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The software is designed to run in an environment containing third party elements meeting certain prerequisites. These may include operating systems, directory services, databases, and other components or technologies. See the accompanying prerequisites list for details.

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Third party systems emulating any these elements must fully adhere to and support the appropriate APIs, standards, and protocols in order for the software to function. Support of the software in conjunction with such emulating third party elements is determined on a case-by-case basis and may change at any time.
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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 5.3 for eDirectory.

- Chapter 1, "Prerequisites," on page 7
- Chapter 2, "Licensing the Product," on page 9
- Chapter 3, “Upgrading from Storage Manager 5.0 to 5.3,” on page 11
- Chapter 4, “Installing Storage Manager 5.3 for eDirectory,” on page 13
- Appendix A, “Documentation Updates,” on page 31

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 5.3 for eDirectory Installation Guide, visit the Micro Focus Storage Manager Web site (http://www.novell.com/documentation/storagemanager5/index.html).

Additional Documentation

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

- Micro Focus Storage Manager 5.3 for eDirectory Administration Guide
1 Prerequisites

This section provides procedures that you must do before installing the Micro Focus Storage Manager 5.3 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 5.3 is packaged as a single StorageManager_5_3_0-x64.iso file. Before you can install the Micro Focus Storage Manager 5.3 for eDirectory components, you must mount the StorageManager_5_3_0-x64.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 5.3 components:

- Engine
- Event Monitor
- Agents
- Admin Client

1.2.1 Installation Files

The installations files for each of the Storage Manager 5.3 for eDirectory components are located at the root of the ISO image. The installation files for the Engine, Event Monitor, and Linux Agents are RPMs. The installation file for the Admin Client is a Windows executable file.
Prerequisites
2 Licensing the Product

- Section 2.1, “Licensing Overview,” on page 9
- Section 2.2, “Obtaining a License File,” on page 9
- Section 2.3, “Updating an Evaluation License File,” on page 10

2.1 Licensing Overview

Micro Focus Storage Manager has two license types:

<table>
<thead>
<tr>
<th>License Type</th>
<th>Target Customer</th>
<th>Intended Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Customers</td>
<td>Allows customers to develop an understanding of the power of the product. This is a license that is good for 60 days from the date it is generated.</td>
</tr>
<tr>
<td>Production</td>
<td>Customers</td>
<td>Allows customers to create and run a policy-based infrastructure in production in their environment.</td>
</tr>
</tbody>
</table>

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 left column of the web page, click License.
   A new web page appears with options for obtaining the license.
3 From the applicable license section, click either Server1 or Server2. A license request form appears.

4 In the license request form, 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.

5 In the email, click the link to download the license file. A new Access web page is opened.

6 From the Access page, select the listed license file and click the arrow icon to download the license.

7 Note where the license file is saved. You need to retrieve the license during the installation of the Admin Client.

### 2.3 Updating an Evaluation License File

After you have installed Storage Manager 5.3 for eDirectory, you can update your evaluation license or production license by simply replacing the old license file with the new one.

1 From the Admin Client, click the Configure tab.

2 Click the Engine Config option.

3 Click the License Update tab.

4 Click Browse to locate and select the new license.

5 Click Upload to upload the license.
Upgrading from Storage Manager 5.0 to 5.3

- Section 3.1, “Engine,” on page 11
- Section 3.2, “Event Monitor,” on page 11
- Section 3.3, “Agents,” on page 11
- Section 3.4, “Admin Client,” on page 11
- Section 3.5, “License,” on page 11

The process for upgrading from Storage Manager 5.0 for eDirectory to Storage Manager 5.3 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 13.

3.2 Event Monitor

Upgrade the Event Monitor by following the installation procedures in Section 4.3, “Installing the Event Monitor,” on page 16.

3.3 Agents

Upgrade the Agents by following the installation procedures in Section 4.5, “Installing an Agent,” on page 20.

3.4 Admin Client

Update the Admin Client by following the installation and configuration procedures in Section 4.7, “Installing and Configuring the Admin Client,” on page 24.

3.5 License

Update the product license during the installation and configuration of the Admin Client.
4 Installing Storage Manager 5.3 for eDirectory

This section provides procedures for installing the Engine, the Admin Client, the Event Monitor, and the Agents. For information on how these components work in a Storage Manager deployment, see the Micro Focus Storage Manager 5.3 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 the Admin Client.

- Section 4.1, “Installing the Engine,” on page 13
- Section 4.2, “Configuring the Engine,” on page 13
- Section 4.3, “Installing the Event Monitor,” on page 16
- Section 4.4, “Configuring the Event Monitor,” on page 17
- Section 4.5, “Installing an Agent,” on page 20
- Section 4.6, “Configuring an Agent,” on page 21
- Section 4.7, “Installing and Configuring the Admin Client,” 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 2018 SP2
- Micro Focus Open Enterprise Server 2018 SP1

1 At the root of the StorageManager_5_3_0-x64.iso image, locate and click storagemanager-engine-5.3-xx.x86_64.rpm.
2 Save the RPM.
3 Launch a terminal session.
4 Install the Engine RPM package by typing:
   
   # rpm -Uvh storagemanager-engine-5.3.0-xx.x86_64.rpm.


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.

```
Engine Service Setup Wizard
Please fill in the following required fields:
Current Address: 127.0.0.1
Select new Engine address:
[0] 172.17.2.152
Selection->
```

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 \textit{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 \textit{Y} for yes.
   This starts the Engine.

9 Press Enter to continue.

   The console is updated and looks similar to the one below.
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 2018 SP2
- Micro Focus Open Enterprise Server 2018 SP1

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 `StorageManager_5_3_0-x64.iso` image, locate and click `storagemanager-event-5.3.0-xx.xxx.rpm`.

2 Save the RPM.

3 Launch a terminal session.

4 Install the Event Monitor RPM package by typing:
    ```
    # rpm -Uvh storagemanager-event-5.3.0-xx.xxx.rpm.
    ```

5 Continue with Section 4.4, “Configuring the Event Monitor,” on page 17.
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.

   ![Console Output]

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

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 2018 SP2
- Micro Focus Open Enterprise Server 2018 SP1

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 StorageManager_5_3_0-x64.iso image, locate and click `storagemanager-agent-5.3.0-xx.xxxx.rpm`.

2. Save the RPM.

3. Launch a terminal session.

4. Install the Agent RPM package by typing:

   ```bash
   # rpm -Uvh storagemanager-agent-5.3.0-xx.xxxx.rpm.
   ```

5. Continue with Section 4.6, “Configuring an Agent,” on page 21.
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.

   ![Console Screenshot](image)

   **Agent Service Setup Wizard**

   Please fill in the following required fields:

   Current Host Address: 127.0.0.1

   Select new host address:

   [0] 172.17.2.152

   Selection->

   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.
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.
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.
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 the Admin Client

The Admin Client is the administrative interface for Storage Manager. It can be installed on:

- Windows 10
- Windows Server 2019, 2016, or 2012 R2

1. At the root of the `StorageManager_5_3_0-x64.iso` image, click `StorageManager-Admin-5.3.0-x64-xx.exe`.
2. 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.
3. From the saved location, launch the Admin Client installation file.
4. When you are asked if you want to run this file, click `Run`.
   An Introduction page appears in the Admin Client Installation Wizard.
5. Read the text and click `Next`.
6. Accept the license terms and click `Next`.
7. 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.
8. Click `Next`. 
If you want to create a shortcut on the desktop, leave the Create shortcut on Desktop check box selected and click Install.

The Admin Client is installed.

Click the Run Admin Client button.

The Admin Client is launched.

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

In the Port field, leave the default port setting to 3009.

Specify the username and password.

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

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.

Read the text on the page and click Next.

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

Click Next.

A prompt appears asking if you want to extend the eDirectory schema.
18 Do one of the following:

- If you plan to manage collaborative storage or auxiliary user storage, extend the eDirectory schema by verifying that the Extend the schema check box is selected and click Next.
- If you do not plan to manage collaborative storage or auxiliary user storage, deselect the Extend the schema check box and click Next.

19 Click Next.

The following page appears:
Accept the account name that will be created and click Next.
The following page appears:
21 Select one of the options and click Next.

22 Accept or modify the SM Administrators’ Group name, leave the Add current user to SM Administrators Group check box selected, then click Next.

23 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.

24 Click Next.

25 When you are prompted, enter your password and click Login.


### 4.8 Authorizing the Event Monitor

1 In the Admin Client, 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 the Admin Client, 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.
This section contains information about documentation content changes that were made in this *Micro Focus Storage Manager 5.3 for eDirectory Installation Guide* after the release of Storage Manager 5.0 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:

### A.1 June 1, 2020

<table>
<thead>
<tr>
<th>Location</th>
<th>Update Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 4.1, “Installing the Engine,” on page 13.</td>
<td>Updated list of supported host operating systems.</td>
</tr>
<tr>
<td>Section 4.3, “Installing the Event Monitor,” on page 16.</td>
<td>Updated list of supported host operating systems.</td>
</tr>
<tr>
<td>Section 4.5, “Installing an Agent,” on page 20.</td>
<td>Updated list of supported host operating systems.</td>
</tr>
<tr>
<td>Section 4.7, “Installing and Configuring the Admin Client,” on page 24.</td>
<td>Updated list of supported host operating systems.</td>
</tr>
</tbody>
</table>

### A.2 July 19, 2016

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