NTP Software QFS® for NAS, Hitachi Edition

Installation Guide

Revision 2.4 - July 2015

This guide details the method for the installation and initial configuration of NTP Software QFS® for NAS, Hitachi Edition, from an administrator's perspective. Upon completion of the steps within this document, NTP Software QFS for NAS, Hitachi Edition will be installed within your enterprise community. This Installation Guide applies to all NTP Software QFS for NAS, Hitachi editions.

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Executive Summary

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

Given the architecture of your Hitachi NAS Server, NTP Software QFS for NAS, Hitachi Edition does its job remotely. Part of NTP Software QFS Family of Products, NTP Software QFS for NAS, Hitachi Edition uses a connector service to create a bridge and include Hitachi NAS Servers as full participants in storage environments controlled by NTP Software QFS. In light of this fact, you will need to install the Hitachi connector on one of the Windows Server® 2008, Windows Server® 2008 R2 or Windows Server® 2012 machines in your environment. This may be an existing server, a workstation, or a standalone system.

To be managed by NTP Software QFS, the NOS operating system is required on the Hitachi NAS Server. NTP Software QFS for NAS, Hitachi Edition can be used to manage Hitachi NAS Servers and clusters, or any combination of these systems. NTP Software 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, access to an email server is required.

To install NTP Software QFS on Windows, logging on with administrator rights is needed. You will be installing three different services: the NTP Software Smart Policy Manager™ service, the NTP Software QFS service, and the NTP Software QFS Hitachi Connector servic.

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 NTP Software QFS service requires a domain user account with local administrative rights on the Hitachi NAS Server. The Hitachi 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, Hitachi Edition impose almost no load on either machine.

Preparing the Hitachi NAS Server

To prepare the Hitachi NAS Server, the following must be taken into consideration:

1. For each EVS (Virtual Server), which is managed by NTP Software QFS, at least one CIFS server name must be created and must join the same domain as the QFS machine.

2. The logon account used to register with the Hitachi NAS Server (the account that will be assigned to the NTP Software QFS service) needs to be a member of the Hitachi NAS Server's local group Backup Operators, which can be added from the Hitachi NAS Server Command Line Interface (CLI) using the following command:

   ```
   localgroup add "Backup Operators"
   <FQDomainName\AccountName>
   ```

3. The File-Filtering feature must be enabled in the EVS. To enable the File-Filtering feature, use the following command:

   ```
   fsm set allow-ntp-file-filtering true
   ```

   > **NOTE**: You need to turn on File-Filtering in all EVSs you manage by NTP Software QFS. In order to do that use the following command to select a service EVS before executing the above command:
   >
   > console-context --evs <id>   where <id> represents your EVS id
   >
   > **IMPORTANT**: There is one more command required to turn on the file filtering feature of the Hitachi NAS. This last command must be performed after NTP Software QFS is fully installed. You will find this command at the end of this installation guide.

Preparing the QFS Windows Machine

To prepare the QFS Machine, you need to add HOSTS and LMHOSTS file entries that include the IP address and the CIFS server name of the EVS. If the EVS has multiple IP addresses, the IP of the dedicated network should be used.

> **NOTE**: If NTP Software QFS is installed on an environment that has 'NTP Software FA with Proxy Service' installed, the registry value named "**ProxyServer**" in the registry key named "**HKEY_LOCAL_MACHINE\SOFTWARE\NTPSoftware\BCS**" on the QFS machine must be set to the machine name on which 'FA with Proxy Service' is installed. This allows NTP Software QFS and 'FA with Proxy Service' to work properly on the same environment.

Requirements

NTP Software QFS components must meet the following minimum requirements.

NTP Software QFS for NAS, Hitachi Edition Server Requirements

NTP Software QFS for NAS is installed on a server in your environment. The hardware components of this server 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:

Hardware Specification

The following hardware components are the minimum requirements to support NTP Software QFS for NAS, Hitachi Edition. If the NTP Software QFS for NAS server is also hosting antivirus or other programs, the requirements may be greater than those in the following lists:

- 1 GHz CPU

- 1 GB RAM

- 150 MB free disk space

- Network interface card

Software Specification

- Windows Server® 2008, Windows Server® 2008 R2 or Windows Server® 2012

- WoW 64

Hitachi NAS Server Requirements

The Hitachi NAS Server to which NTP Software QFS for NAS, Hitachi Edition will be connected requires the following:

- NOS operating system version 6.1.1684.18 or later, but if QFS is installed on a Windows Server® 2008 machine or newer, then the NOS version must be 7.0.2010.00 or newer.

- Network interface card

> **NOTE:** It is strongly recommended that two network adapters be installed on both the Hitachi NAS Server and the Windows Server. The connection between the two servers should be a dedicated connection (i.e., 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, Hitachi Edition Installation Best Practice
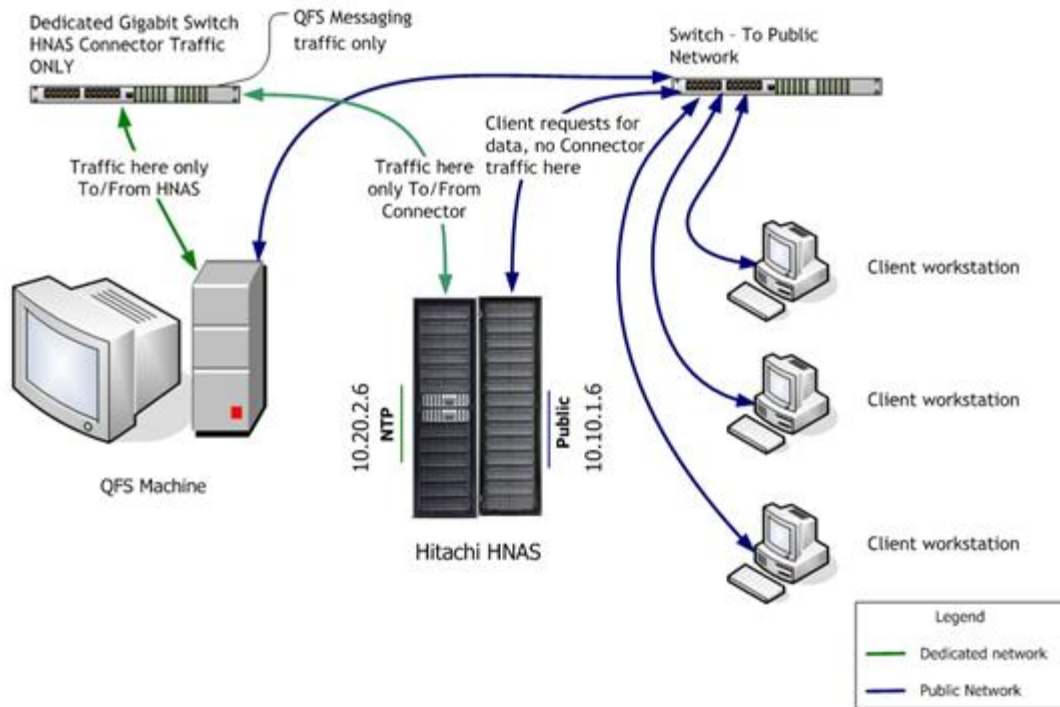
IMPORTANT: One network connection on the NTP Software QFS machine should be configured as a dedicated and direct connection between the Windows host and the Hitachi NAS.

NTP Software QFS for NAS, Hitachi Edition Installation

Prior to installing NTP Software QFS for NAS, Hitachi Edition, it is highly recommended to verify that the installation server meets the requirements listed in the Requirements section of this document.

Installing NTP Software Smart Policy Manager™

1. Log on to your server by using an account with administrator privileges.

2. Run the NTP Software QFS installer. If NTP Software Smart Policy Manager™ is not installed, the following installer will launch automatically.


If NTP Software Smart Policy Manager is installed, you can skip to the section on Installing NTP Software QFS for NAS, Hitachi Edition.

3. When prompted to install NTP Software Smart Policy Manager, click the **Yes** button.
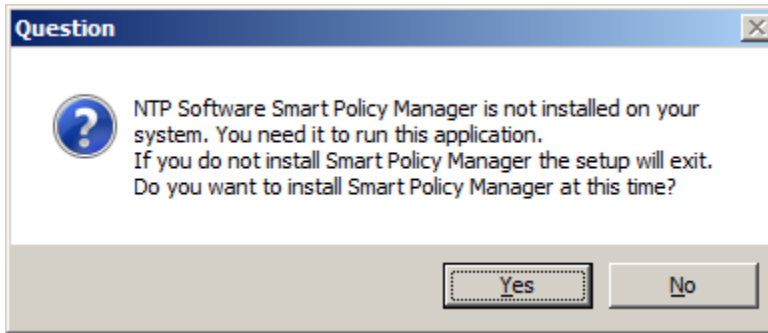
4. The **NTP Software Smart Policy Manager Setup Wizard** opens. Click **Next** to begin the installation.
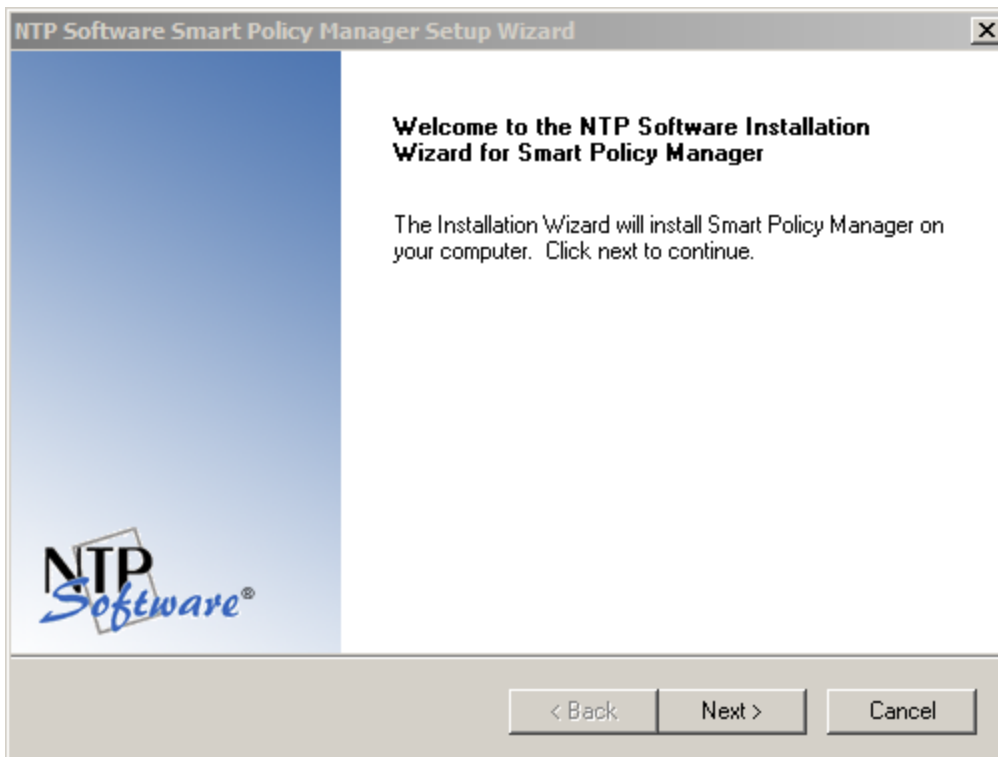
5. In the **License Agreement** dialog box, read the end-user license agreement. If you agree to the terms, click **I accept the terms of the license agreement** and then click **Next**. If you do not accept the terms, click **Cancel** to exit the installation.
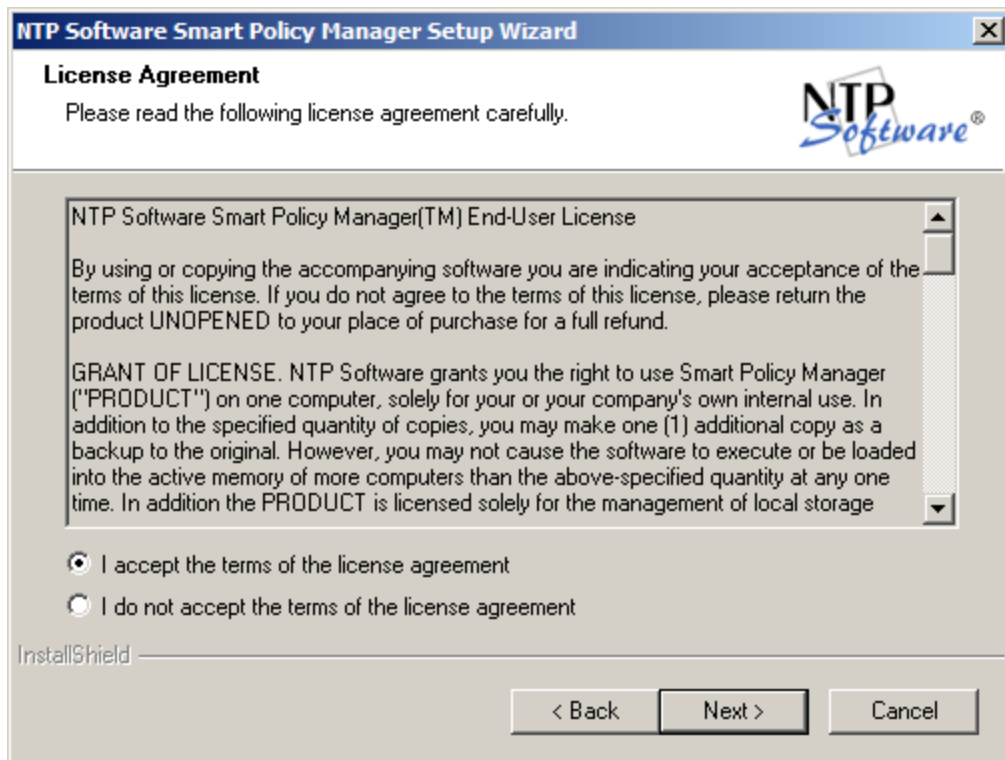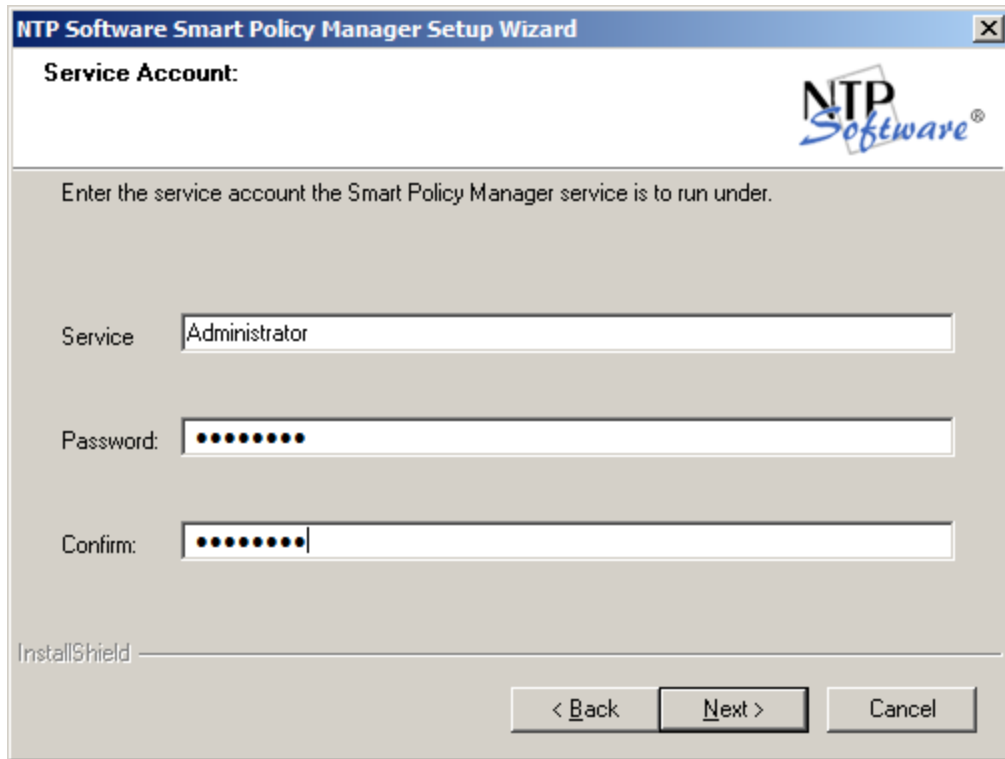
6. In the **Choose Destination Location** dialog box, click **Browse** to choose the location where you want to install NTP Software Smart Policy Manager, and then click **Next**.
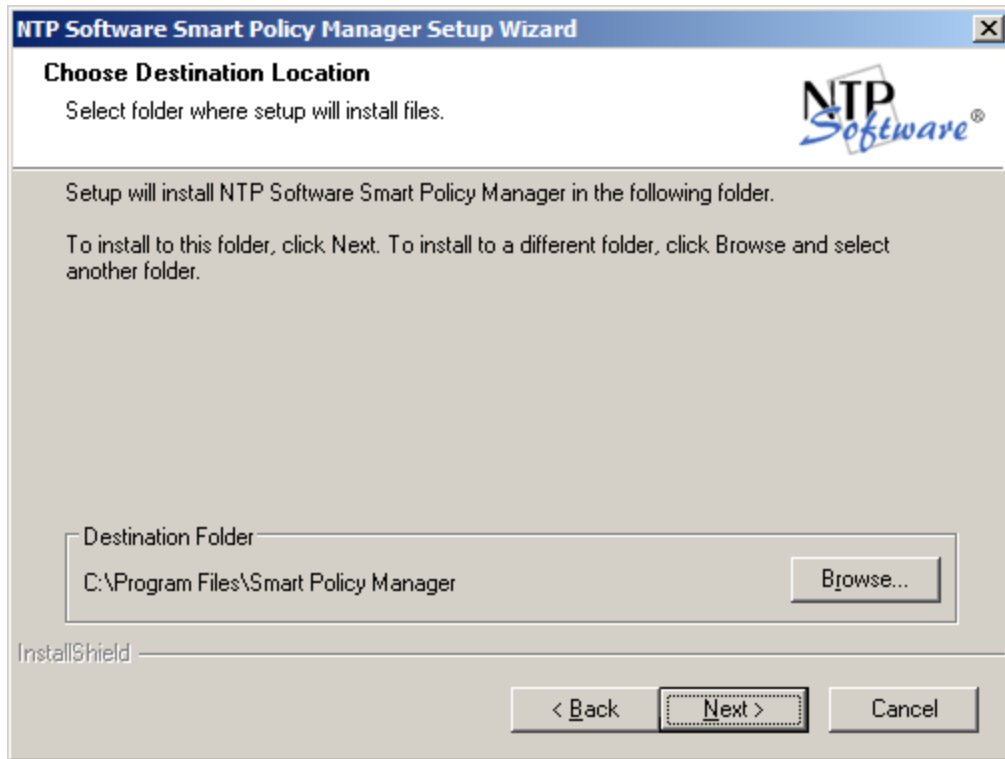
7. In the **Select Features** dialog box, select the components you want to install, and then click **Next**.
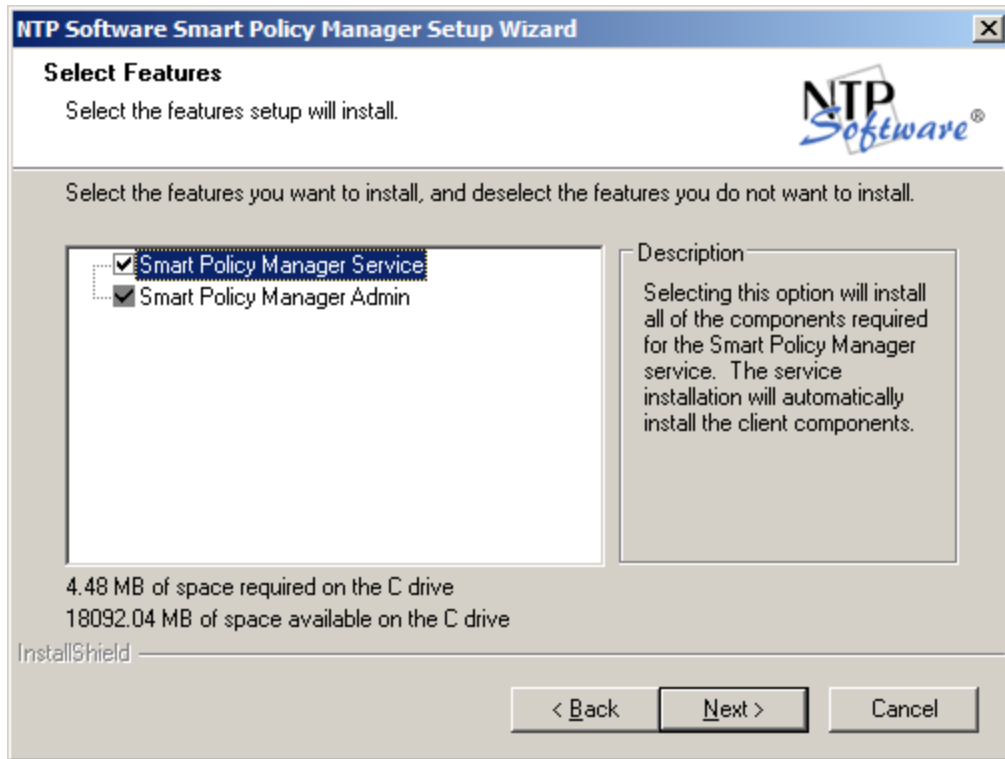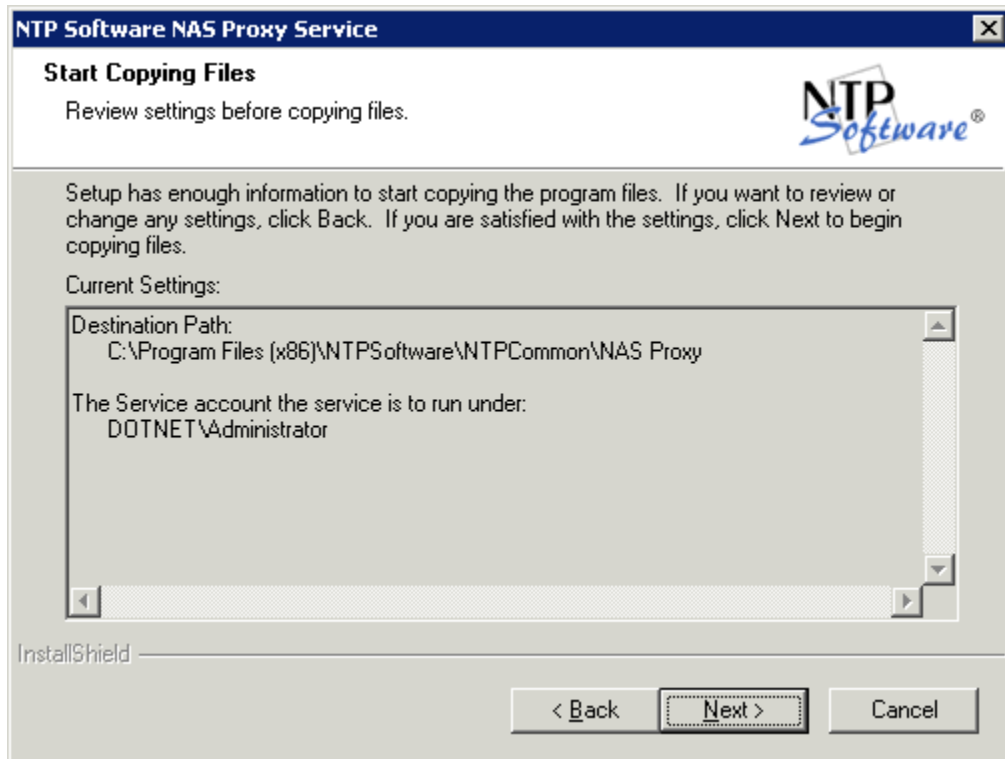
8. In the **Service Account** dialog box, when prompted for a Windows domain user account to run the NTP Software Smart Policy Manager service, enter the username and password for a domain user account with administrative rights on the local machine. Click **Next**.

9. In the **Smart Policy Manager Database Location** dialog box, enter the directory name where you want to install the NTP Software Smart Policy Manager database, or just accept the default location. Click **Next**.
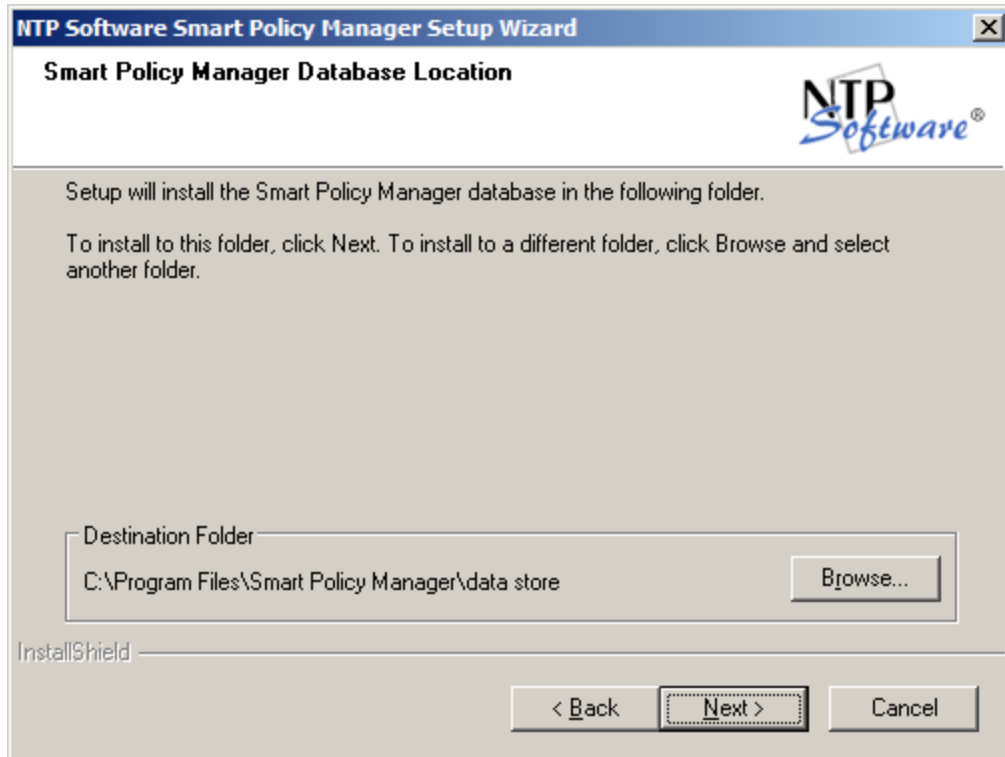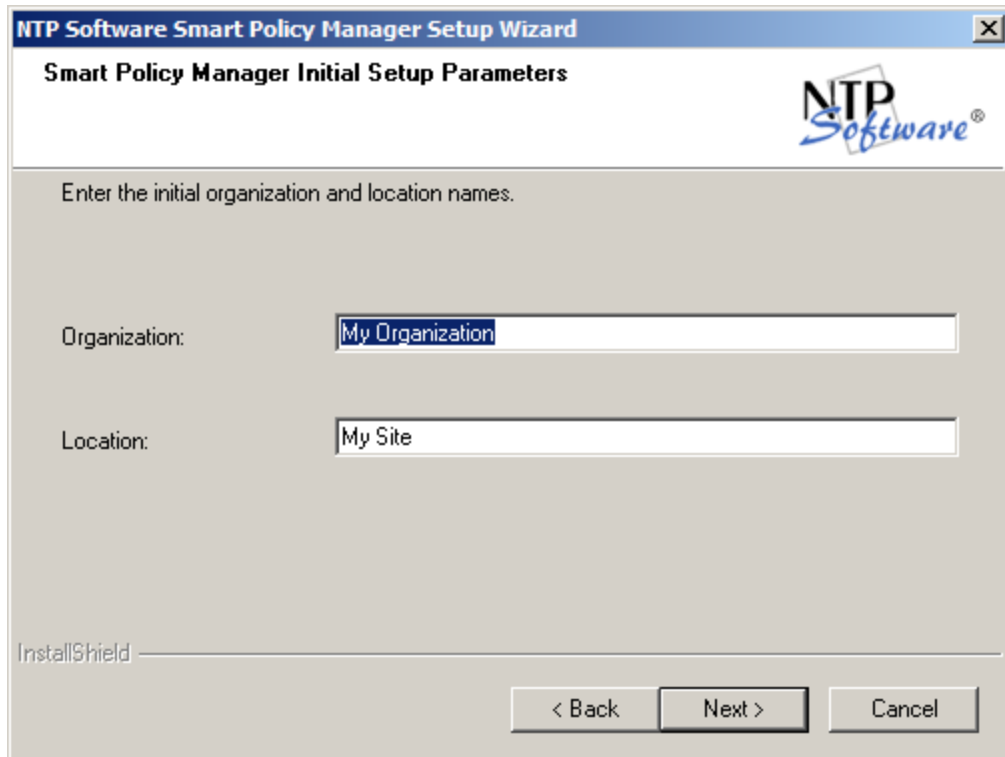
10. In the **Setup Type** dialog box, select the NTP Software Smart Policy Manager installation type for your environment. If installing to a new environment with no prior NTP Software Smart Policy Manager installations, click **Next**. If installing in an environment where NTP Software Smart Policy Manager is already running, choose **Adding to an enterprise installation** and click **Next**.
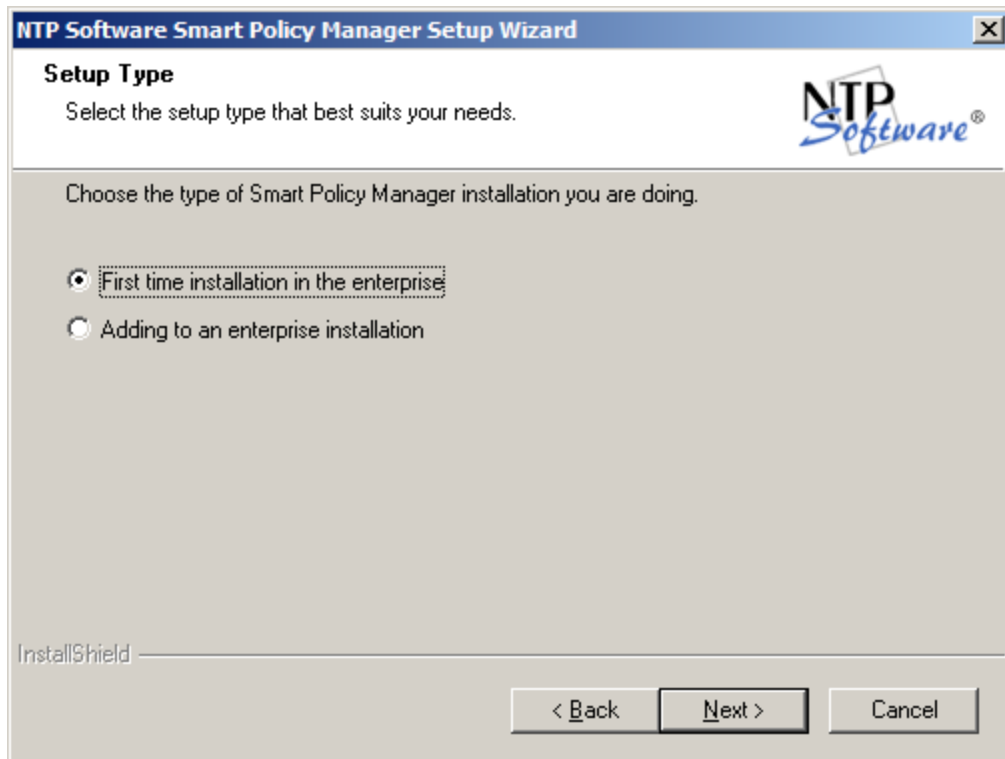
11. In the **Smart Policy Manager Initial Setup Parameters** dialog box, provide NTP Software Smart Policy Manager with a name for your organization and a location name for this NTP Software Smart Policy Manager instance, or accept the default settings. Click **Next**.

12. In the **Start Copying Files** dialog box, review your configuration information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.

13. If you want to view the NTP Software Smart Policy Manager readme file, check the **Yes, I want to view the readme file** checkbox, and then click **Finish**.
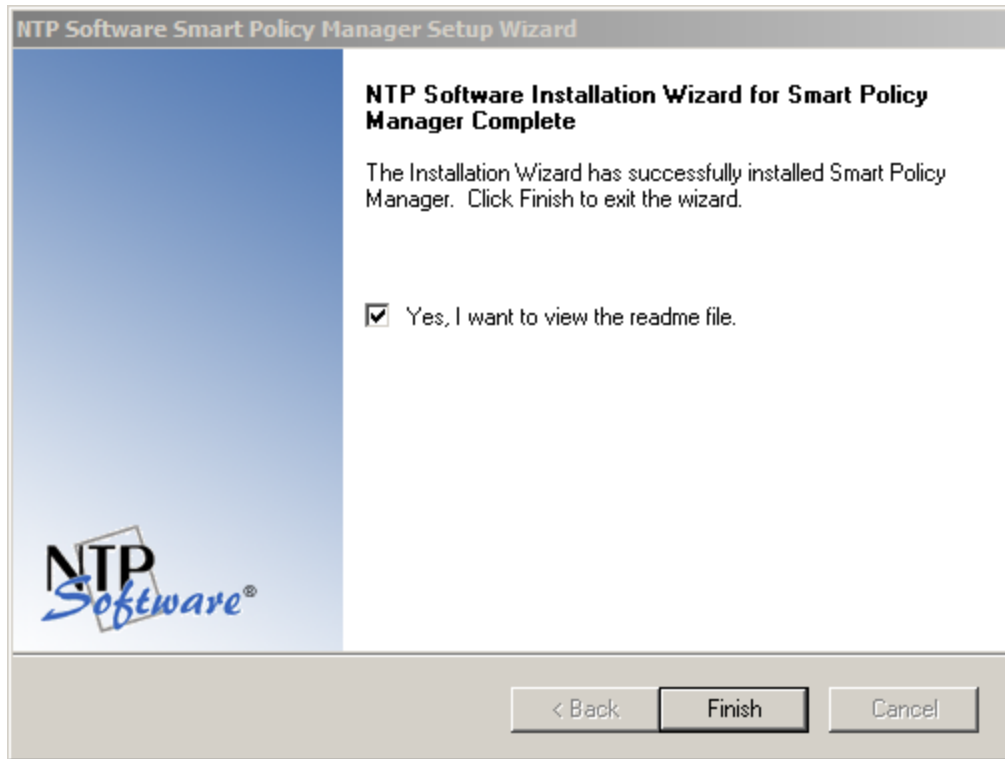
Installing NTP Software NAS Proxy Service™

1. Log on to your server by using an account with administrator privileges.

2. Run the NTP Software QFS installer. If NTP Software NAS Proxy Service™ is not installed, the following installer will launch automatically.

If NTP Software NAS Proxy Service is installed, you can skip to the section on Installing NTP Software QFS for NAS, Hitachi Edition.

3. When prompted to install NTP Software NAS Proxy Service, click the **Yes** button.
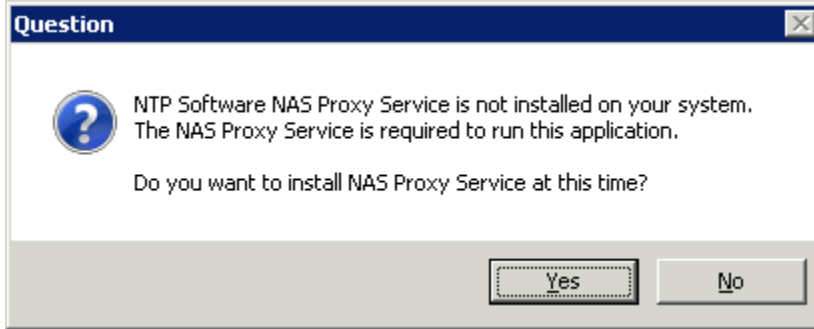
If you clicked the **No** button, the following message will be displayed:
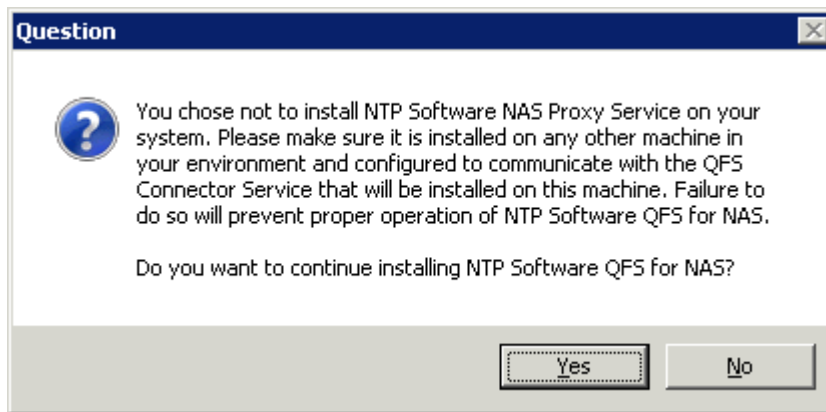
- If you clicked the **Yes** button in the above message, NTP Software QFS installer will proceed without installing NTP Software NAS Proxy Service.

- If you clicked the **No** button in the above message, NTP Software QFS installer will terminate.

4. The **NTP Software NAS Proxy Service Setup Wizard** opens. Click **Next** to begin the installation.
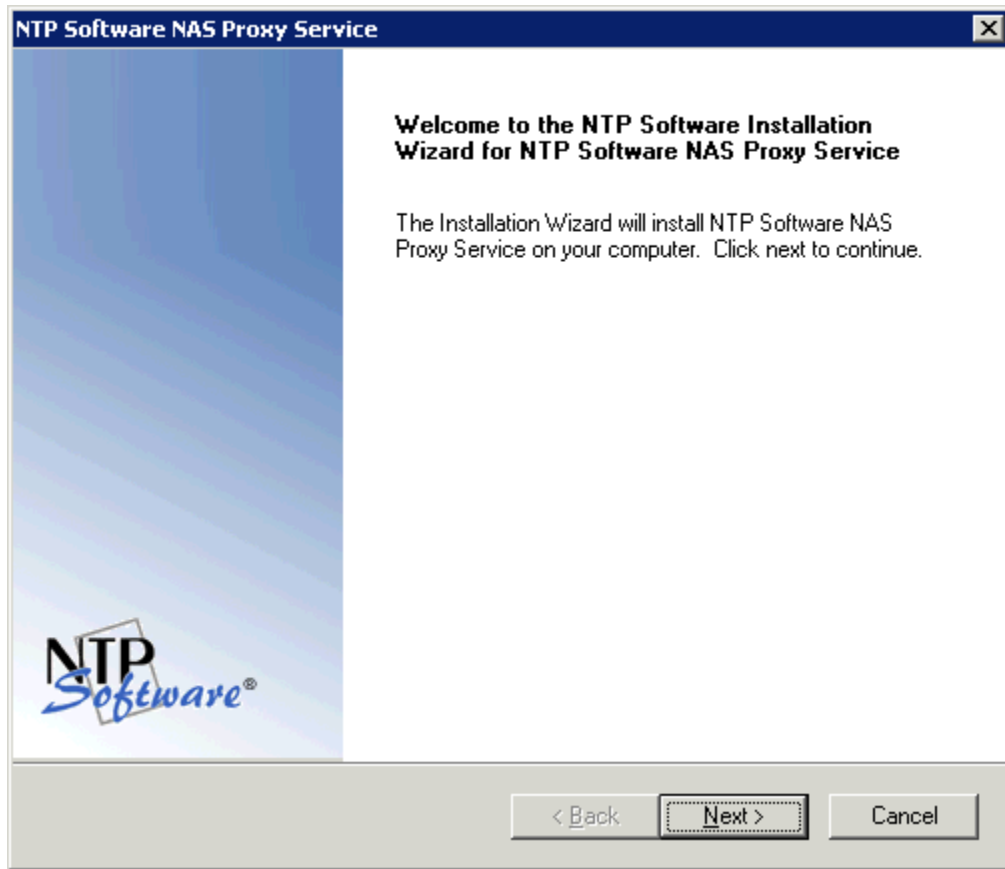
5. In the **License Agreement** dialog box, read the end-user license agreement. If you agree to the terms, click **I accept the terms of the license agreement** and then click **Next**. If you do not accept the terms, click **Cancel** to exit the installation.
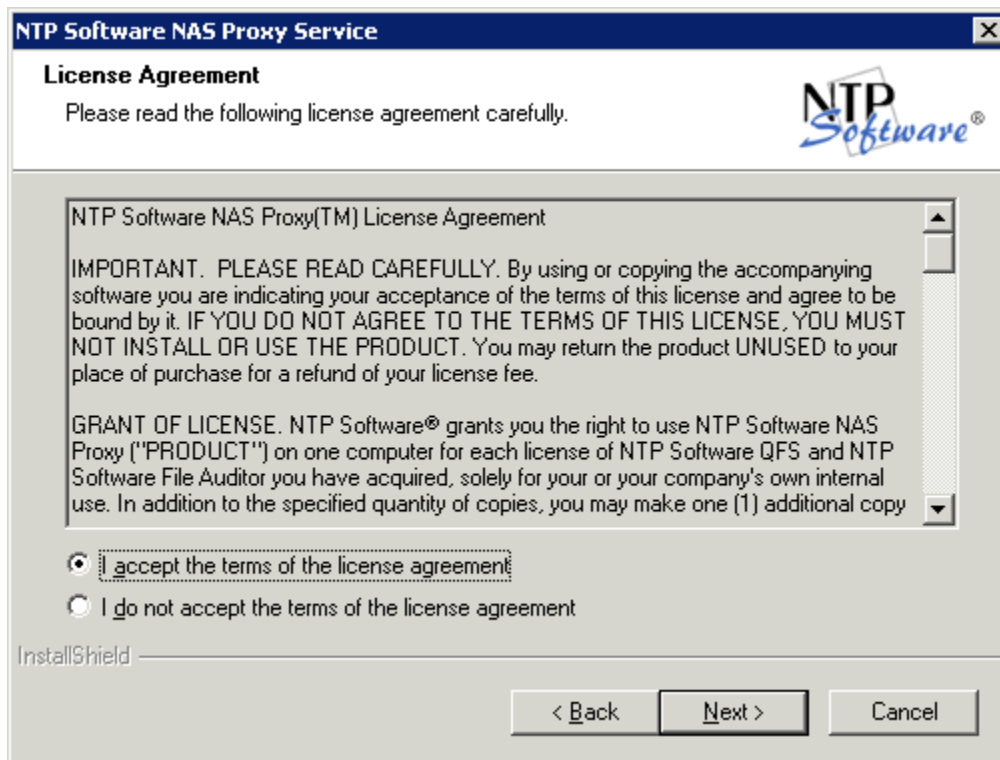
6. In the **Choose Destination Location** dialog box, click **Browse** to choose the location where you want to install NTP Software NAS Proxy Service, and then click **Next**.
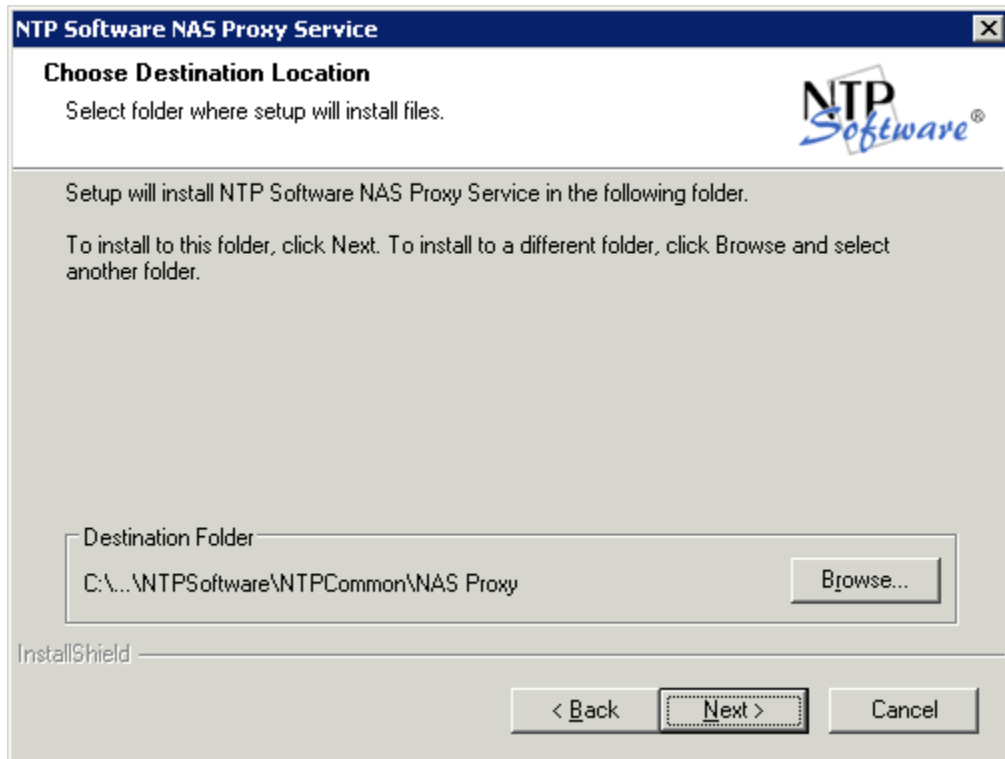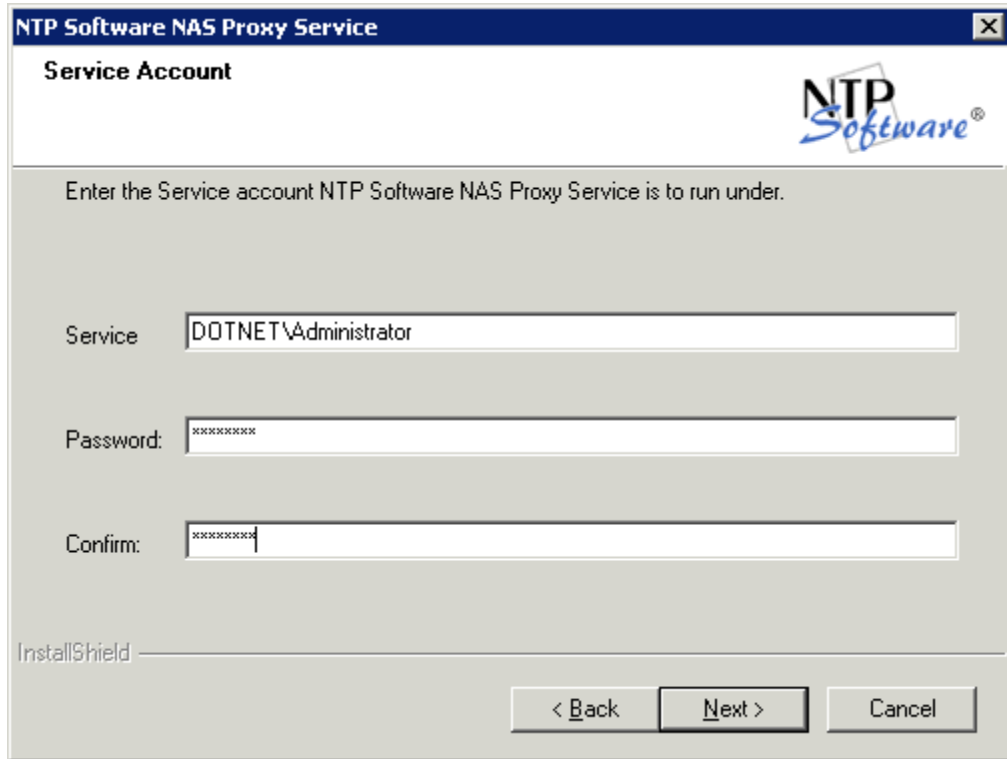
7. In the **Account Type** dialog box, select the **Specify an account to use**, and then click **Next**.
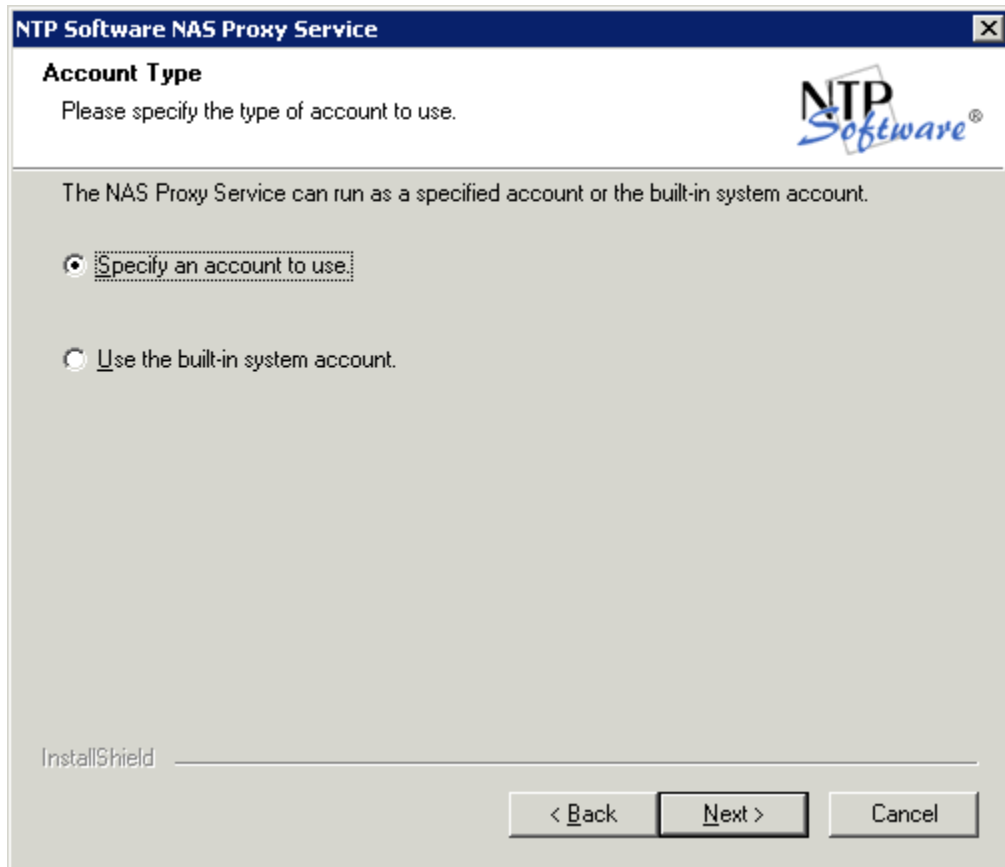
8. In the **Service Account** dialog box, when prompted for a Windows domain user account to run the NTP Software NAS Proxy service, enter the username and password for a domain user account with administrative rights on the local machine. Click **Next**.

9. In the **Start Copying Files** dialog box, review your configuration information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.

10. If you want to view the NTP Software NAs Proxy Service readme file, check the **Yes, I want to view the readme file** checkbox, and then click **Finish**.
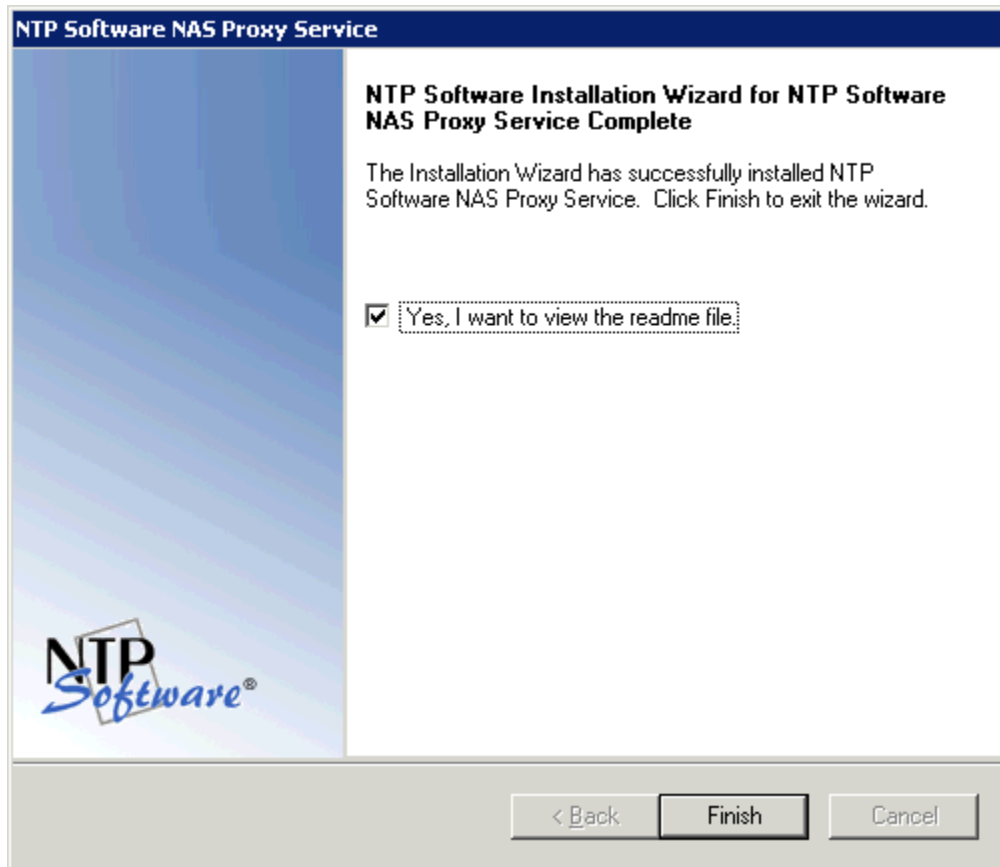
Installing NTP Software QFS for NAS, Hitachi Edition

1. If you have followed the steps in the Installing NTP Software Smart Policy Manager section and the Installing NTP Software NAS Proxy Service section, you will be directed to the next step automatically.

2. When NTP Software QFS for NAS Installation Wizard opens, click **Next** to begin the installation.
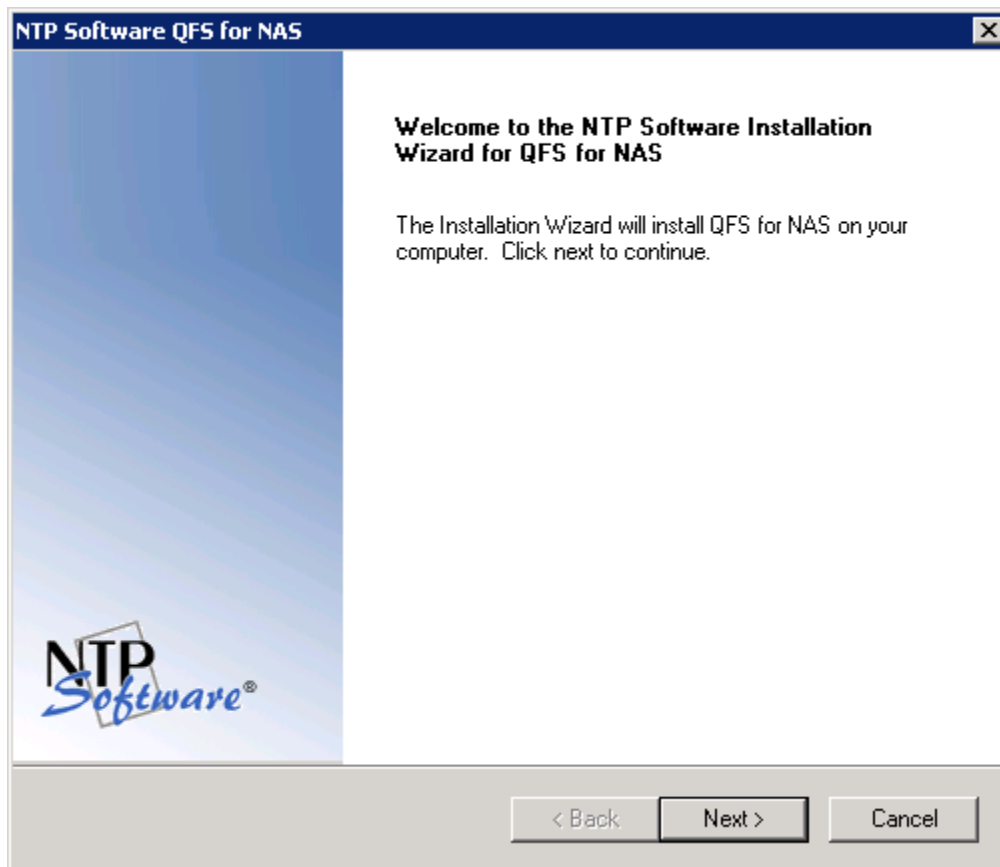
3. In the **License Agreement** dialog box, read the end-user license agreement. If you agree to the terms, click **I accept the terms of the license agreement** and then click **Next**. If you do not accept the terms, click **Cancel** to exit the installation.
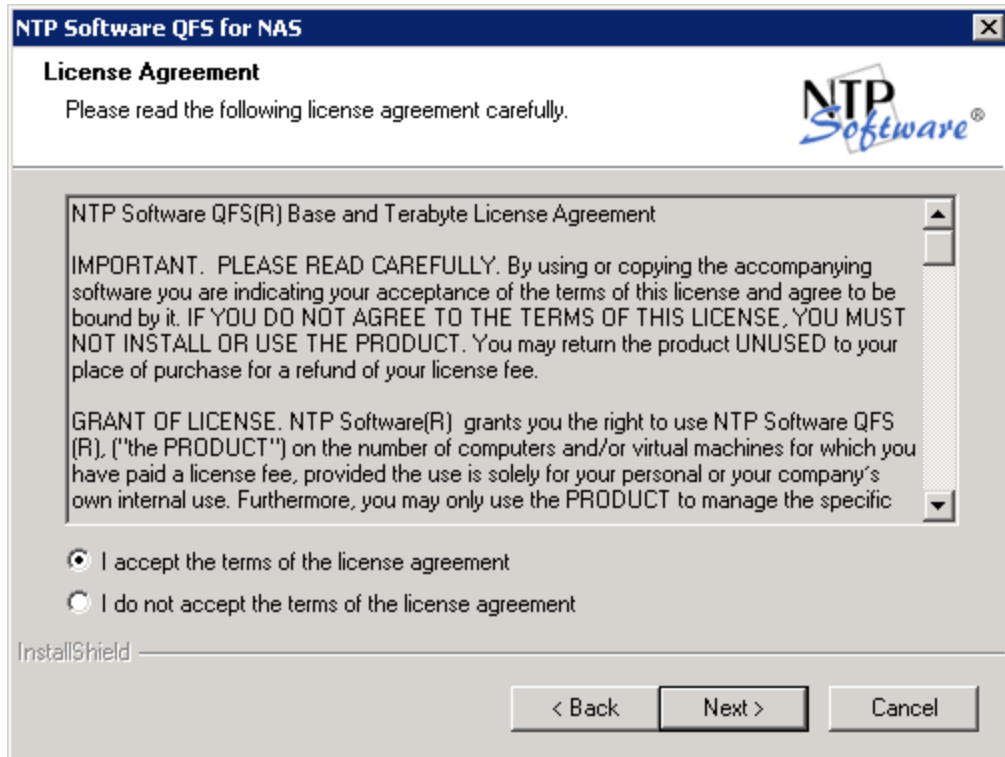
4. In the **Choose Destination Location** dialog box, choose the location where you want to install NTP Software QFS and then click **Next**.
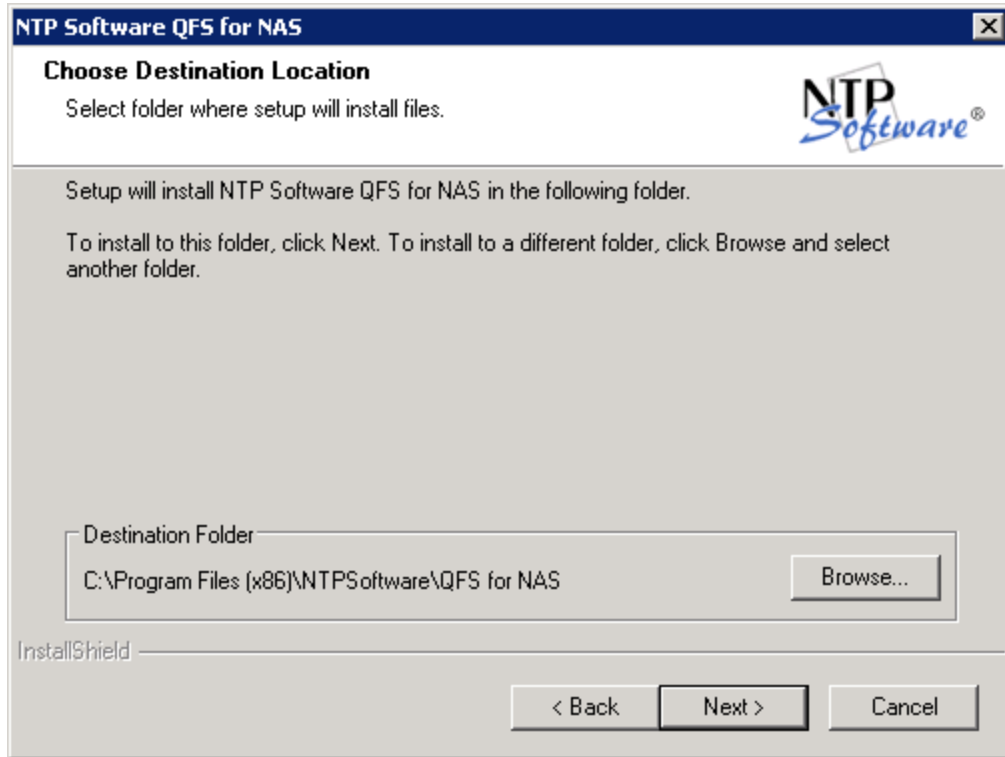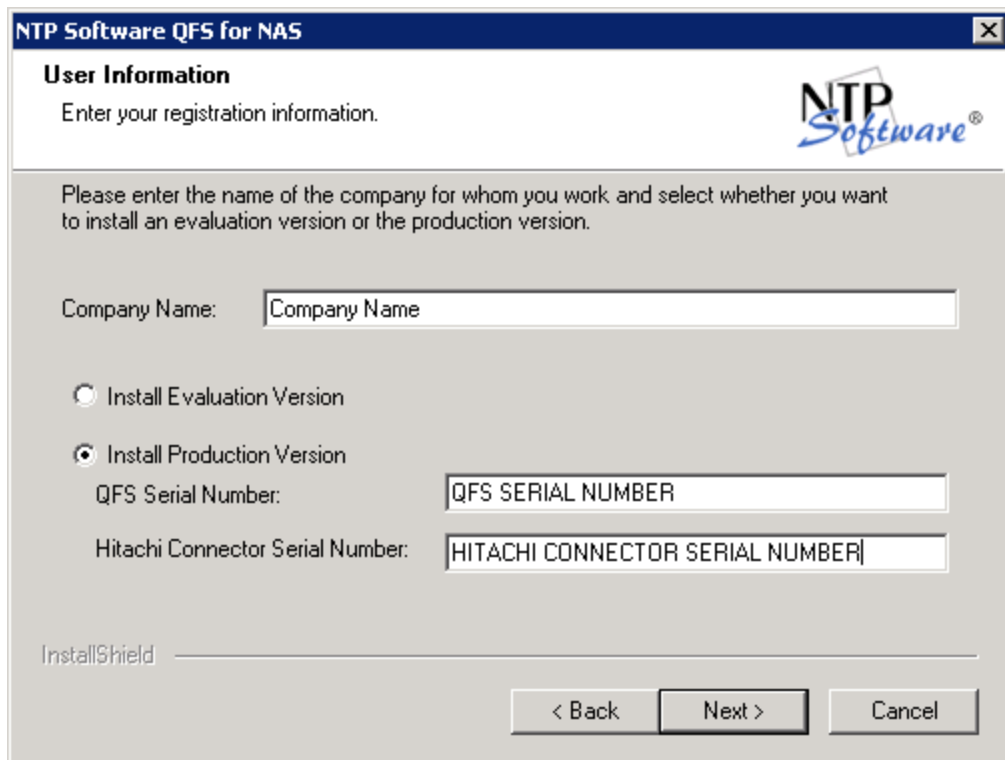
5. In the **Select Features** dialog box, select the components to be installed on the local machine. The Admin component allows for administration of the NTP Software QFS service. The Hitachi Connector component is required if this machine will need to communicate with a Hitachi NAS Server for quota-management purposes.
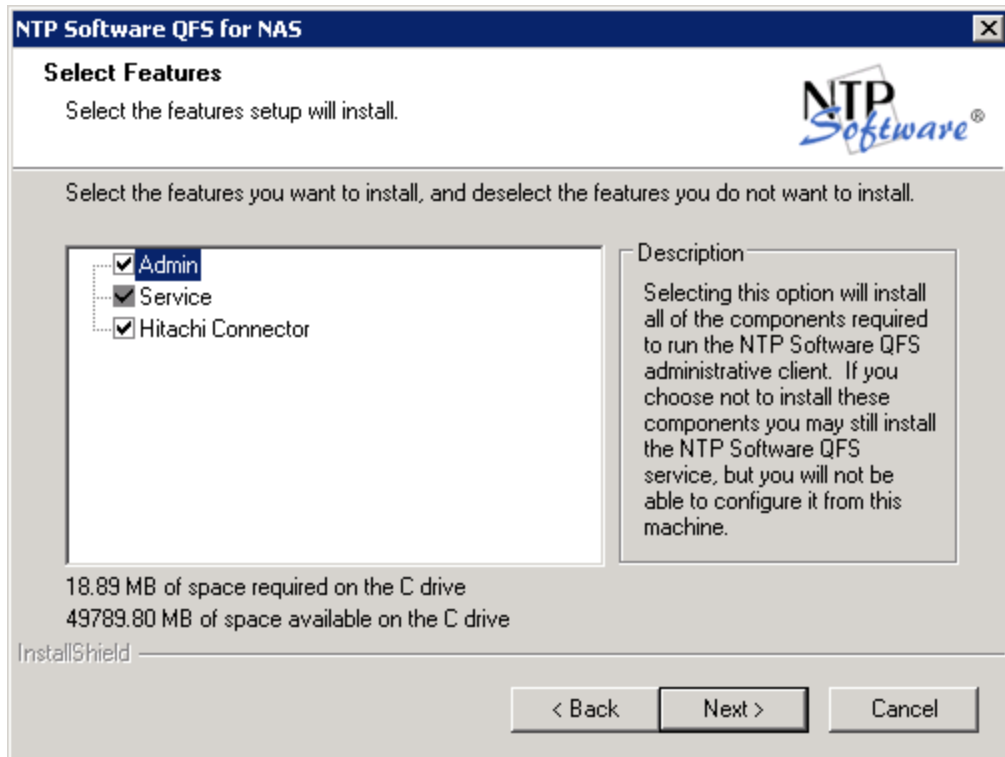
6. In the **User Information** dialog box, provide your company name, the serial number for NTP Software QFS for NAS, and the serial number for the Hitachi Connector. Click **Next**.

7. In the **Account Type** dialog box, specify the account type to be used. Click **Next**.
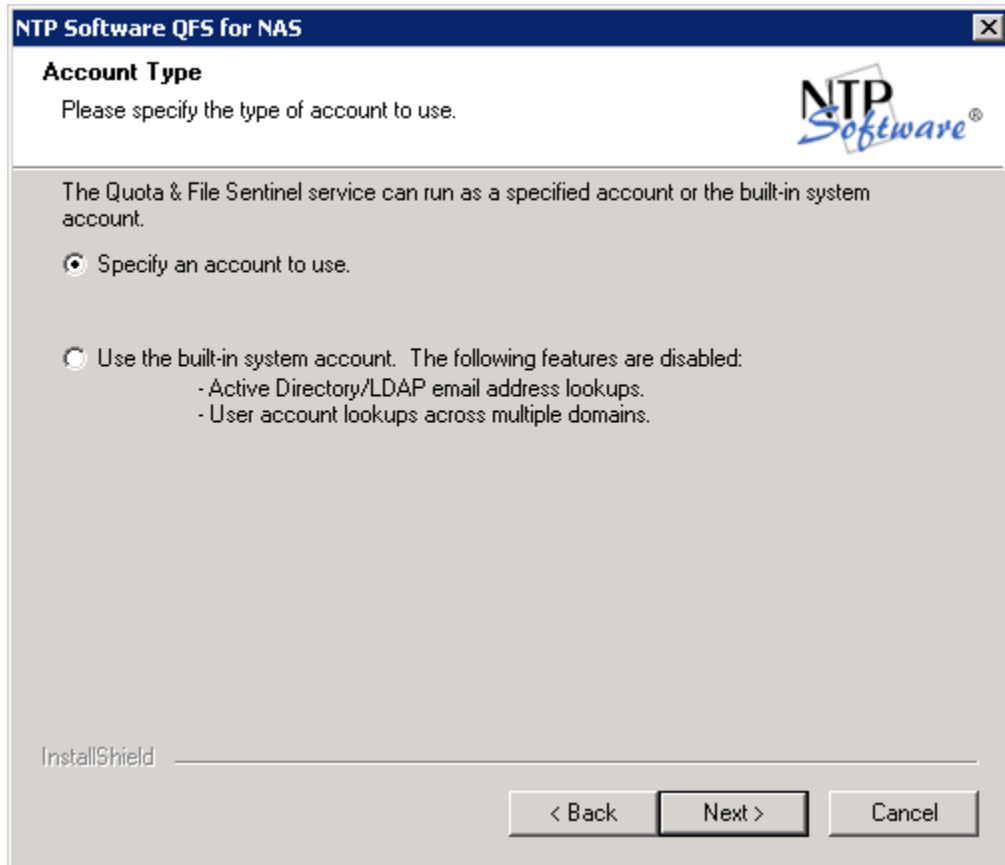
8. In the **Service Account** dialog box, on specifying an account, enter a username with local administrative privileges. This account will be used to log in and enforce quotas. Click **Next**.

9. In the **Select Program Folder** dialog box, select the program folder to host the NTP Software QFS for NAS startup group. Click **Next**.
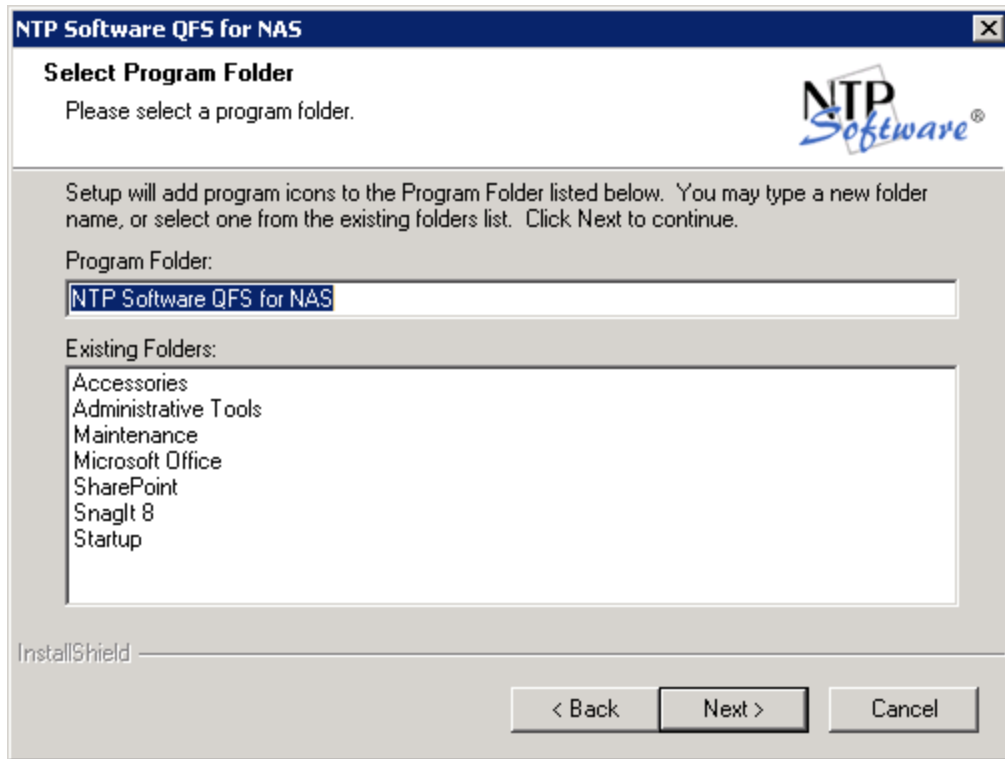
10. In the **Start Copying Files** dialog box, review your components and Hitachi connector information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.
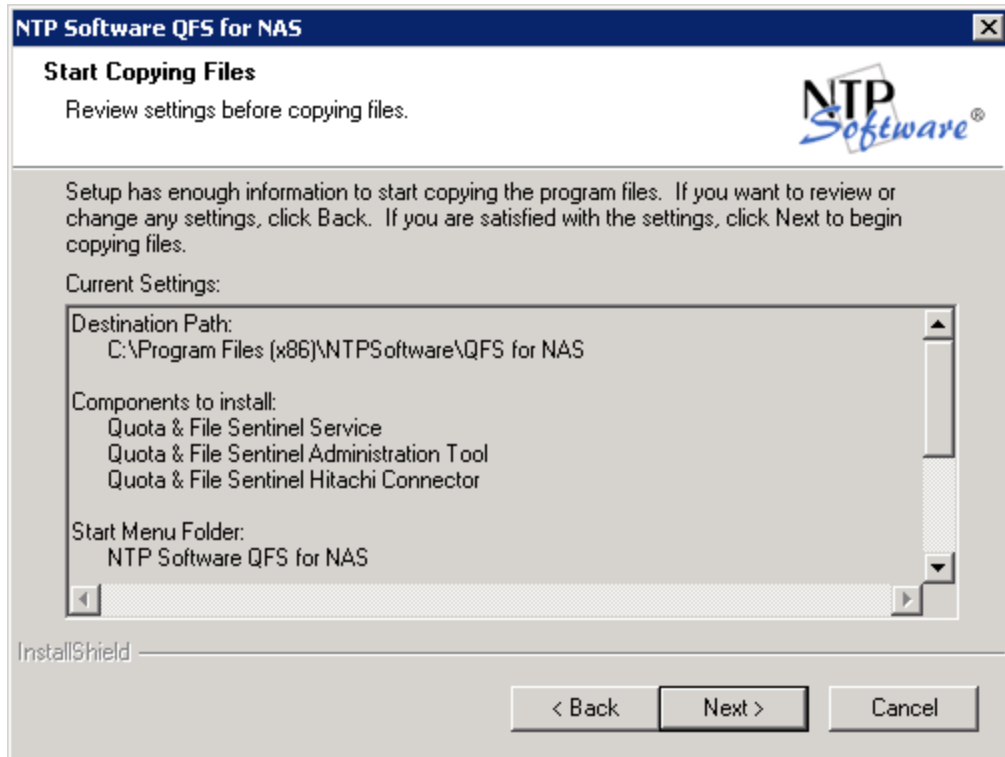
1. Click the **Validate** button to validate Firewall Settings pre-requisites.
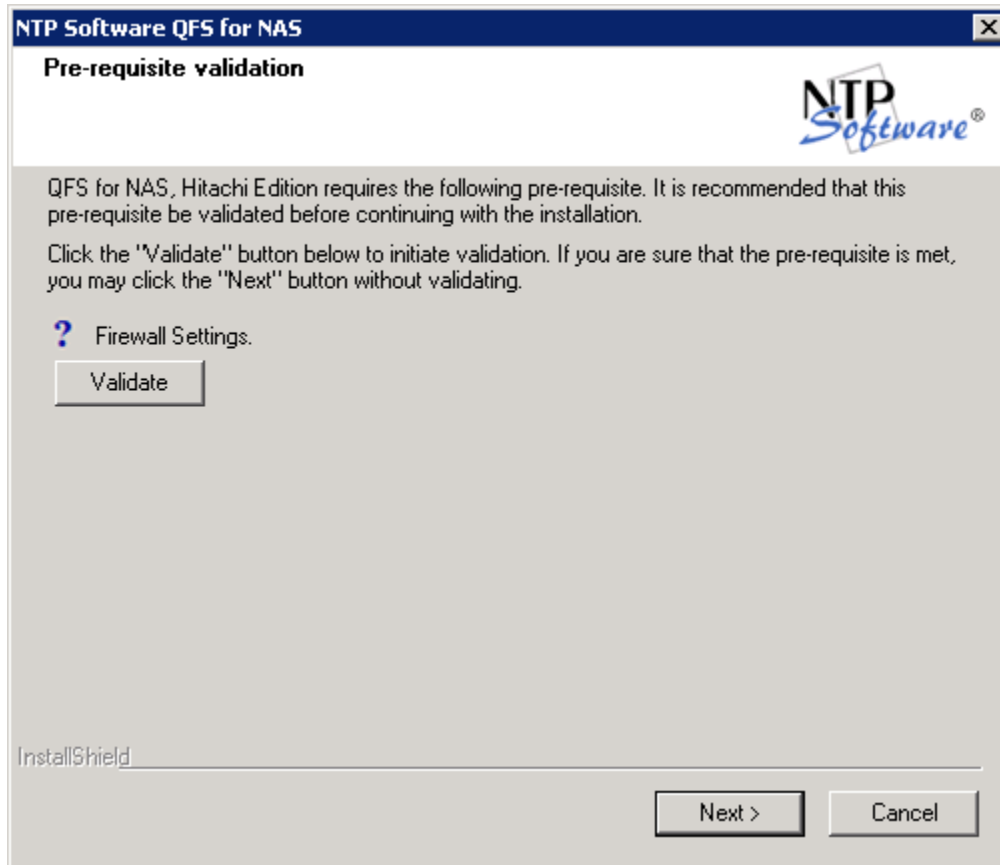
NOTES
- You can click the **Next** button without clicking the **Validate** button and thereby skipthe validation of the firewall settings.

- If the **Validate** button is not clicked before clicking the **Next** button, a **Yes/No** warning message box will be displayed asking you either to proceed with the installation without validation or not. You are prompted to choose either **Yes** or **No** as follows:

- If **Yes** is clicked, you will be allowed to proceed to the next installer step.

- If **No** is clicked, you will be returned to the same installer step.

- If the **Validate** button is clicked, the firewall settings will be validated.

11. If you want to view the NTP Software QFS for NAS readme file, check the **Yes, I want to view the readme file** checkbox. When you click **Finish**, the NTP Software QFS for **NAS, Hitachi Edition Configuration Wizard** will open.
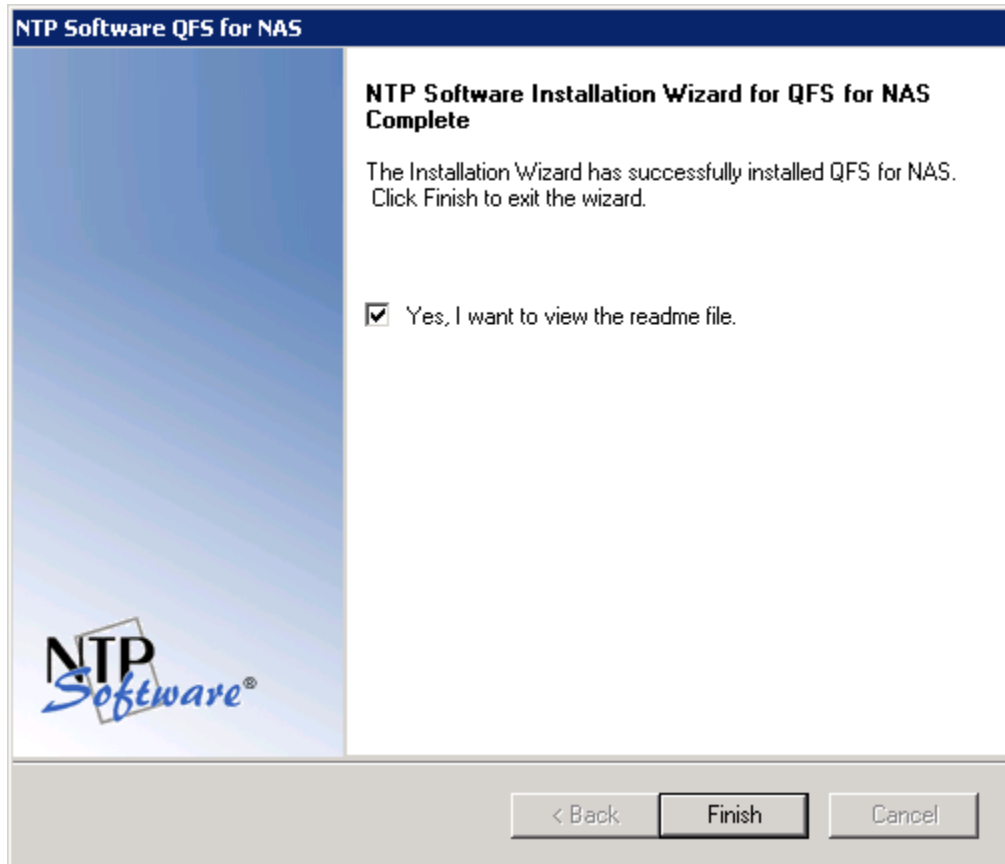
Adding Your First EVS

There are two ways to add an EVS to the NTP Software QFS hierarchy; you can either do it through the NTP Software QFS Configuration Wizard or add the EVS manually. Both methods are explained in detail here.
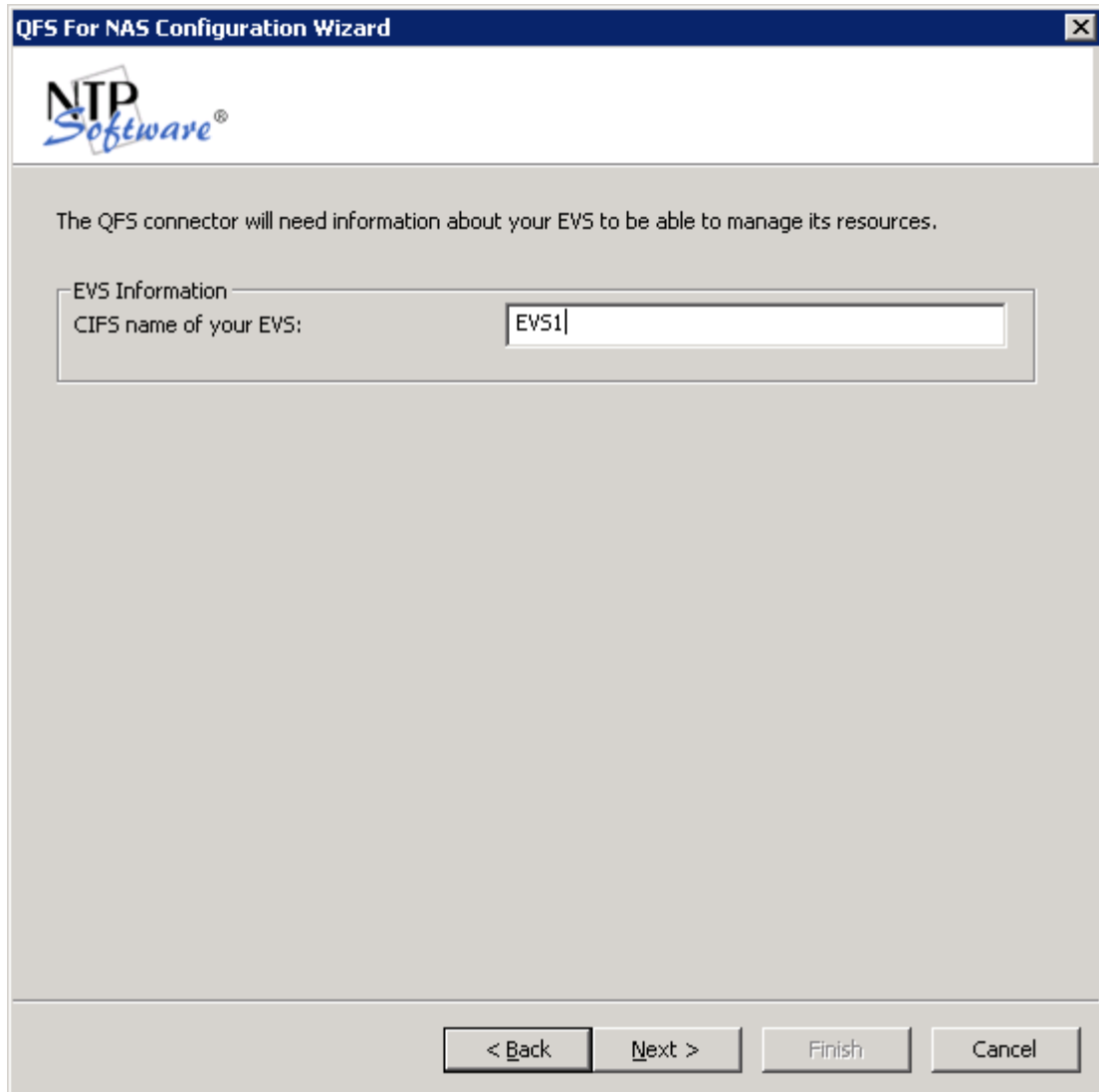
To add your first EVS to the NTP Software QFS hierarchy through the NTP Software QFS Configuration Wizard, please do the following:

1. Click **Start** > **All Programs > NTP Software QFS for NAS** > **NTP Software QFS for NAS Configuration Wizard**.
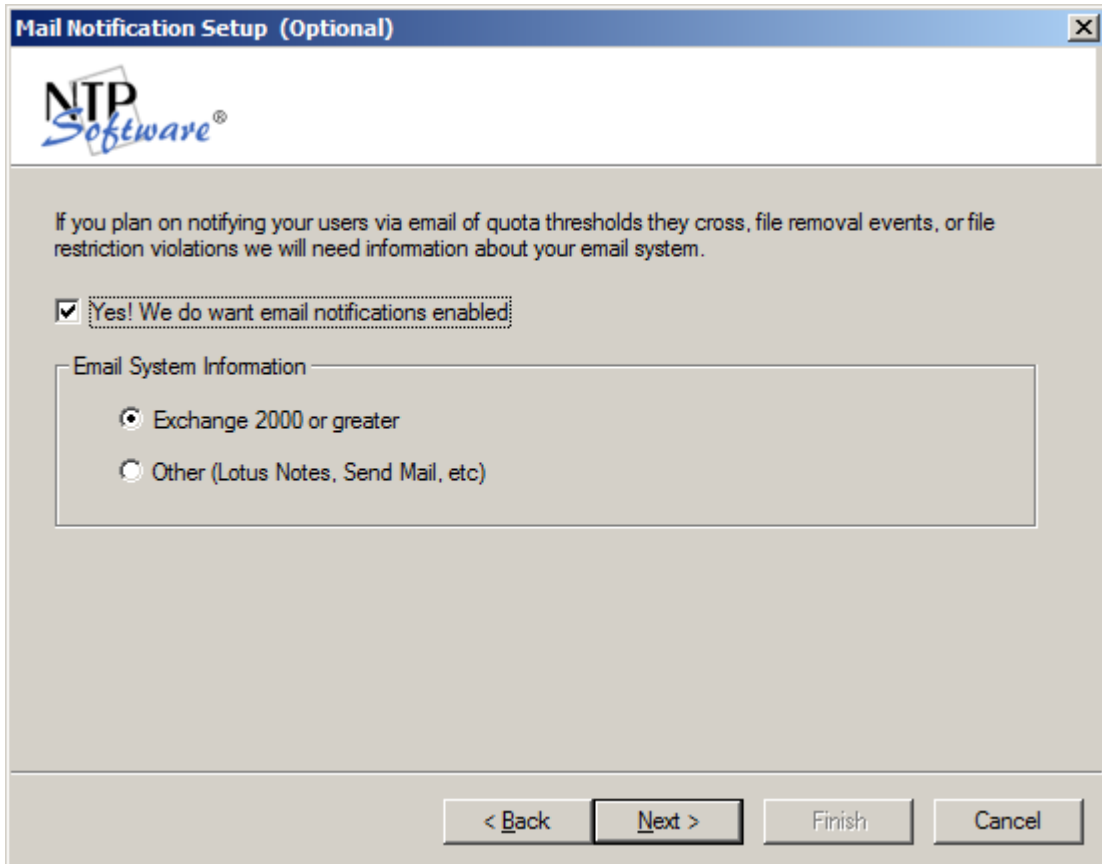
2. Click the **View Pre-Wizard Checklist** button and gather the required information before continuing. Click **Next**.
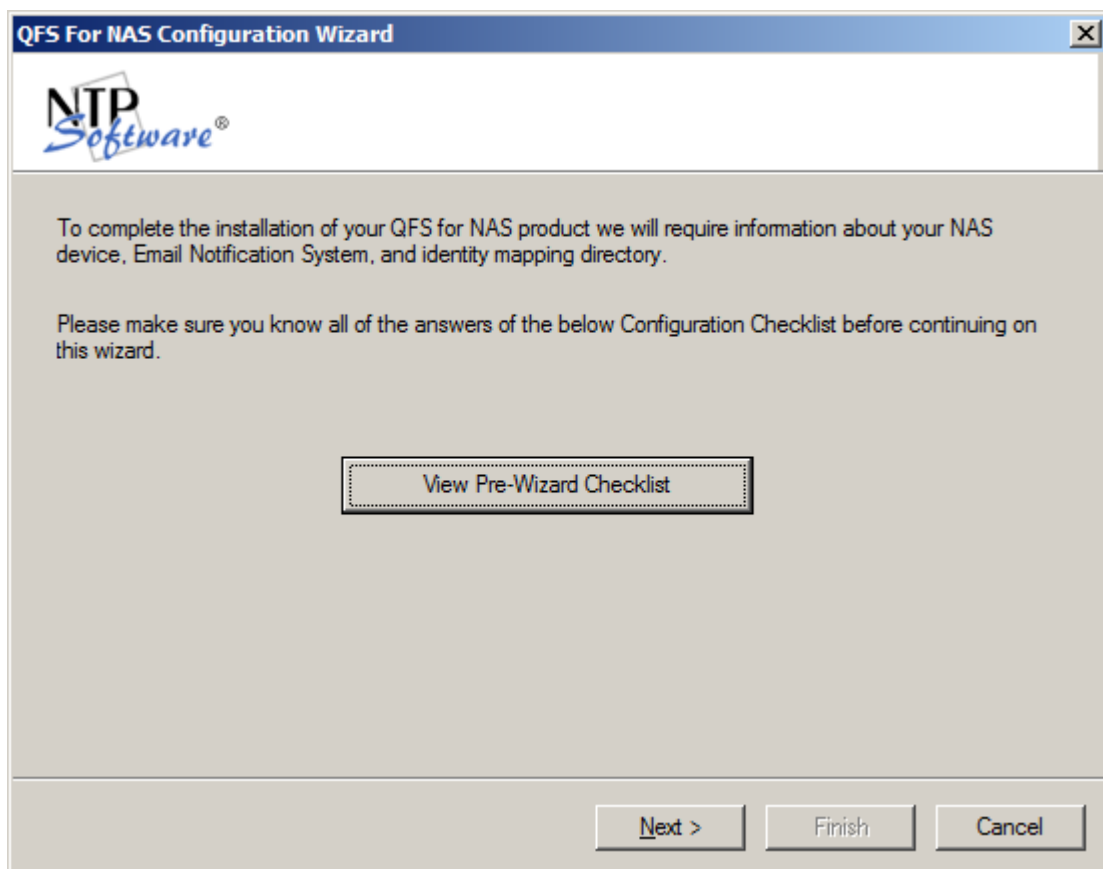
3. Enter the CIFS name of your EVS and click **Next**.

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

5. Enter the name of your Active Directory server. (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**.

6. Enter the SMTP gateway, the SMTP domain, and the email address to use for notifications. If your SMTP server requires authentication, enter the required username, domain, password and confirm password to be used to authenticate with your SMTP server. Click **Test Mail Settings** to verify that the information is correct. Then click **Finish**.

To add an EVS to the NTP Software QFS policy hierarchy manually, please follow these steps:

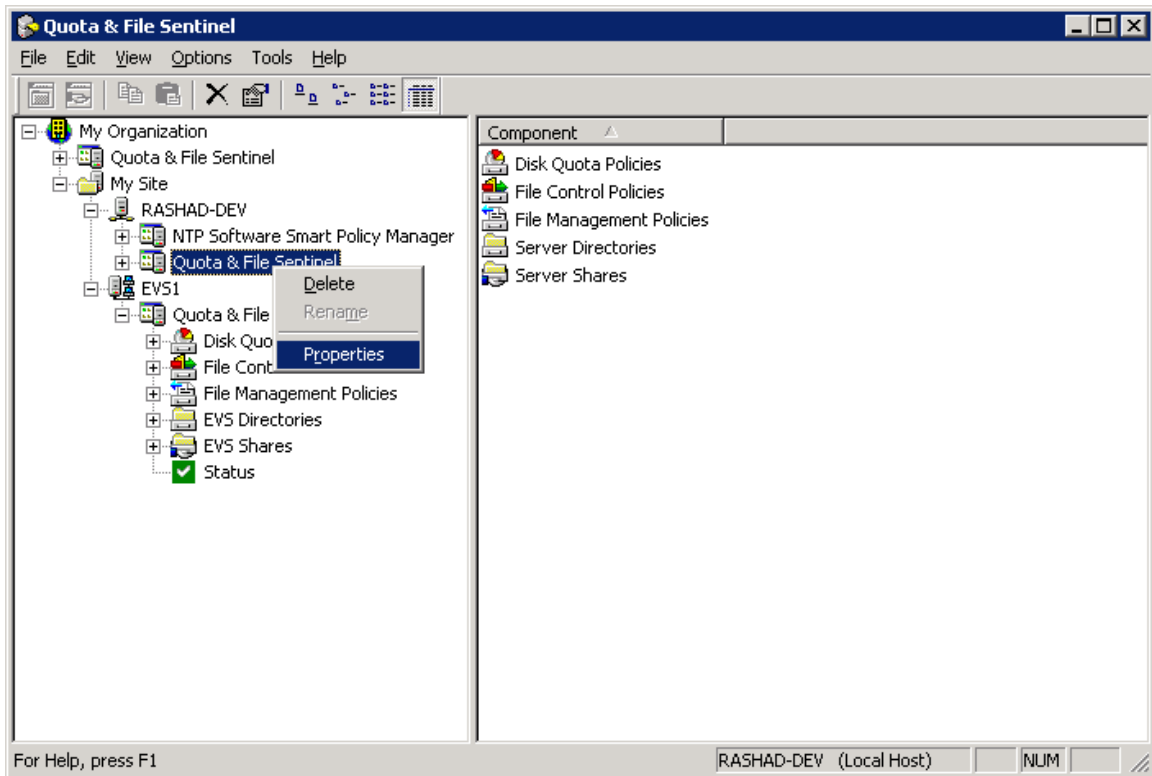1. **Click Start** > **All Programs** > **NTP Software QFS® for NAS** > **NTP Software QFS® for NAS Admin**.

2. In the hierarchy presented, expand the location name you entered earlier. The default location is My Site. Your EVS Server is listed in the right pane, below the server on which NTP Software QFS is installed.
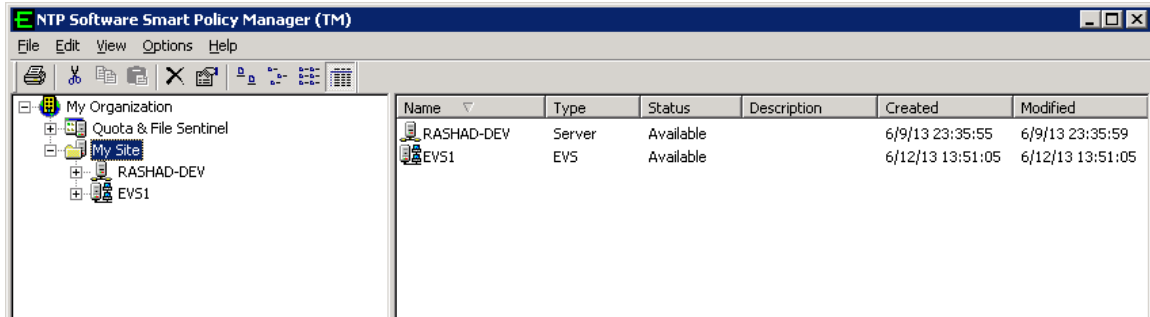
3. In the left pane, expand the server on which NTP Software QFS is installed and right-click **Quota & File Sentinel**. From the pop-up menu, select **Properties**.

4. Click the **Hitachi Connector** tab. Your EVS should be listed; if it is not, click **Add**.

5. Enter the name of your EVS. Click **OK**.

6. To configure the NAS device status refresh rate, click the **Misc. Options** tab in the **Quota and File Sentinel properties** dialog. The default refresh rate is 30 seconds while the minimum rate is 10 seconds and the maximum rate is 3600 seconds.

> **NOTE**: The refresh rate can be inherited from the global "Quota and File Sentinel" node in QFS hierarchy.

Verifying Registration with the EVS

The following event log message is logged when NTP Software QFS® successfully registers with an EVS:

```
Event Source: QFS Hitachi Connector

Event ID: 81

Date:5/15/2009

Time:PM 12:24:42

Computer: INSTANCE-DEV
```

Please refer to the *NTP Software QFS® Family of Products User Manual,* for more details on the information provided in this guide..

Enabling Notifications Flow

To enable the notification flow, you need to turn on the File-Filtering option for the EVS after the Connector service is started. This can be done by running the following command on the Hitachi NAS management CLI:

```
file-filtering --on
```

About NTP Software

NTP Software is the leading worldwide provider of software solutions for controlling file data across a global infrastructure or at a single site with individual systems. NTP Software delivers a single solution across the entire data storage environment all the way down to the individual user and supports most popular file data storage models and brands. NTP Software products reduce the cost and complexity associated with the exponential growth of unstructured data. NTP Software has been chosen to control file data for the majority of Fortune 1000 companies and thousands of customers in private and public sectors by providing leadership through superior products, services, and experience.

NTP Software Professional Services

NTP Software's Professional Services offers consulting, training, and design services to help customers with their storage management challenges. We have helped hundreds of customers to implement cost-effective solutions for managing their storage environments. Our services range from a simple assessment to in-depth financial analyses.

For further assistance in creating the most cost-effective Storage Management Infrastructure, please contact your NTP Software Representative at 800-226-2755 or 603-622-4400.

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, what is here 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.

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