

Micro Focus Storage Manager 5.2 for Active Directory Installation Guide

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Contents

	Abo	ut This Guide	5
1	Prer	equisites	7
	1.1 1.2	Folder Redirection and DNS Names File Server Resource Manager 1.2.1 Installing File Server Resource Manager	7 7 8
	1.3	Active Directory Schema	9 9
	1.4 1.5	Verifying Proper Configurations and Rights	10 10
2	Lice	nsing the Product	13
	2.1 2.2 2.3	Licensing Overview	13 14 16
3	Insta	alling and Configuring an SQL Server Instance	17
	3.1	Determine Which Version of SQL Server to Use	17
	3.2	Install SQL Server Express	18
	3.3	Install a New Instance of SQL Server	25
	3.4	SQL Server Post Configuration Considerations	32
4	Migr	ating from Storage Manager 3.1.1	35
	4.1	Prerequisites	35
	4.2	Understanding the Migration Process	35
	4.3	Accessing the Product Contents	36
	4.4	Stopping and Disabling Components	36
		4.4.1 Stopping and Disabling the Engine	36
		4.4.3 Stopping and Disabling the Agents	37
	4.5	Installing the Engine	37
	4.6	Installing the License	38
	4.7	Configuring the Database	40
	4.8	Migrating the Database	44
	4.9	Configuring the Engine.	48
	4.10		55
	4.11		57 50
	4.12	Upgrading to Storage Manager 5.2	59
5	Upa	rading from Storage Manager 4.x for Active Directory to 5.2	61
-	51		61
	5.2	Configuring the Database	63
	5.3	Configuring the Engine.	66

	5.5	Upgrading an Agent	71
	5.6		72
	5.7		73
	5.8		73
	5.9	Administering Storage Manager.	/4
6	Upg	rading from Storage Manager 5. <i>x</i> for Active Directory to 5.2	75
	6.1	Configuring the Database	75
	6.2	Configuring the Engine	79
	6.3	Upgrading the Event Monitor	82
	6.4	Upgrading an Agent	84
	6.5	Update SMAdmin	86
	6.6	(Conditional) Install CouchDB	87
	6.7	Administering Storage Manager	87
7	Insta	alling Storage Manager 5.2 for Active Directory	89
	71	Performing Installation Tasks as a Domain Administrator	89
	7.2	Accessing the Product Contents	90
	7.3	Installing the Engine	90
	7.4	Installing the License .	91
	7.5	Configuring the Database	92
	7.6	Configuring the Engine.	95
	7.7	Setting Rights and Privileges on Managed Storage.	. 101
		7.7.1 Granting Rights	. 102
		7.7.2 Granting Privileges on a Member Server	. 102
		7.7.3 Granting Privileges on a Domain Controller	. 103
	7.8	Installing and Configuring the Event Monitor	. 105
	7.9	Installing and Configuring the Agents.	. 109
	7.10		. 113
	7.11	Authorizing the Event Monitor	. 114
	7.12		. 114
	7.13		. 115
	7.14	Administering Storage Manager.	. 115
Α	Doc	umentation Updates	117
	A.1	May 16, 2017	. 117
	A.2	December 13, 2016	. 117
	A.3	August 16, 2016	. 117
	A.4	July 19, 2016	. 118
	A.5	October 7, 2014	. 118
	A.6	October 17, 2013	. 118
	A.7	June 12, 2013	. 118
	A.8	February 13, 2013	. 118
	A.9	January 18, 2013	. 119
	A.10	May 18, 2012	. 119
	A.11	February 2, 2012	. 119
	A.12	March 16, 2011	. 119
	A.13	February 14, 2011	. 120

5.4

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 5.2 for Active Directory.

- Chapter 1, "Prerequisites," on page 7
- Chapter 2, "Licensing the Product," on page 13
- Chapter 3, "Installing and Configuring an SQL Server Instance," on page 17
- Chapter 4, "Migrating from Storage Manager 3.1.1," on page 35
- Chapter 5, "Upgrading from Storage Manager 4.x for Active Directory to 5.2," on page 61
- Chapter 6, "Upgrading from Storage Manager 5.x for Active Directory to 5.2," on page 75
- Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89
- Appendix A, "Documentation Updates," on page 117

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 5.2 for Active Directory 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/index.html):

Micro Focus Storage Manager 5.2 for Active Directory Administration Guide

This section provides procedures that you must do before installing the Micro Focus Storage Manager 5.2 for Active Directory components.

- Section 1.1, "Folder Redirection and DNS Names," on page 7
- Section 1.2, "File Server Resource Manager," on page 7
- Section 1.3, "Active Directory Schema," on page 9
- Section 1.4, "Verifying Proper Configurations and Rights," on page 10
- Section 1.5, "What's Next," on page 10

1.1 Folder Redirection and DNS Names

Storage Manager 5.2 exclusively uses DNS Fully Distinguished Names (FDNs) for server names in all UNC paths set in and by Storage Manager. This is a change from Storage Manager 3.*x* and earlier, where NetBIOS names were used (although a config file-only option to use DNS names existed in Storage Manager 3.1.*x*). This is per Microsoft's own recommendations, as Microsoft slowly attempts to phase out NetBIOS and WINS.

However, there are known bugs related to Folder Redirection when the DNS name for a server is used in a user's home folder path (or any other path specified for folder redirection). These Windows bugs, which can result in loss of data in the redirected folders or the entire redirected folder, are described in the following Microsoft KB articles:

- "You are unable to update the target location of offline file shares in the Offline File client side cache without administrative permission in Windows Server 2008 R2 or in Windows 7." http:// support.microsoft.com/kb/977229
- "After you apply a GPO to redirect a folder to a new network share, the redirected folder is empty on client computers that are running Windows Vista or Windows Server 2008." (http:// support.microsoft.com/kb/977611)

These KB articles specifically apply to users logging on through Windows Vista or Windows 7 computers, as well as users logging on interactively on Windows Server 2008 and Windows Server 2008 R2. Users on other operating systems might be affected as well, however.

Both of the KB articles above include links to hotfixes that help resolve these issues.

While this is not a Storage Manager issue *per se*, Storage Manager's exclusive use of DNS FDNs in UNC paths can exacerbate this problem, or introduce it into an environment that was previously exclusively using NetBIOS naming for servers and using folder redirection.

1.2 File Server Resource Manager

Microsoft File Server Resource Manager is a suite of tools from Microsoft that allows administrators to better understand, control, and manage the quantity and type of data stored on their servers. Storage Manager uses File Server Resource Manager to enable quota management.

NOTE: You must install FSRM on all servers where Storage Manager will be managing quotas, including the server that will host the Engine. Even if the Engine host does not contain shares that will be managed, FSRM is still required because the FSRM COM interfaces must be present for the Engine to call them remotely on other servers.

1.2.1 Installing File Server Resource Manager

Quotas for user and collaborative storage can be managed through Storage Manager for Active Directory on all versions of Windows Server from 2008 and beyond. You need to install File Server Resource Manager on every server or active node that will be hosting user or collaborative quota-managed storage.

NOTE: These procedures are specific to Windows Server 2012 R2. Procedures vary for each version of Windows Server.

- 1 Launch Server Manager.
- 2 Select Manage > Add Roles and Features.

This launches the Add Roles and Features Wizard.

3 Click Next.

B	Add Role	s and Features	Wizard	_ D X
Select destinatio	n server			DESTINATION SERVER Astinus.chronicle.local
Before You Begin Installation Type	Select a server or a virtual	hard disk on which ne server pool	to install roles and features.	
Server Selection Server Roles Features Confirmation	Server Pool			
Results	Name Astinus.chronicle.local	IP Address 10.71.200.2	Operating System Microsoft Windows Server 2012 F	R2 Standard
	1 Computer(s) found This page shows servers tl Add Servers command in collection is still incomple	hat are running Wi Server Manager, O te are not shown.	ndows Server 2012, and that have bee ffline servers and newly-added server	en added by using the rs from which data
		< <u>P</u> r	evious <u>N</u> ext > <u>I</u> ns	tall Cancel

- 4 Select the server where you are going to install the Engine and click Next.
- 5 From the list of roles, expand File and Storage Services.
- 6 Expand File and iSCSI Services.
- 7 Select the File Server Resource Manager check box.



- 8 Click Add Features.
- 9 Click Next.
- 10 Click Next.
- 11 Click Install.

1.3 Active Directory Schema

The Microsoft Active Directory schema contains formal definitions of every object class that can be created in an Active Directory forest. The schema also contains formal definitions of every attribute that can exist in an Active Directory object.

To enable collaborative storage or auxiliary storage management, Storage Manager extends the Active Directory schema to enable Storage Manager attributes. These attributes are specified in "Active Directory Schema Extensions" in the *Micro Focus Storage Manager 5.2 for Active Directory Administration Guide*.

NOTE: If your Storage Manager deployment will not include support for collaborative storage or auxiliary storage management, there is no need to extend the Active Directory schema.

1.3.1 Extending the Active Directory Schema

1 Log in to the forest or domain as a user with Schema administration privileges.

You can do this by being a member of the Schema Admins group.

- 2 At the root of the ISO image, open the \\Windows folder, locate the SM-SchemaTool.exe file, and double-click it.
- 3 When you are asked if you want to run this file, click Run.

A Windows console application runs.

C:\Users\Administrator\Desktop\SM-SchemaTool.exe	C
Starting SM-SchemaTool version 5.0.0.3 Attempting to resolve current Domain Accessing current schema for AD Forest 'lambda.local' Obtained handle to schema	^ =
Current Forest Level 'Windows2012R2Forest' is good.	
Checking for File Management attribute schema extensions -> ccx-FSFAuxiliaryStorage : does not exist -> ccx-FSFManagedPath : does not exist	
Checking for existing File Management class schema extensions -> ccx-FSFManagedAttributes : <mark>does not exist</mark>	
One or more schema definitions need extending.	
Perform File Management schema extensions? [Y/N]:	
	~

4 Type Y to extend the schema.

1.4 Verifying Proper Configurations and Rights

In some cases, you might find that you are unable to install a Storage Manager component because of an improper configuration or rights setting. Micro Focus recommends that you review the following sections in the *Micro Focus Storage Manager 5.2 for Active Directory Administration Guide* and make any needed adjustments before proceeding:

- "Windows Firewall Requirements"
- "LSA Rights and Privileges"
- "ProxyRights Group Permissions"

1.5 What's Next

If you are upgrading your Storage Manager 3.*x* for Active Directory environment to Storage Manager 5.2 for Active Directory:

- 1. Proceed with Chapter 4, "Migrating from Storage Manager 3.1.1," on page 35.
- 2. Then conclude with Chapter 5, "Upgrading from Storage Manager 4.x for Active Directory to 5.2," on page 61.

If you are upgrading from Storage Manager 4.x to 5.2:

- 1. Proceed with Chapter 2, "Licensing the Product," on page 13.
- 2. Follow the procedures in Chapter 5, "Upgrading from Storage Manager 4.x for Active Directory to 5.2," on page 61.

If you are upgrading from Storage Manager 5.x to 5.2:

1. Follow the procedures in Chapter 6, "Upgrading from Storage Manager 5.x for Active Directory to 5.2," on page 75.

If you are installing Storage Manager:

- 1. Proceed with Chapter 2, "Licensing the Product," on page 13.
- 2. Follow the procedures in Chapter 3, "Installing and Configuring an SQL Server Instance," on page 17 to install an SQL Server instance that Storage Manager supports.
- 3. Complete the installation by following the procedures in Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89.

2 Licensing the Product

- Section 2.1, "Licensing Overview," on page 13
- Section 2.2, "Obtaining a License File," on page 14
- Section 2.3, "Updating a License File," on page 16

2.1 Licensing Overview

Micro Focus Storage Manager has four license types:

Table 2-1 Storage Manager	License Types
-----------------------------------	---------------

License Type	Target Consumer	Intended Use
Evaluation	Customers	Allows customers to develop and understanding of the power of the product.
Production	Customers	Allows customers to create and run a policy-based infrastructure in production in their environment.
Production + eDirectory to AD Cross-Empire Data Migration	Customers	Allows for the migration of data from a Micro Focus (formerly Novell) file system to a Windows file system and then create and run a policy-based infrastructure in production in their Windows network environment.
Production + AD to AD Cross- Empire Data Migration	Customers	Allows for the migration of data from one Active Directory forest to another and then create and run a policy-based infrastructure in production in their Windows network environment.

The following table includes a comparison of features enabled in evaluation and production license types:

Table 2-2 Enabled Features

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

Feature	Evaluation License	Production License
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.

Organization Na	me:*	
Contact		
contact		Address
First Name:*		Street:"
Last Name:"		Street2:
		City:*
Email:*		State/Province:" Zip/Postal Code:"
Telephone:*		Country:" +
roduct Version		
roduct: Storag	e Manager	
/ersion:*	*	
icense Details –		
icense Details	eDirectory	Active Directory
License Details	e Directory	tory tree name (not Os), so it must be correct. Example: MYTREE
icense Details Directory Service - eDirectory Infe Tree Name:" [T	Oirectory	tory tree name (not Oo), so it must be correct. Example: MYTREE
Jcense Details Directory Service - eDirectory Info Tree Name:* T J. License Type:	eDirectory	tory tree name (not Os), so it must be correct. Example: MYTREE
License Details Directory Service - eDirectory Info Tree Name:* [T License Type: - Evaluation Lice	eDirectory	tory tree name (not Os), so it must be correct. Example: MYTREE
Icense Details - eDirectory Service - eDirectory Infe Tree Name: [T icense Type: - Evaluation Lice Notice: Evaluat using I - Evaluation Lice License Type: - Evaluation Lice - Evaluation Lice - Evaluation Lice - Evaluation Lice - Evaluation Lice - Evaluation Lice		tory tree name (not Os), so it must be correct. Example: MYTREE
License Details Directory Service - eDirectory Infe Tree Name: Jicense Type: - Evaluation Lice Notice: Evaluat using ti - Evaluation Lice Notice: Evaluat - Evaluation Lice Notice: Evaluat - Evaluation Lice Notice: Evaluation Lice Notice: Evaluation Lice - Evaluation Lice	e Oirectory he license keys are based on the eDiri Evaluation Evaluation Activation mise Policy is license in a production network acceptance of this policy on behalf of	tory tree name (not O=), so it must be correct. Example: MYTREE
License Details Directory Service - eDirectory Infe Tree Name:" T License Type: - Evaluation Lice Notice: Evaluat using th - Evaluation Lice Notice: Evaluat using th - Evaluation Lice Form Verification Jerify	e Directory e Directory he license keys are based on the eDirectory e Evaluation Activation max Policy	tory tree name (not Os), so it must be correct. Example: MYTREE
License Details Directory Service - eDirectory Infe Tree Name: [T License Type: - Evaluation Lice Notice: Evaluat using ti - eruly: Form Verification /erify:		tory tree name (not Os), so it must be correct. Example: MYTREE
License Details Directory Service - eDirectory Infe Tree Name: [T License Type: - Evaluation Lice Notice: Evaluat using ti - Certify Form Verification /erify:		tory tree name (not Os), so it must be correct. Example: MYTREE
License Details - Directory Service - eDirectory Infe Tree Name: - T License Type: - Evaluation Lice Notice: Evaluat using ti - Certify Form Verification /erify:		tory tree name (not O=), so it must be correct. Example: MYTREE
License Details - Directory Service - eDirectory Infe Tree Name: Tree Name: - Evaluation Lice Notice: Evaluat using ti - Evaluation Lice Notice: Evaluat - Evaluation Lice Form Verification Form Verification Enter the te		tory tree name (not O=), so it must be correct. Example: MYTREE nose 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 or production purposes or work is expressly prohibited. ny company, school, or organization.
Jeense Details Directory Service - eDirectory Info Tree Name: [T Jeense Type: - Evaluation Lice Notice: Evaluation License Type: - Evaluation Lice Notice: Evaluation License Type: - Evaluation Lice Service: Evaluation License Type: - Evaluation Lice Service: Evaluation License Type: - Evaluation Lice Service: Evaluation License Type: - Evaluation Lice Service: Evaluation License Type: - Evaluation Lice - Evaluation Lice - Evaluation License - Evaluationse - Evaluation License - Evaluation License - Evaluation L		tory tree name (not Os), so it must be correct. Example: MYTREE

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.

Storage Manager Support
License File
Robert Sanders,
As requested, a license file for Storage Manager 5.0 has been generated specifically for your environment with a Directory Services name= bobo
Download License File
Thank You.

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 the license file to complete Engine setup wizard.

2.3 Updating a License File

After you have installed Micro Focus Storage Manager 5.2 for Active Directory, 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. For more information, see Section 7.4, "Installing the License," on page 91.

3 Installing and Configuring an SQL Server Instance

This section provides procedures for installing a Microsoft SQL Server instance with the settings needed to support Micro Focus Storage Manager 5.2 for Active Directory.

Storage Manager 5.2 for Active Directory requires a Microsoft SQL Server as the database and no longer supports the SQLite database that was utilized in previous versions of the product. If you are migrating from Storage Manager 3.*x* for Active Directory to Version 5.2, in Chapter 4 the Database Configuration Wizard will guide you through the migration of your database content from SQLite to SQL Server.

IMPORTANT: SQL Server is a fully-featured database service, and as such requires installation and maintenance planning before deployment. While a complete analysis of this maintenance is beyond the scope of this product's documentation, we strongly recommend that you review Microsoft's SQL Server documentation to plan for separation of data and transaction logs, regular database backups, and transaction log and data growth.

NOTE: Storage Manager 5.2 for Active Directory supports all versions of SQL Server 2012, 2014, and 2016, including the Express version.

- Section 3.1, "Determine Which Version of SQL Server to Use," on page 17
- Section 3.2, "Install SQL Server Express," on page 18
- Section 3.3, "Install a New Instance of SQL Server," on page 25
- Section 3.4, "SQL Server Post Configuration Considerations," on page 32

3.1 Determine Which Version of SQL Server to Use

 If you do not already own SQL Server, you can use SQL Server Express. You can download SQL Server 2014 Express at: http://www.microsoft.com/en-us/download/details.aspx?id=35579 (http://www.microsoft.com/en-us/download/details.aspx?id=35579). After downloading the software, proceed with "Install SQL Server Express."

IMPORTANT: We do not recommend that you install the Engine on the same server running SQL Server. If you will be using SQL Server Express, you can run it on the same server host, but you will most likely experience better performance if they are running on separate server. You can download Express from Microsoft (SQL Express 2012), (SQL Express 2014). (We recommend SQLEXPRWT_x64_ENU.exe as that package includes management tools.)

 If you already own a version of SQL Server, proceed with Section 3.3, "Install a New Instance of SQL Server," on page 25.

3.2 Install SQL Server Express

- 1 Launch the SQL Server Express installation file.
- 2 On the SQL Server Installation Center page, click Installation.

1		SQL Server Installation Center	-		x	
Planning Installation Maintenance Tools Resources Options	**	New SQL Server stand-alone installation or add features to an existing inst Launch a wizard to install SQL Server 2014 in a non-clustered environment features to an existing SQL Server 2014 instance. Upgrade from SQL Server 2005, SQL Server 2008, SQL Server 2008 R2 or SQL Launch a wizard to upgrade SQL Server 2005, SQL Server 2008, SQL Server 2 Server 2012 to SQL Server 2014.	L Servi	n add ar 201: 2 or S	2 QL	
Microsoft SQL Server 2014						

- 3 Select New SQL Server stand-alone installation or add features to an existing installation.
- 4 In the License Terms page, accept the license terms and click Next.
- 5 In the Product Updates page, click Next.
- 6 In the Feature Selection page, select the appropriate instance features and the location for the instance data and click Next.

1	SQL Serve	er 2014 Setup	_ D X			
Feature Selection Select the Express features to in	stall.					
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Installation Progress	Features: Instance Features I Database Engine Services I SQL Server Replication Shared Features I SQL Client Connectivity SDK Redistributable Features		Feature description: The configuration and operation of each instance feature of a SQL Server instances. SQL isolated from other SQL Server instances. SQL Server instances can operate side-by-side on v Prerequisites for selected features: Already installed: Windows PowerShell 2.0 Microsoft.NET Framework 4.0 III Disk Space Requirements Drive C: 1058 MB required, 22154 MB available			
	Select All Unselect All Instance root directory: Shared feature directory: Shared feature directory (x86):	C:\Program Files\Mi C:\Program Files\Mi C:\Program Files (x8	crosoft SQL Server\ crosoft SQL Server\ 6)\Microsoft SQL Server\			
		< Back	Next > Cancel Help			

7 On the Instance Configuration page, specify a named instance and click Next.

1	:	SQL Server 2014 S	etup		_ D X
Instance Configuration Specify the name and instance	ID for the instance of Si	QL Server. Instance ID	becomes part of the i	nstallation path.	
License Terms Global Rules Product Updates	 Default instance Named instance: 	SQLExpress			
Install Setup Files Install Rules Feature Selection	Instance ID:	SQLEXPRESS			
Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Installation Progress Complete	SQL Server directory: Installed instances:	C:\Program Files\Mie	rosoft SQL Server\MS	SQL12.SQLEXPRESS	
	Instance Name	Instance ID	Features	Edition	Version
			< Back Ne	xt > Cancel	Help

8 In the Server Configuration page, click the Collation tab.

1	SQL Server 2014 Setup	_ 🗆 X
Server Configuration Specify the service accounts an	d collation configuration.	
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Installation Progress Complete	Service Accounts Collation Database Engine: SQL_Latin1_General_CP1_CI_AS Latin1-General, case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data	Customize
	< Back Next > Cancel	Help

- 9 Click Customize.
- **10** Click the Windows collation designator and sort order option.

Custor	nize the SQL Server 2014 Database Engine Collation
Select the collation you would like t	o use:
 Windows collation designator an 	id sort order
Collation designator:	Latin1_General_100 V
Binary	Binary-code point Binary-code
Case-sensitive	Kana-sensitive
Accent-sensitive	□ Width-sensitive
Supplementary characters	
O SQL collation, used for backware	ds compatibility
SQL_Hungarian_CP1250_CI_AS SQL_Hungarian_CP1250_CS_AS SQL_Icelandic_Pref_CP1_CI_AS SQL_Latin1_General_CP1_CI_AI	
SQL_Latin1_General_CP1_CI_AS	✓
Collation description:	
Latin1-General, case-insensitive, ac Order 52 on Code Page 1252 for no	cent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort on-Unicode Data
	OK Cancel

11 From the Collation designator drop-down menu, select an acceptable collation and settings for your locale.

For example, in North America, an acceptable collation would be Latin1_General_100 with the Accent-sensitive check box selected.

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

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

- 12 Click OK.
- 13 Click Next.
- 14 In the Database Engine Configuration page, select the Mixed Mode (SQL Server authentication and Windows authentication) option, enter and confirm a SQL Server administrator password, then click Add Current User.

Storage Manager does not support Windows authentication mode (also known as Integrated Security).

1	SQL Server 2014 Setup
Database Engine Confi Specify Database Engine authe	guration tication security mode, administrators and data directories.
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Installation Progress Complete	Server Configuration Data Directories User Instances FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode O Windows authentication mode O Windows authentication mode Image: Mixed Mode (SQL Server authentication and Windows authentication) Specify the password for the SQL Server system administrator (sa) account. Enter password: Image: Mixed Mode (SQL Server administrators) Specify SQL Server administrators Specify SQL Server administrators Confirm password: Image: Mixed Mode (Administrator) Square Server administrator SQL Server administrators for the Database Engine.
	<pre>< Back Next > Cancel Help</pre>

- 15 Click Next.
- **16** In the Error Reporting page, click **Next**.
- **17** In the Complete page, click **Close**.
- **18** Launch SQL Server Configuration Manager.
- **19** In the left pane, expand **SQL Server Network Configuration**.
- 20 Click Protocols for SQLEXPRESS.

🚡 Sql Se	rver Configuration	Manager	_ D X
File Action View Help (= =>) (2) (2) (2)	1		
 SQL Server Configuration Manager (Local) SQL Server Services SQL Server Network Configuration (32bit) SQL Native Client 11.0 Configuration SQL Server Network Configuration Protocols for SQLEXPRESS SQL Native Client 11.0 Configuration 	Protocol Name Shared Memory Named Pipes TCP/IP	Status Enabled Disabled Disabled	

- 21 In the right pane, right-click TCP/IP and select Enable.
- 22 In the warning dialog box, click OK.
- 23 Right-click TCP/IP again and select Properties.
- 24 In the TCP/IP Properties dialog box, click the IP Addresses tab.

	TCP/IP P	roperties	?	x
Protoc	ol IP Addresses			
ТС	P Dynamic Ports	0		^
т	IP Port			
ΞIP	4			
A	ctive	Yes		
Er	nabled	No		
IP	Address	fe80::5efe:172.17.2.140%13	3	
TC	IP Dynamic Ports	0		
TC	IP Port			
🗆 IP	5			
A	ctive	Yes		
Er	nabled	No		
IP	Address	fe80::100:7f:fffe%14		
т	IP Dynamic Ports	0		=
TC	IP Port			
⊟ IP	All			
т	IP Dynamic Ports	0		
TC	IP Port			V
Activ Indic	re cates whether the selected IP Ac	ddress is active.		
	OK Car	Apply	He	lp

- 25 Select TCP Dynamic Ports and clear the field so there is no number associated to it.
- **26** Select TCP Port and enter 1433.
- 27 Click Apply.
- 28 When the warning dialog box appears, click OK.
- **29** Click **OK** to close the TCP/IP Properties page.
- **30** In the SQL Server Configuration Manager, click **SQL Server Services**.
- 31 Right-click SQL Server (SQLEXPRESS) and select Restart.

3.3 Install a New Instance of SQL Server

NOTE: These procedures and displayed interface are specific to SQL Server 2014. Procedures and interface will vary based on the version of SQL Server you are using.

- 1 Launch the Microsoft SQL Server installation file, setup.exe.
- 2 In the SQL Server Installation page, click Installation.
- 3 Select New SQL Server stand-alone installation or add features to an existing installation.

1		SQL Server Installation Center
Planning Installation Maintenance Tools Resources Advanced Options	 	New SQL Server stand-alone installation or add features to an existing installation Launch a wizard to install SQL Server 2014 in a non-clustered environment or to add features to an existing SQL Server 2014 instance. New SQL Server failover cluster installation Launch a wizard to install a single-node SQL Server 2014 failover cluster. Add node to a SQL Server failover cluster Launch a wizard to add a node to an existing SQL Server 2014 failover cluster. Upgrade from SQL Server 2005, SQL Server 2008, SQL Server 2008 R2 or SQL Server 2012 Launch a wizard to upgrade SQL Server 2005, SQL Server 2008, SQL Server 2008, SQL Server 2008 R2 or SQL Server 2012 to SQL Server 2014.
Microsoft SQL Server 2014		

- 4 In the Product Key page, enter your product key, then click Next.
- 5 In the License Terms page, accept the license terms, then click Next.
- 6 In the Product Updates page, include all Microsoft SQL Server product updates, then click Next. The Install Rules operation is run.

1	SQL Server 2014 Setup	_ □ ×
Install Rules Setup rules identify potential pr can continue.	oblems that might occur while running Setup. Failures must be correcte	ed before Setup
Product Key License Terms Global Rules Product Updates Install Setup Files	Operation completed. Passed: 6. Failed 0. Warning 1. Skipped 0. Hide details << <u>View detailed report</u>	Re-run
Setup Role Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete	Rule Image: Second Se	Status Passed Passed Passed Passed Warning Passed
	< Back Next >	Cancel Help

- 7 If there are any errors, address them accordingly, then click Next.
- 8 In the Setup Role page, select SQL Server Feature Installation and click Next.

1	SQL Server 2014 Setup
Setup Role Click the SQL Server Feature In: feature role to install a specific	stallation option to individually select which feature components to install, or click a configuration.
Product Key License Terms Global Rules Product Updates Install Setup Files Install Rules Setup Role Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete	 SQL Server Feature Installation Install SQL Server Database Engine Services, Analysis Services, Reporting Services, Integration Services, and other features. SQL Server PowerPivot for SharePoint Install PowerPivot for SharePoint on a new or existing SharePoint server to support PowerPivot data access in the farm. Optionally, add the SQL Server relational database engine to use as the new farm's database server. Add SQL Server Database Relational Engine Services to this installation. All Features With Defaults Install all features using default values for the service accounts.
	< Back Next > Cancel Help

9 In the Feature Selection page, select the appropriate instance features and the location for the instance data and click Next.

1	SQL Server 2014 Setup	_ D X
Feature Selection Select the Enterprise features to	install.	
Product Key License Terms Global Rules Product Updates Install Setup Files Install Rules Setup Role Feature Selection Feature Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	Features: Instance Features Instance Features SQL Server Replication Full-Text and Semantic Extractions for Searce Data Quality Services Analysis Services Reporting Services - Native Shared Features Reporting Services - SharePoint Client Tools Connectivity Integration Services Client Tools Connectivity Integration Services Client Tools SDK Documentation Components Management Tools - Basic Management Tools - Complete Distributed Replay Client SQL Client Connectivity SDK Master Data Services Redistributable Features < III Select All Unselect All Instance root directory: C:\Program Files\M Shared feature directory (x86): C:\Program Files\M	Feature description: The configuration and operation of each instance feature of a SQL Server instances. SQL Server instances. SQL Server instances can operate side-by-side on the same computer. Prerequisites for selected features: Already installed: Windows PowerShell 2.0 Microsoft NET Framework 4.0 To be installed from media: Microsoft Visual Studio 2010 Redistributable Microsoft Visual Studio 2010 Shell Neede to be manuality installed: V Orive C: 2232 MB required, 25304 MB available Disk Space Requirements Drive C: 2232 MB required, 25304 MB available V V Viscosoft SQL Server\ Windows SQL Server\
	< Back	Next > Cancel Help

The Feature Rules operation is run. If there are any errors, address them accordingly.

10 In the Instance Configuration page, specify a named instance and click **Next**.

1		SQL Server 2014 S	etup		_ 🗆 X
Instance Configuration Specify the name and instance	1 ID for the instance of S	QL Server. Instance ID	becomes part of the i	nstallation path.	
Product Key License Terms Global Rules	 Default instance Named instance: 	MSSQLSERVER			
Product Updates Install Setup Files Install Rules	Instance ID:	MSSQLSERVER			
Setup Kole Feature Selection Feature Rules Instance Configuration	SQL Server directory: Installed instances:	C:\Program Files\Mic	rosoft SQL Server\MS	SQL12.MSSQLSERVER	
Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	Instance Name	Instance ID	Features	Edition	Version
			< Back Ne	xt > Cancel	Help

11 In the Server Configuration page, click the **Collation** tab.

1	SQL Server 2014 Setup	D X
Server Configuration		
Specify the service accounts and	d collation configuration.	
Product Key License Terms Global Rules Product Updates Install Setup Files Install Rules Setup Role Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	Service Accounts Collation Database Engine: SQL_Latin1_General_CP1_CLAS Custor Latin1-General, case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data Unicode Data	nize
	< Back Next > Cancel	Help

- 12 Click Customize.
- **13** Click the Windows collation designator and sort order option.

Custor	nize the SQL Server 2014 Database Engine Collation
Select the collation you would like t	o use:
 Windows collation designator an 	id sort order
Collation designator:	Latin1_General_100 V
Binary	Binary-code point Binary-code
Case-sensitive	Kana-sensitive
 Accent-sensitive 	□ Width-sensitive
Supplementary characters	
 SQL collation, used for backware 	ds compatibility
SQL_Hungarian_CP1250_CI_AS SQL_Hungarian_CP1250_CS_AS SQL_Icelandic_Pref_CP1_CI_AS SQL_Latin1_General_CP1_CI_AI	
SQL_Latin1_General_CP1_CI_AS	<u> </u>
Collation description:	
Latin1-General, case-insensitive, ac Order 52 on Code Page 1252 for no	cent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort on-Unicode Data
	OK Cancel

14 From the Collation designator drop-down menu, select an acceptable collation and settings for your locale.

For example, in North America, an acceptable collation would be Latin1_General_100 with the Accent-sensitive check box selected.

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

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

- 15 Click OK.
- 16 Click Next.
- 17 In the Database Engine Configuration page, select the Mixed Mode (SQL Server authentication and Windows authentication) option, enter and confirm a SQL Server administrator password, then click Add Current User.

Storage Manager does not support Windows authentication mode (also known as Integrated Security).

1	SQL Server 2014 Setup
Database Engine Conf	iguration
Specify Database Engine authors	entication security mode, administrators and data directories.
Product Key License Terms Global Rules Product Updates Install Setup Files Install Rules Setup Role Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	Server Configuration Data Directories FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode
	< Back Next > Cancel Help

- 18 Click Next.
- 19 In the Ready to Install page, click Install.
- 20 When the installation has completed, click Close to close the wizard.
- **21** See Section 3.4, "SQL Server Post Configuration Considerations," on page 32 or possible adjustments to the newly created SQL Server instance.

3.4 SQL Server Post Configuration Considerations

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

The SQL Server service must be listening via TCP/IP v4, because the Engine requires TCP/IP via port number for access.

Sql Server Configuration Manager 📃 🗖 🗙				
Protocol Name	Status			
🕉 Shared Memory	Enabled			
🗿 Named Pipes	Disabled			
TCP/IP	Enabled			
	Protocol Name Shared Memory Named Pipes	Protocol Name Status Shared Memory Enabled Named Pipes Disabled TCP/IP Enabled		

• Some editions of SQL Server do not have TCP/IP enabled by default. If there are multiple instances, the instance that you just installed and configured might not be listening on the default port of 1433.

Ξ	IP1		^
	Active	Yes	
	Enabled	No	
	IP Address	fe80::ed2e:30c3:a170:4d7e%12	
	TCP Dynamic Ports		≡
_	TCP Port	1433	
	IP2		
	Active	Yes	
	Enabled	No	
	IP Address	10.71.200.2	
	TCP Dynamic Ports		
_	TCP Port	1433	
Ξ	IP3		
	Active	Yes	
	Enabled	No	
	IP Address	::1	
	TCP Dynamic Ports		~
-	TCD Dort	1/33	
Ac In	c tive dicates whether the selecte	ed IP Address is active.	

• Firewall rules might need to be modified.



Migrating from Storage Manager 3.1.1

- Section 4.1, "Prerequisites," on page 35
- Section 4.2, "Understanding the Migration Process," on page 35
- Section 4.3, "Accessing the Product Contents," on page 36
- Section 4.4, "Stopping and Disabling Components," on page 36
- Section 4.5, "Installing the Engine," on page 37
- Section 4.6, "Installing the License," on page 38
- Section 4.7, "Configuring the Database," on page 40
- Section 4.8, "Migrating the Database," on page 44
- Section 4.9, "Configuring the Engine," on page 48
- Section 4.10, "Migrating the Engine Data," on page 55
- Section 4.11, "Installing NSMAdmin," on page 57
- Section 4.12, "Review Migrated Policies," on page 59
- Section 4.13, "Upgrading to Storage Manager 5.2," on page 59

IMPORTANT: There is no direct upgrade path from Storage Manager 3.1.1 to 5.2. You must upgrade in two phases 1) From 3.1.1 to 4.1 and 2) From 4.1 to 5.2.

You will need a Storage Manager 4 license. Since only an evaluation one is needed, you can request one at http://www.storagemanagersupport.com.

Once you have completed this section, you should proceed with Chapter 5, "Upgrading from Storage Manager 4.*x* for Active Directory to 5.2," on page 61.

Use the procedures in this section to migrate your deployment of Novell Storage Manager 3.1.1 for Active Directory to Version 4.1. You should follow these procedures only after you have performed the prerequisite tasks in Chapter 1: Chapter 1, "Prerequisites," on page 7, obtained a Storage Manager 4 for Active Directory license, and installed an SQL Server instance as specified in Chapter 3: Chapter 3, "Installing and Configuring an SQL Server Instance," on page 17.

4.1 Prerequisites

If your Engine is not already running Version 3.1.1, update it before proceeding.

4.2 Understanding the Migration Process

The migration process involves the following steps:

- Accessing the product contents
- Stopping and disabling components
- Installing the 4.x Engine
- Installing the license

- Migrating the database
- Configuring the Engine
- Migrating the Engine Data
- Installing NSMAdmin
- Reviewing the migrated policies

Your options for migration can be either installing the components on the same server where the Storage Manager components are located, or on a different server. The only real migration that takes place is the database, which can be done in-place or across the wire.

4.3 Accessing the Product Contents

- 1 On the Windows server that will host the Engine, copy to a directory the NSM-AD_4_1.iso file that was made available to you following your purchase of Storage Manager 4.1 for Active Directory.
- **2** Mount the NSM-AD_4_1.iso file.
- 3 Note the location of the mounted ISO.

This is the installation source you will use to install Storage Manager 4.1 for Active Directory components.

4.4 Stopping and Disabling Components

Since Storage Manager 4.1 components use the same port settings as the Storage Manager 3.1.1 components, you must stop and disable those components to avoid conflicts during the migration.

4.4.1 Stopping and Disabling the Engine

Follow procedures below.

- 1 On the server hosting the Engine, load Services.msc.
- 2 Right-click Novell Storage Manager 3 Engine and select Stop.
- 3 Right-click Novell Storage Manager 3 Engine and select Properties.
- 4 From the Startup type drop-down menu, select Disabled.
- 5 Click OK.

4.4.2 Stopping and Disabling the Event Monitor

- 1 On the server hosting the Event Monitor, load Services.msc.
- 2 Right-click Novell Storage Manager Event Monitor and select Stop.
- 3 Right-click Novell Storage Manager Event Monitor and select Properties.
- 4 From the Startup type drop-down menu, select Disabled.
- 5 Click OK.
4.4.3 Stopping and Disabling the Agents

- 1 On the server hosting the Agent, load Services.msc.
- 2 Right-click Novell Storage Manager Agent and select Stop.
- 3 Right-click Novell Storage Manager Agent and select Properties.
- 4 From the Startup type drop-down menu, select Disabled.
- 5 Click OK.

4.5 Installing the Engine

Novell Storage Manager 4.1 for Active Directory uses only one Engine per forest. The Engine can be installed on a host server that meets the following minimum requirements:

- Microsoft Windows Server 2012 R2 (Member Server)
- Microsoft Windows Server 2012 (Member Server)
- Microsoft Server 2008 R2 (Member Server)
- At least 4 GB RAM
- For quota management, Microsoft File System Resource Manager (FSRM) must be installed; see Section 1.2, "File Server Resource Manager," on page 7.
- Forest functional level of Windows Server 2003 or later

IMPORTANT: Once the Engine has been migrated, the existing Event Monitor and Agents become legacy components because they cannot perform their duties until they are also migrated. These legacy components are not deauthorized, nor are they removed, until you remove them yourself.

Having legacy components allows you to view the configuration settings and proxy assignments so you can reestablish them when you install the new Event Monitor and Agents.

Other notable information about the Engine:

- The Engine runs as a native NT service that is configured to start by using the Local System account
- The default Engine port is 3009
- A firewall inbound rule is added during the Engine installation
- 1 At the root of the NSM-AD_4_1.iso image, double-click the Windows folder.
- **2** Double-click the $x86_{64}$ folder.
- **3** Double-click NSMEngine-Installer-4.1-x64-xxxx.exe.
- 4 When you are asked if you want to run this file, click Run.
- 5 Agree to the licensing terms and conditions and click Install.
- 6 When notified that the setup was successful, click Run Setup Utility.

The Configuration Dashboard appears.



4.6 Installing the License

1 Click Install or Update License.

License	X
Product	
Version	
License Type	
Feature Set	
Licensed Identity System	
Excensed Identity System	
Expiration Date	
Identity System Type	
	Load License
	<u>Get a license</u>
	A License file not available.
	•
	Close

- 2 Click Load License, then browse to and select the license file.
- 3 When the confirmation prompt appears, click Yes.

4 Click Close.



4.7 Configuring the Database

1 Click Configure Database.

NSM Database Configuration Wizard - 4.1.0.19		
C Database Configuration Wizard		
Welcome to the Database configuration wizard		
Novell Storage Manager:		
 Creation of the database Creation of the database user account(s) Initialization of the database schema Updates to any existing schema Indexing for various tables Registration of database access parameters 		
Click Next to continue.		
Next > Cancel		

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

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

NSM Database Configuration Wizard - 4.1.0.19		
Oatabase Configuration Wizard		
Database Connection		
Database Properties		
Туре	SQL Server 2012	>
Communication		
Database Host Address	Astinus.chronicle.local	Port 1433 🗘
Initial Database	fsfdb	
Database Service Accoun	t - Enter the name of a database account for this a	oplication.
Database Account Name	fsfadmin	
Password		
Verify Password		
Database Admin Credenti	als - Enter the credentials needed for provisioning	the database.
Database Administrator	sa	
Password	C	
	1	vext > Cancel

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

Database Properties: Displays information on the database.

Type: Displays the minimum supported version of the database, which is SQL Server 2012.

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

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

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

Initial Database: The default name of the Novell Storage Manager database.

Database Service Account: Use this region to set authentication information for the database service account, which is the database account that the Engine uses to sign in to the database.

Database Account Name: By default, the database account is fsfadmin, which you can change in this field.

Password: Specify a password for the service account to connect to the database.

Verify Password: Specify the password again in this field.

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

Database Administrator: Specify the SQL Server administrator name.

Password: Specify the SQL Server administrator password.

3 Complete the fields and click Next.

NSM Database Configuration Wizard - 4.1.0.19
E Database Configuration Wizard
Schema
Creating database UI user account Using existing system login 'fsfui_fsfdb' Login disabled: False Login locked: False Login expired: False Days until login expiration: [No expiration] Login default database: fsfdb - Successfully updated system login password 'fsfui_fsfdb' - Successfully create database user 'fsfui_fsfdb' mapped to system login 'fsfui_f sfdb' -
Database user fsfui_fsfdb has been successfully added to the db_datareader r ole Updating Identity System entry Identity system update complete.
Database configuration complete.
Finish Cancel

4 Review the configuration log and click Finish.



Note that the Configuration Dashboard now has the Migrate Database option.

4.8 Migrating the Database

This procedure migrates the contents of the Novell Storage Manager 3.1.1 SQLite database to the Novell Storage Manager 4.1 SQL Server database. These contents include policies, schedules, pending events, etc.

1 Click Migrate Database.

NSM Database Migration Wizard – ×	
SQLite to SQL Server	
Welcome to the Database Migration Wizard This wizard will guide you through the following steps needed for migrating the Novell Storage Manager SQLite database files to SQL Server:	
 Locate Novell Storage Manager installation data path Check for events in the Event Cache Migrate scheduled tasks Migrate database 	
Click Next to continue.	
Next > Cancel	

2 From the wizard page, read the overview of the migration process and click Next.

SQLite to SQL Server Database Source Selection
Database Source Selection
Source Folder: C:\ProgramData\Novell\Storage Manager\Engine\data
SQLite Database Version: 1.18
Policies: 23
Schedules: 0
Directory Objects: 51
Managed Paths: 79
Pending Events: 0
Miscellaneous: 108
Target Database: fsfdb
Version: 4.0.0.0
Next > Cancel

3 Verify that the Source Folder field displays the following path: C:\ProgramData\Novell\Storage Manager\Engine\data

If the path is not displayed, click the browse button to specify the path.

4 Click Next.

NSM Database Migration Wizard – ×
SQLite to SQL Server
Option Confirmation
There are no events in the cache waiting to be processed by the Engine.
✓ Remove all records from the target SQL Server database 'fsfdb' before continuing.
Next > Cancel

If there are any events in cache (and therefore not yet pending events), the events are displayed.

The **Remove all records from the target SQL Server database before continuing** option lets you remove any existing records in the target database instance before migrating. If there are any existing records in the SQL Server database instance, you should select this option to maintain the integrity of the database contents that are being migrated. This is applicable even if you decide to migrate the SQLite database again.

It is not safe to migrate a Novell Storage Manager SQLite database to a SQL Server database that contains policies or other critical data. Doing so is not supported as it could result in unpredictable behavior with the database.

5 Specify whether to remove any existing records in the target database and click Next.

🔄 NSM Database Migration Wizard	_ ×
SQLite to SQL Server	
Migrating	
Converting 135 of 313	
	Next > Cancel

6 When notified that the migration has completed, click Finish.

4.9 Configuring the Engine

1 From the Configuration Dashboard, click Configure Engine.

NSM Engine Configuration Wizard - 4.1.0.28 – 🗖 🗙		
Setup Wizard - Active Directory Mode		
Welcome to the Engine configuration wizard		
This wizard will guide you through the following steps needed for setting up Novell Storage Manager:		
 Configuration of the Engine service Configuration of initial HTTP listener Configuration of Active Directory Service Accounts Configuration of Service Shares 		
Click Next to continue.		
✓ Active Directory forest 'chronicle.local' available - joined to domain CHRONICLE		
Next > Cancel		

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

🐄 NSM Engine Configuration Wizard - 4.1.0.28 🛛 🗕 🗖 🗙		□ ×	
Setup Wizard - Act	ive Directory Mode		
Basic Options			
HTTP Listener			
Host Address	0.0.0.0		~
SSL Port	3009 🗘		
SSL Certificate			
Subject Name	Astinus.chronicle.local		
Expiration Days	3,650 🗘 Exp	piration Date: 8/29/2025 11:30:16 AM	
Key Length	2048 🗸		
	Details Generate		
		Next > Ca	ancel

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

HTTP Listener: Communication parameters for the Engine.

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

SSL Port: Unless there is a port conflict, leave the setting at 3009.

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

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

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

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

Details: Click the button to view the certificate data.

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

Data Folder: The default location of the Data folder. The Data folder is used for a variety of tasks, including storing Agent configuration data, Event Monitor configuration data, and application specific historical data.

3 Edit any needed parameters settings and click Next.

NSM Engine Configuration Wizard - 4.1.0.28 – 🗆 🗙	
Setup Wizard - Active Directory Mode	
Active Directory Service Accounts	
Proxy Account Enter the name of a service account used by the Engine and Agents for all operations.	
Proxy Rights Group Enter the name of a service group used for rights assignments for access to server, share, and file resources. The Proxy Account will automatically be assigned as the initial member of this group.	
All accounts should be entered in Domain\SAMAccount name format, with the domain limited to the local system's domain.	
Proxy Account CHRONICLE\nsmproxy Proxy Rights Group CHRONICLE\nsmproxyrights	
Next > Cancel	

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

Novell Storage Manager uses a proxy account so that it can perform tasks necessary for storage management.

4 Click Next.

NSM Engine Configuration Wizard - 4.1.0.28 – 🗆 🗙
Setup Wizard - Active Directory Mode
Admins Group
Admins Group The Admins Group is used to restrict access to logon and manage Novell Storage Manager. Note that the current logged on user CHRONICLE\administrator will be added to this group. The group should be entered using Domain\SAMAccount name format where the domain is the current system's domain.
Admins Group CHRONICLE\nsmadmins
<u>N</u> ext > Cancel

5 Specify the name for the Admins Group, or use the default name, and click **Next** to create the group.

NSM Engine Configuration Wizard - 4.1.0.28 – 🗖 🗙
Setup Wizard - Active Directory Mode
Proxy Home Share
Proxy Home Share The Novell Storage Manager Proxy Home share is used as a temporary read-only location in the case where managed data is moved from one location to the next. You may use a pre-existing share of your choice. The share name should be entered using the standard UNC path format.
Proxy Home Share \\Astinus.chronicle.local\NSMProxyHome Next > Cancel

The Proxy Home Share that you establish in this page is the read-only location where users' managed path attributes are temporarily set when data is moved because of a change in policy.

The **Overwrite Existing Files** option lets the administrator specify whether files being placed in the Proxy Home Share are to replace existing files with the same name.

6 Specify whether to overwrite existing files and the Proxy Home Share path, then click Next.

NSM Engine Configuration Wizard - 4.1.0.28	- 🗆 🗙
Setup Wizard - Active Directory Mode	
Completing the wizard	
Service Status Running	😋 Refresh
Stop Service	
	Finish Cancel

7 Click Finish.



8 Proceed with Section 4.10, "Migrating the Engine Data," on page 55.

4.10 Migrating the Engine Data

Migrated Engine data includes the list of authorized Agents, the authorized Event Monitor, and the list of servers hosting Agents that are serving as Proxy Agents.

- 1 From the Configuration Dashboard, click Migrate Engine Data.
- 2 When prompted to stop the Engine, click Yes.

🗘 NSM Engine Data Migration Wizard 🛛 🗸 🗙
Engine Data Migration
 Welcome to the Engine Data Migration Wizard This wizard will guide you through the following steps needed for migrating legacy Novell Storage Manager Engine data files: Locate legacy Novell Storage Manager installation data path Migrate Agents data
Migrate Event Monitor data
Click Next to continue.
Next > Cancel

3 Read the summary of what is going to be migrated and click Next.

🗘 NSM Engine Data Migration Wizard 🛛 – 🗙
Engine Data Migration
Data Source Selection
Source Folder: C:\ProgramData\Novell\Storage Manager\Engine\data
Components to migrate
Agents: 2
Event Monitors: 1
Existing NSM configuration will be overwritten!
Next > Cancel

If the Novell Storage Manager data folder was installed using the default installation path, the path is displayed.

- 4 (Conditional) If the path to the data folder is not displayed, use the browse button to locate it.
- 5 Click Next.
- 6 When notified that the migration has completed, click Finish.
- 7 Click Start Engine.
- 8 Proceed with Section 4.11, "Installing NSMAdmin," on page 57.

4.11 Installing NSMAdmin

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

- Windows 8
- Windows 7
- Windows Vista
- Windows Server 2012 R2, 2012, 2008 R2, or 2008

IMPORTANT: Novell Storage Manager 4.x introduces new database requirements for NSMAdmin. For details and requirements, see SMAdmin Database User Setup in the Novell Storage Manager 4.1 for Active Directory Administration Guide.

- 1 On the Windows server or workstation where you will run NSMAdmin, copy to a directory the NSM-AD_4_1.iso.
- **2** Mount the NSM-AD_4_1.iso file.
- 3 At the root of the NSM-AD_4_1.iso image, double-click the Windows folder.
- 4 Double-click NSMAdmin-AD-Installer-4.1-xxxx.exe.
- 5 When you are asked if you want to run this file, click Run.
- 6 Agree to the licensing terms and conditions and click Install.
- 7 When notified that the setup was successful, click Run Admin Client. The NSMAdmin login dialog box appears.

🕒 N	ovell Storage Manager Admin - 4.1.0.75 🛛 🗙
	Novell. Storage Manager 4.1
Engine	✓ Port
User Name	
Password	
	Proxy and Logging Options
	Login <u>C</u> ancel
a	opyright © 2002-2015 Condrey Corporation. All rights reserved.

- 8 In the Engine field, specify the DNS name or IP address.
- 9 In the Port field, specify the secure port number.

The default setting is 3009.

10 Specify the username and password.

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

11 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**.

12 Proceed with Section 4.12, "Review Migrated Policies," on page 59.

4.12 Review Migrated Policies

While in NSMAdmin, you should verify that your policies migrated properly and that the settings are accurate.

- 1 In NSMAdmin, click the Main tab.
- 2 Click Policy Management.
- **3** Verify that all of the policies from Novell Storage Manager 3.1.1 for Active Directory are listed.
- 4 Verify the settings in the policies to make sure that they are accurate.

4.13 Upgrading to Storage Manager 5.2

Now that you have upgraded to Storage Manager 4.0, you can upgrade to Storage Manager 5.2. For procedures, see Chapter 5, "Upgrading from Storage Manager 4.*x* for Active Directory to 5.2," on page 61.

5 Upgrading from Storage Manager 4.*x* for Active Directory to 5.2

IMPORTANT: With the release of Storage Manager 5.0, Micro Focus began providing the eDirectory to Active Directory Cross-Empire Data Migration and the new Active Directory to Active Directory Cross-Empire Data Migration subsystems only as additive support pack purchases to Storage Manager.

For example, if you want to migrate user data from OES to Microsoft, you need to purchase licenses for Storage Manager 5.2 for Active Directory + the eDirectory to Active Directory Cross-Empire Data Migration support pack.

If you are in the process of migrating data from a Novell network to a Microsoft network using Cross-Empire Data Migration (which was included in Storage Manager 4.*x* for Active Directory), do not upgrade to version 5.2 until you have completed your migration to Microsoft.

The upgrade from Storage Manager 4.*x* for Active Directory to Storage Manager 5.2 for Active Directory should be performed as an in-place upgrade.

By following the procedures in this chapter, you will be installing the new Micro Focus Engine, Event Monitor, and Agent paths while deleting the old Novell paths. Additionally, you will be installing the new SMAdmin management application.

NOTE: The Storage Manager 4.*x* and 5.0 Agents are not compatible with the Storage Manager 5.2 Engine. If you'd like to take advantage of the faster data copying feature in Agents, you will need to upgrade them.

Storage Manager 5.2 requires that you replace NSMAdmin 4.x with SMAdmin 5.2.

- Section 5.1, "Upgrading the Engine," on page 61
- Section 5.2, "Configuring the Database," on page 63
- Section 5.3, "Configuring the Engine," on page 66
- Section 5.4, "Upgrading the Event Monitor," on page 69
- Section 5.5, "Upgrading an Agent," on page 71
- Section 5.6, "Installing SMAdmin," on page 72
- Section 5.7, "Removing NSMAdmin," on page 73
- Section 5.8, "(Conditional) Install CouchDB," on page 73
- Section 5.9, "Administering Storage Manager," on page 74

5.1 Upgrading the Engine

- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMEngine-Installer-5.2-x64xx.exe.
- 2 When asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions, then click Install.

4 When you are notified that the setup was successful, click **Run Setup Utility**. The Engine Configuration Wizard is launched.

licro Focus Storage Manager Engine Configuration Wizard - 5.2.0.2	_	
Configuration Wizard		
Welcome to the Engine configuration wizard		
This wizard will guide you through migrating NSM Engine configuration data to Micro Fo	cus.	
Active Directory forest 'nfms.utopia.novell.com' available - joined to domain NFMS	;	
Next	> C	ancel

- 5 Click Next.
- 6 In the next page, select the Migrate Existing NSM Engine configuration data check box.
- 7 Leave the Delete existing NSM Engine configuration data check box selected.

Micro Foci	s Storage Manage	er Engine Config	uration Wizard	- 5.2.0.2	>
Configu	ation Wizard				
Migrat	e Novell Storage	e Manager Eng	gine Configur	ration Data	
V Mig	ate existing NSM Engin	ne configuration data	a		
✓ Del	te existing NSM Engine	e configuration data			
🛕 Or	e the migration is com	plete, all existing NS	M Engine configura	ation data will be delete	ed.
				Next >	Cancel
				HEAT ?	Contour

- 8 Click Next.
- **9** When notified that the Engine configuration data migration is complete, click **Finish**. The Storage Manager Configuration Utility is launched.
- 10 Click Install or Update License.
- **11** When prompted, load the Storage Manager 5.*x* license.

5.2 Configuring the Database

As part of the upgrade process, you must configure the database to extend the database schema.

- 1 In the Configuration Utility, click Configure Database.
- 2 If you are asked if you want to stop the Engine, click Yes. The following page appears:

SM Database Configuration Wizard - 5.2.0.2 – 🗖 🗙
Oatabase Configuration Wizard
Welcome to the Database configuration wizard
This wizard will guide you through the following steps needed for setting up Micro Focus Storage Manager:
 Creation of the database Creation of the database user account(s) Initialization of the database schema Updates to any existing schema Indexing for various tables Registration of database access parameters
Click Next to continue.
Next > Cancel

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

SM Database Configuration	n Wizard - 5.2.0.2		- 🗆	x
Database Configuration Wiz	zard			
Database Connection				
Database Properties				
Туре	SQL Server 2012			\sim
Communication				
Database Host Address	fmsadutp.nfms.utopia.novell.com	Port	1433	< >
Initial Database	fsfdb			
Database Service Accoun Database Account Name	t - Enter the name of a database account for t fsfadmin	his applicatior	۱.	
Password	•••••			
Verify Password	•••••			
Database Admin Credenti	ials - Enter the credentials needed for provisio	ning the data	base.	
Database Administrator	sa			
Password				
		Next >	Cancel	

4 In the Password field of the Database Admin Credentials region, specify the SQL Server administrator password, then click Next.



5 Click Finish.

5.3 Configuring the Engine

- 1 In the Configuration Utility, click Configure Engine.
- 2 From the wizard page, read the overview of what will be configured, then click Next.
- 3 In the Basic Options page of the wizard, edit any needed parameters settings and click Next.

	.)
Proxy Account	<u> </u>
Enter the	e name of a service account used by the Engine and Agents for all operations.
Proxy Rights G	iroup
Enter the	a name of a service group used for rights assignments for access to server,
share, an	Id file resources. The Proxy Account will automatically be assigned as the
initial me	imber of this group.
All accounts sh	nould be entered in Domain\SAMAccount name format, with the domain
All accounts sh limited to the l	nould be entered in Domain\SAMAccount name format, with the domain local system's domain.
All accounts sh limited to the l	nould be entered in Domain\SAMAccount name format, with the domain local system's domain.
All accounts sh limited to the l	nould be entered in Domain\SAMAccount name format, with the domain local system's domain.
All accounts sh limited to the l	nould be entered in Domain\SAMAccount name format, with the domain local system's domain.
All accounts sh limited to the l Proxy Account	nould be entered in Domain\SAMAccount name format, with the domain local system's domain.

Storage Manager 5.2 utilizes the existing proxy account and proxy rights group.

4 Click Next.

	Gloup
Admin	ns Group
	The Admins Group is used to restrict access to logon and manage Micro Focus Storage
	Manager.
	Note that the current logged on user NFMS\administrator will be added to this group
	The group should be entered using Domain\SAMAccount name format where the
	domain is the current system's domain.

Storage Manager 5.2 utilizes the existing admins group.

5 Click Next.

xy Home Share	
The Micro Focus Storage Manager Proxy Home share is used as a temporary read location in the case where managed data is moved from one location to the next	d-only
You may use a pre-existing share of your choice. The share name should be enter	rad
using the standard UNC path format.	
	The Micro Focus Storage Manager Proxy Home share is used as a temporary read location in the case where managed data is moved from one location to the next You may use a pre-existing share of your choice. The share name should be ente using the standard UNC path format.

Storage Manager 5.2 utilizes the existing Proxy Home share.

- 6 Click Next.
- 7 Click Finish.

5.4 Upgrading the Event Monitor

- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMEventMonitor-Installer-5.2-x64-xx.exe.
- 2 When asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions, then click Install.
- **4** When you are notified that the setup was successful, click **Run Setup Utility**. The Event Monitor Configuration Wizard is launched.
- 5 Read the overview and click Next.
- 6 In the next page, select the Migrate Existing NSM Event Monitor configuration data check box.
- 7 Leave the Delete existing NSM Event Monitor configuration data check box selected.

🐄 Micro Focus Storage Manager Event Monitor Configuration Wizard - 5.2.0.2 🛛 🗕 💌	
Configuration Wizard	
Migrate Novell Storage Manager Event Monitor Configuration Data	
Migrate existing NSM Event Monitor configuration data	
✓ Delete existing NSM Event Monitor configuration data	
🛕 Once the migration is complete, all existing NSM Event Monitor configuration data will be deleted.	
Next > Cancel	

8 Click Next.

🏶 Micro Focus Storage Manager Event Monitor Configuration Wizard - 5.2.0.2 🛛 🗖 🗙
Configuration Wizard
General Options
Data
Next > Cancel

- **9** Accept the default path for the data folder by clicking Next.
- 10 Accept the Engine connection parameters by clicking Next.
- 11 Click Finish.

5.5 Upgrading an Agent

- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMAgent-Installer-5.2-x64-xx.exe.
- 2 When asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions, then click Install.
- **4** When you are notified that the setup was successful, click **Run Setup Utility**. The Agent Configuration Wizard is launched.
- 5 Read the overview and click Next.
- 6 In the next page, select the Migrate Existing NSM Agent configuration data check box.
- 7 Leave the Delete existing NSM Agent configuration data check box selected.

Storage Manager Agent Configuration Wizard - 5.2.	.0.2 – – ×
Configuration Wizard	
Migrate Novell Storage Manager Agent Configuration	Data
Migrate existing NSM Agent configuration data	
Delete existing NSM Agent configuration data	
🛕 Once the migration is complete, all existing NSM Agent configuration da	ata will be deleted.
	Next > Cancel

- 8 Click Next.
- 9 Accept the configuration HTTP listener and SSL certificate settings and click Next.
- 10 Accept the Engine connection parameters by clicking Next.
- 11 Click Finish.

5.6 Installing SMAdmin

- 1 On the Windows server or workstation where you will run SMAdmin, copy to a directory the ${\tt SM-AD_5_2_0.iso}$.
- 2 Mount the SM-AD_5_2_0.iso file.
- 3 At the root of the SM-AD_5_2_0.iso image, double-click SMAdmin-AD-Installer-5.2-xxx.exe.
- 4 When asked if you want to run this file, click Run.
- 5 Agree to the licensing terms and conditions and click Install.
- **6** When notified that the setup was successful, click **Run Admin Client**. The SMAdmin login dialog box appears.
| Micro Focus | Storage Manager Admin - 5.2.0.22 |
|---------------------------------|--|
| | Micro Focus® Storage Manager 5.2 |
| Engine
User Name
Password | Port |
| Password | Proxy and Logging Options Login Cancel |
| Co | pyright © 2002-2017 Condrey Corporation. All rights reserved. |

- 7 In the Engine field, specify the DNS name or IP address.
- 8 In the Port field, specify the secure port number.

The default setting is 3009.

9 Specify the username and password.

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

10 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**.

5.7 Removing NSMAdmin

With SMAdmin installed, you should remove NSMAdmin 4.*x*, as you will not be able to use it to manage Storage Manager 5.2.

5.8 (Conditional) Install CouchDB

Storage Manager 5.2 includes an optional Work Log that when enabled, maintains a history of Storage Manager policy-enacted events. Data from the Work Log can be used for tracking historical events. For an expanded discussion of the Work Log, see Work Log Reports in the *Micro Focus Storage Manager 5.2 Administration Guide*.

The Work Log exclusively utilizes Apache CouchDB, an open source NoSQL database. You can deploy CouchDB on the Engine host, a separate server within the on-premises network, or in the cloud.

You can download CouchDB at: http://couchdb.apache.org/, which also includes product documentation.

5.9 Administering Storage Manager

You have now completed the upgrade to Storage Manager 5.2 for Active Directory. For administration procedures, refer to the *Micro Focus Storage Manager 5.2 for Active Directory Administration Guide*.

6 Upgrading from Storage Manager 5.*x* for Active Directory to 5.2

The upgrade from Storage Manager 5.*x* for Active Directory to Storage Manager 5.2 for Active Directory is performed as an in-place upgrade.

By following the procedures in this chapter, you will configure the database, configure the Engine, upgrade the Event Monitor, upgrade the Agents, and update SMAdmin.

NOTE: The Storage Manager 4.*x* and 5.2 Agents are not compatible with the Storage Manager 5.2 Engine. If you'd like to take advantage of the faster data copying feature in Agents, you will need to upgrade them.

Storage Manager 5.2 requires that you replace SMAdmin 5.x with SMAdmin 5.2.

- Section 6.1, "Configuring the Database," on page 75
- Section 6.2, "Configuring the Engine," on page 79
- Section 6.3, "Upgrading the Event Monitor," on page 82
- Section 6.4, "Upgrading an Agent," on page 84
- Section 6.5, "Update SMAdmin," on page 86
- Section 6.6, "(Conditional) Install CouchDB," on page 87
- Section 6.7, "Administering Storage Manager," on page 87

6.1 Configuring the Database

- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMEngine-Installer-5.2-x64xx.exe.
- 2 When asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions, then click Install.
- **4** When you are notified that the setup was successful, click **Run Setup Utility**. The Configuration Utility is launched.

🐄 Micro Focus Storage Manager Configuratio	n - 5.2.0.2	_ 🗆 🗙
	• W. M. Barrara	
License	 Valid license Product: Micro Focus Storage Manager Version: 5.0 License Type: Production Feature Set: Core, Cross-Empire Data Migration eDirectory, Cross-Empire Data Migration Active Directory Expiration: 6/27/2017 Identity System: nfms.utopia.novell.com Platform: Active Directory Cross Empire Data Migration available 	Install or Update License
Tatabase	Update required Database Type: SQL Server - Express Edition (64-bit) Database Version: Microsoft SQL Server 2014 (SP2-GDR) (KB3194714) - 12.0.5203.0 Database Name: fsfdb Database Name: fsfdb Address: fmsadutp.nfms.utopia.novell.com:1433 Schema Version: 5.1.0.2	Configure Database
Engine	Database Update Required Address: 0.0.0.0:3009 Admin Group: NFMS\NSMAdmins Proxy User: NFMS\nsmproxy Rights Group: NFMS\nsmproxy Rights Group: NFMS\nsmproxyrights Engine Timezone: (UTC +00:00) GMT Standard Time	Configure Engine Migrate Engine Data Stop Engine
Active Directory forest 'nfms.utopia.novell.com' av	vailable - joined to domain NFMS	GRefresh Close

- 5 Click Configure Database.
- 6 When asked if you want to stop the Engine, click Yes.

The following page appears:

SM Database Configuration Wizard - 5.2.0.2 - 🗆 🗙
O Database Configuration Wizard
Welcome to the Database configuration wizard
This wizard will guide you through the following steps needed for setting up Micro Focus Storage Manager:
 Creation of the database Creation of the database user account(s) Initialization of the database schema Updates to any existing schema Indexing for various tables Registration of database access parameters
Click Next to continue.
Next > Cancel

7 From the wizard page, read the overview of what will be configured, then click **Next**. The following page appears:

Database Configuration Wit	zard			
Database Connection	1			
Database Properties				
Туре	SQL Server 2012			Y
Communication				
Database Host Address	fmsadutp.nfms.utopia.novell.com	Port	1433	~ ~
Initial Database	fsfdb			
Database Service Accoun Database Account Name	It - Enter the name of a database account for t fsfadmin	this application	n.	
Password	•••••			
Verify Password	•••••			
Database Admin Credent	ials - Enter the credentials needed for provisio	ning the data	base.	
	sa			
Database Administrator				
Database Administrator Password				
Database Administrator Password				
Database Administrator Password				

8 In the Password field of the Database Admin Credentials region, specify the SQL Server administrator password, then click Next.



9 Click Finish.

6.2 Configuring the Engine

- 1 In the Configuration Utility, click Configure Engine.
- 2 From the wizard page, read the overview of what will be configured, then click Next.
- 3 In the Basic Options page of the wizard, edit any needed parameters settings and click Next.

Pro	xy Account	
	Enter the name of a service account used by the Engine and Agents for all operations.	
Pro	Proxy Rights Group	
	Enter the name of a service group used for rights assignments for access to server,	
	share, and file resources. The Proxy Account will automatically be assigned as the	
	initial member of this group.	
Alla	accounts should be entered in Domain\SAMAccount name format, with the domain	
All a limit	accounts should be entered in Domain\SAMAccount name format, with the domain ted to the local system's domain.	
All a limit	accounts should be entered in Domain\SAMAccount name format, with the domain ted to the local system's domain.	
All a limit	accounts should be entered in Domain\SAMAccount name format, with the domain ted to the local system's domain.	
All a limit	accounts should be entered in Domain\SAMAccount name format, with the domain ted to the local system's domain.	
All a	accounts should be entered in Domain\SAMAccount name format, with the domain ted to the local system's domain.	

Storage Manager 5.2 utilizes the existing proxy account and proxy rights group.

4 Click Next.

10
Admins Group
The Admins Group is used to restrict access to logon and manage Micro Focus Storage
Manager.
Note that the current logged on user NFMS\administrator will be added to this group.
The group should be entered using Domain\SAMAccount name format where the
domain is the current system's domain.

Storage Manager 5.2 utilizes the existing admins group.

5 Click Next.

Proxy Hom	e Share
The	Micro Focus Storage Manager Proxy Home share is used as a temporary read-onl
locat	ion in the case where managed data is moved from one location to the next.
Your	may use a pre-existing share of your choice. The share name should be entered
using	g the standard UNC path format.

Storage Manager 5.2 utilizes the existing Proxy Home share.

- 6 Click Next.
- 7 Click Finish.

6.3 Upgrading the Event Monitor

- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMEventMonitor-Installer-5.2-x64-xx.exe.
- 2 When asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions, then click Install.
- **4** When you are notified that the setup was successful, click **Run Setup Utility**. The Event Monitor Configuration Wizard is launched.
- 5 Read the overview and click Next.

🐄 Micro Focus Stora	age Manager Event Monitor Configuration Wizard - 5.2.0.2 –	□ ×
Configuration W	izard	
General Opti	ons	
Data		
Data Folder	C: \ProgramData \Micro Focus \Storage Manager \Event \data	
	Next > C	ancel
	Next > C	

- **6** The default path of the Data Folder is displayed, which you can edit. The Data folder contains application data needed by Storage Manager.
- 7 Click Next.

🐄 Micro Focus Storage	Manager Event Monitor Configuration Wizard - 5.2.0.2 –	□ ×
Configuration Wizar	d	
Engine Commu	nication	
Engine Connectio	n	
Engine Address	172.17.2.82	
Engine SSL Port	3009 🗘	
	Next > C	ancel

This page lets you set parameters for the Event Monitor to communicate with the Engine. **Engine Address:** Specify the DNS name or IP address to the server hosting the Engine here. **Engine SSL Port:** Specify the SSL port for the Engine here.

- 8 Enter the Engine connection settings and click Next.
- 9 Click Finish.

6.4 Upgrading an Agent

- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMAgent-Installer-5.2-x64xx.exe.
- 2 When asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions, then click Install.
- **4** When you are notified that the setup was successful, click **Run Setup Utility**. The Agent Configuration Wizard is launched.
- 5 Read the overview and click Next.

Configuration Wiza	d	
General Option	S	
HTTP Listener		
Host Address	0.0.0.0	~
SSL Port	3011 🗘	100
SSL Certificate		
Subject Name	fmsadutp	
Expiration Days	3,650 C Expiration Date: 10/24/2026 6:53:14 PM	
Key Length	2048 🗸	
	Details Generate	

6 Edit any needed parameters settings and click Next.

hicro Focus Storage Manager Agent Configuration Wizard - 5.2.0.2	- 🗆 🗙
Configuration Wizard	
Engine Communication	
Engine Connection	
Engine Address 172.17.2.82	
Engine SSL Port 3009 🗘	
Ne	ext > Cancel

- 7 Click Next.
- 8 Click Finish.

6.5 Update SMAdmin

- 1 On the Windows server or workstation where you will run SMAdmin, copy to a directory the SM-AD_5_2_0.iso.
- 2 Mount the SM-AD_5_2_0.iso file.
- **3** At the root of the SM-AD_5_2_0.iso image, double-click SMAdmin-AD-Installer-5.2-xx.exe.
- 4 When asked if you want to run this file, click Run.
- 5 Agree to the licensing terms and conditions and click Install.
- **6** When notified that the setup was successful, click **Run Admin Client**. The SMAdmin login dialog box appears.

Micro Focus	Storage Manager Admin - 5.2.0.22
	Micro Focus® Storage Manager 5.2
Engine User Name Password	Port
1 dasmord	 Proxy and Logging Options Login Cancel
Co	pyright © 2002-2017 Condrey Corporation. All rights reserved.

- 7 In the Engine field, specify the DNS name or IP address.
- 8 In the Port field, specify the secure port number.

The default setting is 3009.

9 Specify the username and password.

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

10 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**.

6.6 (Conditional) Install CouchDB

Storage Manager 5.2 includes an optional Work Log that when enabled, maintains a history of Storage Manager policy-enacted events. Data from the Work Log can be used for tracking historical events. For an expanded discussion of the Work Log, see Work Log Reports in the *Micro Focus Storage Manager 5.2 Administration Guide*.

The Work Log exclusively utilizes Apache CouchDB, an open source NoSQL database. You can deploy CouchDB on the Engine host, a separate server within the on-premises network, or in the cloud.

You can download CouchDB at: http://couchdb.apache.org/, which also includes product documentation.

6.7 Administering Storage Manager

You have now completed the upgrade to Storage Manager 5.2 for Active Directory. For administration procedures, refer to the *Micro Focus Storage Manager 5.2* for Active Directory Administration Guide.

7 Installing Storage Manager 5.2 for Active Directory

This section provides procedures for installing and configuring the Engine, database, Event Monitor, Agents, and the SMADmin administrative utility. For information on how these components work in a Storage Manager deployment, see Chapter 2 "Overview" in the *Micro Focus Storage Manager 5.2 for Active Directory Administration Guide.*

You should follow these procedures only after you have performed the prerequisite tasks in Chapter 1, "Prerequisites," on page 7, obtained a Storage Manager 5.*x* for Active Directory product license as indicated in Chapter 2, "Licensing the Product," on page 13, and installed an SQL Server instance as specified in Chapter 3, "Installing and Configuring an SQL Server Instance," on page 17.

- Section 7.1, "Performing Installation Tasks as a Domain Administrator," on page 89
- Section 7.2, "Accessing the Product Contents," on page 90
- Section 7.3, "Installing the Engine," on page 90
- Section 7.4, "Installing the License," on page 91
- Section 7.5, "Configuring the Database," on page 92
- Section 7.6, "Configuring the Engine," on page 95
- Section 7.7, "Setting Rights and Privileges on Managed Storage," on page 101
- Section 7.8, "Installing and Configuring the Event Monitor," on page 105
- Section 7.9, "Installing and Configuring the Agents," on page 109
- Section 7.10, "Installing SMAdmin," on page 113
- Section 7.11, "Authorizing the Event Monitor," on page 114
- Section 7.12, "Authorizing the Agents," on page 114
- Section 7.13, "(Conditional) Install CouchDB," on page 115
- Section 7.14, "Administering Storage Manager," on page 115

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

7.1 Performing Installation Tasks as a Domain Administrator

In order to successfully install the Engine, Event Monitor, Agents, and SMAdmin, you must be logged in to the computer as a domain administrator. If you are not, the rights are not sufficient.

7.2 Accessing the Product Contents

- 1 On the Windows server that will host the Engine, copy to a directory the SM-AD_5_2_0.iso file that was made available to you following your purchase of Micro Focus Storage Manager 5.2 for Active Directory.
- 2 Mount the SM-AD_5_2_0.iso file.
- 3 Note the location of the mounted ISO.

This is the installation source you will use to install Storage Manager 5.2 for Active Directory components.

7.3 Installing the Engine

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

- Microsoft Windows Server 2016 (Member Server)
- Microsoft Windows Server 2012 R2 (Member Server)
- Microsoft Windows Server 2012 (Member Server)
- Microsoft Windows Server 2008 R2 (Member Server)
- At least 4 GB RAM
- For quota management, Microsoft File System Resource Manager (FSRM) must be installed; see Section 1.2, "File Server Resource Manager," on page 7.
- · Forest functional level of Windows Server 2003 or later

Other notable information about the Engine:

- The Engine runs as a native NT service that is configured to start by using the Local System account
- The default Engine port is 3009
- The firewall inbound rule is added during the Engine installation
- 1 At the root of the SM-AD_5_2_0.iso image, double-click SMEngine-Installer-5.2-x64xxx.exe.
- 2 When you are asked if you want to run this file, click Run.
- 3 Agree to the licensing terms and conditions and click Install.
- 4 When notified that the setup was successful, click Run Setup Utility.
- 5 Accept the installation path or indicate a new path by using the Browse button.

The Configuration Utility is launched.

🐄 Micro Focus Storage Manager Configuration - 5.2.0.3 🛛 🗕 🗖 🗙					
Eicense	License file not present. Please install a license.	Install or Update License			
🔓 Database	Cicense Required	Configure Database			
Engine	 License Required Engine Timezone: (UTC +01:00) GMT Daylight Time 	Configure Engine Migrate Engine Data			
		Start Engine			
CActive Directory forest 'nfms.utopia.	Close Qose				

7.4 Installing the License

 In the Configuration Utility, click Install or Update License. The License dialog box appears.
 If no license is found, the license properties will be empty.

License	X
Product	
Version	
License Type	
Feature Set	
Licensed Identity System	
Expiration Date	
Identity System Type	
	Load License Get a license
	1 License file not available.
	Close

- 2 Click Load License, then browse to and select the license file.
- 3 When the confirmation prompt appears, click Yes.
- **4** Examine the license properties to ensure that the license is valid.
- 5 Click Close.

7.5 Configuring the Database

1 In the Configuration Utility, click Configure Database.

SM Database Configuration Wizard - 5.2.0.2 – 🗆 🗙
Oatabase Configuration Wizard
Welcome to the Database configuration wizard
This wizard will guide you through the following steps needed for setting up Micro Focus Storage Manager:
 Creation of the database Creation of the database user account(s) Initialization of the database schema Updates to any existing schema Indexing for various tables Registration of database access parameters
Next > Cancel

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

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

SM Database Configuration	n Wizard - 5.2.0.2			
Database Configuration Wi	zard			
Database Connection				
Database Properties				
Туре	SQL Server 2012			Y
Communication				
Database Host Address	fmsadutp.nfms.utopia.novell.com	Port	1433	~ >
Initial Database	fsfdb			
Database Service Account Database Account Name Password	fsfadmin	r this application.		
Database Admin Credenti	als - Enter the credentials needed for provis	ioning the databas	e.	
Database Hammisd ator				_
Password				- 3
		Next >	Cancel	

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

Database Properties: Displays information on the database.

Type: Displays the minimum supported version of the database, which is SQL Server 2012.

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

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

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

Initial Database: The default name of the Storage Manager database.

Database Service Account: Use this region to set authentication information for the database service account, which is the database account that the Engine uses to sign in to the database.

Database Account Name: By default, the database account is fsfadmin, which you can change in this field.

Password: Specify a password for the service account to connect to the database.

Verify Password: Specify the password again in this field.

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

Database Administrator: Specify the SQL Server administrator name.

Password: Specify the SQL Server administrator password.

3 Complete the fields and click Next.



4 Review the configuration log and click Finish.

7.6 Configuring the Engine

1 In the Configuration Utility, click Configure Engine.

🐄 Micro Focus Storage Manager Engine Configuration Wizard - 5.2.0.2 🛛 🗕 🗖 🗙				
Configuration Wizard - Active Directory Mode				
Welcome to the Engine configuration wizard				
This wizard will guide you through the following steps needed for setting up Micro Focus Storage Manager:				
 Configuration of the Engine service Configuration of initial HTTP listener Configuration of Active Directory Service Accounts Configuration of Service Shares 				
Click Next to continue.				
✓ Active Directory forest 'nfms.utopia.novell.com' available - joined to domain NFMS				
Next > Cancel				

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

Micro Focus Storag	e Manager Eng ard - Active Direc	gine Configu tory Mode	iration Wizard - 5.2.0.2 –	
Basic Options				
HTTP Listener				
Host Address	0.0.0.0			~
SSL Port	3009 🗘			
SSL Certificate				
Subject Name	fmsadutp.nfms.u	topia.novell.co	m	
Expiration Days	3,649 🗘		Expiration Date: 3/26/2027 4:11:38 PM	
Key Length	2048 🗸			
	Details	Generate		
		5- -	а -	
			Next >	Cancel

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

HTTP Listener: Communication parameters for the Engine.

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

SSL Port: Unless there is a port conflict, leave the setting at 3009.

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

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

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

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

Details: Click the button to view the certificate data.

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

3 Edit any needed parameters settings and click Next.

Pr	oxy Account
	Enter the name of a service account used by the Engine and Agents for all operations.
Pr	oxy Rights Group
	Enter the name of a service group used for rights assignments for access to server,
	share, and file resources. The Proxy Account will automatically be assigned as the
	initial member of this group
	initial member of this group.
AI	initial member of this group. I accounts should be entered in Domain\SAMAccount name format, with the domain
Al	initial member of this group. I accounts should be entered in Domain\SAMAccount name format, with the domain nited to the local system's domain.
Al	initial member of this group. I accounts should be entered in Domain\SAMAccount name format, with the domain nited to the local system's domain.
Al	initial member of this group. I accounts should be entered in Domain\SAMAccount name format, with the domain nited to the local system's domain.
Al	initial member of this group. I accounts should be entered in Domain\SAMAccount name format, with the domain nited to the local system's domain.
Al	initial member of this group. I accounts should be entered in Domain\SAMAccount name format, with the domain nited to the local system's domain.

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

Storage Manager uses a proxy account so that it can perform tasks necessary for storage management.

4 Click Next.

	Stoup
Admins	Group
Т	he Admins Group is used to restrict access to logon and manage Micro Focus Storage
N	Aanager.
IN IN	lote that the current logged on user NFMS\administrator will be added to this group
т	he group should be entered using Domain\SAMAccount name format where the
4	
u	omain is the current system's domain.
u u	lomain is the current system's domain.
ŭ	lomain is the current system's domain.
ŭ	lomain is the current system's domain.
	lomain is the current system's domain.
ŭ	lomain is the current system's domain.
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ŭ	lomain is the current system's domain.
	lomain is the current system's domain.

5 Specify the name for the Admins Group, or use the default name, and click **Next** to create the group.

Nicro Focus Storage Manager Engine Configuration Wizard - 5.2.0.2 – 🗖 🗙			
Configuration Wizard - Active Directory Mode			
Proxy Home Share			
Proxy Home Share			
The Micro Focus Storage Manager Proxy Home share is used as a temporary read-only location in the case where managed data is moved from one location to the next.			
You may use a pre-existing share of your choice. The share name should be entered using the standard UNC path format.			
Descriptions Characterized and the Secondaria and Management land			
Proxy nome Share \\\msadutp.nms.utopia.noveii.com\SMProxynome			
Next > Cancel			
Conter Conter			

The Proxy Home Share that you establish in this page is the read-only location where users' managed path attributes are temporarily set when data is moved because of a change in policy.

6 Click Next.

🐄 Micro Focus Storage Manager E	Engine Configuration Wizard - 5.2.0.2	- 🗆 🗙
Configuration Wizard - Active Di	rectory Mode	
Completing the wizard		
Service Status	Running	Refresh
	Stop Service	
	FI	inish Cancel

7 Click Finish.

With a valid license and a running Engine, you are now ready to set rights and privileges on managed storage.

8 Proceed with Section 7.7, "Setting Rights and Privileges on Managed Storage," on page 101.

7.7 Setting Rights and Privileges on Managed Storage

Micro Focus Storage Manager must have the proper rights set on each network share that it will manage; this is, shares that contain managed home folders or collaborative storage. In addition, certain privileges must be granted to Storage Manager on each server where storage will be managed.

7.7.1 Granting Rights

Every share to be managed by Storage Manager must have proper rights assigned to the smproxyrights group.

- 1 As a user with privileges to manage shares, authenticate to the server where the storage is located.
- **2** Grant Full Control sharing privileges to the smproxyrights group for each share that Storage Manager will manage.
- **3** Do one of the following:
 - If you are proxying storage on a member server, go to Section 7.7.2, "Granting Privileges on a Member Server," on page 102.
 - If you are proxying storage on a domain controller, go to Section 7.7.3, "Granting Privileges on a Domain Controller," on page 103.

7.7.2 Granting Privileges on a Member Server

Every server that has storage managed by Storage Manager must have certain privileges granted to the smproxyrights group. If you install the Agent on a server, this privilege assignment is made automatically. If you use the Agent on one server to act as a Proxy Agent on another server—rather than installing an Agent on that server—you need to manually assign these privileges on that server.

1 Authenticate to a domain controller within the domain where the storage is located.

Be sure to log in as a domain administrator.

2 At any domain controller or any computer where the Admin or 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.

- 3 In the left pane, select the container where the server is so that it is listed in the right pane.
- 4 In the right pane, right-click the server and select Manage.

This brings up the Computer Management page.

- 5 In the left pane, expand Local Users and Groups.
- 6 Select Groups.
- 7 In the right pane, double-click Administrators.

This brings up the Administrators Properties dialog box.

8 Click Add.

This brings up the Select Users, Computers, or Groups dialog box.

9 In the Enter the object names to select field, type: domain_name\smproxyrights.

	Administrators Properties ? X			
General				
Adminis	trators			
Description:	Administrators have complete and unrestricted access to the computer/domain			
Members:	nain Admins roxyrights ministrator			
Add Remove Changes to a user's group membership are not effective until the next time the user logs on.				
	OK Cancel Apply Help			

- **10** Click **OK** to save the setting.
- **11** Proceed with Section 7.8, "Installing and Configuring the Event Monitor," on page 105.

7.7.3 Granting Privileges on a Domain Controller

Every server that has storage managed by Storage Manager must have certain privileges granted to the smproxyrights group. If you install the Agent on a server, this privilege assignment is made automatically. If you use the Agent on one server to act as a Proxy Agent on another server—rather than installing an Agent on that server—you need to manually assign these privileges on that server.

1 Authenticate to a domain controller within the domain where the storage is located.

Be sure to log in as a domain administrator.

2 Launch Active Directory Users and Computers.

This brings up the Active Directory Users and Computers page.

- 3 In the left pane, select Builtin.
- 4 In the right pane, double-click the Administrators group.
- 5 Click the Members tab.
- 6 Click Add.
- 7 In the Enter the object names to select field, type: smproxyrights

Select Users, Contacts, Computers, Service Accounts,	or ? X
Select this object type:	
Erom this location:	Object Types
AutoTest64.local	Locations
Enter the object names to select (examples):	
smproxyrights	Check Names
Advanced OK	Cancel

- 8 Click Check Names.
- 9 Click OK.

Administrators Properties ?					x		
Object	Secu	Security Attri		Attribute E	Editor		
General	Members	Members Membe		Managed By			
Members							
Name		Active Directory Domain Services Folder					
& Administrator		AutoTest64.local/Users					
Somain Admins		AutoTest64.local/Users					
Senterprise Admins		oTest64.loc	al/Users				
Smproxyrigh	ts Aut	oTest64.loc	al/Users				
<	1	11				>	
Add	Remove						
	ок с	ancel	Apply	r	He	elp	

10 Click OK.

7.8 Installing and Configuring the Event Monitor

The Event Monitor can be installed on a Windows Server machine that meets the following minimum requirements:

- Microsoft Windows Server 2016 (Member Server)
- Microsoft Windows Server 2012 R2 (Member Server)
- Microsoft Windows Server 2012 (Member Server)
- Microsoft Windows Server 2008 R2 (Member Server)
- At least 4 GB RAM
- Forest functional level 2003 or later in native mode

Other notable information about the Event Monitor:

- There is only one Event Monitor per domain
- The Event Monitor runs as a native NT service that is configured to start by using the Local System account
- · The Event Monitor must be permitted to make outbound connections through the firewall
- 1 On the Windows server that will host the Event Monitor, copy to a directory the SM-AD_5_2_0.iso.
- 2 Mount the SM-AD_5_2_0.iso file.
- **3** At the root of the SM-AD_5_2_0.iso image, double-click SMEventMonitor-Installer-5.2x64-xxx.exe.
- 4 When you are asked if you want to run this file, click Run.
- 5 Agree to the licensing terms and conditions and click Install.
- 6 When notified that the setup was successful, click Run Setup Utility.

🐄 Micro Focus Storage Manager Event Monitor Configuration Wizard - 5.2.0.2 🛛 🗖 🗙				
Configuration Wizard				
Welcome to the wizard				
This wizard will guide you through the following steps needed for setting up the Micro Focus Storage Manager Event Monitor service:				
 Configuration of the Event Monitor service Configuration of data folder location Configuration of the Engine communication parameters 				
Click Next to continue.				
Next > Cancel				

7 From the wizard page, read the overview of the setup steps and click Next.

🏇 Micro Focus Storage	Manager Event Monitor Configuration Wizard - 5.2.0.2	- 🗆 🗙
Configuration Wizard		
General Options		
Data		
Data Folder C:\₽	rogramData\Micro Focus\Storage Manager\Event\data	
	Next >	Cancel

The default path of the Data Folder is displayed, which you can edit. The Data folder contains application data needed by Storage Manager.

8 Click Next.

🏶 Micro Focus Storage Manager Event Monitor Configuration Wizard - 5.2.0.2 🛛 🗖 🗙
Configuration Wizard
Engine Communication
Engine Connection
Engine Address NFMS.UTOPIA.NOVELL.COM
Engine SSL Port 3009 🗘
Next > Cancel

This page lets you set parameters for the Event Monitor to communicate with the Engine. **Engine Address:** Specify the DNS name or IP address to the server hosting the Engine here. **Engine SSL Port:** Specify the SSL port for the Engine here.

9 Enter the Engine connection settings and click Next.
Aicro Focus Stor	age Manager Event Monitor Configuration Wizard - 5.2.0.2 🛛 🗖 🗙
	Vizard
Completing	the wizard
Service Status	Running Stop Service
	Finish Cancel

10 Click Finish.

The Event Monitor is now installed and running. You must still authorize it using SMAdmin. For procedures, see Section 7.11, "Authorizing the Event Monitor," on page 114.

11 Proceed with Section 7.9, "Installing and Configuring the Agents," on page 109.

7.9 Installing and Configuring the Agents

An Agent can be installed on a Windows Server machine that meets the following minimum requirements:

- Microsoft Windows Server 2016 (Member Server)
- Microsoft Windows Server 2012 R2 (Member Server)
- Microsoft Windows Server 2012 (Member Server)
- Microsoft Windows Server 2008 R2 (Member Server)
- At least 4 GB RAM
- For quota management, Microsoft File System Resource Manager (FSRM) must be installed See Section 1.2, "File Server Resource Manager," on page 7.

Other notable information about Agents:

- An Agent runs as a native NT service that is configured to start by using the Local System account
- The default Agent port is 3011
- + A firewall inbound rule for the Agent is created during the installation
- 1 On the Windows server that will host the Agent, copy to a directory the SM-AD_5_2_0.iso.
- 2 Mount the SM-AD_5_2_0.iso file.
- **3** At the root of the SM-AD_5_2_0.iso image, double-click SMAgent-Installer-5.2-x64xxx.exe.
- 4 When you are asked if you want to run this file, click Run.
- 5 Agree to the licensing terms and conditions and click Install.
- 6 When notified that the setup was successful, click Run Setup Utility.

🗱 Micro Focus Storage Manager Agent Configuration Wizard - 5.2.0.2 🛛 🗕 🗖 🗙
Configuration Wizard
Welcome to the wizard
This wizard will guide you through the following steps needed for setting up the Micro Focus Storage Manager Agent service:
 Configuration of the Agent service Configuration of initial HTTP listener Configuration of data folder location Configuration of the Engine communication parameters
Click Next to continue.
Next > Cancel

7 From the wizard page, read the overview of the setup steps and click Next.

General Option	S			
HTTP Listener				
Host Address	0.0.0.0		>	
SSL Port	3011 🗘			
SSL Certificate				
Subject Name	fmsadutp			
Expiration Days	3,649 🗘		Expiration Date: 3/27/2027 6:55:06 PM	
Key Length	2048 🗸			
	Details	Generate		

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

HTTP Listener: Communication parameters for the Agent.

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

SSL Port: Unless there is a port conflict, leave the setting at 3011.

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

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

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

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

Details: Click the button to view the certificate data.

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

8 Edit any needed parameters settings and click Next.

Storage Manager Agent Configuration Wizard - 5.2.0.2	2 –	□ ×
Configuration Wizard		
Engine Communication		
Engine Connection		
Engine Address		
Engine SSL Port 3009 🗘		
	Next > Ca	ancel

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

Engine Address: Specify the DNS name or IP address to the server hosting the Engine here. **Engine SSL Port:** Specify the SSL port for the Engine here.

9 Enter the Engine connection settings and click Next.

Stor Focus Stor	rage Manager Agent Configuration Wizard - 5.2.0.2	- 🗆 🗙
	Vizard	
Completing	the wizard	
Service Status	Running Stop Service	Refresh
	Stop Service	
	Finish	Cancel

- 10 Click Finish.
- **11** The Agent is now installed, configured, and running. You must still authorize it using SMAdmin. For procedures, see Section 7.12, "Authorizing the Agents," on page 114.
- 12 Proceed with Section 7.10, "Installing SMAdmin," on page 113.

7.10 Installing SMAdmin

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

- Windows 10, 8, or 7
- Windows Server 2016, 2012 R2, 2012, 2008 R2, or 2008
- 1 On the Windows server or workstation where you will run SMAdmin, copy to a directory the ${\tt SM-AD_5_2_0.iso}$.
- 2 Mount the SM-AD_5_2_0.iso file.
- 3 At the root of the SM-AD_5_2_0.iso image, double-click SMAdmin-AD-Installer-5.2-xxx.exe.
- 4 When you are asked if you want to run this file, click Run.
- **5** Agree to the licensing terms and conditions and click Install.
- 6 When notified that the setup was successful, click Run Admin Client.
 - The SMAdmin login dialog box appears.

Micro Focus	Storage Manager Admin - 5.2.0.22
	Micro Focus® Storage Manager 5.2
Engine User Name Password	Port
	 Proxy and Logging Options Login Cancel
Copyright © 2002-2017 Condrey Corporation. All rights reserved.	

- 7 In the Engine field, specify the DNS name or IP address.
- 8 In the Port field, specify the secure port number.

The default setting is 3009.

9 Specify the username and password.

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

10 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**.

11 Proceed with Section 7.11, "Authorizing the Event Monitor," on page 114.

7.11 Authorizing the Event Monitor

- 1 In SMAdmin, click Event Monitors.
- 2 Select the listed Event Monitor.
- 3 Click Authorize.
- 4 When you are asked if you want to authorize the selected Event Monitor, click Yes.
- 5 When the Results page appears, click Close.
- 6 Proceed with Section 7.12, "Authorizing the Agents," on page 114.

7.12 Authorizing the Agents

- 1 Click Agent Servers.
- 2 Select a listed Agent.
- 3 Click Authorize.
- 4 When you are asked if you want to authorize the selected Agent click Yes.

You can select multiple Agents and authorize them at the same time.

5 When the Results page appears, click Close.

7.13 (Conditional) Install CouchDB

Storage Manager 5.2 includes an optional Work Log that when enabled, maintains a history of Storage Manager policy-enacted events. Data from the Work Log can be used for tracking historical events. For an expanded discussion of the Work Log, see Work Log Reports in the *Micro Focus Storage Manager 5.2 Administration Guide*.

The Work Log exclusively utilizes Apache CouchDB, an open source NoSQL database. You can deploy CouchDB on the Engine host, a separate server within the on-premises network, or in the cloud.

You can download CouchDB at: http://couchdb.apache.org/, which also includes product documentation.

7.14 Administering Storage Manager

You have now completed the installation of Storage Manager 5.2 for Active Directory. For administration procedures, refer to the *Micro Focus Storage Manager 5.2 for Active Directory Administration Guide*.



This section contains information about documentation content changes that were made in this *Micro Focus Storage Manager 5.2 for Active Directory Installation Guide* after the initial release of Storage Manager 3.0 for Active Directory. 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 May 16, 2017

Updates were made to the following sections:

Location	Update Description
Section 5.8, "(Conditional) Install CouchDB," on page 73.	New section.
Section 6.6, "(Conditional) Install CouchDB," on page 87.	New section.
Section 7.13, "(Conditional) Install CouchDB," on page 115.	New section.

A.2 December 13, 2016

Updates were made to the following sections:

Location	Update Description
Chapter 6, "Upgrading from Storage Manager 5. <i>x for Active Directory to 5.2," on page 75.</i>	New section.

A.3 August 16, 2016

Updates were made to the following sections:

 Location
 Update Description

 Chapter 4, "Migrating from Storage Manager 3.1.1," on page 35.
 Procedures throughout this chapter were corrected.

A.4 July 19, 2016

Updates were made to the following sections:

Location	Update Description
Chapter 5, "Upgrading from Storage Manager 4. <i>x</i> for Active Directory to 5.2," on page 61.	New section.

A.5 October 7, 2014

Updates were made to the following sections:

Location	Update Description
Chapter 3, "Installing and Configuring an SQL Server Instance," on page 17.	New section.
Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89.	Updated procedures.

A.6 October 17, 2013

Updates were made to the following sections:

Location	Update Description
Section 1.4, "Verifying Proper Configurations and Rights," on page 10.	New section.
Section 7.3, "Installing the Engine," on page 90.	Removed bullet specifying Windows hotfix needed for Windows Server 2008 R2.
Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89.	Removed bullet specifying Windows hotfix needed for Windows Server 2008 R2.

A.7 June 12, 2013

Updates were made to the following sections:

Location	Update Description
Section 1.2.1, "Installing File Server Resource Manager," on page 8.	Added support for Windows Server 2012.

A.8 February 13, 2013

Updates were made to the following sections:

Location	Update Description
Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89.	Added a requirement for the .NET 4.0 (Full) Framework for the NSM Engine, Event Monitor, NSM Agent, and NSMAdmin.
Section 7.3, "Installing the Engine," on page 90.	Removed a reference to the NSM Engine being supported on a server with an x86 processor.

A.9 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.

A.10 May 18, 2012

Updates were made to the following sections:

Location	Update Description
Section 7.3, "Installing the Engine," on page 90.	New steps.
Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89.	New steps.

A.11 February 2, 2012

Updates were made to the following section:

Location	Update Description
Throughout the manual.	Changed 3.0.2 to 3.0. <i>x</i> .

A.12 March 16, 2011

Updates were made to the following section:

Location	Update Description
Chapter 7, "Installing Storage Manager 5.2 for Active Directory," on page 89.	The step requiring that Full Control security privileges to the FSFProxyRights group for each share that File System Factory for AD will manage, was removed because this step is now automated.

A.13 February 14, 2011

Updates were made to the following section:

Location	Update Description
Section 2.1, "Licensing Overview," on page 13	Overview of license types and the features and capabilities enabled in each.