

This Installation Guide applies to all NTP Software QFS for NAS, IBM N Series editions.

### Abstract

This guide provides a short introduction to installation and initial configuration of NTP Software QFS for NAS, IBM N Series Edition from an administrator's perspective. Upon completion of the steps within this document, NTP Software QFS for NAS, IBM N Series Edition will be installed within your enterprise community.

Rev 2.0 September 2008

The information contained in this document is believed to be accurate as of the date of publication. Because NTP Software must constantly respond to changing market conditions, this document should not be interpreted as a commitment on the part of NTP Software, and NTP Software cannot guarantee the accuracy of any information presented after the date of publication.

This document is for informational purposes only. NTP SOFTWARE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS DOCUMENT.

NTP Software, Quota & File Sentinel, QFS, and Smart Policy Manager are either registered trademarks or trademarks of NTP Software in the United States and/or other countries. Other product and company names mentioned herein may be the trademarks of their respective owners.

NTP Software, 20A Northwest Blvd. #136, Nashua, NH 03063, USA

## **Table of Contents**

Introduction	1
Preparing the IBM N Series Filer	2
Requirements	3
NTP Software QFS for NAS, IBM N Series Edition Server Requirements	3
IBM N Series Filer Requirements	3
Network Configuration	4
Installation	5
Installing NTP Software Smart Policy Manager	5
Installing NTP Software QFS for NAS	11
NTP Software QFS for NAS, IBM N Series Configuration Wizard	17
Adding the IBM Filer to QFS for NAS Admin	20
Verifying Registration with the Filer	22
For Additional Information	22
About NTP Software	23
NTP Software Professional Services	23

# Introduction

Thank you for your interest in NTP Software QFS for NAS, IBM N Series Edition. NTP Software QFS controls storage for millions of users worldwide. NTP Software QFS for NAS, IBM N Series Edition extends our best-of-breed technology to include the IBM N Series family of products, allowing you to manage Windows and NAS-hosted storage as a seamless whole.

Given the architecture of your filer, NTP Software QFS for NAS, IBM N Series Edition does its job remotely. It is part of NTP Software QFS Family of Products and uses a connector service to create a bridge and include IBM N Series filers as full participants in storage environments controlled by QFS. In light of this approach, you will need to install the NAS connector on one of the Windows 2000 or 2003 machines in your environment. This may be an existing server or workstation, or a standalone system.

To be managed by QFS, your IBM N Series filer must be running version 6.5 or later of the Data ONTAP operating system. NTP Software QFS for NAS, IBM N Series Edition can be used to manage IBM N Series filers, vFilers, and IBM N Series clusters — or any combination of these systems. QFS imposes no restrictions on how you organize or manage your storage. You can impose policies on individual directories, users, and/or groups of users.

**Note:** If you want to use email-based messaging and notifications, you will need access to an email server as well.

To install QFS on Windows, you need to log in with an ID that has Administrator rights on the machine. You will be installing four different services: the NTP Software Smart Policy Manager service, the QFS service, the NAS Connector service, and the QFS Watchdog service.

The NTP Software Smart Policy Manager service should be installed with a domain user account as its service account so that it can communicate with your mail system and other storage servers with which it may share policies. The QFS service requires a domain user account with local administrative rights on the IBM N Series filer. The NAS Connector service uses this account as well.

Your hardware should be appropriate for the services running on each machine. The connector itself and NTP Software QFS for NAS, IBM N Series Edition impose almost no load on either machine.

# **Preparing the IBM N Series Filer**

Although QFS for NAS does not install any components on the IBM N Series filer, you will need to enable the Data ONTAP fpolicy management service. Follow these steps:

- 1. Log into the filer with an account that has administrative privileges.
- At the prompt, execute the following command: fpolicy create NTPSoftware\_QFS screen
- 3. Execute the following command:

fpolicy enable NTPSoftware\_QFS

4. To verify that CIFS file policies are now enabled, execute the following command: fpolicy

Data ONTAP versions 7.0.6 and 7.2.2 contain a number of fixes that address stability and memory issues related to fpolicy functionality in Data ONTAP.

The Data ONTAP 7.1 release family is currently not supported with fpolicy.

These steps create the configuration that allows QFS to register with and manage your filer. They must be completed before you try to configure QFS. Later in this document, we will show you how to register a file policy server with the filer.

# **Requirements**



NTP Software QFS for NAS, IBM N Series Edition is a two-tier application that requires a machine to run the QFS software as well as a properly configured IBM N Series filer. Each machine used in this architecture must meet the following minimum requirements.

### NTP Software QFS for NAS, IBM N Series Edition Server Requirements

NTP Software QFS for NAS is installed on a server in your environment. The hardware must be suitable for our software operation, and our requirements are the minimum necessary. If your server is also hosting antivirus or other programs, your environment's requirements may be greater than those in the following list.

- 1 GHz CPU
- Windows 2000 SP4 or Windows 2003
- 1GB RAM
- 150MB free disk space
- Network interface card

#### **IBM N Series Filer Requirements**

The IBM N Series filer to which NTP Software QFS for NAS, IBM N Series Edition will be connected requires the following:

- Data ONTAP® v. 6.5 or higher
- Network interface card

**Note:** It is strongly recommended that two network adapters be installed in both the filer and Windows server. The connection between the server and filer should be private — separate from the public network connection. Using a single network adapter will greatly increase the time required to process data, and may cause excessive delays in the environment.

# **Network Configuration**



#### NTP Software QFS for NAS, IBM N Series Edition Installation Best Practice

# **!!!!VERY IMPORTANT!!!!**

The secondary network connection should be configured as a private and direct connection between the Windows host and the IBM N Series filer.

# Installation

Prior to installing NTP Software QFS for NAS, IBM N Series Edition, NTP Software recommends verifying that the installation server meets the requirements listed in the "Requirements" section of this document.

### Installing NTP Software Smart Policy Manager

- 1. Log into your server by using an account with administrator privileges.
- 2. Place the NTP Software QFS for NAS, IBM N Series Edition CD into the server's CD-ROM drive. After a few moments, the Installation Wizard's start window should appear. If the window does not appear, start the installation manually by using Windows Explorer to select your CD-ROM drive and launch **Setup.exe**.

If you downloaded an evaluation copy of NTP Software QFS for NAS, IBM N Series Edition, go to the directory in which the file was downloaded and double-click the **Setup.exe** file.

3. If NTP Software Smart Policy Manager is not installed; you will be prompted to install it. Click **Yes** to continue.

Question	×
?	NTP Software Smart Policy Engine is not installed on your system. You need it to run this application. If you do not install Smart Policy Engine the setup will exit. Do you want to install Smart Policy Engine at this time?

4. The NTP Software Smart Policy Manager Installation Wizard opens. Click **Next** to begin the installation.



5. Read the end-user license agreement. If you agree to the terms, click **I accept the terms** of the license agreement and then click **Next**. If you do not accept the terms, click **Cancel** to exit the installation.

NTP Software Smart Policy Manager Setup Wizard	×
License Agreement Please read the following license agreement carefully.	2
NTP Software Smart Policy Manager(TM) End-User License By using or copying the accompanying software you are indicating your acceptance of the terms of this license. If you do not agree to the terms of this license, please return the product UNOPENED to your place of purchase for a full refund. GRANT OF LICENSE. NTP Software grants you the right to use Smart Policy Manager ("PRODUCT") on one computer, solely for your or your company's own internal use. In addition to the specified quantity of copies, you may make one (1) additional copy as a backup to the original. However, you may not cause the software to execute or be loaded into the active memory of more computers than the above-specified quantity at any one time. In addition the PRODUCT is licensed solely for the management of local storage	
I do not accept the terms of the license agreement InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	

6. Choose the location where you want to install NTP Software Smart Policy Manager; then click **Next**.

NTP Software Smart Policy Manager Setup Wizard	×
Choose Destination Location Select folder where setup will install files.	Septemare"
Setup will install NTP Software Smart Policy Manager in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse another folder.	and select
Destination Folder C:\Program Files\Smart Policy Manager	Browse
< <u>B</u> ack ( <u>Next</u> >	Cancel

7. Select the components you want to install; then click **Next**.

NTP Software Smart Policy Manager Setup W	'izard 🗙
Select Features Select the features setup will install.	Section are"
Select the features you want to install, and dese	lect the features you do not want to install. Description Selecting this option will install all of the components required for the Smart Policy Manager service. The service installation will automatically install the client components.
4.43 MB of space required on the C drive 1924.36 MB of space available on the C drive InstallShield	< <u>B</u> ack <u>N</u> ext > Cancel

8. You will be prompted for a Windows domain user account to run the NTP Software Smart Policy Manager service. Enter the username and password for a domain user account with administrative rights on the local machine. Click **Next**.

NTP Software	Smart Policy Manager Setup Wizard	×
Service Acc	count:	Software"
Enter the se	rvice account the Smart Policy Manager service is to run under.	
Service	Administrator	
Password:	·····	
Confirm:	••••••	
InstallShield —		
	< <u>B</u> ack <u>N</u> ext>	Cancel

9. Enter the directory name where you want to install the NTP Software Smart Policy Manager database, or just accept the default location. Click **Next**.

NTP Software Smart Policy Manager Setup Wizard	×
Smart Policy Manager Database Location	Sefeware"
Setup will install the Smart Policy Manager database in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse another folder.	and select
Destination Folder C:\Program Files\Smart Policy Manager\data store	Browse
< <u>B</u> ack <u>Next</u> >	Cancel

10. Select the NTP Software Smart Policy Manager installation type for your environment. If installing to a new environment with no prior NTP Software Smart Policy Manager installations, click **Next**. If installing in an environment where NTP Software Smart Policy Manager is already running, choose **Adding to an enterprise installation** and click **Next**.

NTP Software Smart Policy Manager Setup V	Vizard	×
Setup Type Select the setup type that best suits your needs	s.	Software"
Choose the type of Smart Policy Manager insta	llation you are doing.	
First time installation in the enterprise		
O Adding to an enterprise installation		
Install9hield	< <u>B</u> ack <u>N</u> ext >	Cancel

11. Provide NTP Software Smart Policy Manager with a name for your organization and a location name for this NTP Software Smart Policy Manager instance, or accept the default settings. Click **Next**.

NTP Software Smart I	Policy Manager Setup Wi	zard		×
Smart Policy Mana	ger Initial Setup Parame	ters	N	TP Software"
Enter the initial organ	nization and location names.			
Organization:	My Organization			
	Mr. Ch.			
Location:	јму зке			
InstallShield				
	I	< <u>B</u> ack	<u>N</u> ext >	Cancel

12. Review your configuration information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.

NTP Software Smart Policy Manager Setup Wizard	×
Start Copying Files Review settings before copying files.	'e''
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.	
< <u>B</u> ack <u>N</u> ext > Cancel	

13. If you do not want to view the NTP Software Smart Policy Manager readme file, uncheck the **Yes, I want to view the readme file** checkbox. When you click **Finish**, the QFS for NAS Installer opens.



### Installing NTP Software QFS for NAS

1. When the NTP Software QFS for NAS Installation Wizard opens, click **Next** to begin the installation.



2. Read the end-user license agreement. If you agree to the terms, click **I accept the terms** of the license agreement and then click **Next**. If you do not accept the terms, click **Cancel** to exit the installation.

NTP Software QFS for NAS Setup		×
License Agreement Please read the following license agreement care	əfully.	Steware"
NTP Software QFS for NAS (TM) End User License By using or copying the accompanying software terms of this license. If you do not agree to the to product UNOPENED to your place of purchase GRANT OF LICENSE. NTP Software grants you NAS ("the PRODUCT") to manage the number license fee, provided the use is solely for your pouse. NTP Software grants you the rights to run to NTP Software QFS for NAS on one or more Wir I accept the terms of the license agreement I do not accept the terms of the license agreement	you are indicating you erms of this license, ple for a full refund. u the right to use NTP ! of NAS systems for wh ersonal or your compan he Windows connecto ndows systems, up to th ement	r acceptance of the ase return the Software QFS for ich you have paid a y's own internal r components of ne number of NAS
mayaliamiciu	< <u>B</u> ack <u>N</u> e	xt > Cancel

3. Choose the location where you want to install QFS; then click **Next**.

NTP Software QFS for NAS Setup	×
Choose Destination Location Select folder where setup will install files.	Software"
Setup will install QFS for NAS in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse another folder.	and select
Destination Folder C:\Program Files\NTPSoftware\QFS for NAS	Browse
InstallShield	
< <u>B</u> ack <u>Next&gt;</u>	Cancel

4. Select the components to be installed on the local machine. The Admin component allows for administration of the QFS service. The NAS Connector component is required if this machine will need to communicate with a filer for quota management purposes.

NTP Software QFS for NAS Setup	×
Select Features Select the features setup will install.	Spetware"
Select the features you want to install, and dese	lect the features you do not want to install. Description Selecting this option will install all of the components required to run the NTP Software QFS administrative client. If you choose not to install these components you may still install the NTP Software QFS service, but you will not be able to configure it from this machine.
47.44 MB of space required on the C drive 93525.59 MB of space available on the C drive InstallShield	
	< <u>B</u> ack <u>N</u> ext > Cancel

5. Provide your company name, the serial number for QFS, and the serial number for the NAS Connector. Click **Next**.

NTP Software QFS for NAS Setup	×
User Information Enter your registration information.	Spetware"
Please enter the name of the company for to install an evaluation version or the pro	or whom you work and select whether you want duction version.
Company Name: NTPSoftware	
O Install Evaluation Version	
Install Production Version	
<u>Q</u> FS Serial Number:	QFS SERIAL NUMBER
<u>N</u> AS Connector Serial Number:	NAS CONNECTOR SERIAL NUMBER
InstallShield	
	< <u>B</u> ack <u>N</u> ext > Cancel

6. Specify the account type to be used. Click Next.

NTP Software QFS for NAS Setup	×		
Account Type Please specify the type of account to use.	Sectionare"		
The Quota & File Sentinel service can run as a specified account or the built- account. Specify an account to use.	in system		
<ul> <li>Use the built-in system account. The following features are disabled:         <ul> <li>The ability to specify UNC paths in policies.</li> <li>Active Directory/LDAP email address lookups.</li> <li>User account lookups across multiple domains.</li> </ul> </li> </ul>			
InstallShield	Cancel		

7. If specifying an account, enter a username with local administrative privileges. This account will be used to log in and enforce quotas. Click **Next**.

NTP Software (	QFS for NAS Setup
Service Acc	sount Sectionare"
Enter the Se	ervice account QFS for NAS is to run under.
Service	Administrator
Password:	********
Confirm:	********
InstallShield ——	< <u>B</u> ack <u>N</u> ext > Cancel

8. Select the program folder to host the NTP Software QFS for NAS, IBM N Series startup group. Click **Next**.

NTP Software QFS for NAS Setup		×
Select Program Folder Please select a program folder.		NTP Sectionare"
Setup will add program icons to the Program Fo name, or select one from the existing folders lis	older listed below. You may typ t. Click Next to continue.	e a new folder
Program Folder:		
NTP Software QFS for NAS		
Existing Folders:		
Accessories Administrative Tools AVG Free 8.0 Broadcom Catalyst Control Center Dell Network Assistant Dell QuickSet Dell Support Games		•
InstallShield		
	< <u>B</u> ack <u>N</u> ext >	Cancel

9. Review your components and NAS connector information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.

NTP Software QFS for NAS Setup	×
Start Copying Files Review settings before copying files.	Steware"
Setup has enough information to start copying the program files. If you want change any settings, click Back. If you are satisfied with the settings, click N copying files.	to review or lext to begin
Current Settings:	
Destination Path: C:\Program Files\NTPSoftware\QFS for NAS Components to install: Quota & File Sentinel Service Quota & File Sentinel Administration Tool Quota & File Sentinel NAS Connector	
Start Menu Folder: NTP Software QFS for NAS	
InstallShield	
< <u>B</u> ack <u>N</u> ext >	Cancel

10. If you do not want to view the NTP Software QFS for NAS readme file, uncheck the **Yes**, **I want to view the readme file** checkbox. When you click **Finish**, the NTP Software QFS for NAS, IBM N Series Edition configuration wizard will open.

NTP Software QFS for NAS Setup			
Decemare"	NTP Software Installation Wizard for QFS for NAS Complete         The Installation Wizard has successfully installed QFS for NAS. Click Finish to exit the wizard.         Image: the wizard in the wiz		
	< Back Finish Cancel		

### NTP Software QFS for NAS, IBM N Series Configuration Wizard

1. Click the **View Pre-Wizard Checklist** button and gather the required information before continuing. Click **Next**.

QFS For NAS Configuration Wizard
NTP. Sobeware
To complete the installation of your QFS for NAS product we will require information about your NAS device, Email Notification System, and identity mapping directory.
Please make sure you know all of the answers of the below Configuration Checklist before continuing on this wizard.
View Pre-Wizard Checklist
Next > Finish Cancel

2. Enter the name of your filer or vFiler. If using a vFiler, enter the name of the hosting filer. Click **Next**.

QFS For NAS Configuration Wizard	X
STP. Sebeware	
The QFS connector will need information about your Filer to be able to manage its resources.	
Netbios name of your Filer or vFiler: MYFILER	
If the above is a vFiler please enter the hosting Filers name below:	
Netbios name of your hosting Filer:	
< <u>B</u> ack <u>N</u> ext > Finish Cancel	

3. If you do not want to send email notifications to users when a quota status changes, uncheck the **Yes! We do want email notifications enabled** checkbox. Select which email system your environment uses. Click **Next**.

Mail Notification Setup (Optional)	×
STP. Sobeware	
If you plan on notifying your users via email of quota thresholds they cross, file removal events, of file restriction violations we will need information about your e-mail system.	
Email System Information	
Exchange 2000 or greater	
Other (Lotus Notes, Send Mail, etc)	
< <u>B</u> ack <u>N</u> ext > Finish Cancel	

4. Enter the name of your Active Directory server. (Optional: Enter a second server, if desired.) Click the **Test Active Directory Lookup** button and test at least one email address to verify connectivity. Then click **Next**.

Ежс	hange 2000 or Greater Setup(Op	otional)			×
ļ	Software"				
When a user crosses a threshold on a quota policy or violates a file restriction policy we will need to find that user email address. We can use your existing Active Directory to get the needed information. Please provide the information below:					
	Primary Active Directory Server:	mydomain.com		Port: 389	
	Secondary Active Directory Server:			Port: 389	
			Test Ac	tive Directory Lookup	
					]
	r				_
		< <u>B</u> ack <u>N</u> ext	:>	Finish Cancel	

 Enter the SMTP gateway, the SMTP domain, and the email address to use for notifications. Enter any password(s) required for your environment. Click Test Mail Settings to verify that the information is correct. Then click Finish.

Mail Server Info (Optional)	X
Steware.	
QFS will send email utilizing your own mail server. Please supply the below needed information about your email gateway.	
Email System Information	]
SMTP Gateway Address: smtp.mydomain.com	
SMTP Domain (Example: ntpsoftware.com): mydomain.com	
Reply Email Address for Notifications: reply@mydomain.com	
Reply Email account Password (if needed): *****	
Test Mail Settings Status: Not sent yet	
< <u>B</u> ack Finish Cancel	

6. Click the **Finish Installation: Create FPolicy on Filer** button to see how to create the fpolicy and link the filer to QFS for NAS. Review the remaining information by clicking through the buttons in the lower half of the window. When finished, click **Close**.

QFS For NAS NetApp Co	onfiguration Wizard (Finished)	×
Software.		
To complete the setup you r completing the installation.	nust first setup a FPolicy on your Filer. Below are listed the next steps to	
Final Task	[ Finish Installation: Create FPolicy on Filer ]	
Show me how to		
	1. Create a quota policy	
	2. Create a file blocking policy	
	3. Create a file removal policy	
	Close	

### Adding the IBM Filer to QFS for NAS Admin

Before you can use NTP Software QFS for NAS, the filer must be added to the NTP Software Smart Policy Manager hierarchy. Follow these steps to add the filer:

- 1. Click Start > All Programs > NTP Software QFS for NAS > NTP Software QFS for NAS Admin.
- 2. In the hierarchy presented, expand the location name you entered earlier. The default location is **My Site**. Your filer is listed in the right pane, below the server on which QFS is installed.

E NTP Software Smart Policy Manager (TM)						
Eile Edit View Options Help						
🎒 🕺 🖻 🛍 🗙 😭 🐁 🗁 🖽 🏢						
🖃 🤀 My Organization	Name 🗸	Туре	Status	Description	Created	Modified
🗄 📲 Quota & File Sentinel	<b>B</b> MYFILER	Filer	Available		1/17/08 23:00:49	1/17/08 23:00:49
⊡- <u>₩W,5ke</u> ⊕- <u>9</u> NTP13406 ⊕-@ <u>\$</u> MYFILER	J. NTP13406	Server	Available		1/17/08 22:39:04	1/17/08 23:03:10

3. In the left pane, expand the server on which QFS is installed, and right-click **Quota & File Sentinel**. From the pop-up menu, choose **Properties**.

🗞 Quota & File Sentinel		
File Edit View Options Help		
🖃 🤑 My Organization	Component 🛆	
🖬 🕀 🛄 Quota & File Sentinel	🔮 Disk Quota Policies	
🖻 🛗 My Site	🔠 File Control Policies	
E-g NIP13406	Eile Management Policies	
	Server Directories	
Rename	Server Shares	
Properties		

4. Click the NAS Connector tab. Your filer should be listed; if it is not, click Add.

NTP Software QFS (R) Configuration	×
Email Configuration SNMP Configuration Event Options Misc. Options Security NAS Connector	
Please enter the Filers to be managed by the NAS Connector.           Filer or vFiler         Host Filer           MYFILER	
Add Bemove	
Note: The share QFSQuarantine or QFSQuar must exist on each managed machine in order for Quarantine to work properly.	
Enable File Blocking Recovery	
OK Cancel Apply Help	

5. Enter the name of your filer or vFiler. If you are using a vFiler, select the **This is a NAS** vFiler checkbox, then enter the Hosting NAS Filer name. Click **OK**.

Add or Edit an Item	×
Enter the name of the NAS Filer or vFiler to control:	
MYFILER	Bro <u>w</u> se
This is a NAS vFiler. Hosting NAS Filer	
OK Cancel	

## Verifying Registration with the Filer

To verify that the filer has been associated with QFS, follow these steps:

- 1. Log onto the filer.
- 2. Run **fpolicy** to view fpolicy settings.

Your filer and the associated policies should be displayed.

File policy NTPSoftware_QFS (fi	le scre	ening) is ena	bled.				
File screen servers	P∕S C	onnect time (	dd:hh:mm)	Reqs	Fails		
10.30.3.52 NNTP13406	Pri	02:18:54		0	0		
Operations monitored: File open,File create,File rename,File close,File delete Directory rename,Directory delete Above operations are monitored for CIFS only List of extensions to screen:							
??? List of extensions not to scree Extensions-not-to-screen list	en: is empt	y.					

### For Additional Information

See the *NTP Software QFS Family of Products User Manual*, reference # 5887EF, for more details on the information provided in this guide.

# About NTP Software

NTP Software is the worldwide leader in user-focused, policy-based storage management. We create platform-independent products that enable companies to automatically control the compliance, access, quotas, content, and lifespan of their users' stored files. NTP Software solutions also gather the analysis and planning data necessary for both short- and long-term decision making, providing everything necessary to actively control all aspects of a user's relationship with local and shared storage.

# **NTP Software Professional Services**

For further assistance with NTP Software QFS for NAS, IBM N Series Edition, contact your NTP Software representative at 800-226-2755 or 603-622-4400.

NTP Software offers end-to-end consulting and training services to assist in the deployment and configuration of your storage management solution. Our Professional Services staff includes certified instructors for Microsoft and NTP Software systems as well as other technologies.

NTP Software 20A Northwest Blvd. #136 Nashua, NH 03063-4066 Toll-free: 800-226-2755 International: 1-603-622-4400 Website: www.ntpsoftware.com