

Micro Focus Storage Manager 5.3 for eDirectory Installation Guide

June 1, 2020

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Contents

	Abo	ut This Guide 5
1	Prer	equisites 7
	1.1 1.2	Preparing the Files for Installation
2	Lice	nsing the Product 9
	2.1 2.2 2.3	Licensing Overview
3	Upg	rading from Storage Manager 5.0 to 5.3 11
	3.1 3.2 3.3 3.4 3.5	Engine 11 Event Monitor 11 Agents 11 Admin Client 11 License 11
4	Insta	Illing Storage Manager 5.3 for eDirectory 13
	4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9	Installing the Engine13Configuring the Engine13Installing the Event Monitor16Configuring the Event Monitor17Installing an Agent20Configuring an Agent21Installing and Configuring the Admin Client24Authorizing the Event Monitor28Authorizing the Agents29
A	Doci	umentation Updates 31
	A.1 A.2	June 1, 2020

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.

	torageManage	r_5_3_0 →		Q :: =	-	×
⊘ Recent						
🏠 Home	StorageMan	storageman	storageman	storageman		
Documents	ager- Admin-	ager-agent- 5.3.0-14.	ager- engine-	ager-event- 5.3.0-33.		
🕹 Downloads	5.3.0-x64- 22.exe	x86_64.rpm	5.3.0-45. x86_64.rpm	x86_64.rpm		
J Music						
Pictures						
Videos						
🛅 Trash						

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 2-1 License Types

License Type	Target Customer	Intended Use
Evaluation	Customers	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.
Production	Customers	Allows customers to create and run a policy-based infrastructure in production in their environment.

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.

Home	Product License – 5.x	printer friendly
Version 6.5 for AD Access	Floddet Elcense – 5.x	
Version 5.3 for eDir <u>Download</u> <u>Licensing</u> Documentation	Welcome to the Storage Manager 5.x License and Activation page. Here you w either request a Evaluation license key or activate a Production license key, which to you via e-mail. Please select either license generation server.	
Version 5.0 for eDir	Option N eDire	ectory
 <u>Download</u> <u>Licensing</u> 		
Documentation	Evaluation License Serve	r1
Support Forums	You can obtain a free 60 day Unlimited use	_
	evaluation license for Storage Manager by using <u>Server</u> one of the following servers:	<u>12</u>
	Production License Activation Serve	<u>1</u>
	Select one of the following links to proceed to a <u>Server</u> server to activate your Storage Manager license:	12

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.

3 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

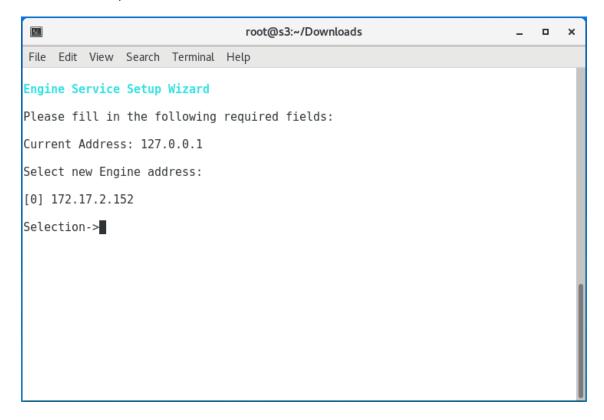
Storage Manager uses only one Engine per tree. The Engine can be installed on a server that meets the following minimum requirements:

- 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 storagemanagerengine-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.
- **5** Continue with Section 4.2, "Configuring the Engine," on page 13.

4.2 Configuring the Engine

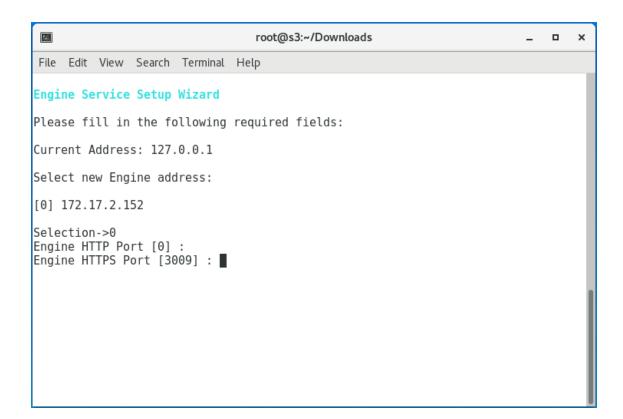
1 At the same terminal, type nsmengine-config and press Enter.

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 x for yes. This starts the Engine.
- 9 Press Enter to continue.

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 storagemanagerevent-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.

```
      ■
      root@s3:~/Downloads
      _
      □
      ×

      File Edit View Search Terminal Help

      Event Service Setup Wizard

      Please fill in the following required fields:

      Current LDAP Address:

      Select new LDAP address:

      [0] 172.17.2.152

      [1] Another Server

      Selection->
```

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.

```
۶___
                                 root@s3:~/Downloads
                                                                             ×
 File Edit View Search Terminal Help
Event Service Setup Wizard
Please fill in the following required fields:
Current LDAP Address:
Select new LDAP address:
[0] 172.17.2.152
[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.

۶___ root@s3:~/Downloads File Edit View Search Terminal 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: 172.17.2.152

×

- 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 $_{\rm Y}$ for yes. This starts the Event Monitor.
- **14** Press Enter to continue.

					го	ot@s3:~/Downloads	-	×
File	Edit	View	Search	Terminal	Help			
Even	t Ser	vice	Config					
LDAP	Port	:		172.17.2 389 TLS-Auth				 l
Hear Engi	Path tbeat ne Ac se SS	:: Idress		60 secon 172.17.2	ds	ell/storagemanager/event 3009		l
[D] [S]	Data Servi		nagemer		[0] [E]	LDAP Ports & Settings Debug Options Engine Service Quit		 l
Sele	ctior	1->						

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 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 storagemanageragent-5.3.0-xx.xxxx.rpm.
- 2 Save the RPM.
- 3 Launch a terminal session.
- 4 Install the Agent RPM package by typing:
 - # rpm -Uvh storagemanager-agent-5.3.0-xx.xxx.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.

```
root@s3:~/Downloads _ □ ×
File Edit View Search Terminal Help
Agent Service Setup Wizard
Please fill in the following required fields:
Current Host Address: 127.0.0.1
Select new host address:
[0] 172.17.2.152
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.

۶___ root@s3:~/Downloads × File Edit View Search Terminal Help Agent Service Setup Wizard Please fill in the following required fields: Current Host Address: 127.0.0.1 Select new host address: [0] 172.17.2.152 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]:

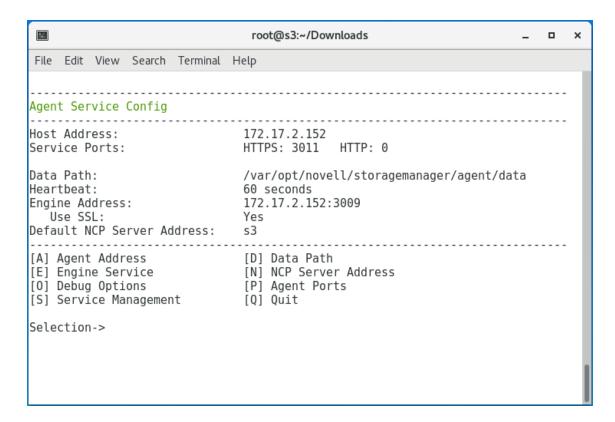
- 4 Accept the port setting of 3011 by pressing Enter.
- 5 Accept the default data path by pressing Enter.
- **6** When you are asked if you want to create the new data path, press y for yes.
- **7** When you are prompted for the engine address, specify the IP address for the server hosting the Engine.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

```
۶.
                                 root@s3:~/Downloads
                                                                             ×
 File Edit View Search Terminal Help
Current Host Address: 127.0.0.1
Select new host address:
[0] 172.17.2.152
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: 172.17.2.152
Engine Port [3009] :
Use SSL (Y/N) [Y]: y
```

- **9** When you are asked if you want to use SSL, press $_{\rm Y}$ 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.



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.

9 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.

10 Click the Run Admin Client button.

The Admin Client is launched.

SM	Micro Focus Storage Manager Admin - 5.3.0.9	×
SM	Storage Manager	
Engine	✓ Port 3009	
User Name		
Password		
	Proxy and Logging Options	
	Login <u>C</u> ancel	
	Copyright 2020 Condrey Corporation.	A

- 11 In the Engine field, specify the DNS name or IP address.
- 12 In the Port field, leave the default port setting to 3009.
- 13 Specify the username and password.

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

14 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.

- 15 Read the text on the page and click Next.
- **16** 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
- 17 Click Next.

A prompt appears asking if you want to extend the eDirectory schema.

sm Setup	×					
SM Storage Manager						
Micro Focus Storage Manager requires extensions to the eDirectory schema.						
There are no side effects to re-applying the schema extensions to an existing installation.						
IMPORTANT: Be sure that time is synchronized to the network on th server holding the Master replica of the [ROOT] partition.	e					
NOTE: If you are applying maintenance to a pre-existing installation, you should reapply the schema as there have been updates. Micro Focus Storage Manager will not run without these newer updates!						
Extend the schema						
Back Next	Cancel					

- **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:

sm Setup	×						
SM Storage Manager							
Micro Focus Storage Manager needs to create a service proxy account.							
By default, this account will be created in the same container as the logged-in user.							
If desired, a different container and account name may be entered using a fully distinguished name like ProxyUser.OU1.OU.ORG.							
Service Proxy Account SMProxy.org							
Back Next	Cancel						

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.
- **26** Proceed with Section 4.8, "Authorizing the Event Monitor," on page 28.

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

Location	Update Description
Section 4.1, "Installing the Engine," on page 13.	Updated list of supported host operating systems.
Section 4.3, "Installing the Event Monitor," on page 16.	Updated list of supported host operating systems.
Section 4.5, "Installing an Agent," on page 20.	Updated list of supported host operating systems.
Section 4.7, "Installing and Configuring the Admin Client," on page 24.	Updated list of supported host operating systems.

A.2 July 19, 2016

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