
Micro Focus Storage Manager 5.0 for eDirectory Installation Guide

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About This Guide

This installation guide is written to provide network administrators the conceptual and procedural information for installing and configuring Micro Focus Storage Manager 5.0 for eDirectory.

- ◆ Chapter 1, “Prerequisites,” on page 7
- ◆ Chapter 2, “Licensing the Product,” on page 9
- ◆ Chapter 3, “Upgrading from Storage Manager 3.1.1 or 4.1 to 5.0,” on page 13
- ◆ Chapter 4, “Installing Storage Manager 5.0 for eDirectory,” on page 15
- ◆ Appendix A, “Engine Certificate Management,” on page 31
- ◆ Appendix B, “Documentation Updates,” on page 35

Audience

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

Feedback

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

Documentation Updates

For the most recent version of the *Micro Focus Storage Manager 5.0 for eDirectory Installation Guide*, visit the [Novell Storage Manager Web site \(http://www.novell.com/documentation/storagemanager5/index.html\)](http://www.novell.com/documentation/storagemanager5/index.html).

Additional Documentation

For additional Micro Focus Storage Manager documentation, see the following guide at the [Novell Storage Manager Documentation Web site \(http://www.novell.com/documentation/storagemanager5/\)](http://www.novell.com/documentation/storagemanager5/):

- ◆ *Micro Focus Storage Manager 5.0 for eDirectory Administration Guide*

1 Prerequisites

This section provides procedures that you must do before installing the Micro Focus Storage Manager 5.0 for eDirectory components.

- ♦ [Section 1.1, “Preparing the Files for Installation,” on page 7](#)
- ♦ [Section 1.2, “Component Installation Overview,” on page 7](#)

1.1 Preparing the Files for Installation

Micro Focus Storage Manager 5.0 is packaged as a single `SM-eDir_5_0_0.iso` file. Before you can install the Micro Focus Storage Manager 5.0 for eDirectory components, you must mount the `SM-eDir_5_0_0.iso` on the server where you are installing one of the Storage Manager components.

1.2 Component Installation Overview

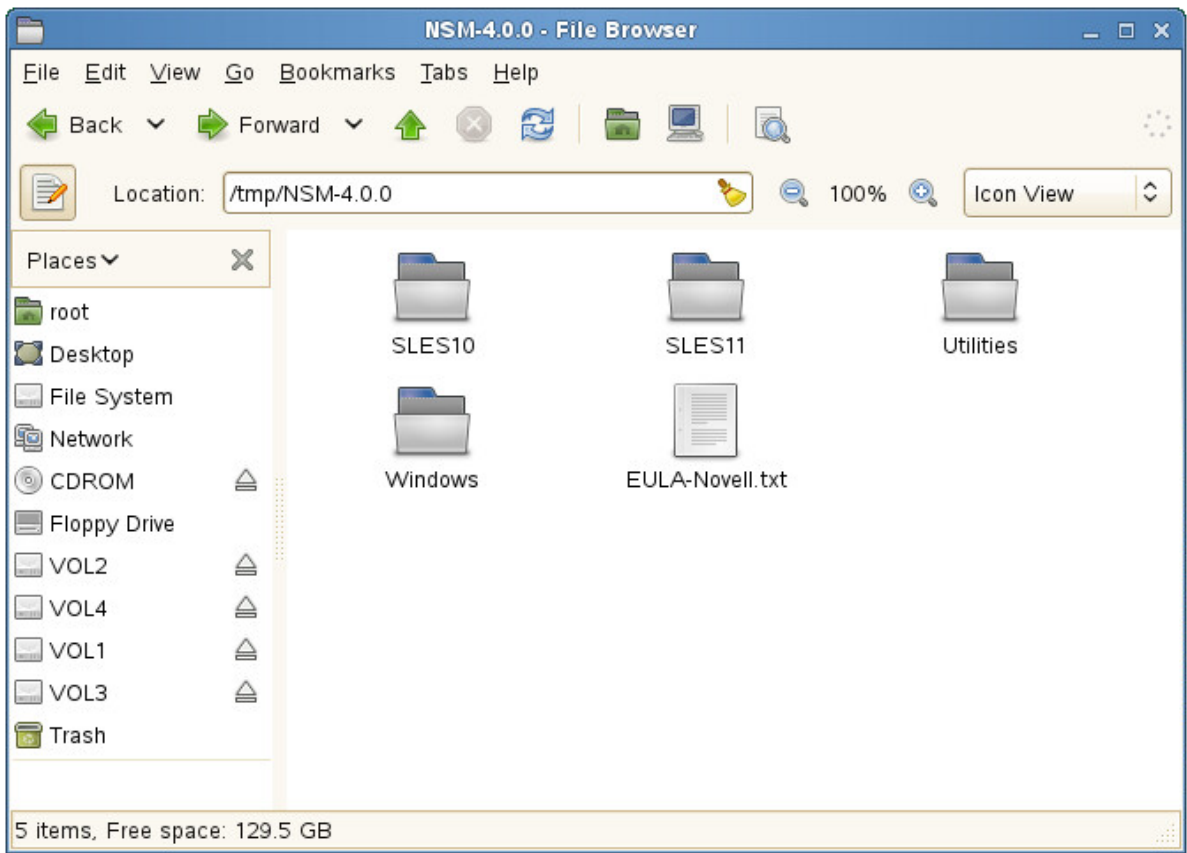
You must install the following Storage Manager 5.0 components:

- ♦ Engine
- ♦ Event Monitor
- ♦ Agents
- ♦ SAdmin

1.2.1 Installation Files

The installation files for the Engine, Event Monitor, and Linux Agents are RPMs.

- ♦ **SLES10\lx86_64** contains the Engine, Event Monitor and Agent installation RPMs for 64-bit processor servers running SUSE Linux Enterprise Server 10.
- ♦ **SLES11\lx86_64** contains the Engine, Event Monitor, and Agent installation RPMs for 64-bit processor servers running SUSE Linux Enterprise Server 11.
- ♦ **Windows** contains the SAdmin utility that is installed on a Windows server or workstation.



2 Licensing the Product

- ♦ [Section 2.1, “Licensing Overview,” on page 9](#)
- ♦ [Section 2.2, “Obtaining a License File,” on page 10](#)
- ♦ [Section 2.3, “Updating an Evaluation License File,” on page 11](#)

2.1 Licensing Overview

Micro Focus Storage Manager has two license types:

Table 2-1 License Types

License Type	Target Customer	Intended Use
Evaluation	Customers	Allows customers to develop an understanding of the power of the product.
Production	Customers	Allows customers to create and run a policy-based infrastructure in production in their environment.

The following table includes a summary of the features enabled in each license type:

Table 2-2 Feature Summary for License Types

Feature	Evaluation License	Production License
Consistency Check Reports	Limited to 100 objects in a report	Yes
Anomaly Reports	Limited to 100 rows in a report	Yes
Trustee Reports	No	Yes
Policy Path Reporter (integrated with Micro Focus File Reporter)	Limited to 100 rows in a report	Yes
Data Migration	No	Yes
Redistribution	No	Yes
Managed Objects	Limited to 100 concurrent objects	Yes
Manage Operations	Check mode can be run for multiple objects simultaneously, but management action can be taken for only one object at a time.	Yes
Action Object Support	No	Yes

2.2 Obtaining a License File

Micro Focus Storage Manager requires a production license file or evaluation license file that you obtain from Micro Focus.

- 1 In a web browser, go to `www.storagemanagersupport.com`.
- 2 On the top banner of the web page, click **License**.

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

Storage Manager Support Home License Software Documentation Support

License

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

Customer Details

Organization Name:

Contact

First Name:

Last Name:

Email:

Telephone:

Address

Street:

Street2:

City:

State/Province:

Zip/Postal Code:

Country:

Product Version

Product: Storage Manager

Version:

License Details

Directory Service: eDirectory Active Directory

eDirectory Info

Tree Name:

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

License Type: Evaluation Activation

Evaluation License Policy

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

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

Form Verification

Verify:

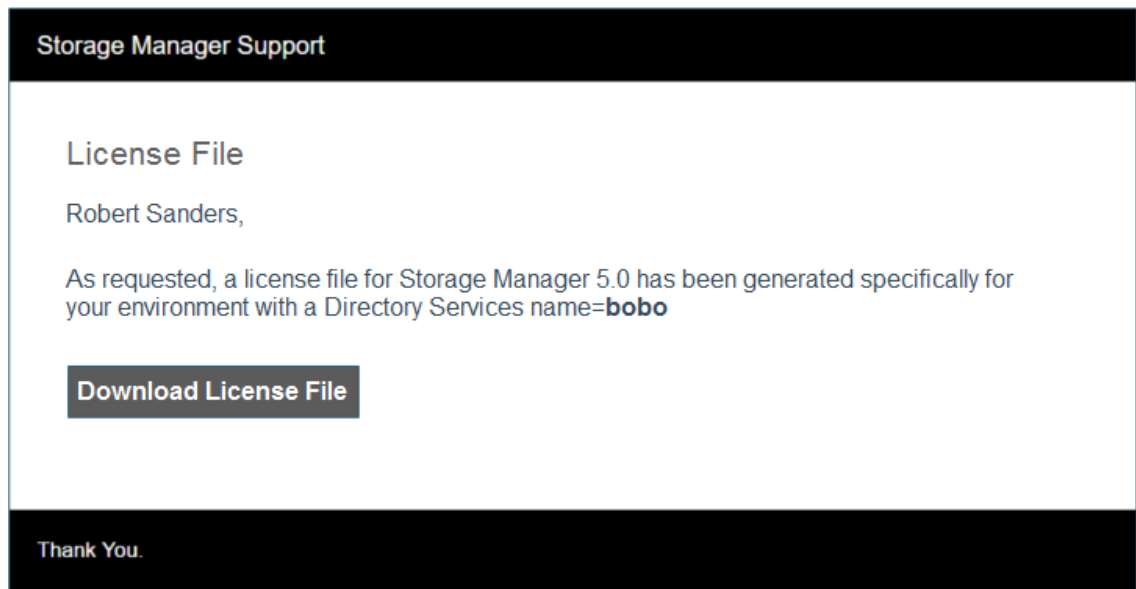
I2PA4

Enter the text above in the box below.

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

An e-mail from Storage Manager Support is automatically sent to you with an embedded link for accessing the license.



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

2.3 Updating an Evaluation License File

After you have installed Storage Manager 5.0 for eDirectory, you can update your evaluation license or production license by simply replacing the old license file with the new one. You must first rename the new license file to `SM.LIC`.

3 Upgrading from Storage Manager 3.1.1 or 4.1 to 5.0

- ♦ [Section 3.1, “Engine,” on page 13](#)
- ♦ [Section 3.2, “Event Monitor,” on page 13](#)
- ♦ [Section 3.3, “Agents,” on page 13](#)
- ♦ [Section 3.4, “SMAdmin,” on page 13](#)
- ♦ [Section 3.5, “License,” on page 13](#)

The process for upgrading from Novell Storage Manager 3.1.1 or 4.1 for eDirectory to Micro Focus Storage Manager 5.0 for eDirectory involves installing the new updated components over the existing ones.

3.1 Engine

Upgrade the Engine by following the installation procedures in [Section 4.1, “Installing the Engine,” on page 15](#).

3.2 Event Monitor

Upgrade the Event Monitor by following the installation procedures in [Section 4.3, “Installing the Event Monitor,” on page 18](#).

3.3 Agents

Upgrade the Agents by following the installation procedures in [Section 4.5, “Installing an Agent,” on page 21](#).

3.4 SMAdmin

Update SMAdmin by following the installation and configuration procedures in [Section 4.7, “Installing and Configuring SMAdmin,” on page 24](#).

3.5 License

Update the product license during the installation and configuration of SMAdmin.

4 Installing Storage Manager 5.0 for eDirectory

This section provides procedures for installing the Engine, SMAdmin, the Event Monitor, and the Agents. For information on how these components work in a Storage Manager deployment, see the *Micro Focus Storage Manager 5.0 for eDirectory Administration Guide*.

You should follow these procedures only after you have performed the prerequisite tasks in [Chapter 1, “Prerequisites,” on page 7](#), and obtained a Micro Focus Storage Manager 5.0 for eDirectory product license as indicated in [Chapter 2, “Licensing the Product,” on page 9](#).

This section also provides procedures for assigning rights and privileges to the NSMProxyRights group that is created when you install SMAdmin.

- ♦ [Section 4.1, “Installing the Engine,” on page 15](#)
- ♦ [Section 4.2, “Configuring the Engine,” on page 16](#)
- ♦ [Section 4.3, “Installing the Event Monitor,” on page 18](#)
- ♦ [Section 4.4, “Configuring the Event Monitor,” on page 19](#)
- ♦ [Section 4.5, “Installing an Agent,” on page 21](#)
- ♦ [Section 4.6, “Configuring an Agent,” on page 22](#)
- ♦ [Section 4.7, “Installing and Configuring SMAdmin,” on page 24](#)
- ♦ [Section 4.8, “Authorizing the Event Monitor,” on page 28](#)
- ♦ [Section 4.9, “Authorizing the Agents,” on page 29](#)

4.1 Installing the Engine

Storage Manager uses only one Engine per tree. The Engine can be installed on a server that meets the following minimum requirements:

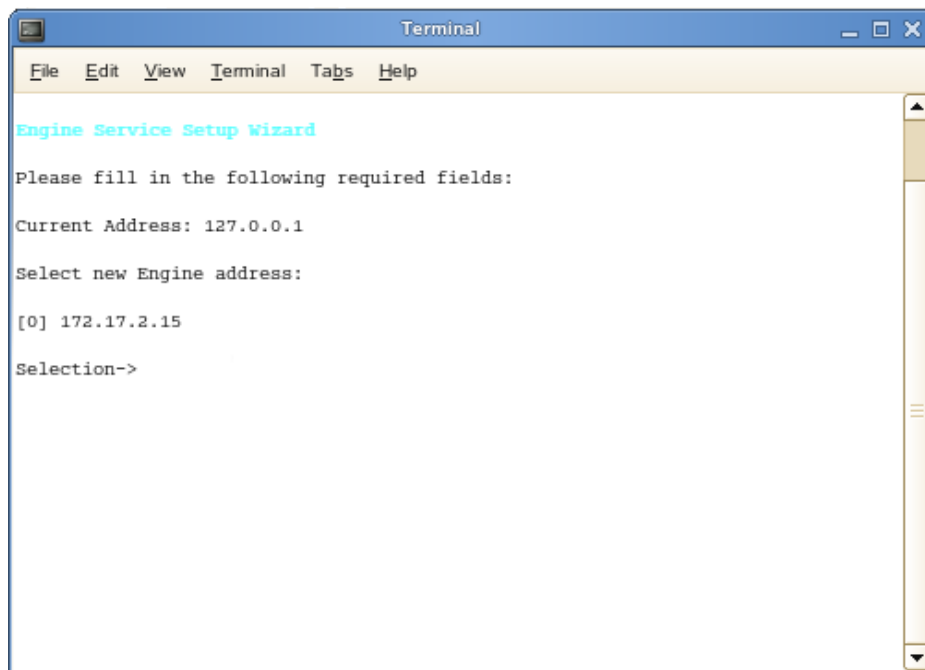
- ♦ Micro Focus Open Enterprise Server 11 SP2
 - ♦ Micro Focus Open Enterprise Server 2015
- 1 At the root of the `SM-eDir_5_0_0.iso` image, open `SLES 11` folder.
 - 2 Locate and click `novell-storage-manager-engine-5.0-xx.x86_64.rpm`.
 - 3 Save the RPM.
 - 4 Launch a terminal session.
 - 5 Do one of the following:
 - ♦ Install the Engine by typing:

```
# rpm -ivh novell-storage-manager-engine-5.0.0-xx.x86_64.rpm.
```
 - ♦ Upgrade the Engine by typing:

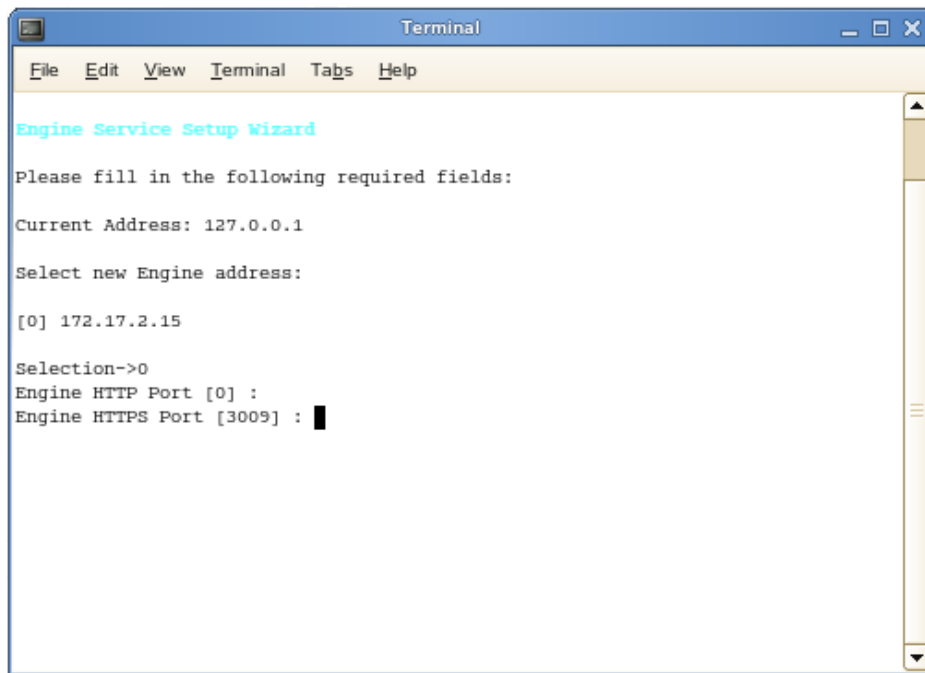
```
# rpm -Uvh novell-storage-manager-engine-5.0.0-xx.x86_64.rpm.
```
 - 6 Continue with [Section 4.2, “Configuring the Engine,” on page 16](#).

4.2 Configuring the Engine

- 1 At the same terminal, type `nsmengine-config` and press Enter.
The console is updated and looks similar to the one below.



- If your server has multiple NIC cards, multiple IP address options are listed.
- 2 Specify the IP address of the server hosting the Engine and press Enter.
If the displayed IP address is correct, you can press 0.
 - 3 When the HTTP Port [0] option appears, type 0 and press Enter.
The console is updated and looks similar to the one below:



- 4 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.
- 5 Press `y` to use the default server name for the common name of the certificate.
- 6 Press Enter to continue.
The certificate is generated.
- 7 Press Enter to continue.
- 8 When you are asked if you want to start the service, click `y` for yes.
This starts the Engine.
- 9 Press Enter to continue.
The console is updated and looks similar to the one below.

```
Terminal
File Edit View Terminal Tabs Help
-----
Engine Service Config
-----
Engine Address:          10.112.20.1
Engine HTTP Port:       0
Engine HTTPS Port      3009
Default NCP Server Address: sawgrass-edir.brett-dev.condreycorp.com
-----
[A] Engine Settings      [N] Default NCP Server Address
[S] Service Management   [C] Certificate Management
[Q] Quit
Selection-> 
```

At this point, you can navigate through the menu to see how to perform management tasks on the Engine when necessary.

- 10 Press `q` to quit.

4.3 Installing the Event Monitor

The Event Monitor can be installed on any of the following servers:

- ◆ Micro Focus Open Enterprise Server 11 SP2
- ◆ Micro Focus Open Enterprise Server 2015

Other notable information about the Event Monitor:

- ◆ You can have multiple Event Monitors per directory tree.
- ◆ As a best practice, Micro Focus recommends two Event Monitors per replica ring
- ◆ The Event Monitor must be permitted to make outbound connections through the firewall

- 1 At the root of the `SM-eDir_5_0_0.iso` image, open the `SLES11` folder.

- 2 Locate and click `novell-storage-manager-event-5.0.0-xx.xxx.rpm`.

- 3 Save the RPM.

- 4 Launch a terminal session.

- 5 Do one of the following:

- ◆ Install the Event Monitor by typing:

```
# rpm -ivh novell-storage-manager-event-5.0.0-xx.xxx.rpm.
```

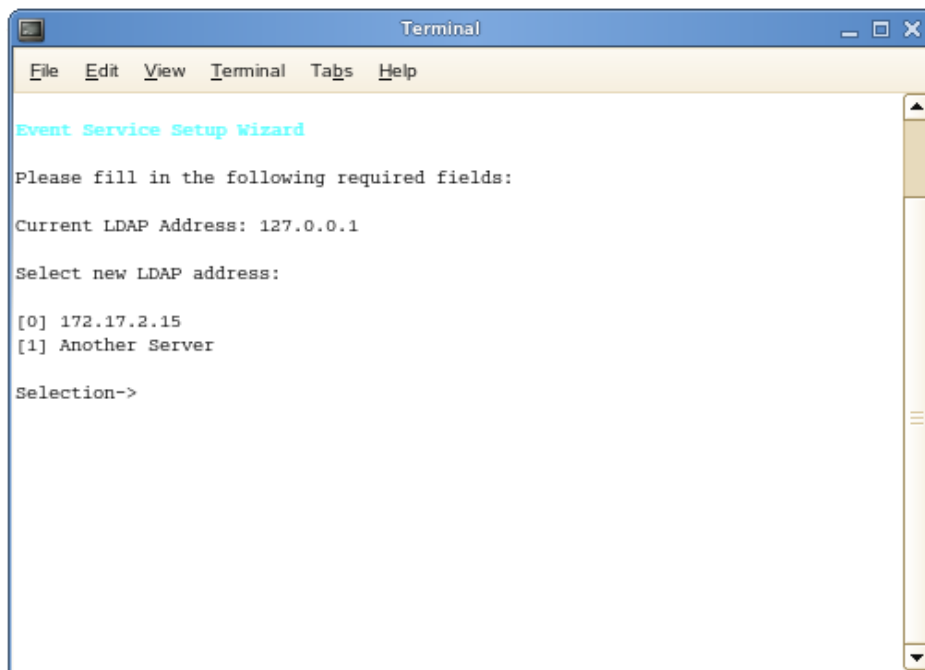
- ◆ Upgrade the Event Monitor by typing:

```
# rpm -Uvh novell-storage-manager-event-5.0.0-xx.xxx.rpm.
```

- 6 Continue with [Section 4.4, "Configuring the Event Monitor,"](#) on page 19.

4.4 Configuring the Event Monitor

- 1 At the same terminal, type `nsmevent-config` and press Enter.
The console is updated and looks similar to the one below.



- 2 Specify the IP address of the server you are going to monitor.
For example, if you are going to monitor this server, type 0. If you are going to monitor another server, type 1 and then type the IP address and other configuration information that is requested.
Event monitors should be configured to monitor at least one server per eDirectory partition ring that you care about. That is, you should monitor servers that hold a replica for each eDirectory partition that contains objects that you want to receive event data about and for which Storage Manager will consequently manage storage.
- 3 Press Enter.
The console is updated and looks similar to the one below.

```
Terminal
File Edit View Terminal Tabs Help

Event Service Setup Wizard

Please fill in the following required fields:

Current LDAP Address: 127.0.0.1

Select new LDAP address:

[0] 172.17.2.15
[1] Another Server

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.)

LDAP Port [389]:
```

- 4 Accept the default LDAP port setting by pressing Enter.
- 5 Accept the TLS-Auth LDAP SSL type by pressing Enter.
- 6 Accept the default data path by pressing Enter.

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

```
Terminal
File Edit View Terminal Tabs Help

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.)

LDAP Port [389]:

Set LDAP SSL Type:
[0] Clear
[1] SSL
[2] TLS-Auth
[3] TLS-Full

LDAP SSL Type: [2]:

Current Data Path: /var/opt/novell/storagemanager/event
New Path->
Engine Address [127.0.0.1] :
```

- 7 Specify the IP address of the server hosting the Engine and press Enter.
You can also enter a DNS entry at this prompt.
- 8 Accept the port entry of 3009 by pressing Enter.

- 9 Press Enter to accept this server as the default LDAP login server.
- 10 Press `y` to use the default server name for the common name of the certificate.
- 11 Press Enter to continue.
The certificate is generated.
- 12 Press Enter to continue.
- 13 When you are asked if you want to start the service, press `y` for yes.
This starts the Event Monitor.
- 14 Press Enter to continue.
The console is updated and looks similar to the one below.

```

Terminal
-----
Event Service Config
-----
LDAP Address:      172.17.2.15
LDAP Port:        389
LDAP SSL Type:    TLS-Auth

Data Path:        /var/opt/novell/storagemanager/event
Heartbeat:       60 seconds
Engine Address:   172.17.2.15:3009
  Use SSL:        Yes
-----
[A] LDAP Address      [P] LDAP Ports & Settings
[D] Data Path        [O] Debug Options
[S] Service Management [E] Engine Service
[V] View Console     [Q] Quit

Selection->

```

At this point, you can navigate through the menu to see how to perform management tasks on the Event Monitor when necessary.

- 15 Press `q` to quit.

4.5 Installing an Agent

An Agent can be installed on any of the following machines:

- ♦ Micro Focus Open Enterprise Server 11 SP2
- ♦ Micro Focus Open Enterprise Server 2015

Other notable information about Agents:

- ♦ The default Agent port is 3011
- ♦ A firewall inbound rule for the Agent is created during the installation

- 1 At the root of the `SM-eDir_5_0_0.iso` image, open the `SLES11` folder.
- 2 Locate and click `novell-storage-manager-agent-5.0.0-xx.xxxx.rpm`.

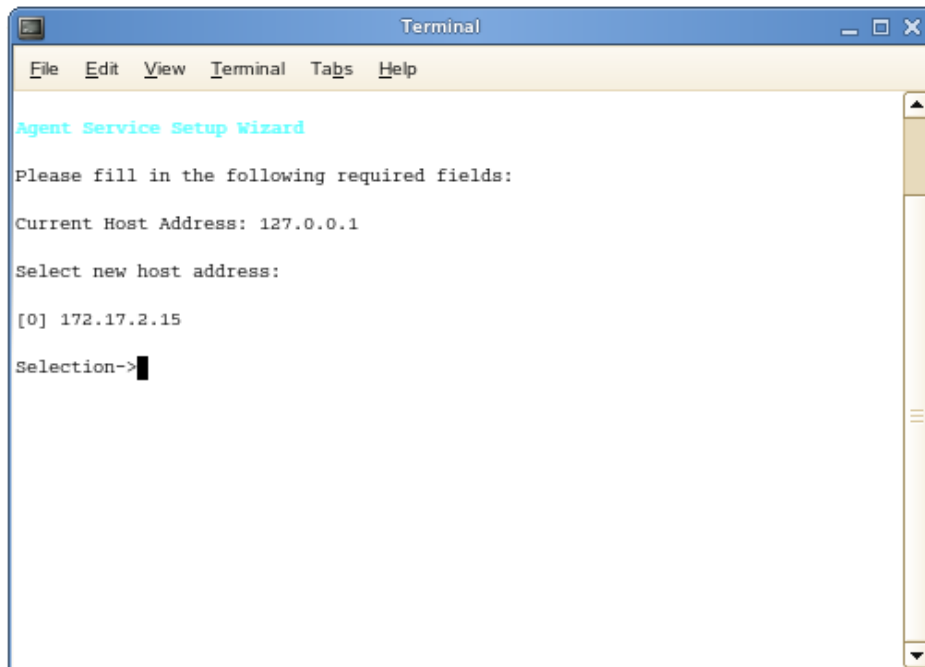
- 3 Save the RPM.
- 4 Launch a terminal session.
- 5 Do one of the following:
 - ♦ Install the Agent by typing:

```
# rpm -ivh novell-storage-manager-agent-5.0.0-xx.xxxx.rpm.
```
 - ♦ Upgrade the Agent by typing:

```
# rpm -Uvh novell-storage-manager-agent-5.0.0-xx.xxxx.rpm.
```
- 6 Continue with [Section 4.6, "Configuring an Agent,"](#) on page 22.

4.6 Configuring an Agent

- 1 From the same terminal, type `nsmagent-config` and press Enter.
The console is updated and looks similar to the one below.



- If your server has multiple NIC cards, multiple IP address options are listed.
- 2 Specify the IP address of the server hosting the Agent and press Enter.
If the displayed IP address is correct, you can press 0.
 - 3 When the HTTP Port [0] option appears, type 0 and press Enter.
The console is updated and looks similar to the one below.

```
Terminal
File Edit View Terminal Tabs Help

Agent Service Setup Wizard

Please fill in the following required fields:

Current Host Address: 127.0.0.1

Select new host address:

[0] 172.17.2.15

Selection->0
Configure Ports:
Enter new port values

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

Agent HTTP Port [0]:
Agent HTTPS Port [3011]:
```

- 4 Accept the port setting of 3011 by pressing Enter.
 - 5 Accept the default data path by pressing Enter.
 - 6 When you are asked if you want to create the new data path, press *y* for yes.
 - 7 When you are prompted for the engine address, specify the IP address for the server hosting the Engine.
 - 8 Accept the 3009 port setting for the Engine by pressing Enter.
- The console is updated and looks similar to the one below.

```
Terminal
File Edit View Terminal Tabs Help

Current Host Address: 127.0.0.1

Select new host address:

[0] 172.17.2.15

Selection->0
Configure Ports:
Enter new port values

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

Agent HTTP Port [0]:
Agent HTTPS Port [3011]:

Current Data Path: /var/opt/novell/storagemanager/agent/data
New Path->
Path does not exist. Create path? [Y/N]: y
Engine Address [] : 172.17.2.15
Engine Port [3009] :
Use SSL (Y/N) [Y]: █
```

- 9 When you are asked if you want to use SSL, press `y` for yes.
- 10 Press `y` to use the default server name for the common name of the certificate.
- 11 Press Enter to continue.
The certificate is generated.
- 12 Press Enter to continue.
- 13 When you are asked if you want to start the service, press `y` for yes.
This starts the Agent.
- 14 Press Enter to continue.
The console is updated and looks similar to the one below.

```

Terminal
File Edit View Terminal Tabs Help
-----
Agent Service Config
-----
Host Address:                10.112.20.1
Service Ports:              HTTPS: 3011  HTTP: 0

Data Path:                  /var/opt/novell/storagemanager/agent/data
Heartbeat:                  60 seconds
Engine Address:             10.112.20.1:3009
  Use SSL:                   Yes
Default NCP Server Address: sawgrass-edir.brett-dev.condreycorp.com
-----
[A] Agent Address           [D] Data Path
[E] Engine Service         [N] NCP Server Address
[O] Debug Options          [P] Agent Ports
[S] Service Management     [Q] Quit

Selection->

```

At this point, you can navigate through the menu to see how to perform management tasks when necessary.

- 15 Press `q` to quit.

4.7 Installing and Configuring SMAdmin

SMAdmin is the administrative interface for Storage Manager. It can be installed on:

- ♦ Windows 8
- ♦ Windows 7
- ♦ Windows Server 2012, 2008, or 2003

- 1 At the root of the `SM-EDIR_5_0_0.iso` image, double-click the `Windows` folder.
- 2 Click **SMAdmin-5.0.0-xxxx.msi**.
- 3 When asked if you want to save or run the file, save the file to the hard drive of a computer where you will administer Storage Manager.
- 4 From the saved location, launch the SMAdmin installation file.
- 5 When you are asked if you want to run this file, click **Run**.

An Introduction page appears in the SMAdmin Installation Wizard.

6 Read the text and click **Next**.

7 Accept the license 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 **Disk Usage** to see all available volumes with disk size and disk availability data.

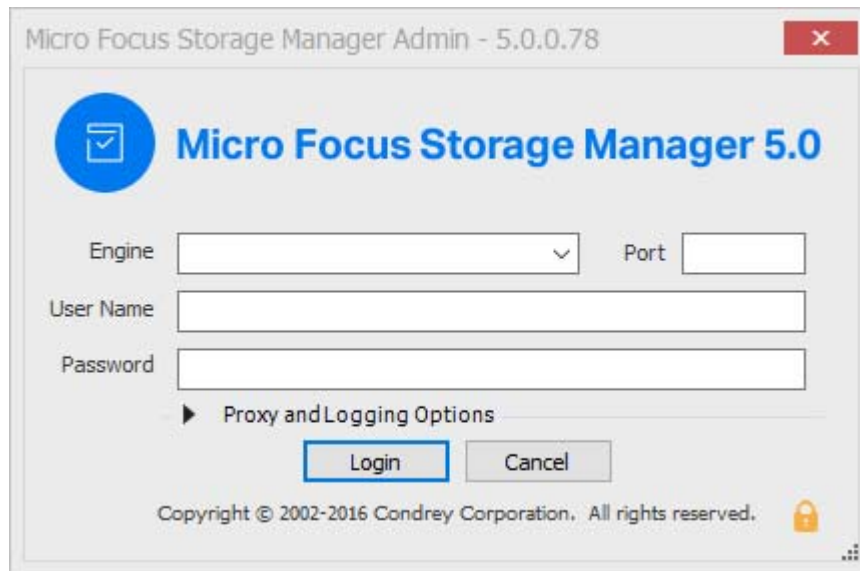
9 Click **Next**.

10 If you want to create a shortcut on the desktop, leave the **Create shortcut on Desktop** check box selected and click **Install**.

SMAdmin is installed.

11 Leave the **Launch SMAdmin 5 eDirectory** check box selected and click **Finish**.

SMAdmin is launched.



12 In the **Engine** field, specify the DNS name or IP address.

13 In the **Port** field, specify the secure port number.

The default setting is 3009.

14 Specify the username and password.

The user must be a member of the SMAdmins group to be able to log in.

15 Click **Login**.

If you are unable to log in, your proxy settings might be preventing you from doing so. Until you enter a proxy exception in your proxy settings, you can click **Proxy and Logging Options**, select **Do not use a Proxy**, then click **Login**.

The Setup Wizard welcome page appears.

16 Read the text on the page and click **Next**.

17 Do one of the following:

- ◆ Click **Browse** to locate and select the path to the license file
- ◆ Click **Get a License** to obtain an evaluation license

18 Click **Next**.

19 The following page appears, asking if you want to extend the eDirectory schema.



If you plan to manage collaborative storage or auxiliary user storage, you must extend the eDirectory schema.

20 Click **Next**.

The following page appears:



21 Accept the account name that will be created and click **Next**.

The following page appears:



- 22 Select one of the options and click **Next**.
- 23 Accept or modify the SM Administrators' Group name, leave the **Add current user to SM Administrators Group** check box selected, then click **Next**.
- 24 When you are notified that a Proxy Home share will be created on the Engine's local Proxy Home source path, click **Next**.
You are informed that Storage Manager needs to initialize the Engine and its subsystems.
- 25 Click **Next**.
- 26 When you are prompted, enter your password and click **Login**.
- 27 Proceed with [Section 4.8, "Authorizing the Event Monitor,"](#) on page 28.

4.8 Authorizing the Event Monitor

- 1 In SMAAdmin, click the **Configure** tab.
- 2 Click **Event Servers**.
- 3 Select the listed server.
- 4 Click **Authorize**.
- 5 When you are asked if you want to authorize the selected event monitor, click **Yes**.
- 6 When the Results page appears, click **Close**.
- 7 Proceed with [Section 4.9, "Authorizing the Agents,"](#) on page 29.

4.9 Authorizing the Agents

- 1 In NSMAdmin, click the **Configure** tab.
- 2 Click **Agent Servers**.
- 3 Select a listed server.
- 4 Click **Authorize**.
- 5 When you are asked if you want to authorize the selected event monitor, click **Yes**.
- 6 When the Results page appears, click **Close**.

A Engine Certificate Management

The enhanced SSL certificate management capabilities in Storage Manager allow you to generate your own certificates. This section provides information for managing these certificates.

- ♦ [Section A.1, “Upgrading Earlier Versions of Storage Manager,” on page 31](#)
- ♦ [Section A.2, “Creating a New Certificate,” on page 31](#)
- ♦ [Section A.3, “Managing Existing Certificates,” on page 32](#)

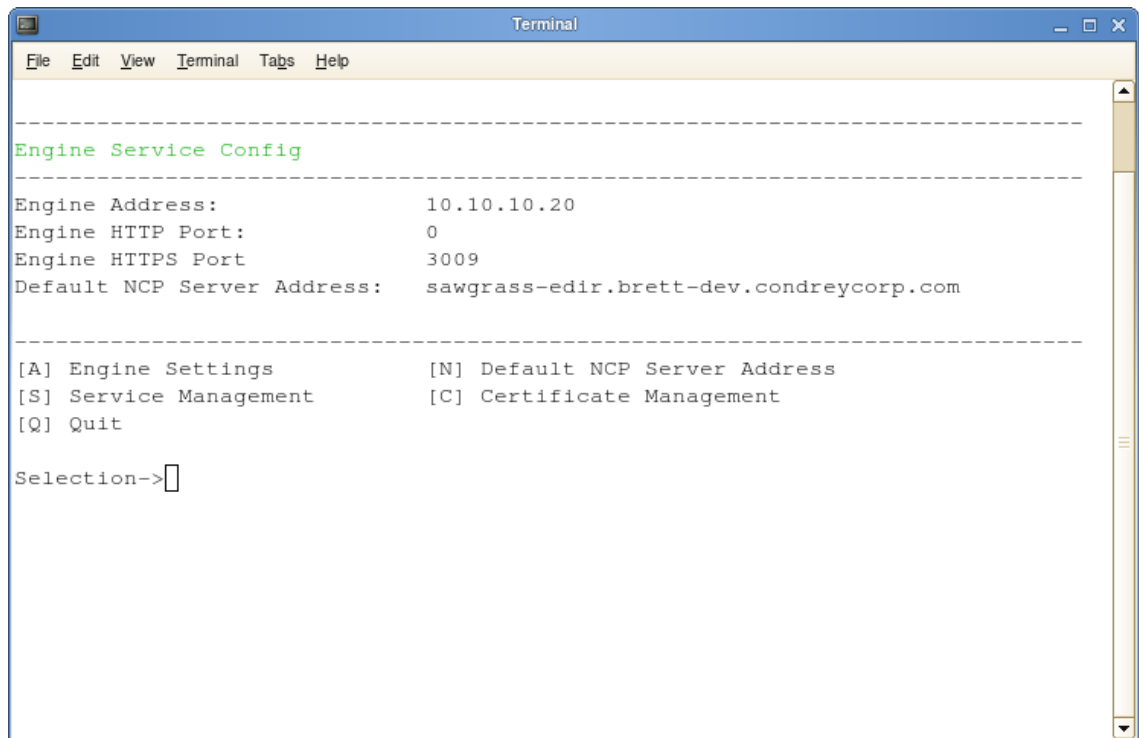
A.1 Upgrading Earlier Versions of Storage Manager

When you upgrade the Engine from any earlier version to 3.1, a new SSL certificate must be generated before the engine can start successfully. If the `rcnsmengine` script is invoked to start the Engine before a new certificate is created, the script generates a certificate that uses the default settings.

A.2 Creating a New Certificate

You can use the Certificate Management Wizard to create the initial certificate if the Engine has not been started since Storage Manager 3.1.1 was installed. You can also create another certificate if you need to change the default settings.

- 1 Load the Engine Configuration Utility by running `nsmengine-config`.



```
Terminal
File Edit View Terminal Tabs Help
-----
Engine Service Config
-----
Engine Address:          10.10.10.20
Engine HTTP Port:       0
Engine HTTPS Port:      3009
Default NCP Server Address: sawgrass-edir.brett-dev.condreycorp.com
-----
[A] Engine Settings      [N] Default NCP Server Address
[S] Service Management   [C] Certificate Management
[Q] Quit
Selection-> [ ]
```

2 In the console, enter `c` to start the Certificate Management Wizard.

3 Select the settings you want, then press Enter.

The Certificate Management Wizard prompts you to generate a new OpenSSL certificate using the default server name for the common name of the certificate. You can choose to use a different name for the common name of the certificate if you want.

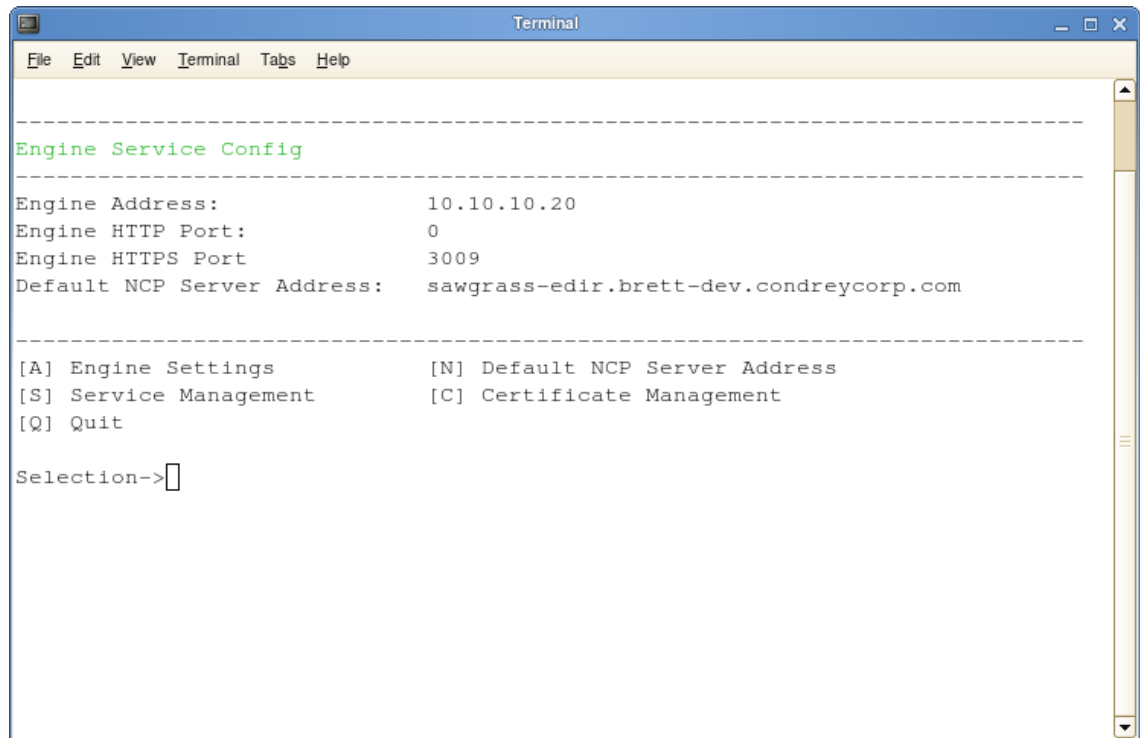
The Certificate Management Wizard generates a 2048-bit RSA private key and stores it as a `.pem` file in the `Engine config` directory. The details of the certificate are then displayed in the console.

4 Start the Engine, either through the **Service Management** submenu or at the console with the `rcnsmengined start` command.

A.3 Managing Existing Certificates

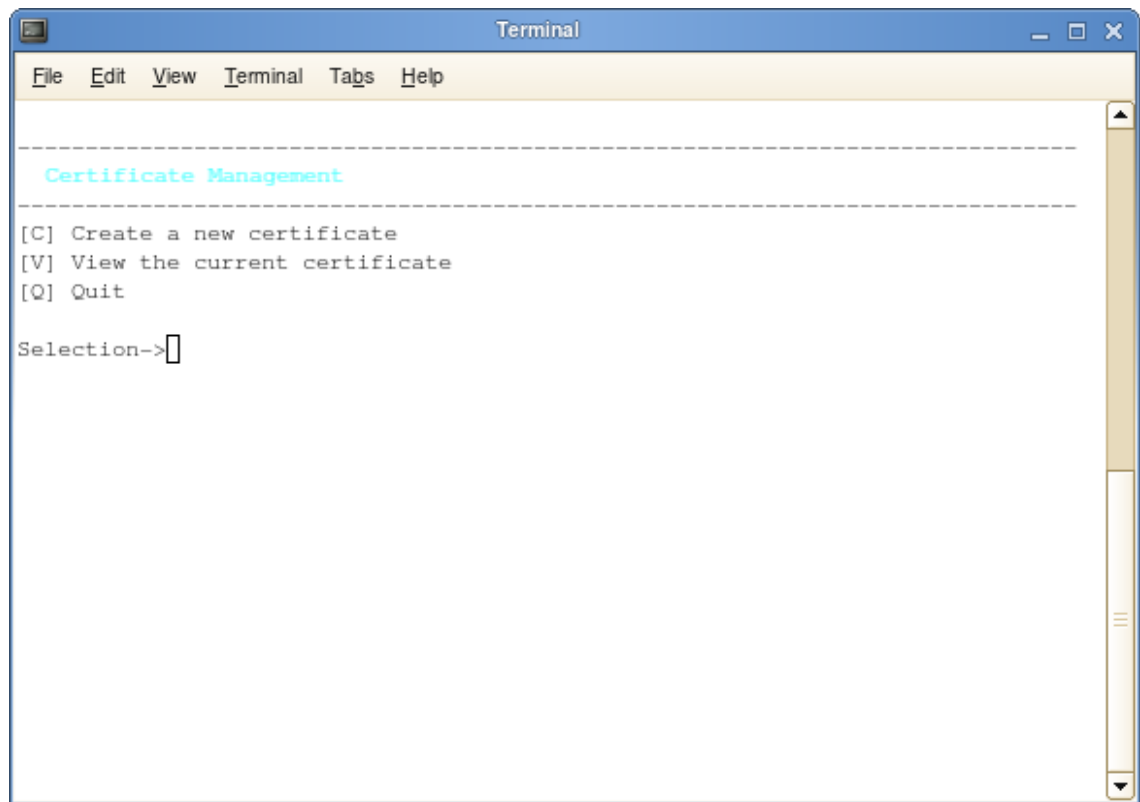
After a certificate has been created, you can use the Certificate Management Wizard to view the details of an existing certificate.

1 Load the Engine Configuration Utility by running `nsmengine-config`.



```
Terminal
File Edit View Terminal Tabs Help
-----
Engine Service Config
-----
Engine Address:          10.10.10.20
Engine HTTP Port:       0
Engine HTTPS Port:      3009
Default NCP Server Address: sawgrass-edir.brett-dev.condreycorp.com
-----
[A] Engine Settings      [N] Default NCP Server Address
[S] Service Management   [C] Certificate Management
[Q] Quit
Selection->
```

2 In the console, enter `c` to start the Certificate Management Wizard.



3 Enter v to view the certificate.

B Documentation Updates

This section contains information about documentation content changes that were made in this *Micro Focus Storage Manager 5.0 for eDirectory Installation Guide* after the initial release of Storage Manager 3.0 for eDirectory. The changes are listed according to the date they were published.

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

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

The documentation was updated on the following dates:

B.1 December 8, 2016

Updates were made to the following sections:

Location	Update Description
Section 4.1, "Installing the Engine," on page 15.	Added RPM command for upgrading the Engine.
Section 4.3, "Installing the Event Monitor," on page 18.	Added RPM command for upgrading the Event Monitor.
Section 4.5, "Installing an Agent," on page 21.	Added RPM command for upgrading an Agent.

B.2 July 19, 2016

Based on the re-branding of the product, updates were made to some filenames and paths throughout the manual.

B.3 October 7, 2014

Updates were made to the following sections:

Location	Update Description
Chapter 3, "Upgrading from Storage Manager 3.1.1 or 4.1 to 5.0," on page 13.	New section.

B.4 October 17, 2013

Updates were made to the following sections:

Location	Update Description
Section 4.4, "Configuring the Event Monitor," on page 19.	Corrected the syntax in Step 1 .

B.5 February 13, 2013

Updates were made to the following sections:

Location	Update Description
Chapter 3, "Upgrading from Storage Manager 3.1.1 or 4.1 to 5.0," on page 13.	Updated the chapter to include NSM Engine, Event Monitor, and NSM Agent support for Open Enterprise Server 11 and Open Enterprise Server 11 SP1.
Chapter 4, "Installing Storage Manager 5.0 for eDirectory," on page 15.	Updated the chapter to include NSM Engine, Event Monitor, and NSM Agent support for Open Enterprise Server 11 and Open Enterprise Server 11 SP1.
Section 4.2, "Configuring the Engine," on page 16.	Removed support for a server host with an x86 processor.
Section 4.7, "Installing and Configuring SMAdmin," on page 24.	Updated the requirements to include the .NET 4.0 (Full) Framework. Updated the supported servers to include Windows Server 2012.

B.6 January 18, 2013

Updates were made to the following sections:

Location	Update Description
Multiple locations throughout the manual.	Changed references of 3.0.x to 3.1.

B.7 May 18, 2012

Updates were made to the following sections:

Location	Update Description
Appendix A, "Engine Certificate Management," on page 31.	New appendix.

B.8 February 2, 2012

Updates were made to the following section:

Location	Update Description
Throughout the manual.	Changed 3.0.2 to 3.0.x.

B.9 February 14, 2011

Updates were made to the following section:

Location	Update Description
Section 2.1, "Licensing Overview," on page 9	Overview of license types and the features and capabilities enabled in each.
