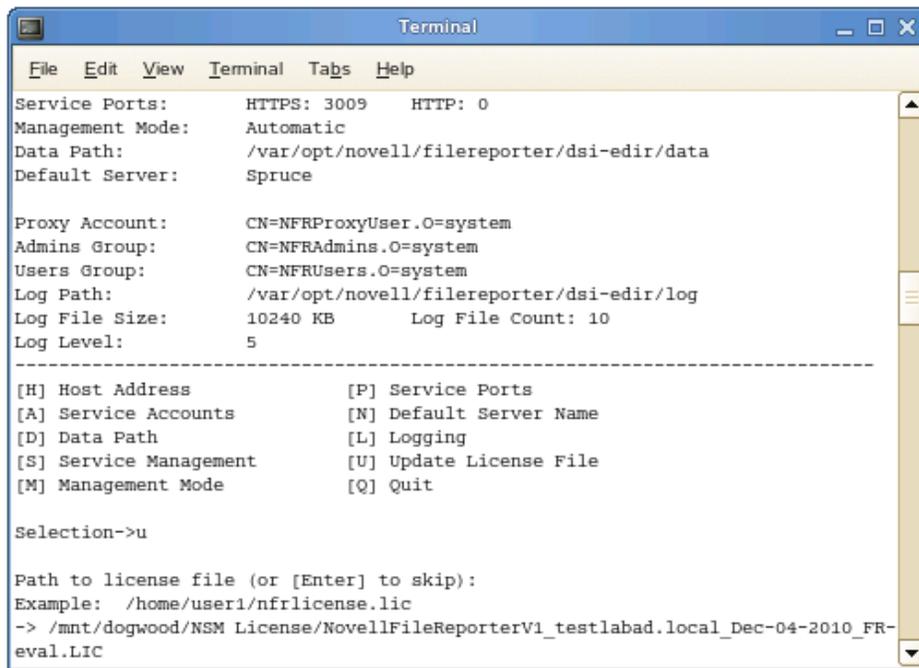
- 1 From the *Start* menu, select *Programs > Novell > File Reporter > NFR Active Directory Service Interface Config*.
This launches the NFR DSI Configuration Utility.
- 2 Click *License*.
- 3 Click *Copy License File*.
- 4 Browse to and select the production license, then click *Open*.
- 5 On the New License Preview page, verify that the message `License is valid` appears, then click *OK*.
- 6 When you are notified that the license file has been successfully copied, click *OK*.
- 7 When you are prompted to restart the service after the license has been installed, click *Yes*.

3.2.2 Active Directory Managed Network That Includes Novell Storage Manager

- 1 Launch NSMAdmin.
- 2 Click the *Configure* tab.
- 3 Click *File Reporter*.
- 4 Click *Upload License File*.
- 5 Browse to and select the production license, then click *Open*.
- 6 When you are notified that the license has been successfully updated, click *OK*.

3.2.3 eDirectory Managed Network without Novell Storage Manager

- 1 At the Novell Open Enterprise Server 2 hosting the DSI service, launch a terminal session.
- 2 Type `nfrdsi-edir-config` and press *Enter*.
- 3 From the menu options, type `u` for `Update License File` and press *Enter*.
- 4 Enter the path to the location of the production license and press *Enter*.



```
Terminal
File Edit View Terminal Tabs Help
Service Ports:      HTTPS: 3009      HTTP: 0
Management Mode:   Automatic
Data Path:         /var/opt/novell/filereporter/dsi-edir/data
Default Server:    Spruce

Proxy Account:     CN=NFRProxyUser.O=system
Admins Group:      CN=NFRAdmins.O=system
Users Group:       CN=NFRUsers.O=system
Log Path:          /var/opt/novell/filereporter/dsi-edir/log
Log File Size:     10240 KB      Log File Count: 10
Log Level:         5
-----
[H] Host Address           [P] Service Ports
[A] Service Accounts      [N] Default Server Name
[D] Data Path             [L] Logging
[S] Service Management    [U] Update License File
[M] Management Mode       [Q] Quit

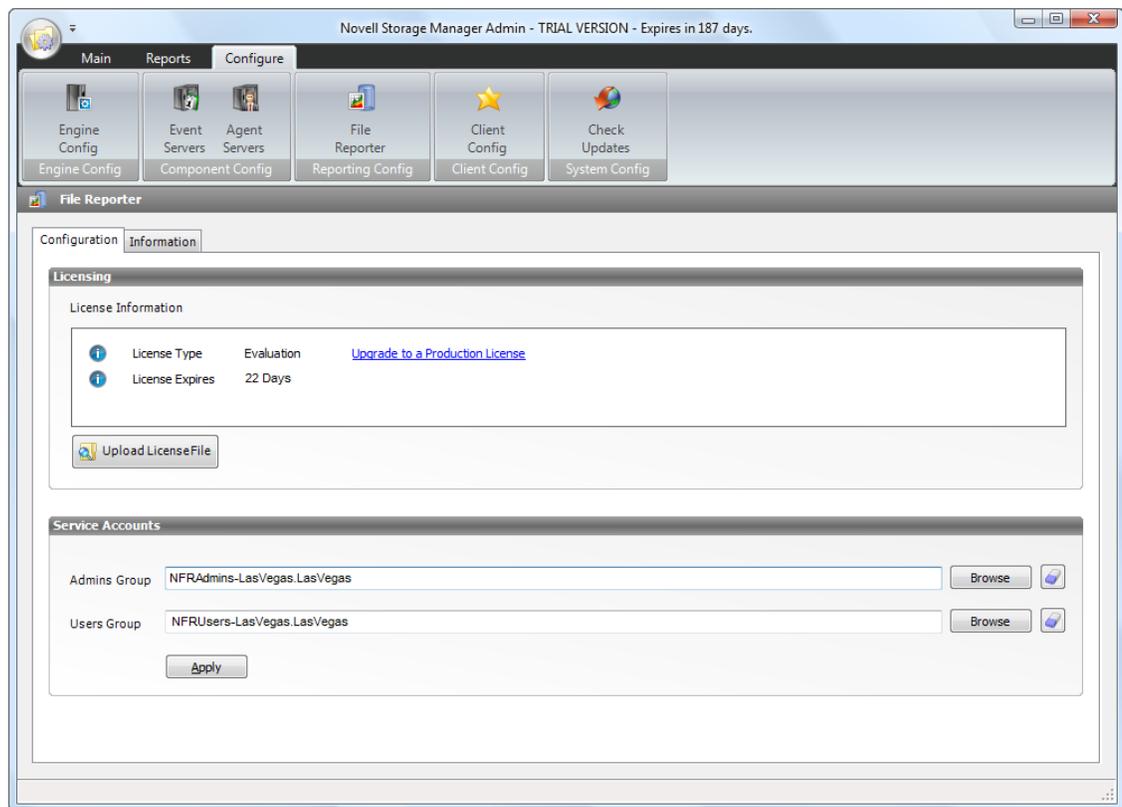
Selection->u

Path to license file (or [Enter] to skip):
Example: /home/user1/nfrlicense.lic
-> /mnt/dogwood/NSM License/NovellFileReporterV1_testlabad.local_Dec-04-2010_FR-
eval.LIC
```

If the path to the license file contains a space, do not escape it.

3.2.4 eDirectory Managed Network with Novell Storage Manager

- 1 Launch NSMAdmin.
- 2 Click the *Configure* tab.
- 3 Click *File Reporter*.



- 4 Click the *Upload License File* button.
- 5 Browse and select the production license file, then click *Open*.
A message appears, informing you that the license has been successfully uploaded.
- 6 Click *OK*.
The new license information is updated in NSMAdmin.

4 Installing and Configuring an NFR Engine in an Active Directory Environment

Procedures in this section include those needed for installing and configuring the NFR Engine in an Active Directory managed network environment, as well as an Active Directory managed network environment that includes Novell® Storage Manager.

- ♦ [Section 4.1, “Minimum Server Requirements for an Active Directory Managed Network Environment,” on page 21](#)
- ♦ [Section 4.2, “Minimum Server Requirements for an Active Directory Managed Network Environment with Novell Storage Manager,” on page 22](#)
- ♦ [Section 4.3, “Accessing the Novell File Reporter Contents,” on page 22](#)
- ♦ [Section 4.4, “Determining Your Installation Path,” on page 22](#)
- ♦ [Section 4.5, “Creating NFRAdmins and NFRUsers Groups \(Conditional\),” on page 23](#)
- ♦ [Section 4.6, “Configuring Novell Storage Manager to Work with Novell File Reporter \(Conditional\),” on page 23](#)
- ♦ [Section 4.7, “Installing the NSM Policy Path Reporter Plug-In into NSMAdmin \(Conditional\),” on page 25](#)
- ♦ [Section 4.8, “Installing the DSI \(Conditional\),” on page 26](#)
- ♦ [Section 4.9, “Installing the NFR Engine,” on page 31](#)
- ♦ [Section 4.10, “Configuring the NFR Engine,” on page 32](#)

4.1 Minimum Server Requirements for an Active Directory Managed Network Environment

- ♦ Microsoft Active Directory Windows 2000 Native or later
- ♦ Forest Functional Level 2003 or later in Native Mode
- ♦ One of the following servers for hosting the NFR Engine:
 - ♦ Windows Server 2003 SP2 or later
 - ♦ Windows Server 2008 SP1 or later

4.2 Minimum Server Requirements for an Active Directory Managed Network Environment with Novell Storage Manager

- ◆ Microsoft Active Directory Windows 2000 Native or later
- ◆ Forest Functional Level 2003 or later in Native Mode
- ◆ Novell Storage Manager 2.5 SP1 or later
- ◆ One of the following servers for hosting the NFR Engine:
 - ◆ Windows Server 2003 SP2 or later
 - ◆ Windows Server 2008 SP1 or later

4.3 Accessing the Novell File Reporter Contents

- 1 On the Windows server that will host the NFR Engine, copy to a directory the `NFR_1_0_1.iso` file that was made available to you following your purchase of Novell File Reporter.
- 2 Mount or burn to CD or DVD the `NFR_1_0_1.iso` file.
- 3 Note the location of your mounted drive or burned CD or DVD.

This is the installation source you will use to install Novell File Reporter components. The installation procedures are covered in the remainder of this chapter.

4.4 Determining Your Installation Path

Table 4-1 *Installation paths in an Active Directory environment*

Task	Action
Installing Novell File Reporter into an Active Directory managed network that includes Novell Storage Manager	<ol style="list-style-type: none">1. Begin with Section 4.5, "Creating NFRAdmins and NFRUsers Groups (Conditional)," on page 23.2. Continue with Section 4.6, "Configuring Novell Storage Manager to Work with Novell File Reporter (Conditional)," on page 23.3. Continue with Section 4.7, "Installing the NSM Policy Path Reporter Plug-In into NSMAdmin (Conditional)," on page 25.4. Continue with Section 4.9, "Installing the NFR Engine," on page 31.5. Conclude with Section 4.10, "Configuring the NFR Engine," on page 32.
Installing Novell File Reporter into an Active Directory managed network that does not include Novell Storage Manager	<ol style="list-style-type: none">1. Begin the installation with Section 4.8, "Installing the DSI (Conditional)," on page 26.2. Continue with Section 4.9, "Installing the NFR Engine," on page 31.3. Conclude with Section 4.10, "Configuring the NFR Engine," on page 32.

4.5 Creating NFRAdmins and NFRUsers Groups (Conditional)

Creating the NFRAdmins and NFRUsers groups manually is necessary only if you are installing and configuring the NFR Engine in an Active Directory managed network environment that includes Novell Storage Manager.

Novell File Reporter provides administrative rights to members of these groups. The NFRAdmins group has full administrative rights, and the NFRUsers group has limited administrative capabilities such as the ability to run and schedule reports.

If you already have groups created in Active Directory, and you intend to have members of the groups perform these administrative tasks, you can skip this step and indicate the group names in [Step 9](#) and [Step 10 on page 24](#). Otherwise, create the NFRAdmins and NFRUsers groups now in Active Directory and assign members to each group. You can create the two groups wherever you like in the domain.

IMPORTANT: When you create the groups, you must set them up as Global Security groups.

4.6 Configuring Novell Storage Manager to Work with Novell File Reporter (Conditional)

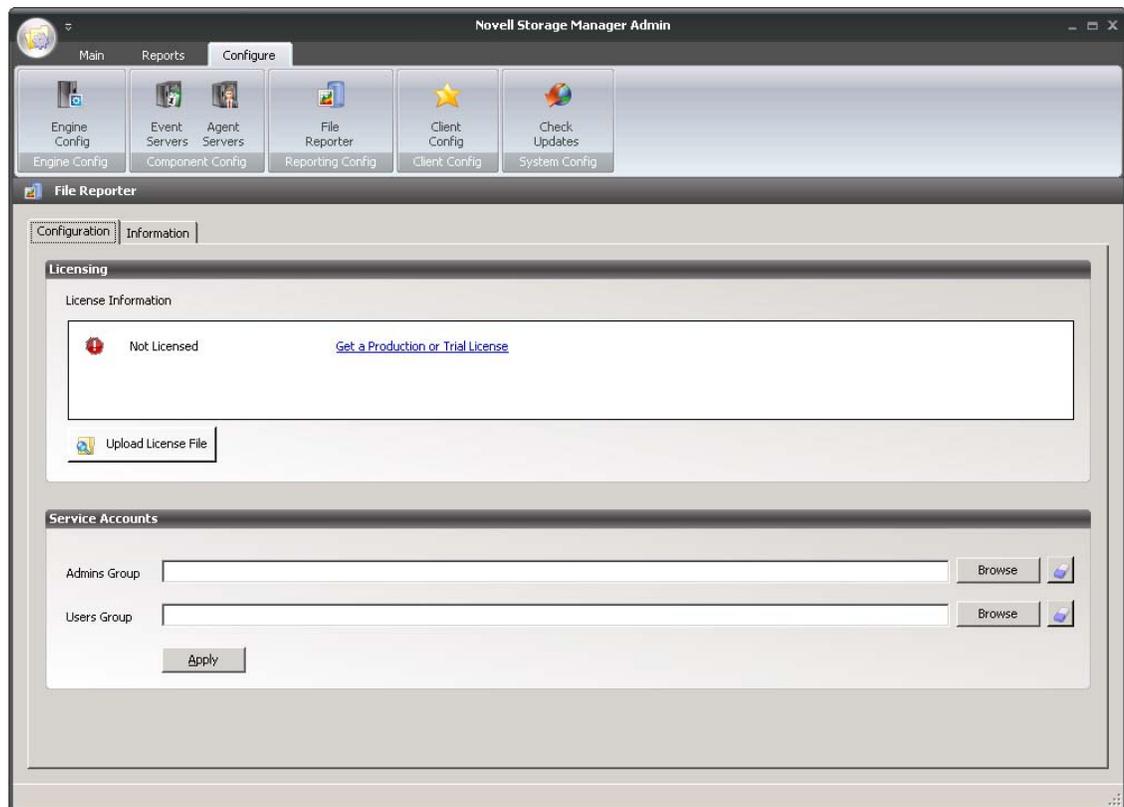
These procedures are necessary only if you are installing and configuring the NFR Engine in an Active Directory managed network environment that includes Novell Storage Manager.

IMPORTANT: Novell File Reporter integration capability is built into Novell Storage Manager 2.5 SP1. If you are working with an older version of Novell Storage Manager, download SP1 (also known as Version 2.51) by visiting [Novell Downloads \(download.novell.com\)](http://download.novell.com) or the [Novell Storage Manager Support Site \(http://www.storagemgr.com\)](http://www.storagemgr.com).

In this section, you use Novell Storage Manager's NSMAdmin administrative interface to install the Novell File Reporter license and set up user groups for Novell File Reporter.

- 1 Launch NSMAdmin.
- 2 Click the *Configure* tab.
- 3 Click *File Reporter*.
- 4 Click the *Configuration* tab.

The following page appears:



- 5 In the *Licensing* section of the page, click the *Upload License File* button.
- 6 Click the folder button to browse to the location where you stored the license file in [Step 7 on page 16](#), locate the license file, and click *Open*.
- 7 Click *Upload*.
- 8 When you are notified that the license uploaded successfully, click *OK*.
The *Service Accounts* section of the page is where you indicate the groups that will have administrative and limited administrative rights (such as help desk workers) in the *Admins Group* and *Users Group* fields.
- 9 In the *Admins Group* field, click the *Browse* button, locate and select the group you want to designate as administrators (for example, *NFRAdmins*), and click *Open*.
- 10 In the *Users Group* field, click the *Browse* button, locate and select the group you want to designate as users with limited administrative rights (for example, *NFRUsers*), and click *Open*.
- 11 Click *Apply*.
- 12 When you are notified that the changes were successfully applied, click *OK*.
- 13 Proceed to [Section 4.7, “Installing the NSM Policy Path Reporter Plug-In into NSMAdmin \(Conditional\),” on page 25](#).

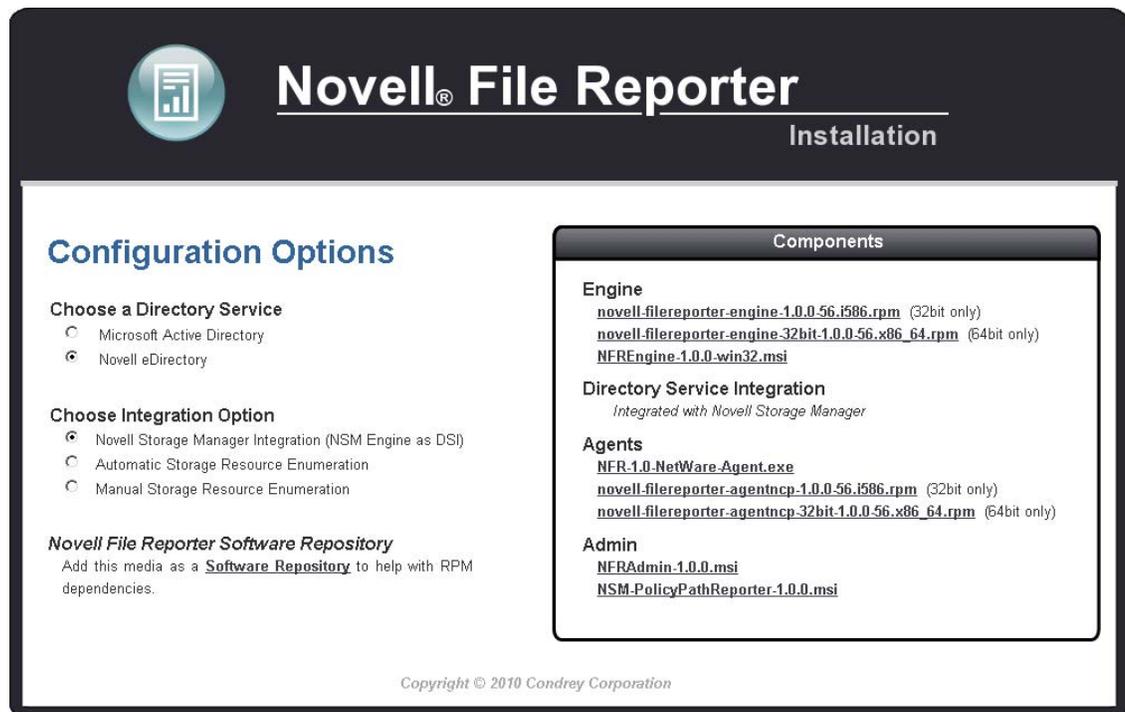
4.7 Installing the NSM Policy Path Reporter Plug-In into NSMAdmin (Conditional)

The NSM Policy Path Reporter plug-in enables you to run reports on Novell Storage Manager policies.

These procedures are necessary only if you are installing and configuring the NFR Engine in an Active Directory managed network environment that includes Novell Storage Manager.

- 1 Double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 22](#).

This launches the installation interface.



- 2 Under *Choose a Directory Service*, select *Microsoft Active Directory*.
- 3 Under *Choose Integration Option*, select *Novell Storage Manager Integration (NSM Engine as DSI)*.
- 4 In the *Components* region, under *Admin*, click *NSM-PolicyPathReporter-1.0.0.msi*.

This launches the NSM Policy Path Reporter installation interface.

- 5 When you are asked if you want to run or save this file, click *Run*.

The setup wizard installs the plug-in.

- 6 In NSMAdmin, click the *Main* tab, then click the *Policy Management* button and verify that the plug-in icon has been added.

It looks like this:



- 7 Proceed to [Section 4.9, "Installing the NFR Engine,"](#) on page 31.

4.8 Installing the DSI (Conditional)

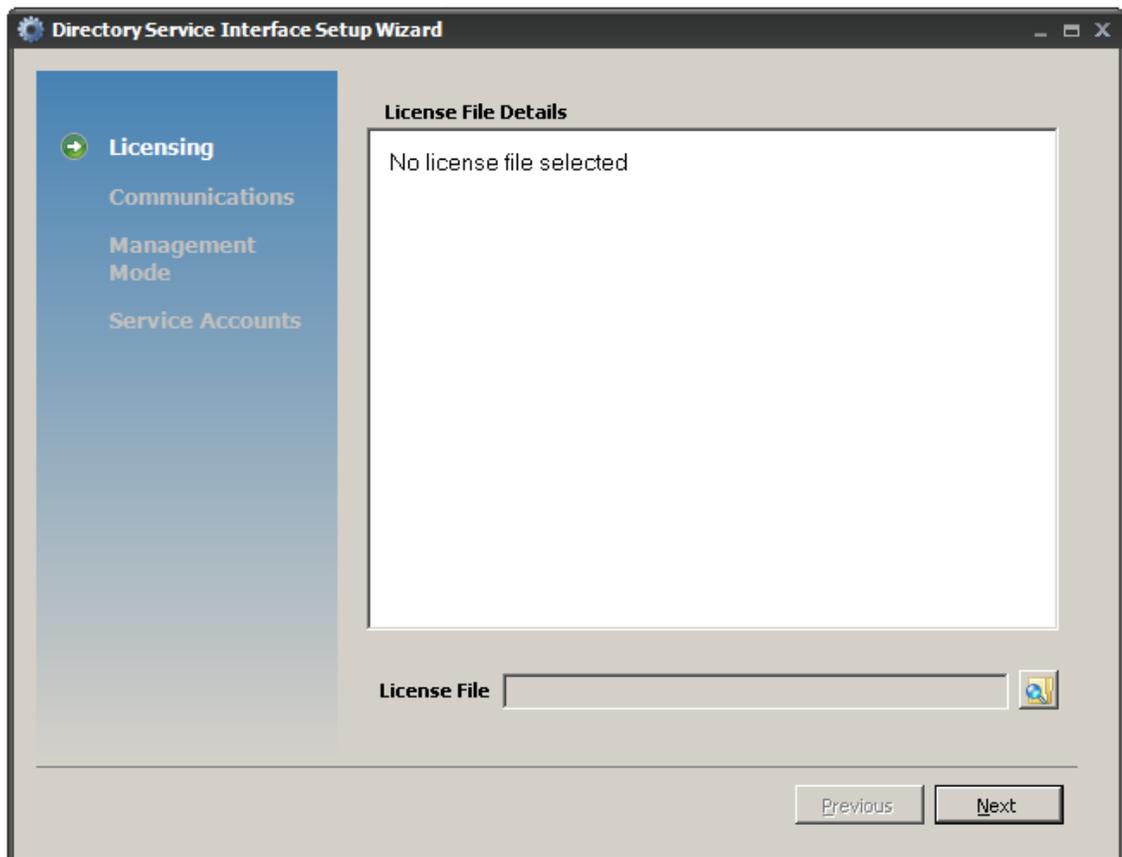
These procedures are necessary only if you are installing and configuring the NFR Engine in an Active Directory managed network environment that does not include Novell Storage Manager.

- 1 Double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 22](#).

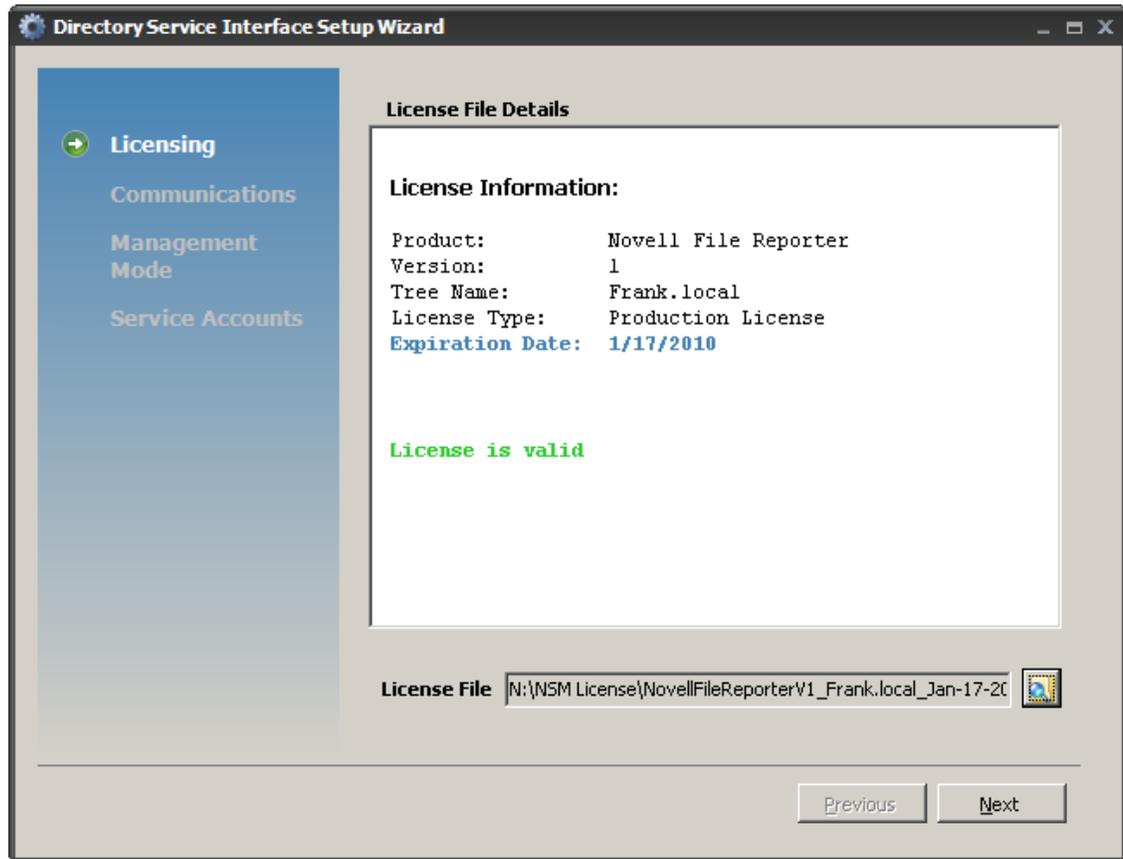
This launches the installation interface.

- 2 Under *Choose a Directory Service*, select *Microsoft Active Directory*.
- 3 Under *Choose Integration Option*, select *Automatic Storage Resource Enumeration*.
- 4 In the *Components* region, under *Directory Service Integration*, click *NFRDSI-AD-1.0.0-win32.msi*.
- 5 When you are asked if you want to run or save this file, click *Run*.
- 6 On the Welcome page, click *Next*.
- 7 Review the License Agreement, accept the terms, and click *Next*.
- 8 Accept the installation path or indicate a new path by using the *Browse* button.
- 9 Click *Next*.
- 10 Click *Install*.
- 11 Verify that the *Launch configuration utility* check box is selected and click *Finish*.

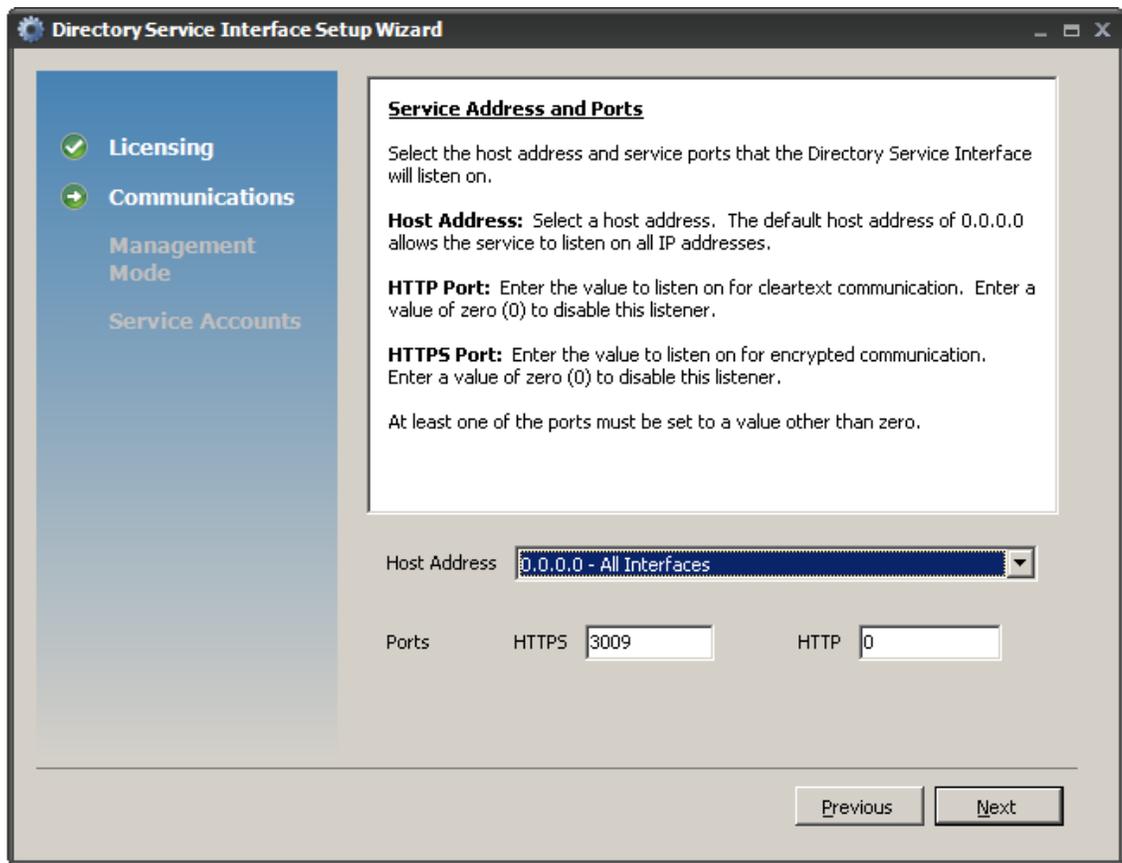
The Directory Service Interface Setup Wizard is launched.



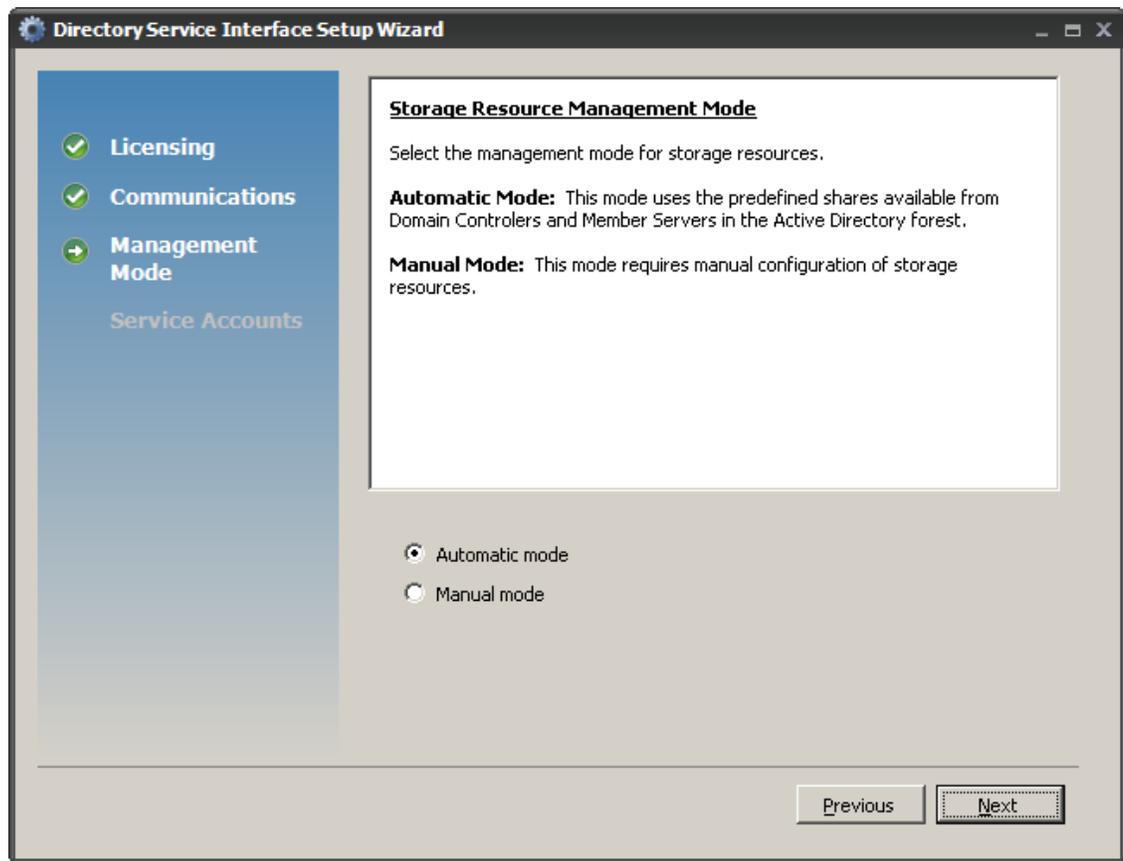
- 12 Click the folder button to browse to the location where you stored the license file in [Step 7 on page 16](#), select the license file, and click *Open*.
The license file details are displayed on the page.



- 13 Click *Next*.
The following screen appears:



- 14 In the *Host Address* field, leave the *0.0.0.0 – All Interfaces* setting as it is.
This indicates that Novell File Reporter listens to all server network interface cards (NICs).
- 15 Unless there is a conflict, leave the *HTTPS* field set to port 3009.
If you do change this setting, you also need to change it during the installation of the NFR Engine.
- 16 Click *Next*.
The following screen appears:



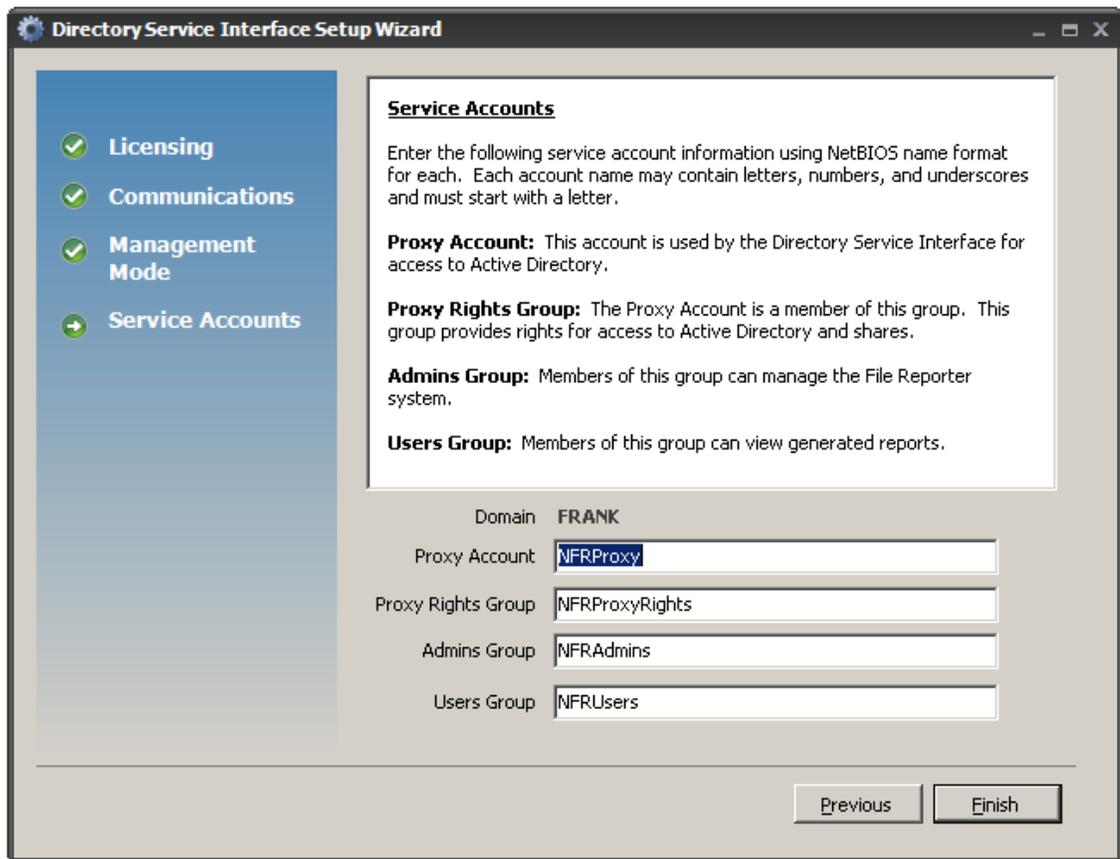
17 Do one of the following:

- ♦ Accept the default *Automatic mode* option
- ♦ Click the *Manual mode* option

A Novell File Reporter deployment configured with the Manual mode option cannot be upgraded to Automatic.

18 Click *Next*.

The following screen appears:



19 Leave the *Proxy Account* and *Proxy Group* settings as they are.

If you have a technical support issue, this helps the Novell Support representative to quickly locate and review the settings.

20 Do one of the following:

- ◆ Accept NFRAdmins as the name of the group of users who have administrative rights within Novell File Reporter. When this group is created, you will need to add members to the group.
- ◆ If you have an admin group in Active Directory, and you want administrative rights to be assigned to the group within Novell File Reporter, indicate the name of the existing group in the *Admins Group* field.

21 Do one of the following:

- ◆ Accept NFRUsers as the name of the group of users who have limited administrative rights within Novell File Reporter. When this group is created, you will need to add members to the group.
- ◆ If you have a group in Active Directory that consists of limited-responsibility admins such as help desk workers, and you want them to have limited administrative rights within Novell File Reporter, indicate the name of the group in the *Users Group* field.

22 Click *Finish*.

A message appears, informing you that all accounts have been successfully provisioned.

23 Click *OK*.

24 When you are asked if you want to start the DSI-AD Service, click *Yes*.

- 25 Click *Finish*.
- 26 Proceed with [Section 4.9, “Installing the NFR Engine,”](#) on page 31.

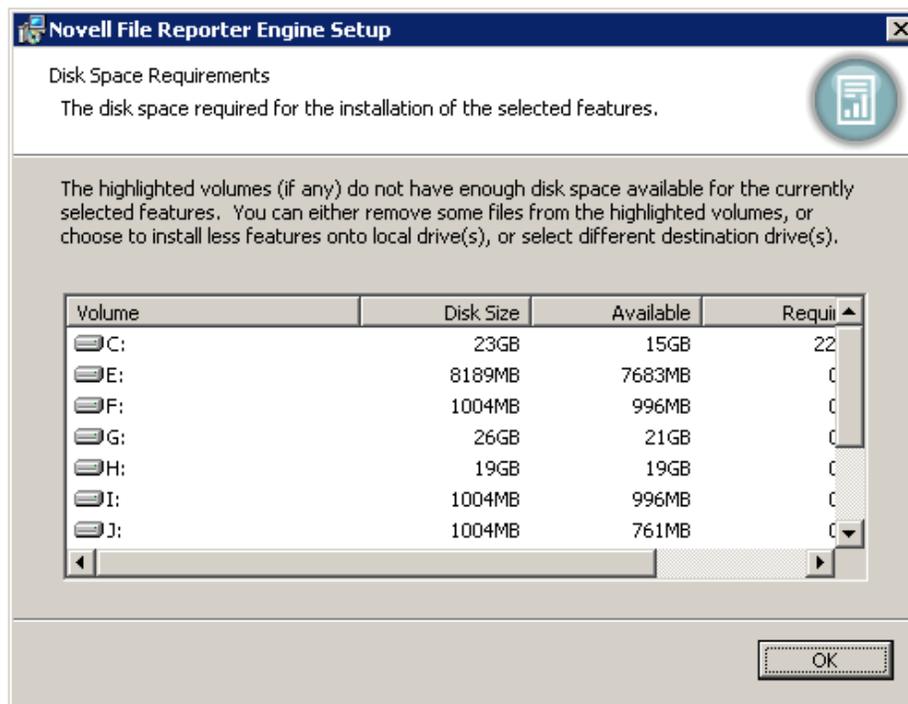
4.9 Installing the NFR Engine

- 1 Double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 22](#).

This launches the installation interface.

- 2 Under *Choose a Directory Service*, select *Microsoft Active Directory*.
- 3 Under *Choose Integration Option*, do one of the following:
 - ♦ If you are installing Novell File Reporter into a network environment that includes Novell Storage Manager, select *Novell Storage Manager Integration (NSM Engine as DSI)*.
 - ♦ If you are installing into an Active Directory managed network environment that does not include Novell Storage Manager, select *Automatic Storage Resource Enumeration*.
- 4 In the *Components* region, under *Engine*, click `NFREngine-1.0.2-win32.msi`.
- 5 When you are asked if you want to run or save this file, click *Run*.
- 6 On the Welcome page, click *Next*.
- 7 Review the License Agreement, accept the terms, and click *Next*.
- 8 Accept the installation path or indicate a new path by using the *Browse* button.

To review possible locations, you can click the *Disk Usage* button to see all available volumes with disk size and disk availability data.

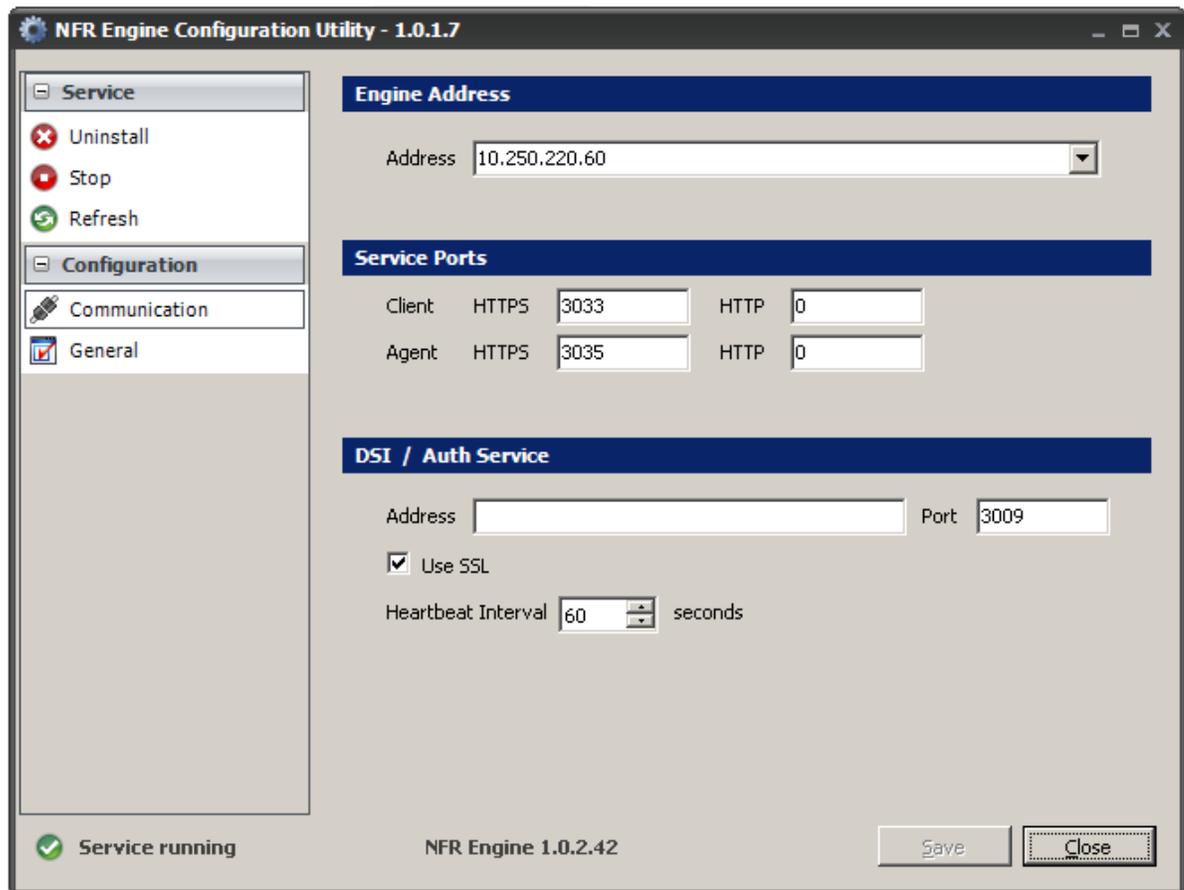


The NFR Engine requires 12 MB of disk space, but it needs much more to store scans and reports. For help in determining needed disk space for reports and scans, see [“Conducting a System Inventory”](#) in the *Novell File Reporter 1.0.2 Administration Guide*.

- 9 Click *Next*.
- 10 Click *Install* to begin the installation.
- 11 Click *Finish* and make sure that the *Launch configuration utility* check box is selected so that you can continue with the configuration.
- 12 Proceed with [Section 4.10, “Configuring the NFR Engine,”](#) on page 32.

4.10 Configuring the NFR Engine

When you finish installing the NFR Engine, the NFR Engine Configuration Utility page appears.



IMPORTANT: Even with the *Launch configuration* utility check box selected, the configuration utility does not automatically launch on servers running Windows Server 2008 R2. To launch the configuration utility in that environment, click Start > NFREngine-Config.

- 1 (Conditional) If your server has more than one NIC card, or the IP address 127.0.0.1 appears in the *Engine Address* field, indicate the correct address by selecting it from the drop-down menu or entering it manually.
- 2 Verify that the *Service Ports* settings are correct.
 Although you can choose any ports you want, be sure to verify that there are no conflicts with other port assignments.
 We strongly recommend using HTTPS ports.

HTTP port assignment capability is provided only for the rare case where some sort of compatibility issue requires their use.

3 Specify or accept the DSI address.

If you are installing into an Active Directory managed network that includes Novell Storage Manager, you must indicate the NSM Engine address. If you are installing into an Active Directory managed network that does not include Novell Storage Manager, the IP address is the server where the DSI is installed. In many cases, this is the same machine where the NFR Engine is installed.

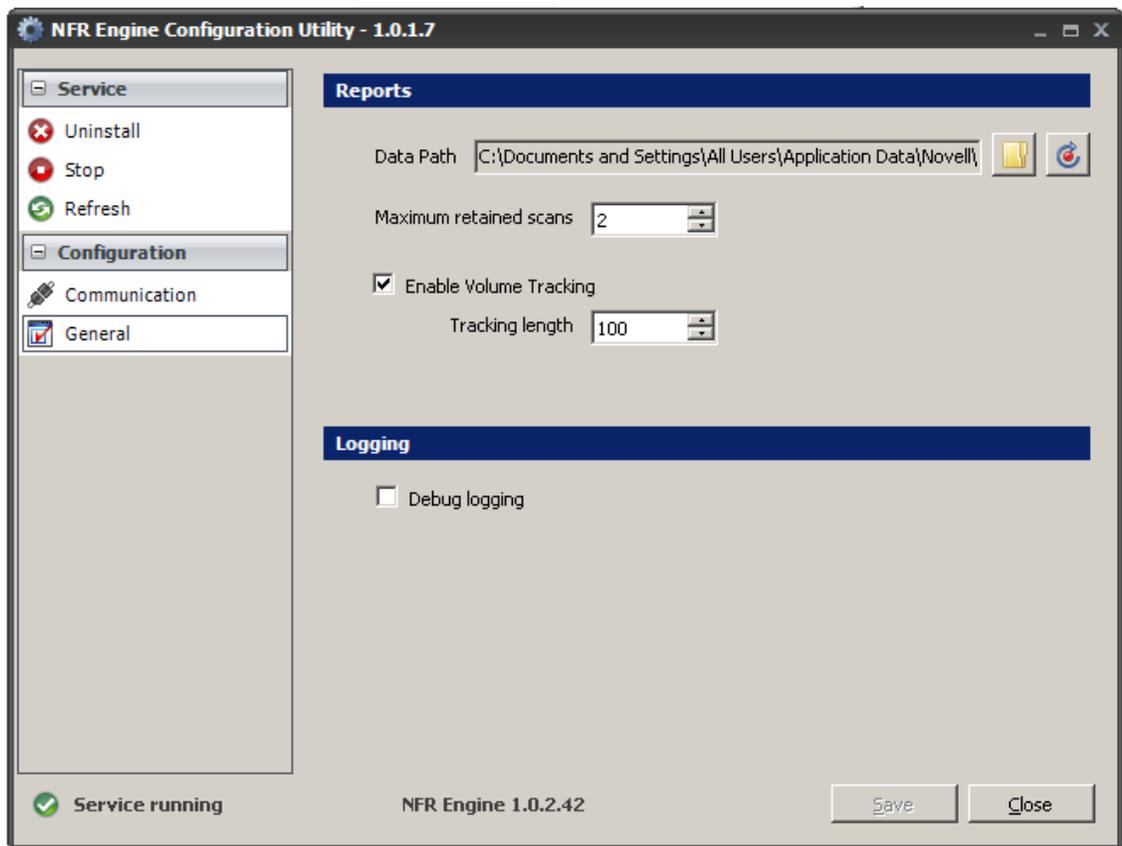
4 Unless there is a conflict, leave the default setting in the *Port* field as 3009.

5 Verify that the *Use SSL* check box is selected.

6 Unless there is a need to change the *Heartbeat Interval* setting, leave it at 60 seconds.

7 Click the *General* button in the left pane of the dialog box.

The following page appears:



8 Accept the data path entered in the *Data Path* field or indicate a preferred path by using the browse folder button.

This path indicates where scans and reports will be stored on the server. Make sure there is adequate space at the destination you indicate.

9 If you want to have Novell Storage Manager perform volume trending (recommended), leave the *Enable Volume Tracking* check box selected.

10 Accept or modify the setting for the *Tracking length* field.

This setting indicates the number of copies of trend data that Novell File Reporter will keep.

- 11 Leave the *Debug logging* check box deselected.

You use debug logging only when directed by a Novell Support representative during a troubleshooting procedure.

- 12 Click *Save* to save your configuration settings.

A message appears notifying you that the new settings will not take effect until the Engine service has been restarted.

- 13 Click *Yes* to restart the NFR Engine.

- 14 Close the NFR Engine Configuration Utility.

- 15 Verify that the necessary ports are open as part of your network firewall configuration.

5 Installing and Configuring an NFR Engine in an eDirectory Environment

Procedures in this section include those needed for installing and configuring the NFR Engine in an eDirectory™ managed network environment, as well as an eDirectory managed network environment that includes Novell® Storage Manager.

- ♦ [Section 5.1, “Minimum Server Requirements for an eDirectory Managed Network Environment,” on page 35](#)
- ♦ [Section 5.2, “Minimum Server Requirements for an eDirectory Managed Network Environment with Novell Storage Manager,” on page 35](#)
- ♦ [Section 5.3, “Accessing the Novell File Reporter Contents,” on page 36](#)
- ♦ [Section 5.4, “Creating the NFRAdmins and NFRUsers Groups,” on page 36](#)
- ♦ [Section 5.5, “Creating an NFR Proxy Account,” on page 36](#)
- ♦ [Section 5.6, “Determining Your Installation Path,” on page 37](#)
- ♦ [Section 5.7, “Configuring Novell Storage Manager to Work with Novell File Reporter \(Conditional\),” on page 37](#)
- ♦ [Section 5.8, “Installing the NSM Policy Reporter Plug-In into NSMAdmin \(Conditional\),” on page 39](#)
- ♦ [Section 5.9, “Installing the DSI \(Conditional\),” on page 40](#)
- ♦ [Section 5.10, “Configuring the DSI \(Conditional\),” on page 41](#)
- ♦ [Section 5.11, “Installing the NFR Engine,” on page 44](#)
- ♦ [Section 5.12, “Configuring the NFR Engine,” on page 44](#)

5.1 Minimum Server Requirements for an eDirectory Managed Network Environment

- ♦ Novell eDirectory 8.8 SP2 or later
- ♦ One of the following servers for hosting the NFR Engine:
 - ♦ SUSE® Linux Enterprise Server 10 SP1 or later
 - ♦ Novell Open Enterprise Server 2 SP1 or later

5.2 Minimum Server Requirements for an eDirectory Managed Network Environment with Novell Storage Manager

- ♦ Novell eDirectory 8.2 SP2 or later

- ♦ Novell Storage Manager 2.5 SP1 or later
- ♦ One of the following servers for hosting the NFR Engine:
 - ♦ SUSE Linux Enterprise Server 10 SP1 or later
 - ♦ Novell Open Enterprise Server 2 SP1 or later

5.3 Accessing the Novell File Reporter Contents

- 1 On the server that will host the NFR Engine, copy to a directory the `NFR_1_0_1.iso` file that was made available to you following your purchase of Novell File Reporter.
- 2 Mount or burn to CD or DVD the `NFR_1_0_1.iso` file.
- 3 Note the location of your mounted drive or burned CD or DVD.

This is the installation source you will use to install Novell File Reporter components. The installation procedures are covered in the remainder of this section.

5.4 Creating the NFRAdmins and NFRUsers Groups

Members of the NFRAdmins and NFRUsers groups have administrative rights within Novell File Reporter. The NFRAdmins group has full administrative rights, and the NFRUsers group has limited administrative capabilities such as the ability to run and schedule reports.

If you already have groups created in eDirectory whose members you intend to perform these administrative tasks, you can skip this step and then indicate the group names when prompted in one of the procedures below. Otherwise, create the two groups now in eDirectory and assign the members of each group. You can create the two groups wherever you like in the tree.

5.5 Creating an NFR Proxy Account

Novell File Reporter requires that a user account be set up for proxy purposes so that the DSI (Directory Service Interface) can access all of the servers for reporting. This proxy account is needed for environments that include Novell Storage Manager as well as those that don't.

Use an administrative tool for eDirectory to create a user account named NFRProxy and assign the account the [Entry] right to the root of the tree. Assign a secure password to the NFRProxy account. That password will be changed the first time the DSI starts and each time the service is restarted.

5.6 Determining Your Installation Path

Table 5-1 Installation paths in an eDirectory environment

Task	Action
Installing Novell File Reporter into an eDirectory managed network that includes Novell Storage Manager	<ol style="list-style-type: none">1. Begin the installation with Section 5.7, “Configuring Novell Storage Manager to Work with Novell File Reporter (Conditional),” on page 37.2. Continue with Section 5.8, “Installing the NSM Policy Reporter Plug-In into NSMAdmin (Conditional),” on page 39.3. Continue with Section 5.11, “Installing the NFR Engine,” on page 44.4. Conclude with Section 5.12, “Configuring the NFR Engine,” on page 44.
Installing Novell File Reporter into an eDirectory managed network that does not include Novell Storage Manager	<ol style="list-style-type: none">1. Begin the installation with Section 5.9, “Installing the DSI (Conditional),” on page 40.2. Continue with Section 5.10, “Configuring the DSI (Conditional),” on page 41.3. Continue with Section 5.11, “Installing the NFR Engine,” on page 44.4. Conclude with Section 5.12, “Configuring the NFR Engine,” on page 44.

5.7 Configuring Novell Storage Manager to Work with Novell File Reporter (Conditional)

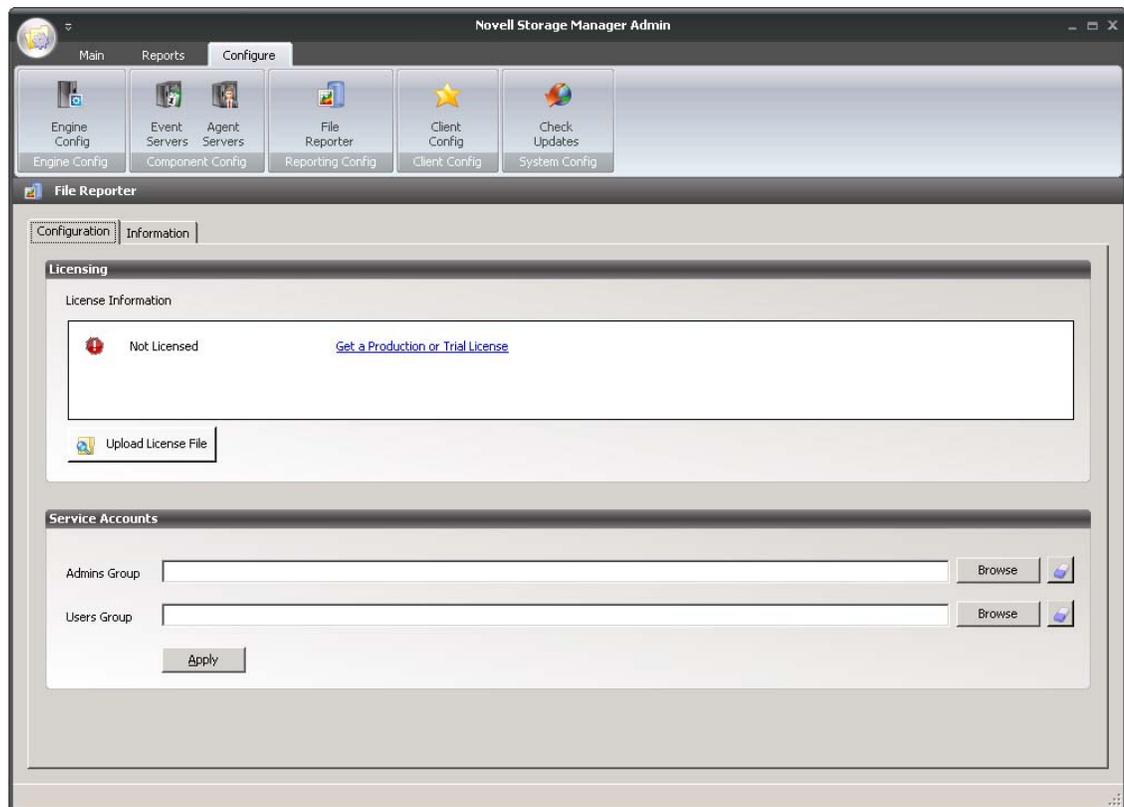
These procedures are necessary only if you are installing and configuring the NFR Engine in an eDirectory managed network environment that includes Novell Storage Manager.

IMPORTANT: Novell File Reporter integration capability is built into Novell Storage Manager 2.5 SP1 and later. If you are working with an older version of Novell Storage Manager 2.5, download SP1 (also known as Version 2.51) by visiting [Novell Downloads \(download.novell.com\)](http://download.novell.com) or the [Novell Storage Manager Support Site \(http://www.storagemgr.com\)](http://www.storagemgr.com).

In this section, you use Novell Storage Manager’s NSMAdmin administrative interface to install the Novell File Reporter license and set up user groups for Novell File Reporter.

- 1 Launch NSMAdmin.
- 2 Click the *Configure* tab.
- 3 Click *File Reporter*.
- 4 Click the *Configuration* tab.

The following page appears:



- 5 In the *Licensing* section of the page, click the *Upload License File* button.
- 6 Click the folder button to browse to the location where you stored the license file in [Step 7 on page 16](#), select the license file, and click *Open*.
- 7 Click *Upload*.
- 8 When you are prompted that the license uploaded successfully, click *OK*.
The *Service Accounts* section of the page is where you indicate the groups that will have administrative and limited administrative rights (such as help desk workers) in the *Admins Group* and *Users Group* fields.
- 9 In the *Admins Group* field, click the *Browse* button, locate and select the group you want to designate as administrators (for example, *NFRAdmins*), and click *Open*.
- 10 In the *Users Group* field, click the *Browse* button, locate and select the group you want to designate as users with limited administrative rights (for example, *NFRUsers*), and click *Open*.
- 11 Click *Apply*.
- 12 When you are notified that the changes were successfully applied, click *OK*.
- 13 Proceed with [Section 5.8, “Installing the NSM Policy Reporter Plug-In into NSMAdmin \(Conditional\),” on page 39](#).

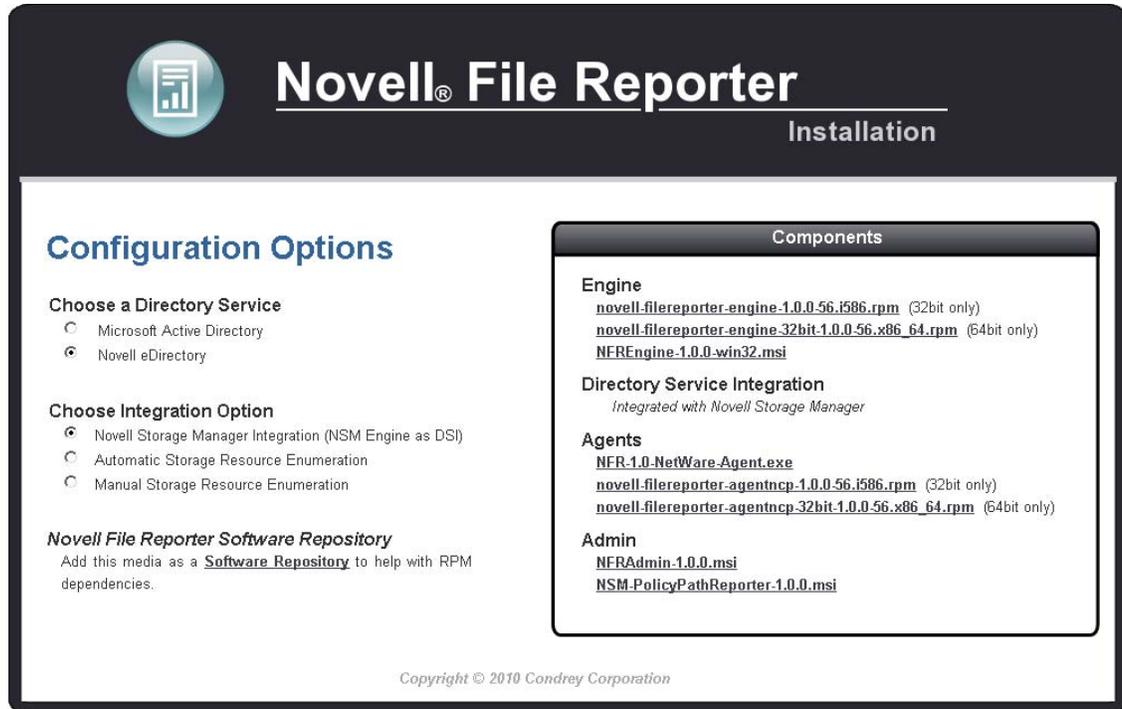
5.8 Installing the NSM Policy Reporter Plug-In into NSMAdmin (Conditional)

The NSM Policy Reporter plug-in enables you to run reports on Novell Storage Manager policies.

These procedures are necessary only if you are installing and configuring the NFR Engine in an eDirectory managed network environment that includes Novell Storage Manager.

- 1 From a Windows workstation, double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 36](#).

This launches the installation interface.



- 2 Under *Choose a Directory Service*, select *Novell eDirectory*.
- 3 Under *Choose Integration Option*, select *Novell Storage Manager Integration (NSM Engine as DSI)*.
- 4 In the *Components* region, under *Admin*, click *NSM-PolicyPathReporter-1.0.0.msi*.

This launches the NSM Policy Path Reporter installation interface.

- 5 When you are asked if you want to run or save this file, click *Run*.

The setup wizard installs the plug-in.

- 6 In NSMAdmin, click the *Main* tab, then click the *Policy Management* button and verify that the plug-in icon has been added.

It looks like this:



- 7 Proceed to [Section 5.11, "Installing the NFR Engine," on page 44](#).

5.9 Installing the DSI (Conditional)

These procedures are necessary only if you are installing and configuring the NFR Engine in an eDirectory managed network environment that does not include Novell Storage Manager.

This section, as well as other sections where Novell File Reporter components are installed on servers running Novell Open Enterprise Server 2 or SUSE Linux Enterprise Server, include procedures, whenever possible, that utilize YaST.

IMPORTANT: The DSI can only be installed on a Novell Open Enterprise Server 2 SP 1 or later running SUSE Linux.

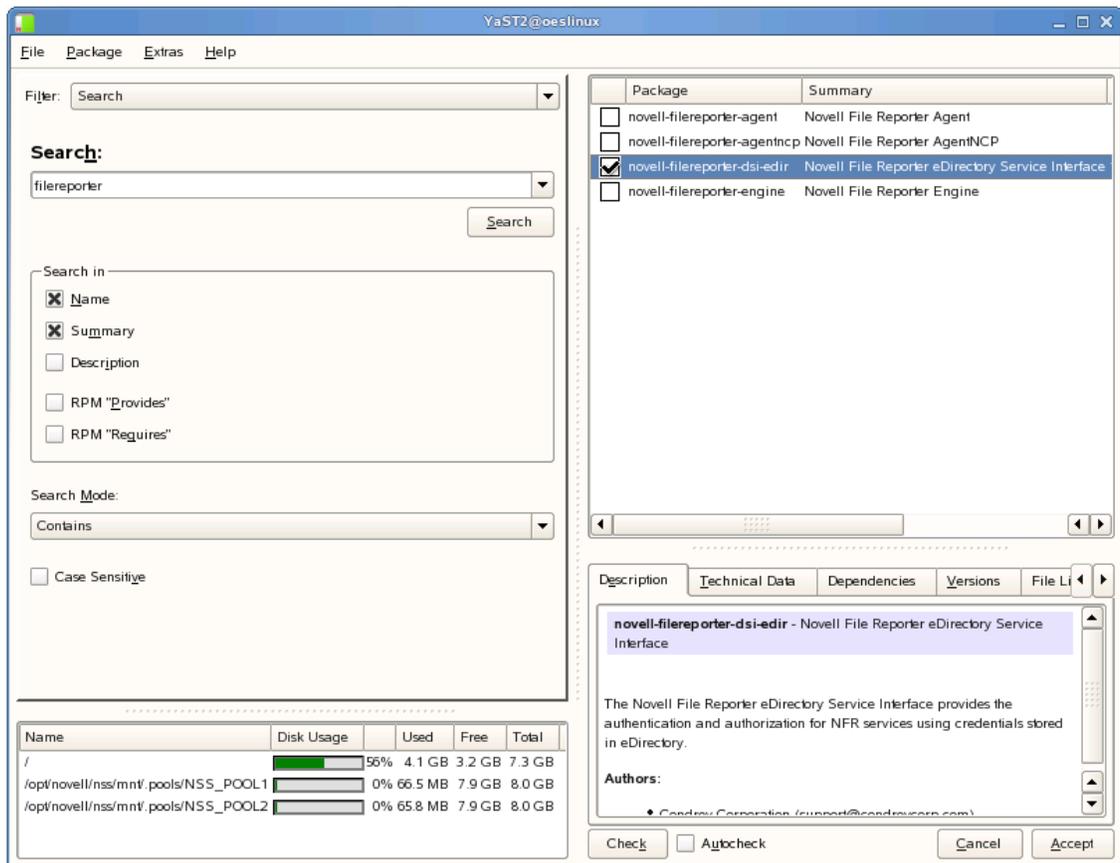
- 1 From the Novell Open Enterprise Server 2 server where you will be installing the DSI, double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 36](#).

This launches the installation interface.

- 2 Under *Novell File Reporter Software Repository*, click the *Software Repository* link to access procedures for setting up a Novell File Reporter repository.

The repository simplifies the installation of Novell File Reporter components by locating and installing dependencies.

- 3 Follow the displayed procedures for setting up the repository through YaST, then continue with [Step 4](#).
- 4 While you are still in YaST, under *Groups*, click *Software*.
- 5 Click *Software Management*.
- 6 In the dialog box that appears, type `filereporter` in the *Search* field and click *Search*.
- 7 From the search results, select the check box for `novell-filereporter-dsi-edir`.



- 8 Click *Accept*.
- 9 When you are notified of automatic changes, review the list of packages and click *Continue*.
- 10 When you are prompted to insert the SUSE Linux Enterprise Server 10 SP2 CD 1, do one of the following:
 - ♦ Insert the CD and click *OK*.
 - ♦ If you have set up a local repository containing the CD image, click *Skip*.
 This installs the DSI, along with its dependencies.
- 11 When you are asked if you want to install or remove more packages, click *No*.
- 12 Proceed with [Section 5.10, "Configuring the DSI \(Conditional\),"](#) on page 41.

5.10 Configuring the DSI (Conditional)

Configuration of the DSI takes place through a terminal console.

- 1 At the Open Enterprise Server 2 machine where you installed the DSI, launch a terminal session.
- 2 At the terminal console, type `nfrdsi-edir-config` and press Enter.

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

```
Terminal
File Edit View Terminal Tabs Help

Directory Service Interface Setup Wizard

Please fill in the following required fields:

Current Host Address: 127.0.0.1

Select new host address:

[0] 172.17.2.101

Selection->
```

If your server has multiple NIC cards, multiple IP address options are listed.

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

Directory Service Interface Setup Wizard

Please fill in the following required fields:

Current Host Address: 127.0.0.1

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.)

HTTP Port [0]: 0
HTTPS Port [3009]: █
```

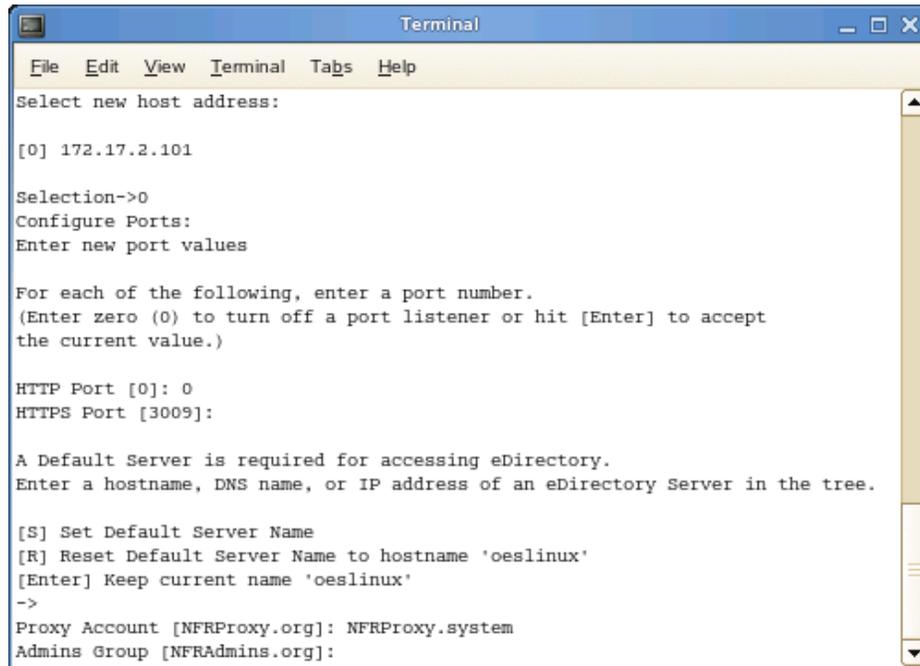
- 5 Unless there is a conflict, accept the default HTTPS port number of 3009 by pressing Enter. If you need to use another port number, provide the new port number.

If you change this setting, you also need to change it during the installation of the NFR Engine.

A message appears stating that A Default Server is required for accessing eDirectory. Enter a hostname, DNS name, or IP address of an eDirectory Server in the tree.

- 6 Press Enter to keep the current name of the host server.
- 7 When prompted to enter the Proxy Account, enter `NFRProxy.container_name`, which is the proxy account name that you set up previously, and press Enter.

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



```
Terminal
File Edit View Terminal Tabs Help
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.)
HTTP Port [0]: 0
HTTPS Port [3009]:
A Default Server is required for accessing eDirectory.
Enter a hostname, DNS name, or IP address of an eDirectory Server in the tree.
[S] Set Default Server Name
[R] Reset Default Server Name to hostname 'oeslinux'
[Enter] Keep current name 'oeslinux'
->
Proxy Account [NFRProxy.org]: NFRProxy.system
Admins Group [NFRAdmins.org]:
```

- 8 Enter `NFRAdmins.container_name` (the container where those IDs reside), or if you have an eDirectory group whose members will have full administrative rights, specify the name of that group followed by the container name, and press Enter.
- 9 When you are prompted for the NFRUsers name, enter `NFRUsers.container_name`, or if you have an eDirectory group whose members will have partial administrative rights, specify the name of that group followed by the container name, and press Enter.
- 10 When you are prompted, specify the admin's fully distinguished name and password and press Enter.
- 11 When you are asked if you want to copy the license file, type `Y` for Yes and press Enter.
- 12 When you are prompted, enter the path to the license file. When the license has copied successfully, press Enter to continue.
- 13 Do one of the following:
 - ◆ If you are installing Novell File Reporter in an eDirectory managed network environment, type `A` for Automatic Storage Resource Management and press Enter.
 - ◆ If you are installing Novell File Reporter in a network *not* managed by eDirectory, type `M` for Manual Storage Resource Management and press Enter.

A Novell File Reporter deployment configured with the Manual Storage Resource Management option cannot be upgraded to Automatic.

- 14 When you are asked if you want to start the DSI service, type `Y` for Yes and press Enter.

- 15 When you are prompted, press Enter to continue.
The console is updated with menu options for changing any of the configuration settings you just made.
- 16 Proceed with [Section 5.11, “Installing the NFR Engine,” on page 44.](#)

5.11 Installing the NFR Engine

This section, as well as other sections where Novell File Reporter components are installed on servers running Novell Open Enterprise Server 2 or SUSE Linux Enterprise Server, include procedures, whenever possible, that utilize YaST.

IMPORTANT: If you installed the DSI and plan to install the NFR Engine on the same server where the DSI is installed, you do not need to install the Novell File Reporter Software Repository, because it is already installed. Begin the installation at [Step 4 on page 44.](#)

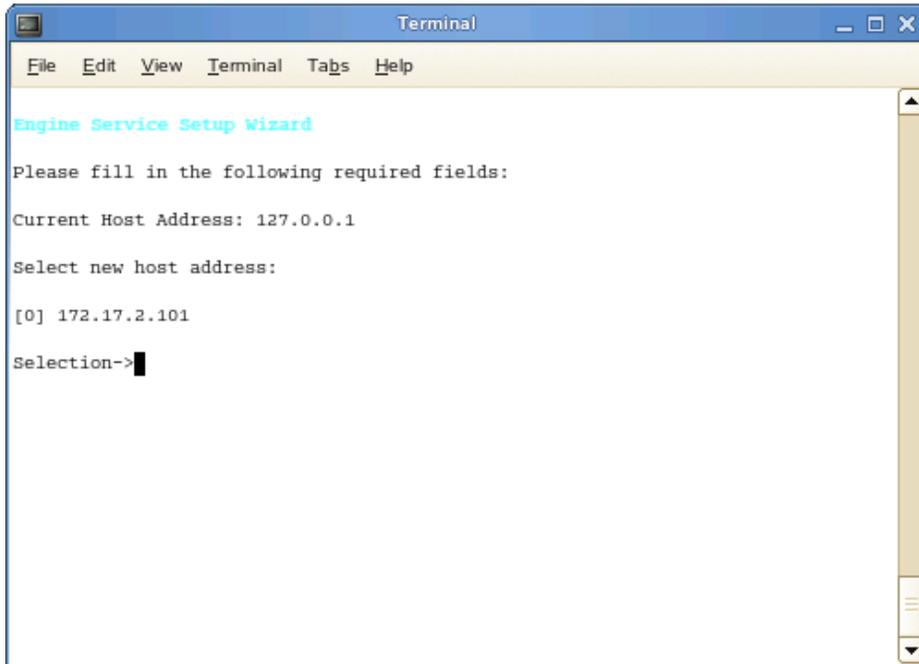
- 1 From the server where you will be installing the NFR Engine, double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 36.](#)
- 2 Under *Novell File Reporter Software Repository*, click the *Software Repository* link to access procedures for setting up a Novell File Reporter repository.
- 3 Follow the displayed procedures for setting up the repository through YaST, then continue with [Step 4.](#)
- 4 In YaST, under *Groups*, click *Software*.
- 5 Click *Software Management*.
- 6 In the dialog box that appears, type `filereporter` in the *Search* field and click *Search*.
- 7 From the search results, select the check box for `novell-filereporter-engine`.
- 8 Click *Accept*.
- 9 (Conditional) If you are notified of automatic changes, review the list of packages and click *Continue*.
- 10 (Conditional) If you are prompted to insert the SUSE Linux Enterprise Server 10 SP2 CD 1, do one of the following:
 - ♦ Insert the CD and click *OK*.
 - ♦ If you have set up a local repository containing the CD image, click *Skip*.This installs the NFR Engine along with its dependencies.
- 11 When you are asked if you want to install or remove more packages, click *No*.
- 12 Proceed with [Section 5.12, “Configuring the NFR Engine,” on page 44.](#)

5.12 Configuring the NFR Engine

Configuration of the NFR Engine takes place through a terminal console.

- 1 At the SUSE Linux Enterprise Server or the Open Enterprise Server 2 machine where you installed the NFR Engine, launch a terminal session.
- 2 At the terminal console, type `nfengine-config` and press Enter.

The console is updated with a message similar to the one below:

A screenshot of a terminal window titled "Terminal". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The main content area displays the "Engine Service Setup Wizard" in cyan text. Below the title, it says "Please fill in the following required fields:". Then, it shows "Current Host Address: 127.0.0.1". Next, it asks "Select new host address:" and lists "[0] 172.17.2.101". At the bottom, it says "Selection->" followed by a cursor.

```
Terminal
File Edit View Terminal Tabs Help

Engine Service Setup Wizard

Please fill in the following required fields:

Current Host Address: 127.0.0.1

Select new host address:

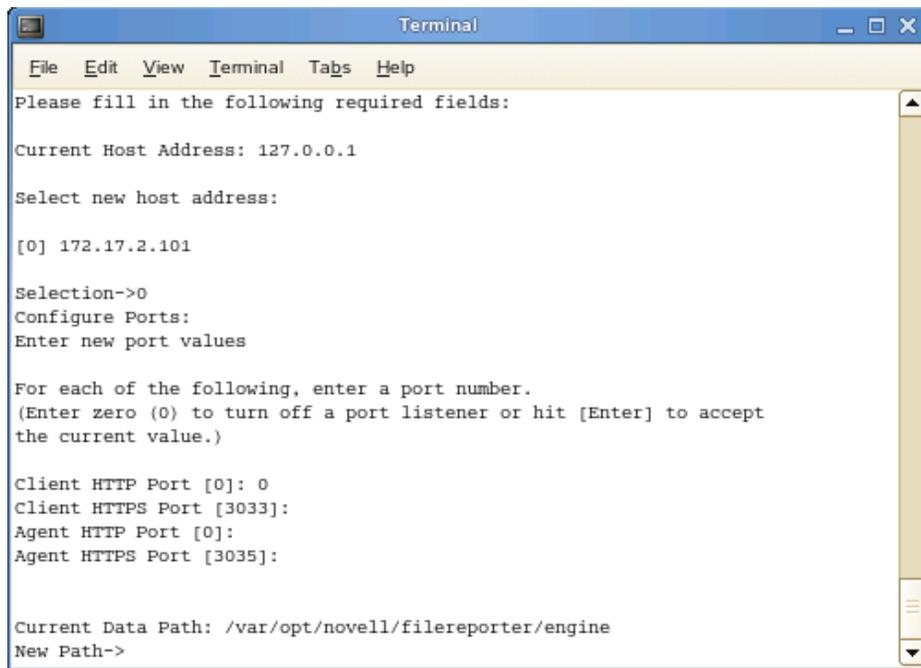
[0] 172.17.2.101

Selection->
```

If you are installing the NFR Engine on a server that has multiple NICs, multiple IP addresses are listed.

- 3 Type the menu option for the IP address you are assigning to the NFR Engine and press Enter.
- 4 When you are prompted for the Client HTTP Port number, type 0 and press Enter.
- 5 When you are prompted for the Client HTTPS Port number, accept the Port 3033 setting by pressing Enter.

The console is updated with the default data path where scans and reports are stored on the server.



```
Terminal
File Edit View Terminal Tabs Help
Please fill in the following required fields:

Current Host Address: 127.0.0.1

Select new host address:

[0] 172.17.2.101

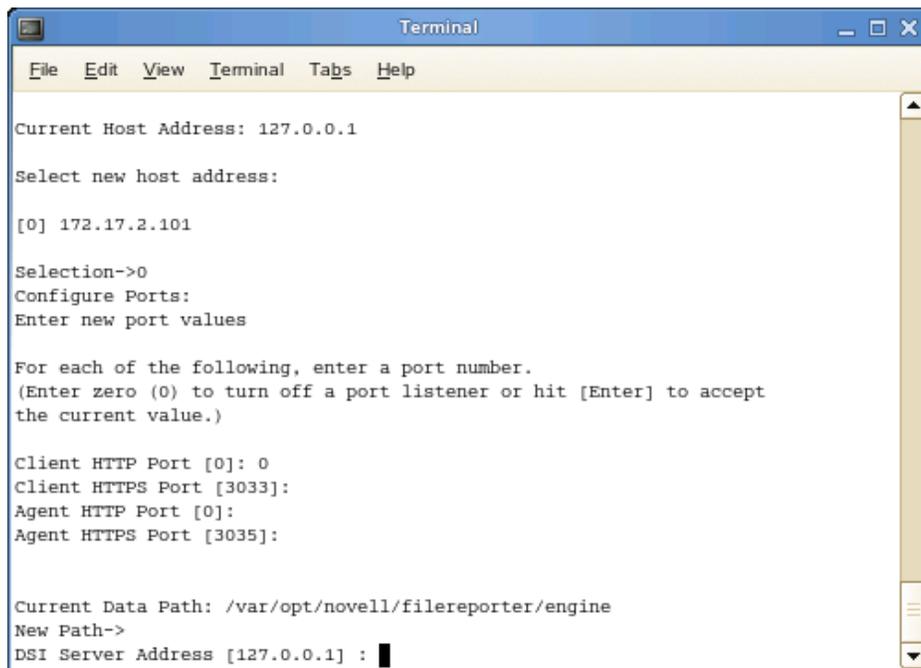
Selection->0
Configure Ports:
Enter new port values

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.)

Client HTTP Port [0]: 0
Client HTTPS Port [3033]:
Agent HTTP Port [0]:
Agent HTTPS Port [3035]:

Current Data Path: /var/opt/novell/filereporter/engine
New Path->
```

- 6 Accept the data path displayed or indicate a preferred path and press Enter. The console is updated with a prompt for the DSI server address:



```
Terminal
File Edit View Terminal Tabs Help

Current Host Address: 127.0.0.1

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.)

Client HTTP Port [0]: 0
Client HTTPS Port [3033]:
Agent HTTP Port [0]:
Agent HTTPS Port [3035]:

Current Data Path: /var/opt/novell/filereporter/engine
New Path->
DSI Server Address [127.0.0.1] : █
```

- 7 Do one of the following:
- ◆ If you are configuring Novell File Reporter for a network environment that *does not* include Novell Storage Manager, type the IP address of the server hosting the DSI and press Enter.
 - ◆ If you are configuring Novell File Reporter for a network environment that includes Novell Storage Manager, type the IP address of the server hosting the NSM Engine and press Enter.

The console is updated with a prompt to enter the DSI Server Port number, with a default setting of Port 3009.

8 Do one of the following:

- ◆ If you installed the DSI and used the default setting in [Step 5 on page 42](#), accept the port number setting by pressing Enter.
- ◆ If you installed the DSI and modified the port setting number in [Step 5 on page 42](#), type the modified port setting number and press Enter.
- ◆ If you are installing Novell File Reporter into a network environment that includes Novell Storage Manager, type 8009 and press Enter.

9 When you are asked if you want to use SSL, type Y for Yes and press Enter.

10 When you are asked if you want to start the service, type Y for Yes and press Enter.

11 When prompted, press Enter to continue.

The console is updated with menu options for changing any of the configuration settings you just made.

12 Verify that the necessary ports are open as part of your network firewall configuration.

6 Installing NFRAdmin

- ♦ [Section 6.1, “NFRAdmin Overview,”](#) on page 49
- ♦ [Section 6.2, “Installing NFRAdmin,”](#) on page 49

6.1 NFRAdmin Overview

NFRAdmin is the management interface for Novell® File Reporter. Administrators use NFRAdmin to schedule and conduct system inventories, scans, and reports, as well as view the status of services that are running.

NFRAdmin must be installed on a workstation running the .NET 3.5 framework on any of the following Windows operating system environments:

- ♦ Windows XP SP2
- ♦ Windows Vista* SP1
- ♦ Windows 7
- ♦ Windows Server 2003 SP2
- ♦ Windows Server 2008 SP1 or later

Additionally, the workstation must have at least 100-200 MB base memory. To open large reports on the workstation requires about 700 MB per million records. As an example, viewing a report containing 1 million records requires about 800 MB.

6.2 Installing NFRAdmin

- 1 Double-click the `NFRAdmin-1.x.x.msi` file located where you stored the files that you downloaded in either [Step 3 on page 22](#) if you installed the NFR Engine in a Microsoft Active Directory managed network, or [Step 3 on page 36](#) if you installed the NFR Engine in a Novell eDirectory™ managed network.

This launches the installation interface.

- 2 When you are asked if you want to run this file, click *Run*.

The Novell File Reporter Setup Wizard is launched.

- 3 On the Welcome page, click *Next*.

- 4 Review the License Agreement, accept the terms, and click *Next*.

- 5 Accept the installation path or indicate a new path by using the *Browse* button.

To review possible locations, you can click the *Disk Usage* button to see all available volumes with disk size and disk availability data. Use that information to determine where you want to install the 17 MB NFRAdmin program.

- 6 Click *Next*.
- 7 Leave the *Create shortcut on desktop* check box selected and click *Install*.
NFRAdmin is installed on the desktop.
- 8 Leave the *Launch NFRAdmin* check box selected and click *Finish*.

7 Installing NFR Agents

This section includes procedures for installing and configuring NFR Agents on all supported platforms. Technical specifications for each platform precede the procedures.

- ♦ [Section 7.1, “Installing and Configuring a Windows Server NFR Agent,” on page 51](#)
- ♦ [Section 7.2, “Installing and Configuring a NetWare Server NFR Agent,” on page 53](#)
- ♦ [Section 7.3, “Installing and Configuring an Open Enterprise Server 2 NFR Agent,” on page 55](#)
- ♦ [Section 7.4, “Installing and Configuring a SUSE Linux Enterprise Server NFR Agent,” on page 57](#)

7.1 Installing and Configuring a Windows Server NFR Agent

The Windows Server NFR Agent is installed through an easy-to-use installation program that can be run directly at the server or remotely through a terminal server/remote desktop.

7.1.1 Technical Specifications

Server: Windows Server 2003 SP2 or Windows Server 2008 SP1 or later.

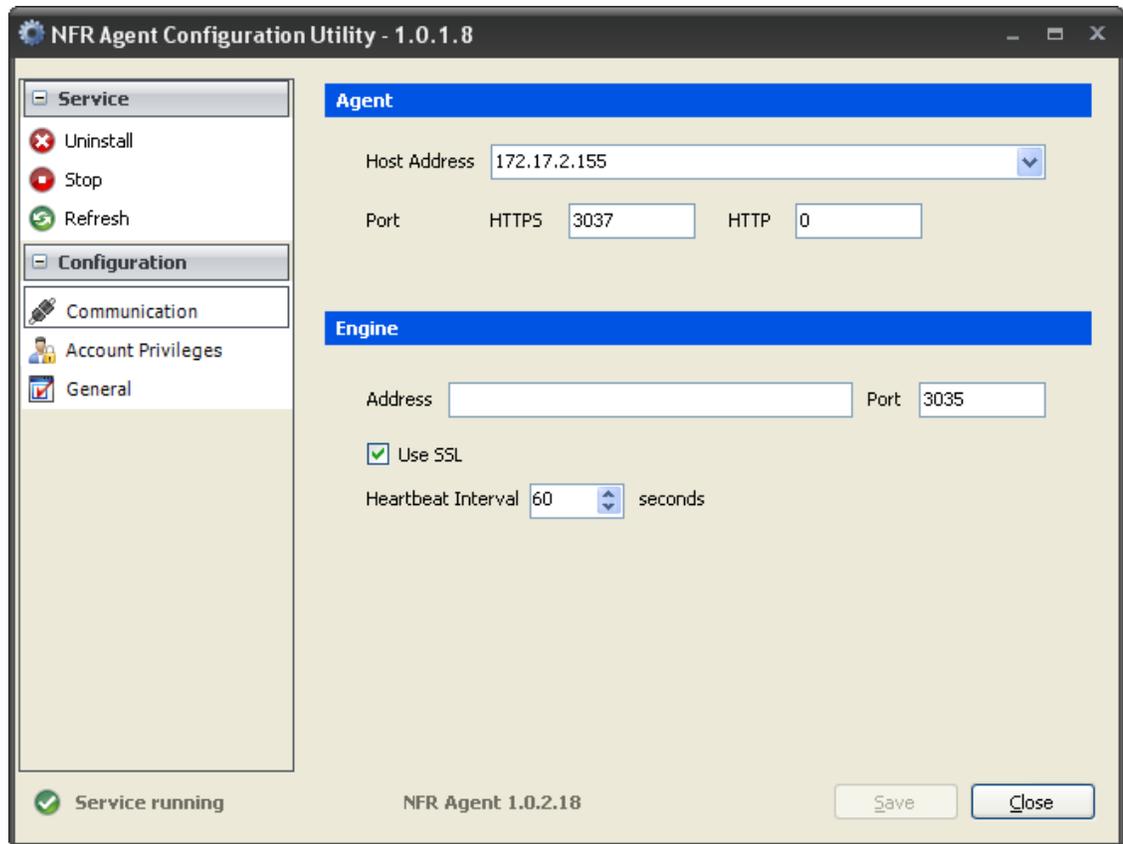
RAM: You need 20 - 50 MB, depending on the number of files and directories being scanned. Because of caching, performance is enhanced in a Windows server environment if you use at least 2 GB RAM.

Disk Space: 150 MB free disk space for each estimated 1,000,000 files or folders.

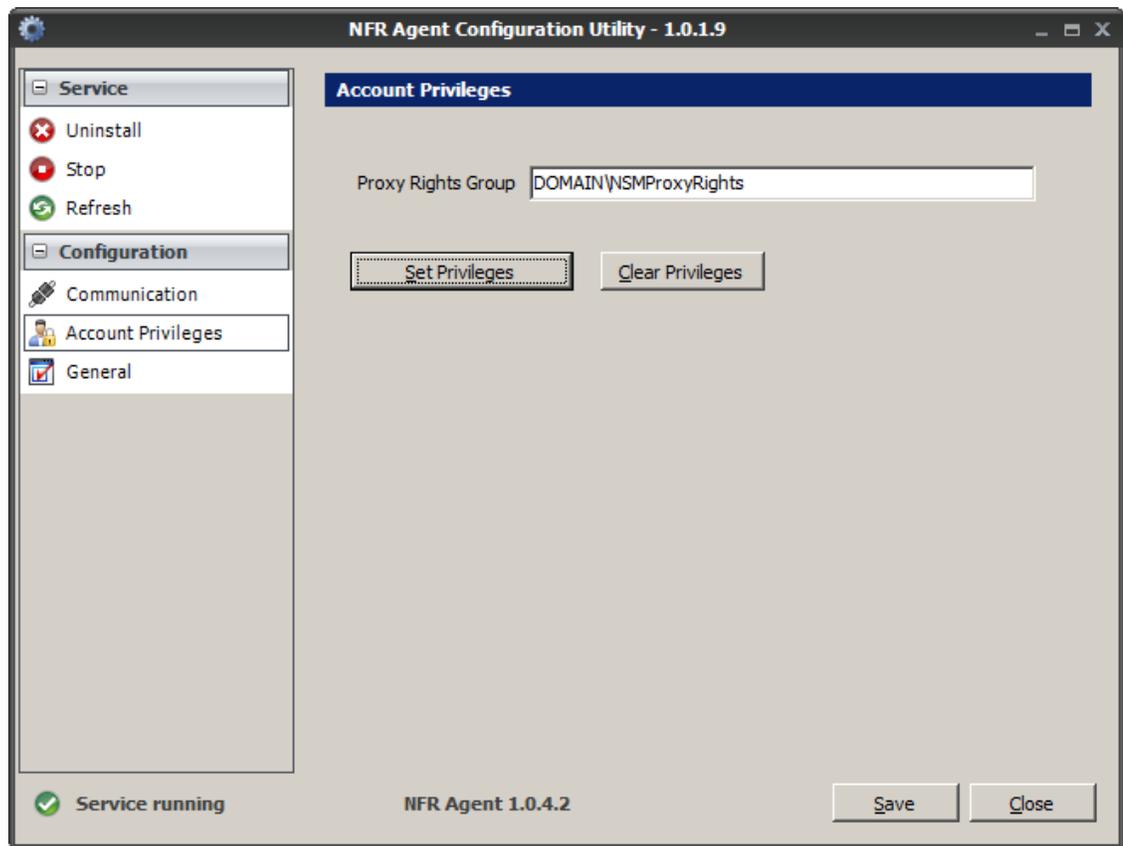
7.1.2 Procedure

- 1 Double-click the `NFRAgent-1.x.x-win32.msi` file located where you stored the files that you downloaded in [Step 3 on page 22](#) or [Step 3 on page 36](#).
This launches the installation interface.
- 2 When you are asked if you want to run this file, click *Run*.
- 3 On the Welcome page, click *Next*.
- 4 Review the License Agreement, accept the terms, and click *Next*.
- 5 Accept the installation path or indicate a new path by using the *Browse* button.
- 6 Click *Next*.
- 7 Click *Install*.
- 8 Verify that the *Launch configuration utility* check box is selected and click *Finish*.

The NFR Agent Configuration Utility is launched.



- 9 In the *Host Address* field, use the drop-down menu and select the IP address of the Windows Server where the NFR Agent is being installed.
- 10 Unless you have a port conflict or your network security standards prohibit it, leave port 3037 set in the *HTTPS* field. Be sure to leave the *HTTP* field set to 0.
If you do change the port setting, you need to use the same port setting on all other NFR Agents that you install, as well as the NFR Engine.
- 11 In the *Address* field, enter the IP address of the server hosting the NFR Engine.
- 12 Unless you have a port conflict, leave the 3035 setting in the *Port* field.
If you do change the port setting, you also need to change the *Service Ports Agent* field in the NFR Engine Configuration Utility.
- 13 We recommend using the *Use SSL* and *Heartbeat Interval* default settings.
- 14 In the left pane, click *Account Privileges*.



15 In the *Proxy Rights Group* field, type one of the following:

- ♦ *domain_name\NSMProxyRights*
- ♦ *domain_name\NFRProxyRights*

16 Click *Set Privileges*.

This stops the NFR Agent service and applies the updated LSA (Local Security Authority) privileges needed by the NFR Agent.

For more information on setting LSA privileges, see [Section 9.4, “Adding Local Security to the Active Directory Managed Cluster,”](#) on page 72.

Additional information on LSA privileges in Appendix A, “Security Specifications” in the *Novell Storage Manager 3.0.1 Administration Guide*.

17 Click *Save*.

18 When you are prompted to restart, click *Yes*.

NOTE: The settings that appear when you click *General* should be left as the default settings unless you are directed to change them by a Novell Support representative. The data path, however, can be modified if necessary.

7.2 Installing and Configuring a NetWare Server NFR Agent

The NetWare[®] Server NFR Agent is installed remotely from a Windows workstation or server.

7.2.1 Technical Specifications

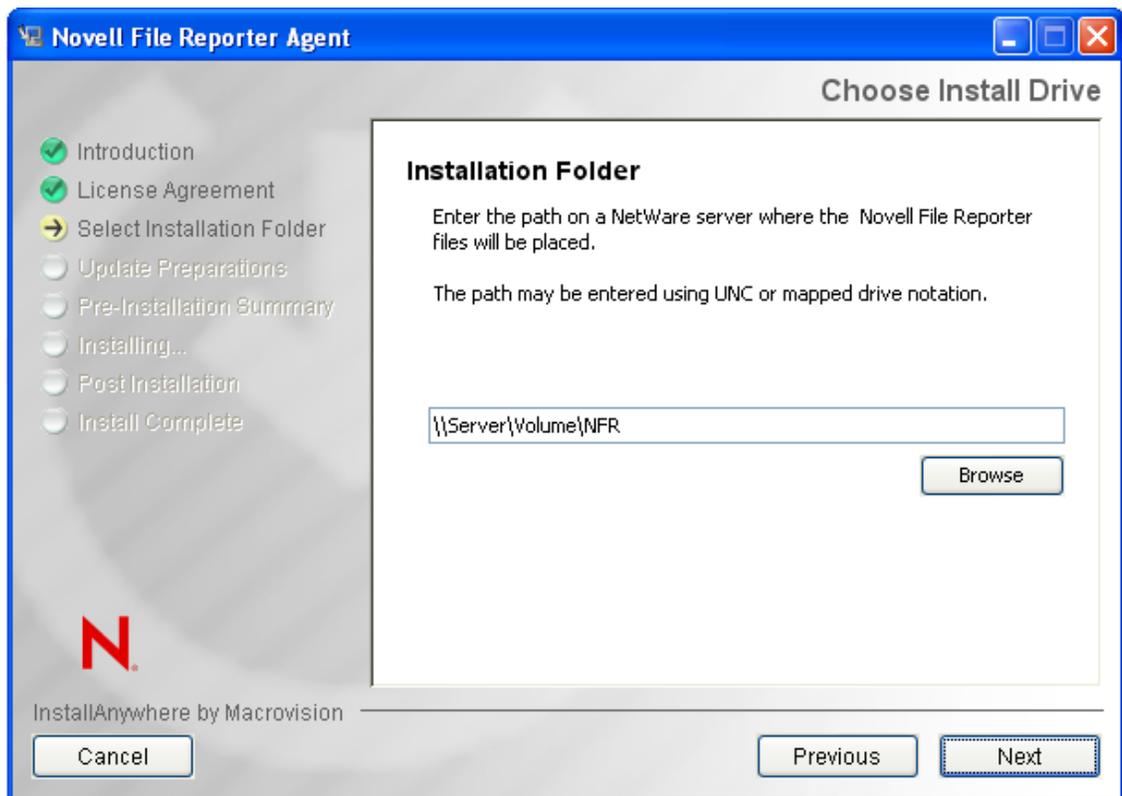
Server: Novell NetWare 6.5 SP 7 or later.

RAM: You need 20 - 50 MB, depending on the number of files and directories being scanned. Because of caching, performance is enhanced if you use at least 1 GB RAM.

Disk Space: 150 MB free disk space for each estimated 1,000,000 files or folders.

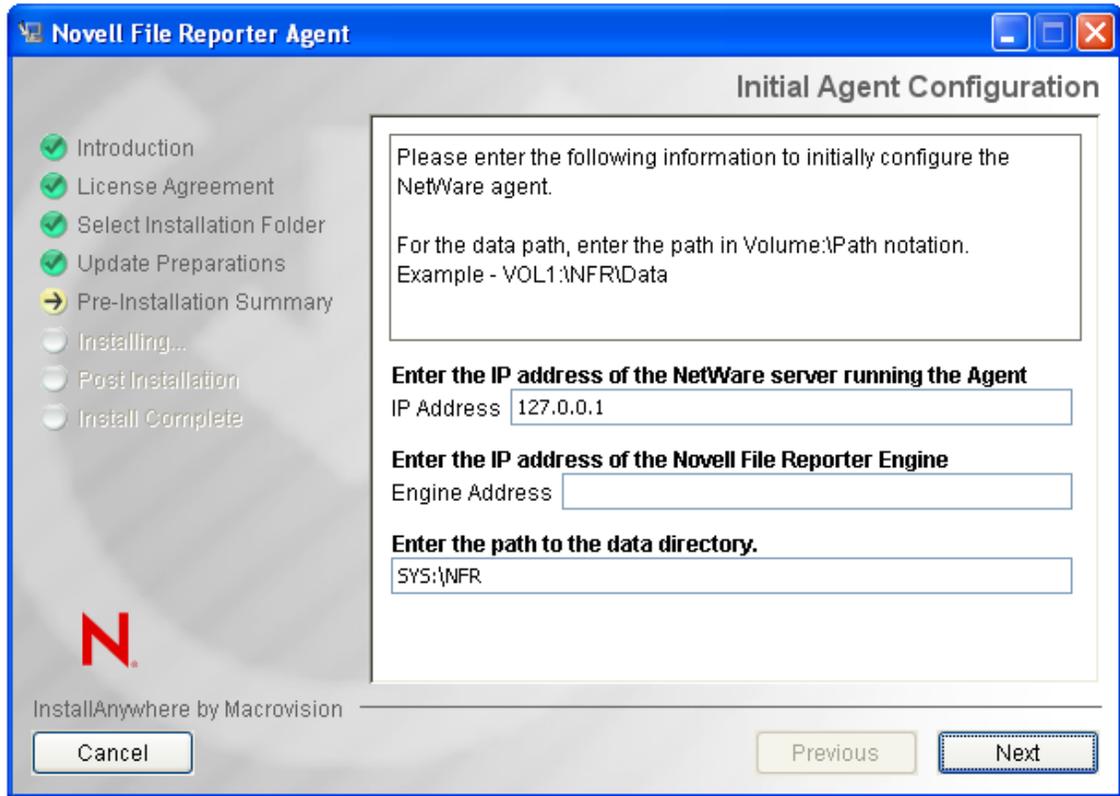
7.2.2 Procedure

- 1 Double-click `NFR-1.0-NetWare-Agent.exe` in the location where you stored the files that you downloaded in either [Step 3 on page 22](#) or [Step 3 on page 36](#).
- 2 When asked if you want to run this file, click *Run*.
The files within the application are extracted.
- 3 On the Introduction page, click *Next*.
- 4 Accept the license terms and click *Next*.



- 5 Indicate the path on the NetWare server where you want to install the NFR Agent and click *Next*.
You can do so by selecting the server and volume through the *Browse* button, specifying the path manually, or specifying the IP address followed by a volume and directory path.
The recommended installation path is `\\server_name\SYS\NFR`, but you can install the NFR Agent wherever you prefer.
A message appears informing you that the target path is not present.
- 6 Click *Yes* in the message box to create the new target path.

- 7 View the pre-installation summary information and click *Install*.



- 8 In the upper field, specify the IP address of the NetWare server where the NFR Agent will be installed. In the lower field, specify the IP address of the server hosting the NFR Engine, then click *Next*.
- 9 In the page that follows, leave the two check box items selected and click *Next*.
If you need to later change the parameters of the `AUTOEXEC.NCF` and `SRAGENT.CFG` files, you need to do so manually.
- 10 On the concluding page of the installation application, click *Done*.

7.3 Installing and Configuring an Open Enterprise Server 2 NFR Agent

The Open Enterprise Server 2 NFR Agent is installed at the host server through YaST and configured through a terminal session running `nfragentncp-config`.

7.3.1 Technical Specifications

Server: Novell Open Enterprise Server 2 SP1 or later.

RAM: You need 20 - 50 MB, depending on the number of files and directories being scanned. Because of caching, performance is enhanced if you use at least 1 GB RAM.

Disk Space: 150 MB free disk space for each estimated 1,000,000 files or folders.

7.3.2 Procedure

- 1 From the server where you will be installing the NFR Agent, double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 36](#).
- 2 Under *Novell File Reporter Software Repository*, click the *Software Repository* link to access procedures for setting up a Novell File Reporter repository.
- 3 Follow the displayed procedures for setting up the repository through YaST, then continue with [Step 4](#).
- 4 While you are still in YaST, under *Groups*, click *Software*.
- 5 Click *Software Management*.
- 6 In the dialog box that appears, type `filereporter` in the *Search* field and click *Search*.
- 7 From the search results, select the check box for `novell-filereporter-agentncp`.
- 8 Click *Accept*.
- 9 When you are notified of automatic changes, review the list of packages and click *Continue*.
- 10 When you are prompted to insert the SUSE Linux Enterprise Server 10 SP2 CD 1, do one of the following:
 - ♦ Insert the CD and click *OK*.
 - ♦ If you have set up a local repository containing the CD image, click *Skip*.This installs the NFR Agent and its dependencies.
- 11 When you are asked if you want to install or remove more packages, click *No*.
- 12 Launch a terminal session.
- 13 At the terminal console, type `nfragentncp-config`, then press Enter.

This starts the Agent Service Setup Wizard.

The console displays the Open Enterprise Server's IP addresses.
- 14 Select the menu option that corresponds to the IP address you will use for the NFR Agent and press Enter.
- 15 When the Client HTTP Port [0] option appears, enter 0 and press Enter.
- 16 When the Client HTTPS Port [3037] option appears, select it by pressing Enter.
- 17 When the Current Data Path appears, accept the displayed path or type a new one and press Enter.
- 18 When you are prompted for the Engine Address, type the IP address of the server where the NFR Engine is installed and press Enter.
- 19 When the Engine Port [3035] prompt appears, use the default port setting unless you changed the Agent Service Port setting when you configured the NFR Engine.
- 20 When you are asked if you want to use SSL, type `Y` for Yes. and press Enter.
- 21 When you are asked if you want to start the service, type `Y` for Yes. and press Enter.
- 22 Press Enter to continue.

The console is updated with menu options for changing any of the configuration settings you just made.

7.4 Installing and Configuring a SUSE Linux Enterprise Server NFR Agent

The SUSE Linux Enterprise Server NFR Agent is installed at the host server by installing an RPM and doing a minimal amount of configuration afterwards.

7.4.1 Technical Specifications

Server: SUSE Linux Enterprise Server 10 SP 1 or later.

RAM: You need 20 - 50 MB, depending on the number of files and directories being scanned. Because of caching, performance is enhanced if you use at least 1 GB RAM.

Disk Space: 150 MB free disk space for each estimated 1,000,000 files or folders.

7.4.2 Procedure

- 1 From the server where you will be installing the NFR Agent, double-click the `install.html` file located on the mounted drive, CD, or DVD that you noted in [Step 3 on page 36](#).
- 2 Under *Novell File Reporter Software Repository*, click the *Software Repository* link to access procedures for setting up a Novell File Reporter repository.
- 3 Follow the displayed procedures for setting up the repository through YaST, then continue with [Step 4](#).
- 4 While you are still in YaST, under *Groups*, click *Software*.
- 5 Click *Software Management*.
- 6 In the dialog box that appears, type `filereporter` in the *Search* field and click *Search*.
- 7 From the search results, select the check box for `novell-filereporter-agent`.
- 8 Click *Accept*.
- 9 When notified of automatic changes, review the list of packages and click *Continue*.
- 10 When you are prompted to insert the SUSE Linux Enterprise Server 10 SP2 CD 1, do one of the following:
 - ♦ Insert the CD and click *OK*.
 - ♦ If you have set up a local repository containing the CD image, click *Skip*.This installs the NFR Agent and its dependencies.
- 11 When you are asked if you want to install or remove more packages, click *No*.
- 12 Launch a terminal session.
- 13 At the terminal console, type `nfragent-config` and press Enter.
This starts the Agent Service Setup Wizard.
- 14 When you are prompted for the host address, select the menu option that corresponds to the IP address you will use for the NFR Agent and press Enter.
- 15 When the Client HTTP Port [0] option appears, type 0. and press Enter.
- 16 When the Client HTTPS Port [3037] option appears, select it by pressing Enter.
- 17 When the Current Data Path appears, accept the displayed path or type a new one and press Enter.

- 18** When you are prompted for the Engine Address, type the IP address of the server where the NFR Engine is installed and press Enter.
- 19** When the Engine Port [3035] prompt appears, use the default port setting unless you changed the Agent Service Port setting when you configured the NFR Engine.
- 20** When you are asked if you want to use SSL, type **y** for Yes and press Enter.
- 21** When you are asked if you want to start the service, type **y** for Yes. and press Enter.
- 22** Press Enter to continue.

The console is updated with menu options for changing any of the configuration settings you just made.

8 Configuring Proxy Agents for NAS Devices

Novell® File Reporter 1.01 extends support for storage device types to include NAS (Network Attached Storage) devices in Active Directory managed networks. Because a NAS device is an appliance and is thus incapable of hosting an NFR Agent, Novell File Reporter uses an NFR Agent running on another server to collect scan information from the NAS device. In this type of scenario, the NFR Agent is serving as a “proxy agent.”

To be scanned by a proxy agent, all NAS devices must be members of the Active Directory domain on which Novell File Reporter is installed.

NAS device support testing has been conducted exclusively on EMC* Celerra* and NetApp* filer—also known as NetApp fabric-attached storage (FAS) devices. Although Novell File Reporter might be able to scan and report on other NAS devices, no other testing had been conducted at the time of this publication.

IMPORTANT: The proxy agent, unlike a hosted NFR Agent, takes a remote scan of the file system of the storage resource. Depending on your network topology, this can consequently result in Novell File Reporter taking significantly longer to complete a scan than when a storage resource is scanned by an NFR agent running locally on that storage resource.

With the capability of reporting on storage resources through a proxy agent, some network administrators might be motivated to reduce the deployment and configuration time of Novell File Reporter by installing a minimal number of NFR Agents and then setting up those agents as proxy agents to other storage resources. If you do this, be aware of the performance consequences. Also be aware that system inventories from NAS devices can only be generated through a scan of the NAS device—not as a live inventory. We therefore recommend that proxy agents be configured only for NAS devices, or other devices for which a local agent is not available.

A proxy agent is configured through a configuration file where the DSI for Active Directory is installed.

The procedure involves specifying proxy associations in a file named `nfrproxy.cfg`.

- ♦ [Section 8.1, “Configuring a Proxy Agent for Active Directory Managed Networks without Novell Storage Manager,” on page 60](#)
- ♦ [Section 8.2, “Configuring a Proxy Agent for Active Directory Managed Networks with Novell Storage Manager,” on page 61](#)
- ♦ [Section 8.3, “Establishing Permissions on the NAS Device,” on page 63](#)
- ♦ [Section 8.4, “Adding Local Security to the NAS Device,” on page 64](#)

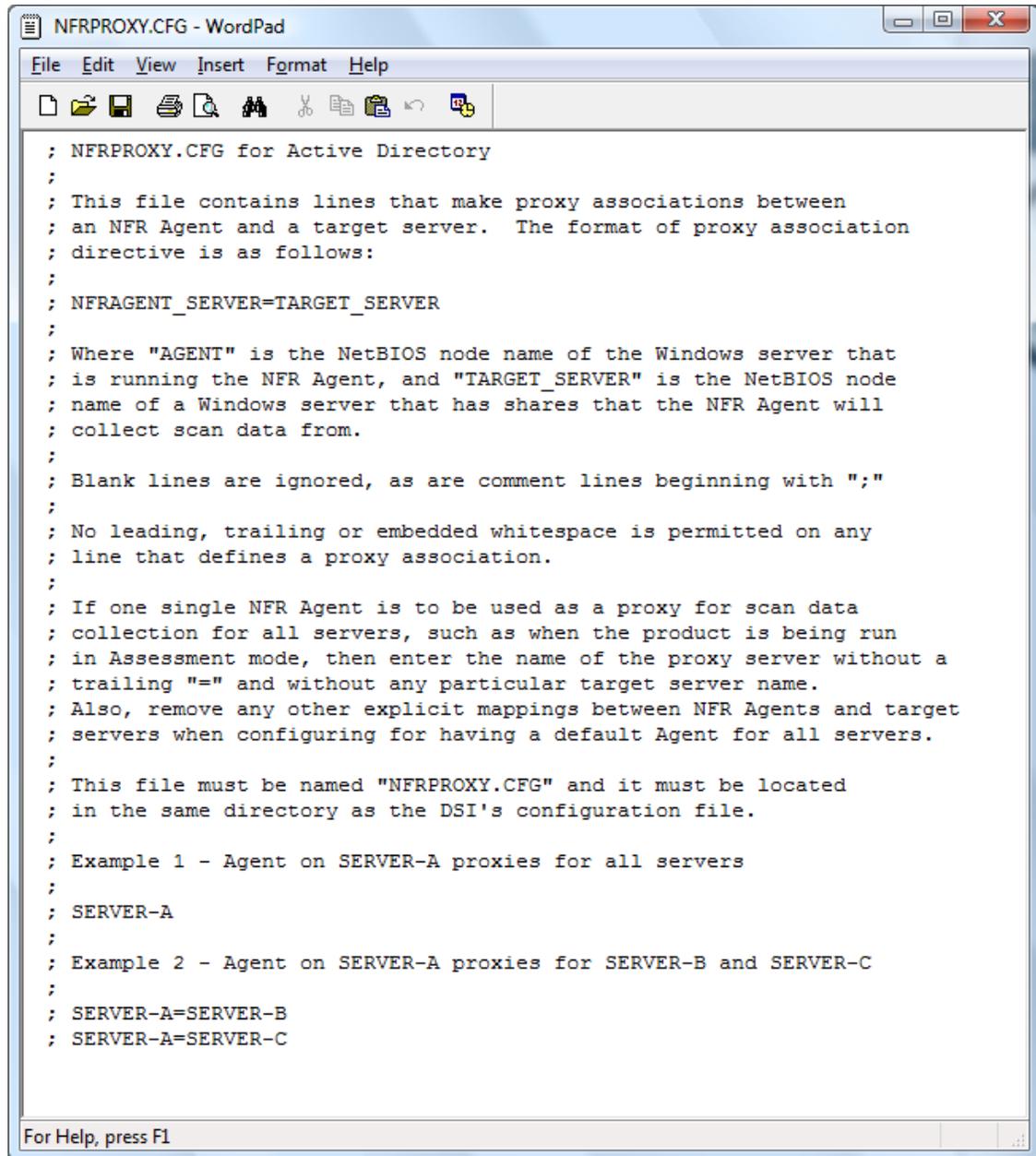
8.1 Configuring a Proxy Agent for Active Directory Managed Networks without Novell Storage Manager

- 1 Locate the `nfrproxy.cfg` file in the `config` folder where the DSI is installed.

On Windows Server 2003, the path is `C:\Documents and Settings\All Users\AppData\Novell\File Reporter\DSI-AD\config`

On Windows Server 2008, the path is `C:\ProgramData\Novell\File Reporter\DSI-AD\config`

The file contains commented information on how to set up proxy associations.



```
; NFRPROXY.CFG for Active Directory
;
; This file contains lines that make proxy associations between
; an NFR Agent and a target server. The format of proxy association
; directive is as follows:
;
; NFRAGENT_SERVER=TARGET_SERVER
;
; Where "AGENT" is the NetBIOS node name of the Windows server that
; is running the NFR Agent, and "TARGET_SERVER" is the NetBIOS node
; name of a Windows server that has shares that the NFR Agent will
; collect scan data from.
;
; Blank lines are ignored, as are comment lines beginning with ";"
;
; No leading, trailing or embedded whitespace is permitted on any
; line that defines a proxy association.
;
; If one single NFR Agent is to be used as a proxy for scan data
; collection for all servers, such as when the product is being run
; in Assessment mode, then enter the name of the proxy server without a
; trailing "=" and without any particular target server name.
; Also, remove any other explicit mappings between NFR Agents and target
; servers when configuring for having a default Agent for all servers.
;
; This file must be named "NFRPROXY.CFG" and it must be located
; in the same directory as the DSI's configuration file.
;
; Example 1 - Agent on SERVER-A proxies for all servers
;
; SERVER-A
;
; Example 2 - Agent on SERVER-A proxies for SERVER-B and SERVER-C
;
; SERVER-A=SERVER-B
; SERVER-A=SERVER-C
;
; For Help, press F1
```

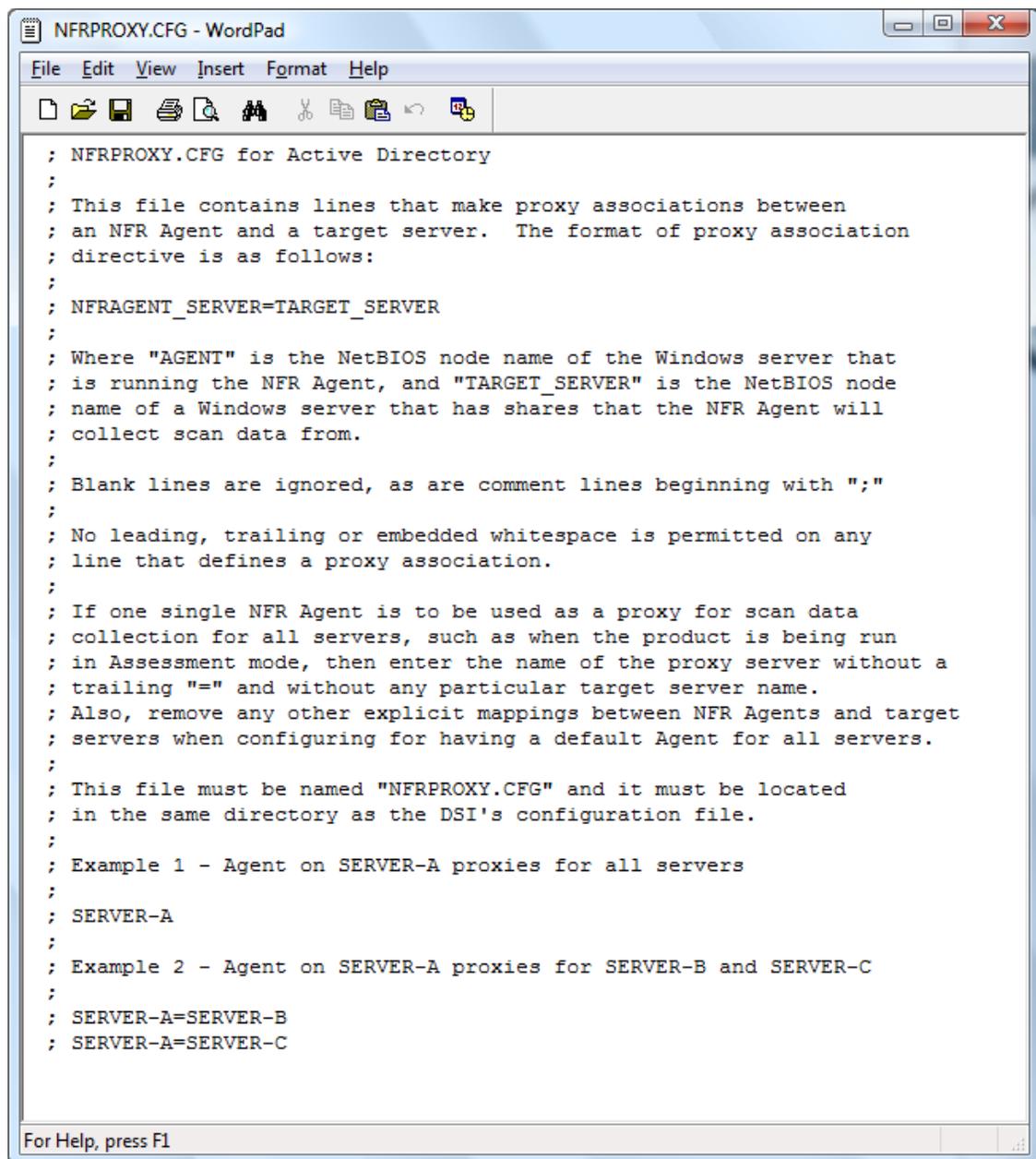
- 2 Append the proxy associations to the `nfrproxy.cfg` file, using the following format:

servername-where-NFR-Agent-is-installed=NAS-device-name

- 3 Save the updated `nfrproxy.cfg` file.
- 4 Restart the DSI-AD service.
- 5 Launch NFRAdmin.
- 6 Click *Scan Collection*.
- 7 In the right pane, click *Storage Resources > Rebuild Storage Resource List*.
- 8 When you are notified that the rebuild is in progress, click *OK*.
- 9 In the right pane, click *Refresh* to view the new NAS devices listed as storage resources available for scanning.
If the new NAS devices do not appear, you might need to give Novell File Reporter more time to rebuild the list. Repeat [Step 7](#) and [Step 8](#) and allow more time for the list to be rebuilt before proceeding to [Step 9](#).
- 10 Proceed to [Section 8.3, “Establishing Permissions on the NAS Device,”](#) on page 63.

8.2 Configuring a Proxy Agent for Active Directory Managed Networks with Novell Storage Manager

- 1 Locate the `nfrproxy.cfg` file in the location where the `nsmengin.cfg` file resides.
In most cases, this is `C:\Novell\Storage Manager\Engine`.
The file contains commented information on how to set up proxy associations.



```
; NFRPROXY.CFG for Active Directory
;
; This file contains lines that make proxy associations between
; an NFR Agent and a target server. The format of proxy association
; directive is as follows:
;
; NFRAGENT_SERVER=TARGET_SERVER
;
; Where "AGENT" is the NetBIOS node name of the Windows server that
; is running the NFR Agent, and "TARGET_SERVER" is the NetBIOS node
; name of a Windows server that has shares that the NFR Agent will
; collect scan data from.
;
; Blank lines are ignored, as are comment lines beginning with ";"
;
; No leading, trailing or embedded whitespace is permitted on any
; line that defines a proxy association.
;
; If one single NFR Agent is to be used as a proxy for scan data
; collection for all servers, such as when the product is being run
; in Assessment mode, then enter the name of the proxy server without a
; trailing "=" and without any particular target server name.
; Also, remove any other explicit mappings between NFR Agents and target
; servers when configuring for having a default Agent for all servers.
;
; This file must be named "NFRPROXY.CFG" and it must be located
; in the same directory as the DSI's configuration file.
;
; Example 1 - Agent on SERVER-A proxies for all servers
;
; SERVER-A
;
; Example 2 - Agent on SERVER-A proxies for SERVER-B and SERVER-C
;
; SERVER-A=SERVER-B
; SERVER-A=SERVER-C
;
;
; For Help, press F1
```

- 2 Append the proxy associations to the `nfrproxy.cfg` file, using the following format:

servername-where-NFR-Agent-is-installed=NAS-device-name

Use a new line for each proxy association.

- 3 Save the updated `nfrproxy.cfg` file.
- 4 Restart the Novell Storage Manager Engine.
- 5 Launch NFRAdmin.
- 6 Click *Scan Collection*.
- 7 In the right pane, click *Storage Resources > Rebuild Storage Resource List*.
- 8 When you are notified that the rebuild is in progress, click *OK*.

- 9 In the right pane, click *Refresh* to view the new NAS devices listed as storage resources available for scanning.
If the new NAS devices do not appear, you might need to give Novell File Reporter more time to rebuild the list. Repeat [Step 7](#) and [Step 8](#) and allow more time for the list to be rebuilt before proceeding to [Step 9](#).
- 10 Proceed to [Section 8.3, “Establishing Permissions on the NAS Device,”](#) on page 63.

8.3 Establishing Permissions on the NAS Device

In order for Novell File Reporter to report on the contents of shares on a NAS device, you must set specific share permissions on the shares.

- 1 On the Windows server where Active Directory is installed, click *Start > Administrative Tools > Active Directory Users and Computers*.
This brings up the Active Directory Users and Computers page.
- 2 In the left pane, select the container where the NAS device is so that it is listed in the right pane.
- 3 In the right pane, right-click the NAS device and select *Manage*.
This brings up the Computer Management page.
- 4 In the left pane, navigate to the *Shares* folder so that the shares on the NAS device appear in the right pane.
- 5 On a share that contains content you want Novell File Reporter to be able to view and report on, right-click and select *Properties*.
This brings up the Properties dialog box.
- 6 Click the *Share Permissions* tab and click *Add*.
This brings up the Select Users dialog box.
- 7 In the *Enter the objects to select* field, do one of the following:
 - ♦ If you installed Novell File Reporter into an Active Directory managed network that does *not* include Novell Storage Manager, type `NFRProxyRights` and click *Enter*.
 - ♦ If you installed Novell File Reporter into an Active Directory managed network that includes Novell Storage Manager, type `NSMProxyRights` and click *Enter*.The Properties dialog box is updated with either `NFRProxyRights` or `NSMProxyRights` displayed in the *Group and user names* list.
- 8 Do one of the following:
 - ♦ Select `NFRProxyRights` and select the *Allow Read* permission.
 - ♦ Select `NSMProxyRights` and select the *Allow Full Control* permission.
- 9 Click the *Security* tab, and click *Edit*.
This brings up the Permissions dialog box.
- 10 Click *Add*.
This brings up the Select Users dialog box.
- 11 In the *Enter the objects to select field*, type `NFRProxyRights` or `NSMProxyRights` and click *Enter*.
The Properties dialog box is updated with either the `NFRProxyRights` or `NSMProxyRights` displayed in the *Group and user names* list.

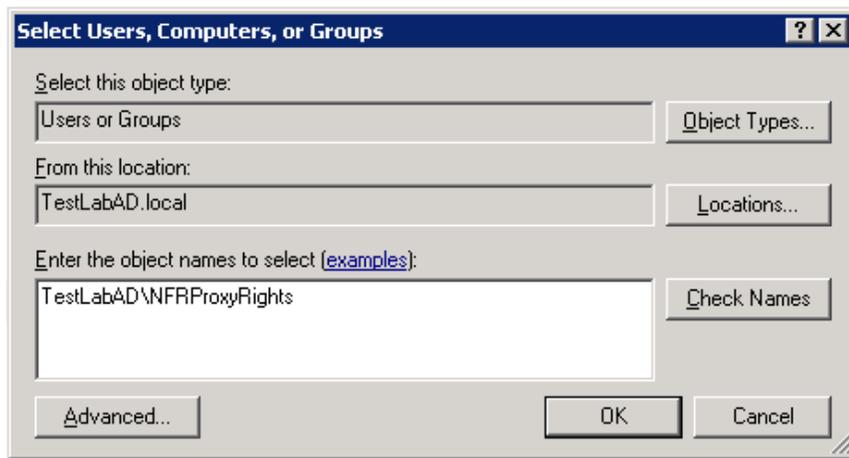
- 12 Do one of the following:
 - ◆ Select `NFRProxyRights` and verify that the *Read & execute*, *List folder contents*, and *Write* permissions are selected.
 - ◆ Select `NSMProxyRights` and select the *Allow Full Control* permission.
- 13 Close the Properties dialog box to save the changes.
- 14 Proceed to [Section 8.4, “Adding Local Security to the NAS Device,”](#) on page 64.

8.4 Adding Local Security to the NAS Device

In order for Novell File Reporter to display NAS devices as storage resources, each NAS device requires a select set of Local Security Authority Privileges (LSA Privs). LSA Privs are granted on other storage resources when the NFR Agent is installed. Because a NAS device is an appliance and is thus incapable of hosting an NFR Agent, the easiest way to grant these privileges is to make the `NFRProxyRights` or `NSMProxyRights` group a member of the LOCAL Administrators group of each NAS device.

NOTE: You must be logged in as a Domain Administrator to perform this procedure.

- 1 At any domain controller or any computer where the Remote Server Administration Tools are installed, click *Start > Administrative Tools > Active Directory Users and Computers*.
This brings up the Active Directory Users and Computers page.
- 2 In the left pane, select the container where the NAS device is so that it is listed in the right pane.
- 3 In the right pane, right-click the NAS device and select *Manage*.
This brings up the Computer Management page.
- 4 In the left window pane, expand *Local Users and Groups*.
- 5 Select *Groups*.
- 6 In the right pane, double-click *Administrators*.
This brings up the Administrators Properties dialog box.
- 7 Click the *Add* button.
This brings up the Select Users, Computers, or Groups dialog box.
- 8 In the *Enter the object names to select* field, type one of the following:
 - ◆ `domain_name\NFRProxyRights`
 - ◆ `domain_name\NSMProxyRights`



- 9 Click *OK* to save the new setting.

9 Configuring Proxy Agents for Clustering

The ability of Novell® File Reporter 1.01 to support proxy agents also means that it can support clustered servers. This support includes both Windows server clusters in an Active Directory managed network and Novell server clusters in an eDirectory™ managed network that includes Novell Storage Manager. If you do not have Novell Storage Manager as part of your eDirectory managed network, you cannot use Novell File Reporter to report on clusters.

Novell File Reporter uses an NFR Agent running on another server to collect scan information from the server cluster resource (virtual server). In this type of scenario, the NFR Agent is serving as a “proxy agent” for the virtual server.

IMPORTANT: The proxy agent, unlike a hosted NFR Agent, takes a remote scan of the file system of the storage resource. Depending on your network topology, this can result in Novell File Reporter taking significantly longer to complete a scan than when a storage resource is scanned by an NFR agent running locally on that storage resource

Be aware that system inventories from virtual servers can only be generated through a scan of the virtual server—not as a live inventory.

Proxy agents are configured through a configuration file named `nfrproxy.cfg`. The location of this file varies, depending on whether your network is managed by eDirectory or Active Directory, and whether you have Novell Storage Manager deployed or not.

NOTE: The `nfrproxy.cfg` file is also used to set up proxy agents for NAS devices in Active Directory managed networks (see [Chapter 8, “Configuring Proxy Agents for NAS Devices,”](#) on page 59).

- ♦ [Section 9.1, “Configuring a Proxy Agent for Active Directory Managed Networks without Novell Storage Manager,”](#) on page 68
- ♦ [Section 9.2, “Configuring a Proxy Agent for Active Directory Managed Networks with Novell Storage Manager,”](#) on page 69
- ♦ [Section 9.3, “Establishing Permissions on the Active Directory Cluster Virtual File Server,”](#) on page 71
- ♦ [Section 9.4, “Adding Local Security to the Active Directory Managed Cluster,”](#) on page 72
- ♦ [Section 9.5, “Configuring a Proxy Agent for eDirectory Managed Networks with Novell Storage Manager,”](#) on page 74
- ♦ [Section 9.6, “Scanning Names in NFRAdmin,”](#) on page 75

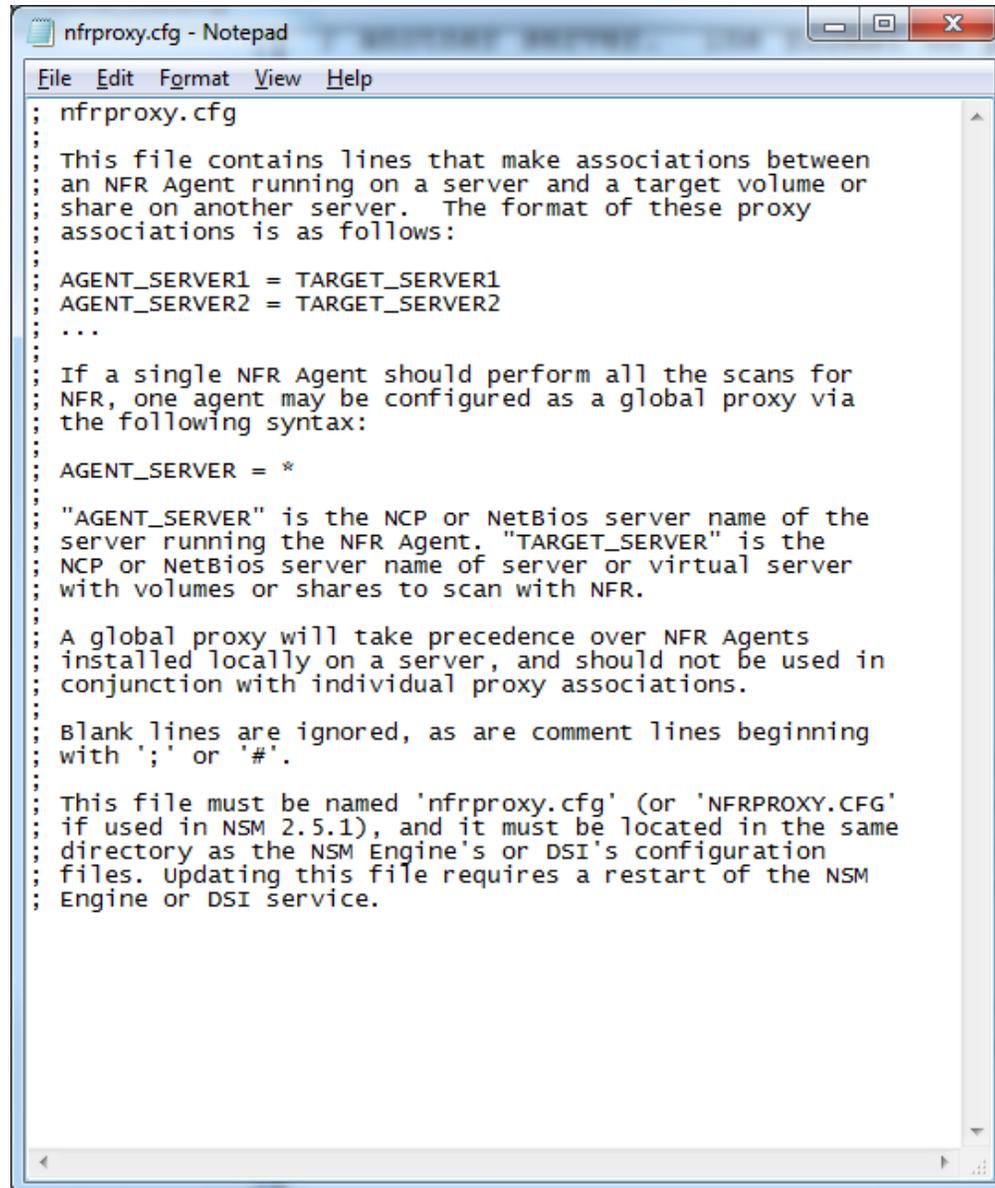
9.1 Configuring a Proxy Agent for Active Directory Managed Networks without Novell Storage Manager

- 1 Locate the `nfrproxy.cfg` file in the `config` folder where the DSI is installed.

On Windows Server 2003, the path is: `C:\Documents and Settings\All Users\AppData\Novell\File Reporter\DSI-AD\config`

On Windows Server 2008, the path is: `C:\ProgramData\Novell\File Reporter\DSI-AD\config`

The file contains commented information on how to set up proxy associations.



```
nfrproxy.cfg

; This file contains lines that make associations between
; an NFR Agent running on a server and a target volume or
; share on another server. The format of these proxy
; associations is as follows:
;
; AGENT_SERVER1 = TARGET_SERVER1
; AGENT_SERVER2 = TARGET_SERVER2
; ...
;
; If a single NFR Agent should perform all the scans for
; NFR, one agent may be configured as a global proxy via
; the following syntax:
;
; AGENT_SERVER = *
;
; "AGENT_SERVER" is the NCP or NetBios server name of the
; server running the NFR Agent. "TARGET_SERVER" is the
; NCP or NetBios server name of server or virtual server
; with volumes or shares to scan with NFR.
;
; A global proxy will take precedence over NFR Agents
; installed locally on a server, and should not be used in
; conjunction with individual proxy associations.
;
; Blank lines are ignored, as are comment lines beginning
; with ';' or '#'.
;
; This file must be named 'nfrproxy.cfg' (or 'NFRPROXY.CFG'
; if used in NSM 2.5.1), and it must be located in the same
; directory as the NSM Engine's or DSI's configuration
; files. Updating this file requires a restart of the NSM
; Engine or DSI service.
```

- 2 Append the proxy associations to the `nfrproxy.cfg` file, using the following format:

`servername-where-NFR-Agent-is-installed=virtual-servername`

- 3 Save the updated `nfrproxy.cfg` file.

- 4 Restart the DSI-AD service.
- 5 Launch NFRAdmin.
- 6 Click *Scan Collection*.
- 7 In the right pane, click *Storage Resources > Rebuild Storage Resource List*.
- 8 When you are notified that the rebuild is in progress, click *OK*.
- 9 In the right pane, click *Refresh* to view the new virtual servers listed as storage resources available for scanning.

If the new virtual servers do not appear, you might need to give Novell File Reporter enough time to rebuild the list. Repeat [Step 7](#) and [Step 8](#) and allow for more time for the list to be rebuilt before proceeding to [Step 10](#).

- 10 Proceed to [Section 9.3, “Establishing Permissions on the Active Directory Cluster Virtual File Server,”](#) on page 71.

9.2 Configuring a Proxy Agent for Active Directory Managed Networks with Novell Storage Manager

- 1 Locate the `nfrproxy.cfg` file in the location where the `nsmengin.cfg` file resides.
In most cases, this is `C:\Novell\Storage Manager\Engine`.
The file contains commented information on how to set up proxy associations.

```
nfrproxy.cfg
;
; This file contains lines that make associations between
; an NFR Agent running on a server and a target volume or
; share on another server. The format of these proxy
; associations is as follows:
;
; AGENT_SERVER1 = TARGET_SERVER1
; AGENT_SERVER2 = TARGET_SERVER2
; ...
;
; If a single NFR Agent should perform all the scans for
; NFR, one agent may be configured as a global proxy via
; the following syntax:
;
; AGENT_SERVER = *
;
; "AGENT_SERVER" is the NCP or NetBios server name of the
; server running the NFR Agent. "TARGET_SERVER" is the
; NCP or NetBios server name of server or virtual server
; with volumes or shares to scan with NFR.
;
; A global proxy will take precedence over NFR Agents
; installed locally on a server, and should not be used in
; conjunction with individual proxy associations.
;
; Blank lines are ignored, as are comment lines beginning
; with ';' or '#'.
;
; This file must be named 'nfrproxy.cfg' (or 'NFRPROXY.CFG'
; if used in NSM 2.5.1), and it must be located in the same
; directory as the NSM Engine's or DSI's configuration
; files. Updating this file requires a restart of the NSM
; Engine or DSI service.
```

- 2 Append the proxy associations to the `nfrproxy.cfg` file, using the following format:
servername-where-NFR-Agent-is-installed=virtual-servername
- 3 Save the updated `nfrproxy.cfg` file.
- 4 Restart the Novell Storage Manager Engine.
- 5 Launch NFRAdmin.
- 6 Click *Scan Collection*.
- 7 In the right pane, click *Storage Resources > Rebuild Storage Resource List*.
- 8 When you are notified that the rebuild is in progress, click *OK*.
- 9 In the right pane, click *Refresh* to view the new virtual servers listed as storage resources available for scanning.

If the new virtual servers do not appear, you might need to give Novell File Reporter enough time to rebuild the list. Repeat [Step 7](#) and [Step 8](#) and allow for more time for the list to be rebuilt before proceeding to [Step 10](#).

- 10 Proceed to [Section 9.3, “Establishing Permissions on the Active Directory Cluster Virtual File Server,”](#) on page 71.

9.3 Establishing Permissions on the Active Directory Cluster Virtual File Server

In order for Novell File Reporter to report on the contents of shares on the server cluster resource (virtual server), you must set specific share permissions on the shares.

- 1 On the Windows server where Active Directory is installed, click *Start > Administrative Tools > Active Directory Users and Computers*.

This brings up the Active Directory Users and Computers page.

- 2 In the left pane, select the container where the virtual server is so that it is listed in the right pane.

- 3 In the right pane, right-click the virtual server and select *Manage*.

This brings up the Computer Management page.

- 4 In the left pane, navigate to the *Shares* folder so that the shares on the virtual server appear in the right pane.

- 5 On a share that contains content you want Novell File Reporter to be able to view and report on, right-click and select *Properties*.

This brings up the Properties dialog box.

- 6 Click the *Share Permissions* tab and click *Add*.

This brings up the Select Users dialog box.

- 7 In the *Enter the objects to select* field, do one of the following:

- ♦ If you installed Novell File Reporter into an Active Directory managed network that does not include Novell Storage Manager, type `NFRProxyRights` and click *Enter*.
- ♦ If you installed Novell File Reporter into an Active Directory managed network that includes Novell Storage Manager, type `NSMProxyRights` and click *Enter*.

The Properties dialog box is updated with either `NFRProxyRights` or `NSMProxyRights` listed in the *Group and user names* list.

- 8 Do one of the following:

- ♦ Select `NFRProxyRights` and select the *Allow Read* permission.
- ♦ Select `NSMProxyRights` and select the *Allow Full Control* permission.

- 9 Click the *Security* tab, and click *Edit*.

This brings up the Permissions dialog box.

- 10 Click *Add*.

This brings up the Select Users dialog box.

- 11 In the *Enter the objects to select* field, type `NFRProxyRights` or `NSMProxyRights` and click *Enter*.

The Properties dialog box is updated with either the `NFRProxyRights` or `NSMProxyRights` listed in the *Group and user names* list.

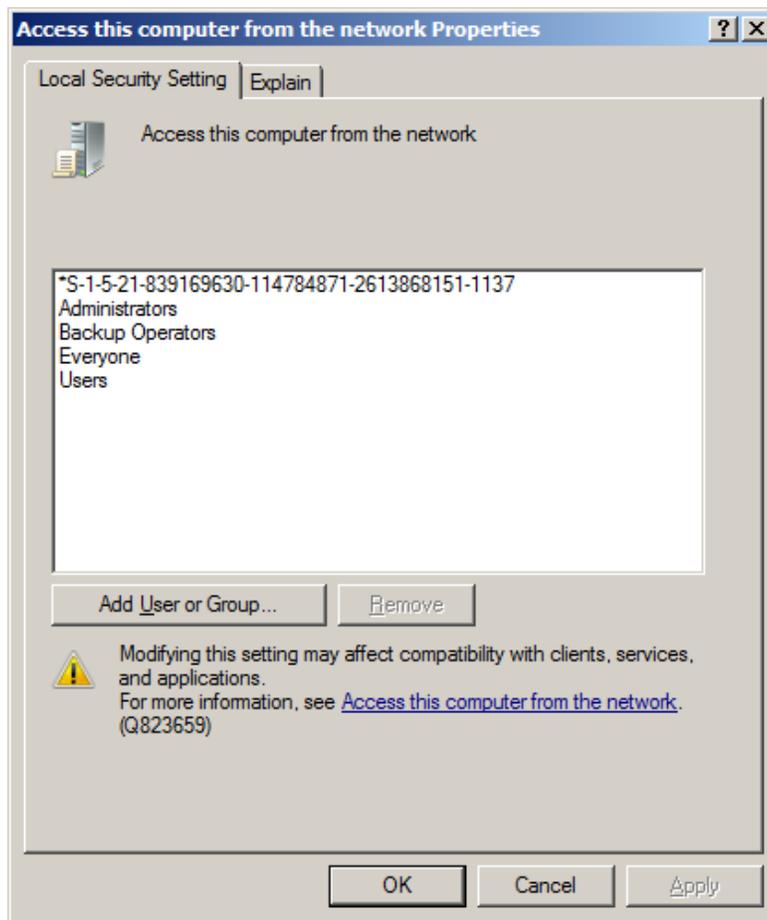
- 12 Do one of the following:
 - ♦ Select `NFRProxyRights` and verify that *Read & execute*, *List folder contents*, and *Write* permissions are selected.
 - ♦ Select `NSMProxyRights` and select the *Allow Full Control* permission.
- 13 Close the *Properties* dialog box to save the changes.
- 14 Proceed with [Section 9.4, “Adding Local Security to the Active Directory Managed Cluster,”](#) on page 72.

9.4 Adding Local Security to the Active Directory Managed Cluster

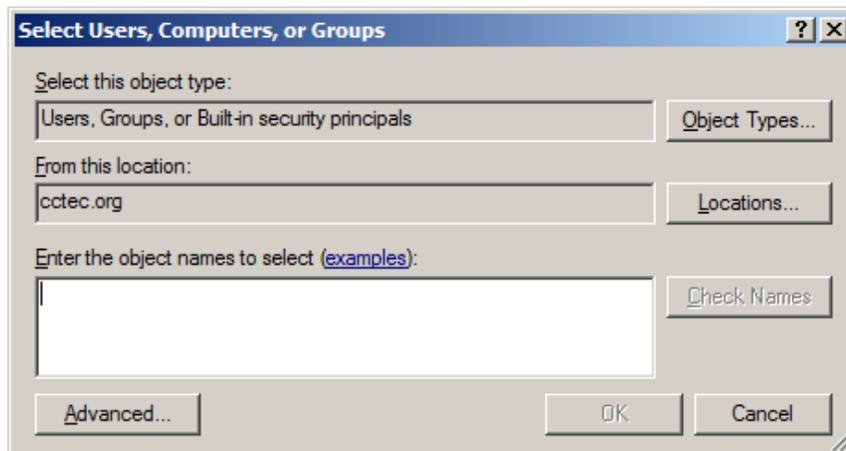
In order for Novell File Reporter to display cluster server resources (virtual servers) as storage resources, each virtual server requires a select set of Local Security Authority Privileges (LSA Privs). LSA Privs are granted on other storage resources when the NFR Agent is installed. The easiest way to grant these privileges is to make the `NFRProxyRights` or `NSMProxyRights` group a member of the LOCAL Administrators group of each virtual server.

NOTE: You must be logged in as a Domain Administrator to perform this procedure.

- 1 On each computer hosting an NFR Agent that you want to serve as a proxy agent, go to *Start > Administrative Tools > Local Security Policy*.
This brings up the Local Security Policy administration interface.
- 2 In the left pane, from *Local Policies*, browse to *User Rights Assignments*.
This displays a list of LSA Privs in the right pane.
- 3 Right-click the *Access this computer from the network* privilege and select *Properties*.



4 Click *Add User or Group*.



5 In the *Enter the object names to select* field, type one of the following:

- ◆ `domain_name\NSMProxyRights`
- ◆ `domain_name\NFRProxyRights`

6 Click *Check Names* to verify that the proxy rights group exists.

- 7 Click *OK* to save the settings.
- 8 When asked for your confirmation to make the change, click *Yes* to save the changes.

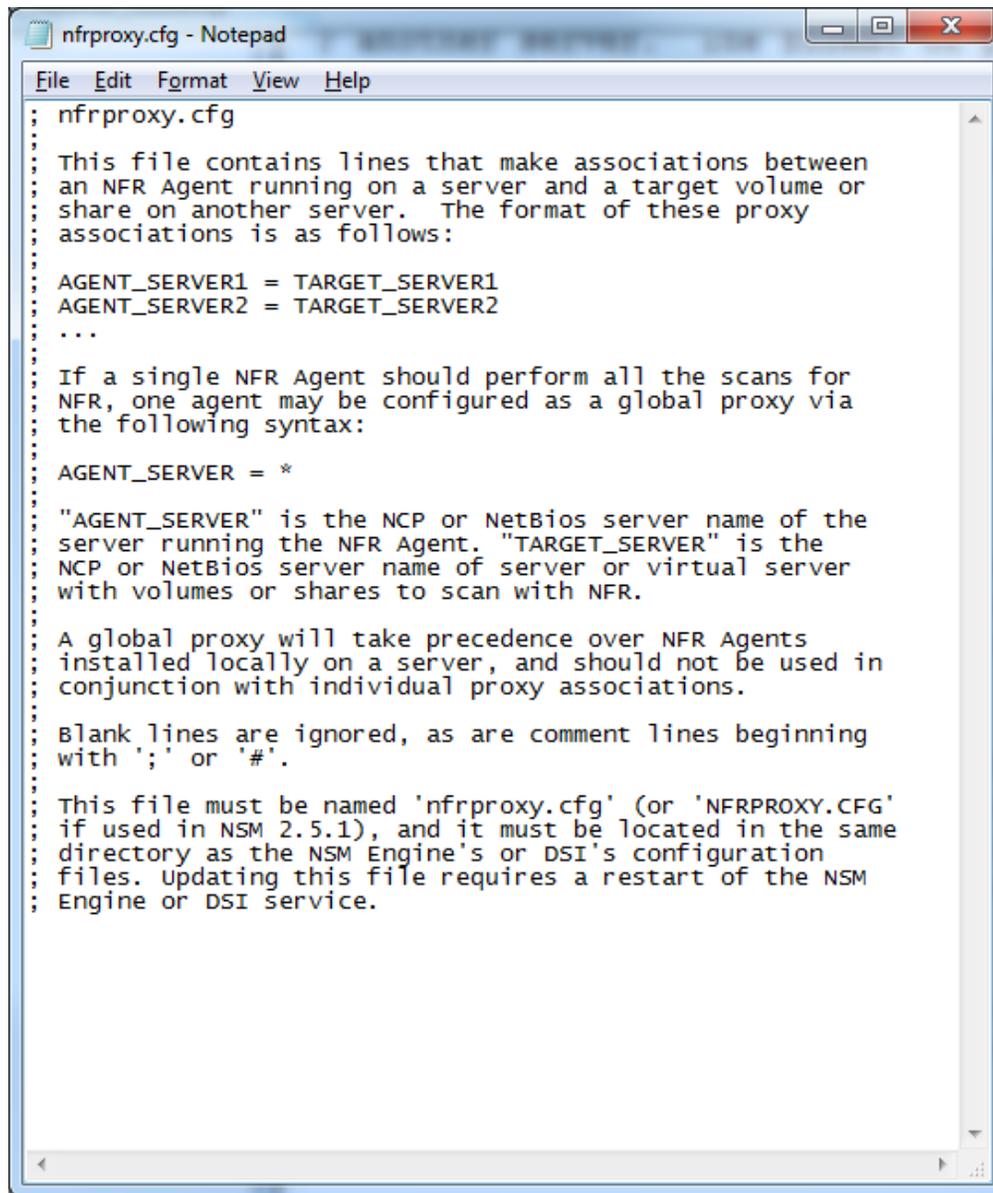
9.5 Configuring a Proxy Agent for eDirectory Managed Networks with Novell Storage Manager

IMPORTANT: If you do not have Novell Storage Manager as part of your eDirectory managed network, you cannot use Novell File Reporter to report on clusters.

- 1 On the server where the NSM Engine is installed, locate the `nfrproxy.cfg` file in the Engine `config` folder.

For example, if Novell Storage Manager was installed with the default path, the file path is `/etc/opt/novell/storagemanager/engine/config`

The file contains commented information on how to set up proxy associations.



```
nfrproxy.cfg
;
; This file contains lines that make associations between
; an NFR Agent running on a server and a target volume or
; share on another server. The format of these proxy
; associations is as follows:
;
; AGENT_SERVER1 = TARGET_SERVER1
; AGENT_SERVER2 = TARGET_SERVER2
; ...
;
; If a single NFR Agent should perform all the scans for
; NFR, one agent may be configured as a global proxy via
; the following syntax:
;
; AGENT_SERVER = *
;
; "AGENT_SERVER" is the NCP or NetBios server name of the
; server running the NFR Agent. "TARGET_SERVER" is the
; NCP or NetBios server name of server or virtual server
; with volumes or shares to scan with NFR.
;
; A global proxy will take precedence over NFR Agents
; installed locally on a server, and should not be used in
; conjunction with individual proxy associations.
;
; Blank lines are ignored, as are comment lines beginning
; with ';' or '#'.
;
; This file must be named 'nfrproxy.cfg' (or 'NFRPROXY.CFG'
; if used in NSM 2.5.1), and it must be located in the same
; directory as the NSM Engine's or DSI's configuration
; files. Updating this file requires a restart of the NSM
; Engine or DSI service.
```

- 2 Append the proxy associations to the `nfrproxy.cfg` file, using the following format:

servername-where-NFR-Agent-is-installed=virtual-servername

You need to type a separate entry for each volume you want to report on in the cluster.

- 3 Save the updated `nfrproxy.cfg` file.

This concludes the steps for configuring proxy agents for clustered servers in an eDirectory managed network.

9.6 Scanning Names in NFRAdmin

Scans specific to clustered server resources are displayed uniquely within the *Resource List* in NFRAdmin. The storage resource appears as it is entered in the `nfrproxy.cfg` file, specifically in this format:

servername-where-NFR-Agent-is-installed/virtual-servername--volume-name

In addition to the clustered server resource appearing in the format above, in some instances Novell File Reporter might also display the target server and volume:

virtual-servername/volume-name

Note the absence of the server where the NetWare NFR Agent is installed followed by the forward slash (/) and the replacement of the two dashes (--) with a forward slash (/). This type of listing is not valid and should not be used to generate reports.

A Documentation Updates

This section contains information about documentation content changes that were made in this *Novell File Reporter 1.0.2 Installation Guide* after the release of Novell File Reporter 1.0. 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:

A.1 June 22, 2012

Updates were made to the following sections:

Location	Update Description
Section 4.1, "Minimum Server Requirements for an Active Directory Managed Network Environment," on page 21	Added a new bulleted item.
Section 4.2, "Minimum Server Requirements for an Active Directory Managed Network Environment with Novell Storage Manager," on page 22	Added a new bulleted item.

A.2 March 23, 2011

Updates were made to the following sections:

Location	Update Description
Section 7.1.2, "Procedure," on page 51	Updated a screen shot. Added Steps 14-16.
Section 9.1, "Configuring a Proxy Agent for Active Directory Managed Networks without Novell Storage Manager," on page 68	Replaced a screen shot.
Section 9.2, "Configuring a Proxy Agent for Active Directory Managed Networks with Novell Storage Manager," on page 69	Replaced a screen shot. Changed the syntax in the first example.
Section 9.4, "Adding Local Security to the Active Directory Managed Cluster," on page 72	Corrected the name of one of the proxy rights groups.

Location	Update Description
Section 9.5, "Configuring a Proxy Agent for eDirectory Managed Networks with Novell Storage Manager," on page 74	Modified the Important message. Replaced the screen shot in Step 1. Updated the syntax in Step 2.
