

DefendX Software Control-Audit for NetApp Installation Guide

Version 5.1

This guide provides a short introduction to the installation and initial configuration of DefendX Software Control-Audit™ for NAS, NetApp® Edition, from an administrator's perspective. Upon completion of the steps within this document, DefendX Software Control-Audit for NAS, NetApp Edition will be installed within your enterprise community.



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Executive Summary

Thank you for your interest in DefendX Software Control-Audit[™] for NAS, NetApp® Edition. DefendX Software Control-Audit monitors file and directory operations for users. DefendX Software Control-Audit for NAS, NetApp Edition extends our best-of-breed technology to include the NetApp family of products, allowing you to manage NAS-hosted storage as a seamless whole.

Given the architecture of your Filer®, DefendX Software Control-Audit for NAS, NetApp Edition does its job remotely. DefendX Software Control-Audit for NAS, NetApp Edition uses a connector service to create a bridge and include Filers as full participants in environments controlled by DefendX Software Control-Audit. In light of this fact, you will need to install the NAS connector on one of the Windows® 2008 machines in your environment. This may be an existing server, a workstation, or a standalone system.

To be monitored by DefendX Software Control-Audit, version 6.5 or later (excluding version 7.1) of the Data ONTAP® operating system is required on the Filer. DefendX Software Control-Audit for NAS, NetApp Edition can be used to monitor NetApp Filers, vFilers®, and NetApp clusters or any combination of these systems. DefendX Software Control-Audit imposes no restrictions on how you organize or manage your storage. You can monitor file operations on individual paths, directories, and/or shares.

To install DefendX Software Control-Audit, a login with administrator rights is needed. You will be installing three different services: the DefendX Software Smart Policy Manager™ service, the DefendX Software Control-Audit service, and the NAS connector service.

The DefendX Software Smart Policy Manager service should be installed with a domain user account as its service account. The DefendX Software Control-Audit service requires a domain user account with local administrative rights on the NetApp Filer. The NAS connector service uses this account as well.

Your hardware should be appropriate for the services running on each machine.



Preparing the NetApp Filer

DefendX Software Control-Audit for NAS, NetApp Edition requires the NetApp Filer to run Data ONTAP version 6.5 or later (excluding version 7.1). If your Filer is not running version 6.5 or later, you must upgrade your operating system before you proceed. (Please refer to your NetApp documentation for instructions.)

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

Although DefendX Software Control-Audit does not install any components on the NetApp server, you will need to enable the Data ONTAP fpolicy management service. Follow these steps:

- 1. Log on to the NetApp server with an account that has administrative privileges.
- 2. At the prompt, enter the following command: fpolicy create DefendXSoftware Control-Audit screen
- 3. To verify that CIFS file policies are now enabled, enter the following command: fpolicy
- 4. If you want Control-Audit to record permission and owner changes for your files and directories, you will need to enable CIFS SetAttr feature of fpolicy, enter the following comand:

fpolicy options DefendXSoftware_Control-Audit cifs_setattr on

Note: If you don't have any Control-Audit Policy that monitors *Permission Change* or *Owner Change* events, then you should disable CIFS SetAttr feature.

These steps create the configuration that allows DefendX Software Control-Audit to register with and manage your Filer. They must be completed before you try to configure DefendX Software Control-Audit for NAS, NetApp Edition.

NOTE: In case DefendX Software Control-Audit for NAS, NetApp Edition is running on W2k8 Server or W2k8R2 Server, the Filers' hosts file needs to include the IP address and FQDN of the machine running DefendX Software Control-Audit.



To insert the IP address and FQDN within the Filer's hosts file, perform the following steps:

- 1. Go to http://filername/na_admin
- 2. Click FilerView > Network > Manage Hosts File.
- 3. On the Manage Hosts File page, click the Insert button.
- 4. On the **Create a New/etc/hosts Line** dialogue box, add in the **IP**, **FQDN**, and other required data of the current DefendX Software QFS server machine and then click **OK**.
- 5. On the Manage Hosts File page, click the Apply button.



Requirements

Server Requirements

DefendX Software Control-Audit 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 Server 2008 or Later
- 1 GB RAM
- 150 MB free disk space
- Network interface card
- Internet Explorer version 6 or Later or Firefox version 2.x or Later
- IIS version 6 or 7
- Microsoft SQL Server 2005 or Later

NOTE: SP3 is recommended to be used if MS SQL server 2005 is the database server.

- SQL Server Reporting Services 2005 or later
- Microsoft .NET Framework 2.0
- ASP.NET AJAX 1.0
- Microsoft Report Viewer 2005 SP1 (installed along with the Report Pack)



NOTES:

The Remote Connection to the SQL Server should be enabled.

The SQL Server user should have db_datareader and execute permissions on the Control-Audit database.

The Reporting Service on the database server must grant access to the currently logged Windows user while installing the application.

NetApp Filer Requirements

The NetApp Filer to which DefendX Software Control-Audit for NAS, NetApp Edition will be connected requires the following:

- Data ONTAP v. 6.5 or later (excluding version 7.1)
- 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 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.

Before You Begin

Before running DefendX Software Control-Audit for NAS NetApp Edition installer, make sure you have the following ready for a smooth installation:

- 1. The Microsoft SQL Server user name and password for authentication.
- 2. Access to server/Filer.
- 3. The license key you were given when you purchased the Control-Audit product.

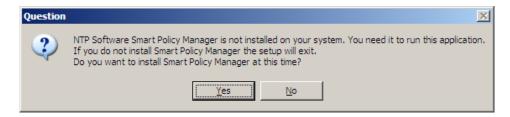


Installation

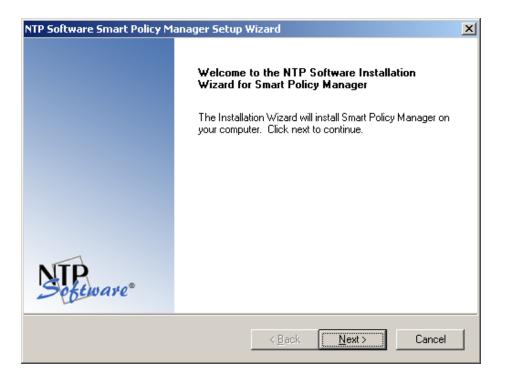
Prior to installing DefendX Software Control-Audit for NAS, NetApp Edition, DefendX Software recommends verifying that the installation server meets the requirements listed in the *Requirements* section of this document.

Installing DefendX Software Smart Policy Manager

- 1. Log on to your server by using an account with administrator privileges.
- 2. Run the DefendX Software Control-Audit installer. If DefendX Software Smart Policy Manager is not installed, the following installer will launch automatically. If DefendX Software Smart Policy Manager is installed, you can skip to the section on *Installing DefendX Software Control-Audit for NAS, NetApp Edition.*

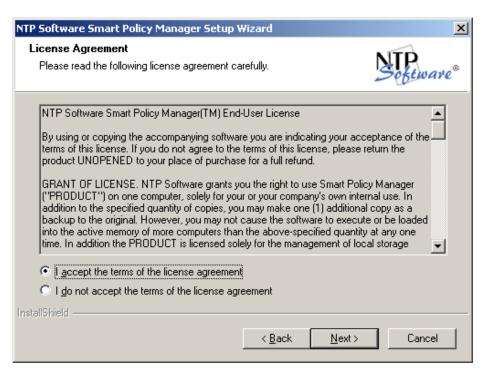


3. The DefendX Software Smart Policy Manager Installation Wizard opens. Click **Next** to begin the installation.

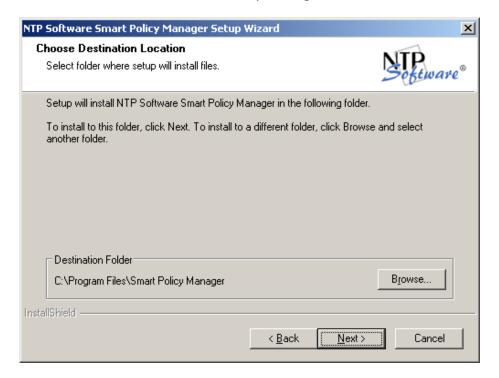




4. In the License Agreement dialog box, read the end-user license agreement. If you agree to the terms, click I accept the terms of the license agreement and then click Next. If you do not accept the terms, click Cancel to exit the installation.

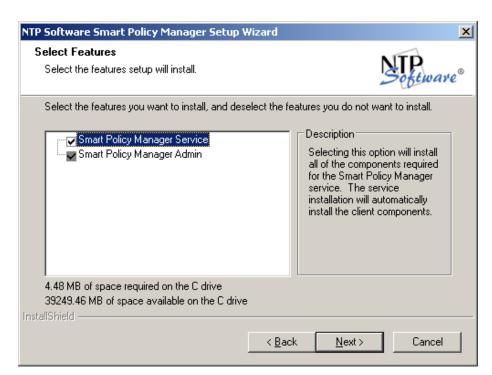


5. In the **Choose Destination Location** dialog box, click **Browse** to choose the location where you want to install DefendX Software Smart Policy Manager and then click **Next**.



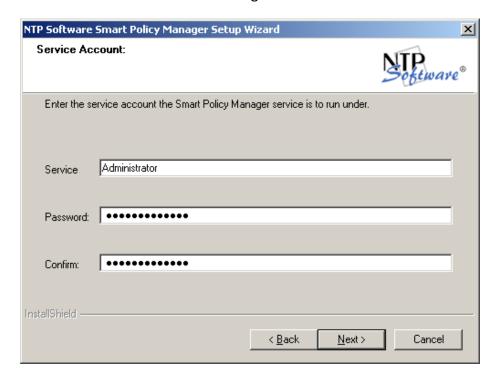


6. In the **Select Features** dialog box, select the components you want to install and then click **Next**.



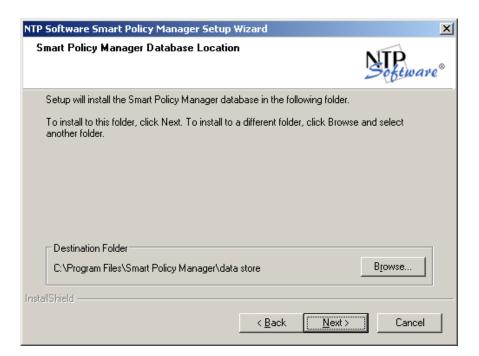


7. In the **Service Account** dialog box, when prompted for a Windows domain user account to run the DefendX Software Smart Policy Manager service, enter the username and password for a domain user account with administrative rights on the local machine. Click **Next**.



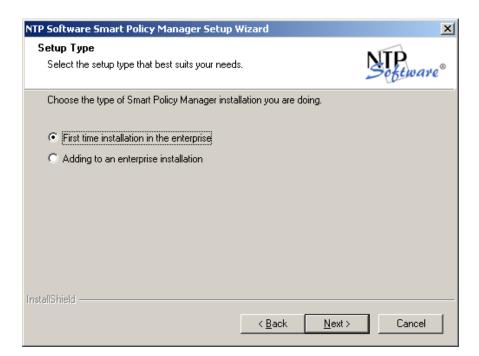


8. In the **Smart Policy Manager Database Location** dialog box, enter the directory name where you want to install the DefendX Software Smart Policy Manager database or just accept the default location. Click **Next**.



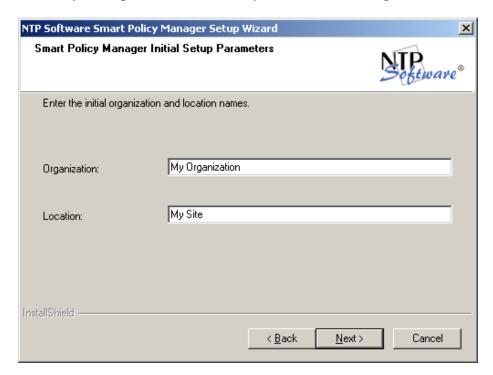


9. In the Setup Type dialog box, select the DefendX Software Smart Policy Manager installation type for your environment. If installing to a new environment with no prior DefendX Software Smart Policy Manager installations, click Next. If installing in an environment in which DefendX Software Smart Policy Manager is already running, choose Adding to an enterprise installation and click Next.



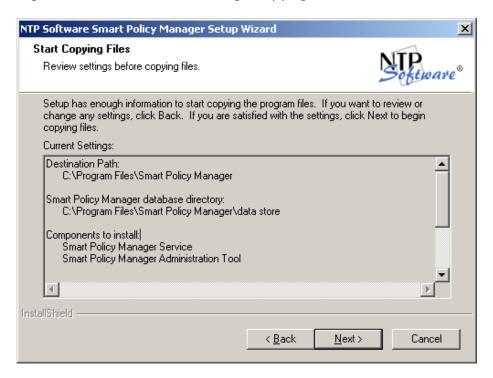


10. In the **Smart Policy Manager Initial Setup Parameters** dialog box, provide DefendX Software Smart Policy Manager with a name for your organization and a location name for this DefendX Software Smart Policy Manager instance, or accept the default settings. Click **Next**.

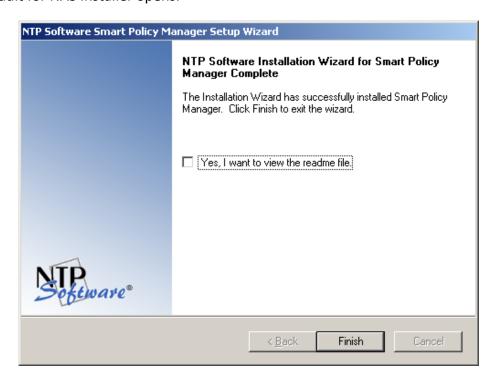




11. In the **Start Copying Files** dialog box, review your configuration information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.



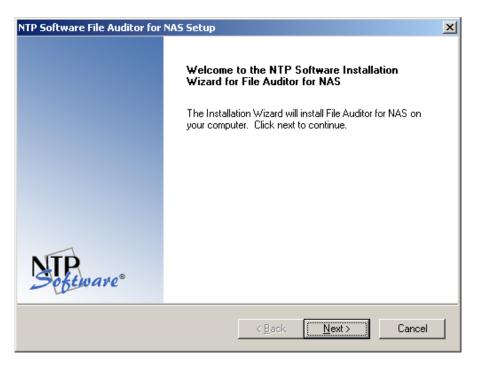
12. If you do not want to view the DefendX Software Smart Policy Manager readme file, clear the Yes, I want to view the readme file checkbox. When you click Finish, the DefendX Software Control-Audit for NAS Installer opens.





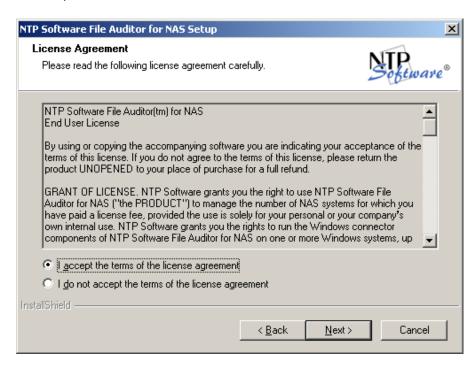
Installing DefendX Software Control-Audit for NAS, NetApp Edition

1. When the DefendX Software Control-Audit for NAS Installation Wizard opens, click **Next** to begin the installation.

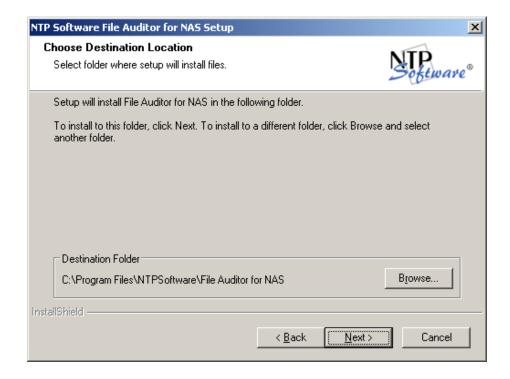




In the License Agreement dialog box, read the end-user license agreement. If you agree to
the terms, click I accept the terms of the license agreement and then click Next. If you do
not accept the terms, click Cancel to exit the installation.

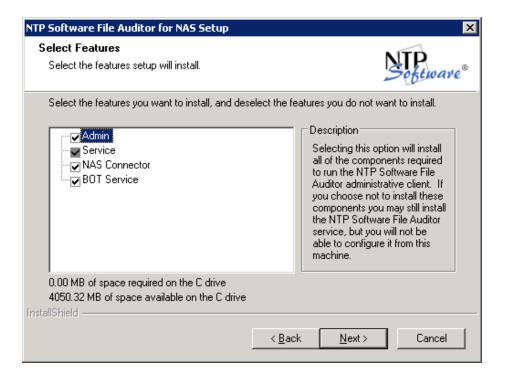


3. In the **Choose Destination Location** dialog box, choose the location where you want to install DefendX Software Control-Audit and then click **Next**.



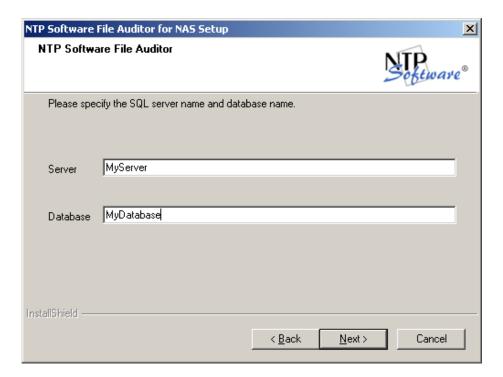


4. In the Select Features dialog box, select the components to be installed on the local machine. The Admin component allows administration of the DefendX Software Control-Audit service. The NAS Connector component is required if this machine will need to communicate with a Filer for file and directory operations monitoring purposes. The BOT Service component is required if you wish to have the Business Overwatch Tasks Service & its configuration interface.



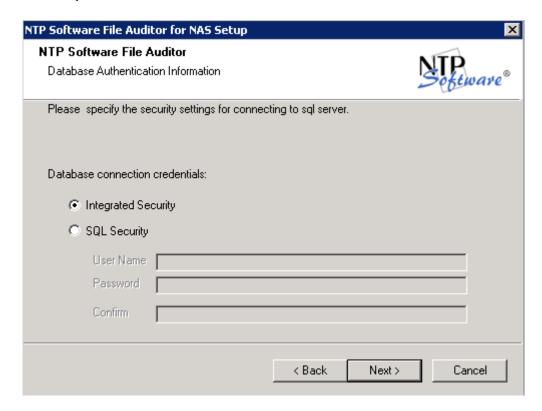


5. In the **DefendX Software Control-Audit** dialog box, provide your SQL Server name and your database name.





6. In the **DefendX Software Control-Audit** dialog box, specify the security setting to be used to connect to the SQL Server for database and tables creation.



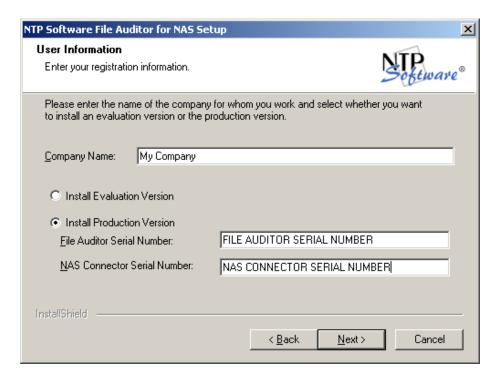
If the database doesnot exist, the below question dialog will be displayed. Click the **Yes** button. If you wish to create the database yourself, run the SQL Scripts in the Control-Audit for NAS installation folder after the setup is complete. The script file is "Control-Audit DB Schema and User Script.sql".



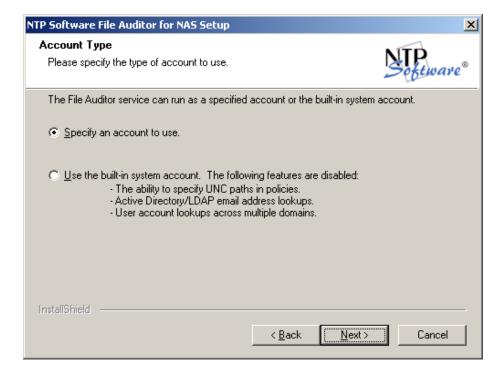
NOTE: If you are upgrading from Control-Audit 2.2 or older versions, the installer will prompt for upgrading the database. Alternatively, you can run the upgrade script manually; the script file "Control-Audit DB Upgrade Script.sql" is located in the Control-Audit installation directory after the setup is complete.



7. In the **User Information** dialog box, provide your company name. Select the **Install Evaluation Version** option if you wish to try the evaluation version of the software. Otherwise, please insert your DefendX Software Control-Audit and NAS Connector serial numbers. Click **Next**.

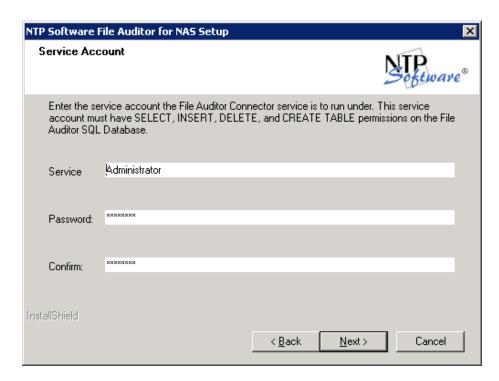


8. In the **Account Type** dialog box, specify the account type to be used. Click **Next**.

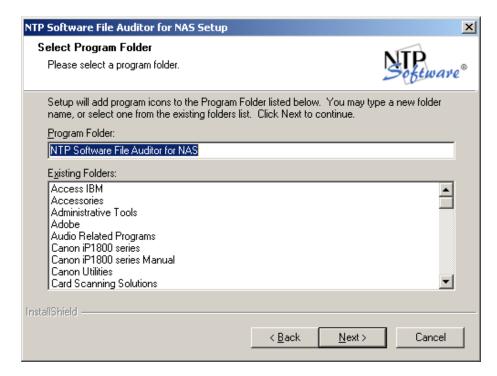




 In the Service Account dialog box, when specifying an account, enter a username with local administrative privileges. This account will be used to log in and monitor file operations. Click Next.

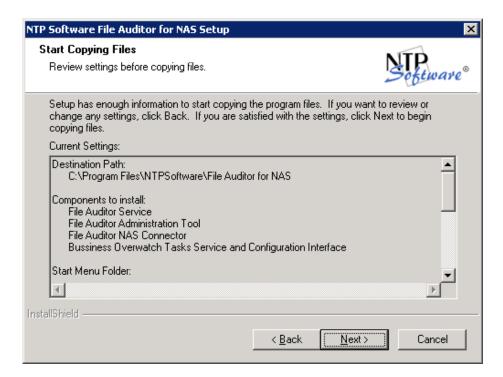


10. In the **Select Program Folder** dialog box, select the program folder to host the DefendX Software Control-Audit for NAS startup group. Click **Next**.



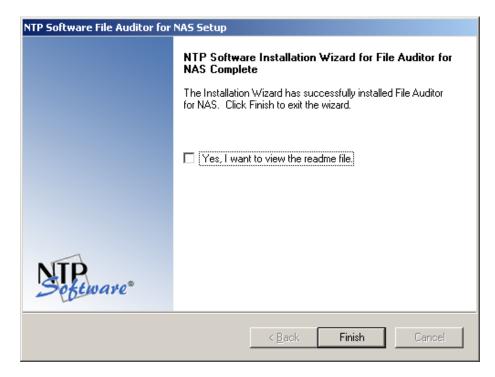


11. In the **Start Copying Files** dialog box, review your components, NAS Connector and BOT Service information. Click **Back** to make any changes; otherwise, click **Next** to begin copying the files.





12. If you do not want to view the DefendX Software Control-Audit for NAS readme file, clear the Yes, I want to view the readme file checkbox. When you click Finish, the DefendX Software Control-Audit for NAS, NetApp Edition Configuration Wizard will open.



13. Once you click finish, the NetApp Configuration Wizard will be displayed.

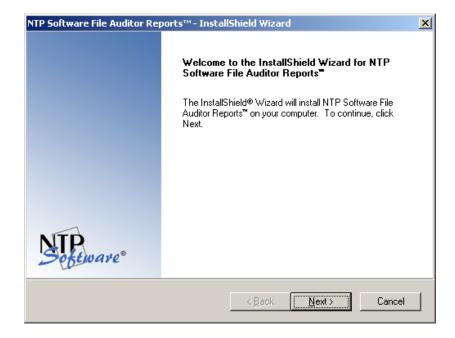


Installing DefendX Software Control-Audit Reports

1. When the DefendX Software Control-Audit Reports Wizard opens, click **Next** to begin the installation.

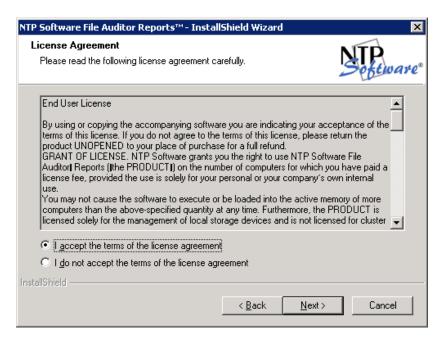
NOTE: The user installing the Control-Audit Reports must be assigned the Content Management role. To assign a user the Content Management role, perform the following steps:

- Open SQL Server Reporting Services URL on the host machine example: [http:// [SQLReportingHostMachine]/Reports].
- 2. Navigate to the **Properties** tab.
- 3. Navigate to the Security tab.
- 4. Create a new Role by clicking **New Role Assignment** or edit an already existing Group or User.



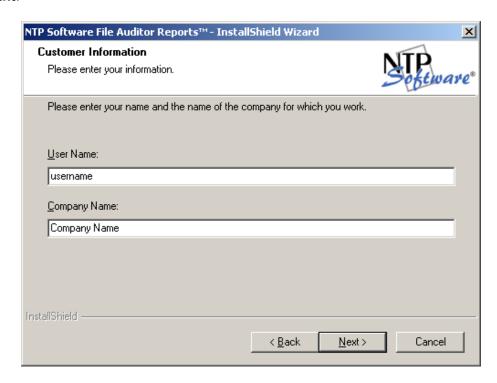


2. In the License Agreement dialog box, read the end-user license agreement. If you agree to the terms, click I accept the terms of the license agreement and then click Next. If you do not accept the terms, click Cancel to exit the installation.

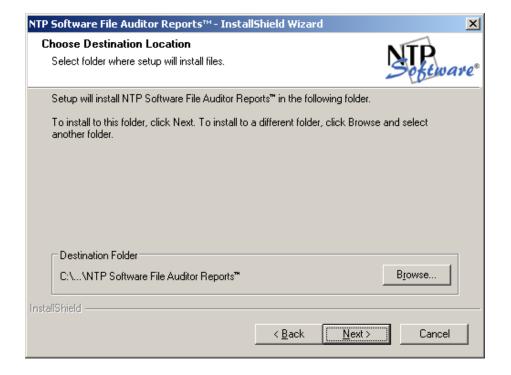




3. In the **Customer Information** dialog box, provide your user name and the company name. Click **Next**.

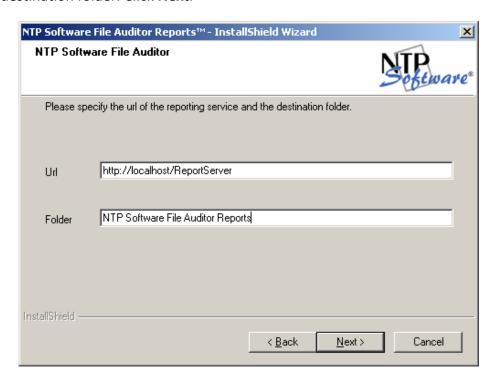


4. In the **Choose Destination Location** dialog box, choose the location where you want to install DefendX Software Control-Audit Reports and then click **Next**.

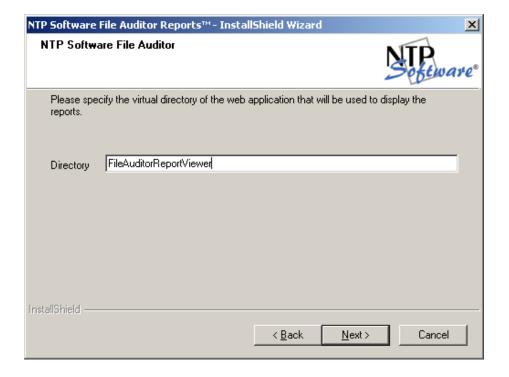




5. In the **DefendX Software Control-Audit** dialog box, specify the URL of the reporting service and the destination folder. Click **Next**.

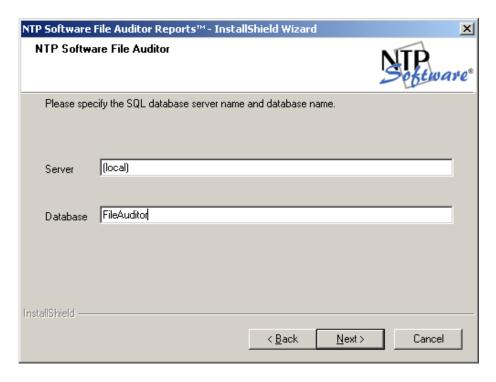


6. In the **DefendX Software Control-Audit** dialog box, specify the web application virtual directory. Click **Next**.

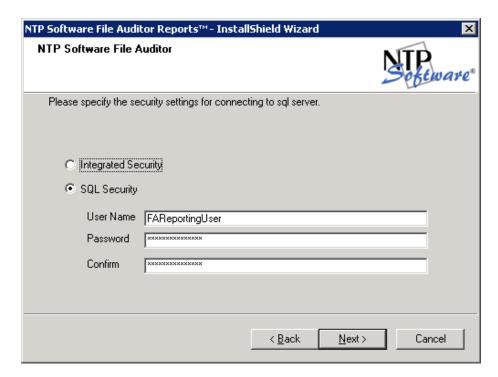




7. In the **DefendX Software Control-Audit** dialog box, specify the SQL Server name and the database name hosted on the SQL Server. Click **Next**.



8. In the **DefendX Software Control-Audit** dialog box, specify the security setting to connect to the SQL Server database. Click **Next**.



NOTES:



Control-Audit has a default user "Control-AuditReportingUser" and default password "Control-AuditReporter2010" that you can use or change.

If the **SQL Security** setting was selected, the user should have at least the db_datareader, db datawriter, and execute permissions.

For Historical Data feature to function properly under the **SQL Security** setting, "Control-AuditReportingUser" user should have ADMINISTER BULK OPERATIONS permission to the database, along with ALTER and INSERT permissions to the HistoricalOperations and HistoricalDACLs tables. Control-Audit Installer attempts to set these permissions during installation.

If the **Integrated Security** setting was selected, the Control-Audit Reports data source will use the website's Application Pool identity to access Control-Audit database. Please refer the section "Configuring Control-Audit Reports website security".

To change the Control-Audit Reports data source, you need to do the following:

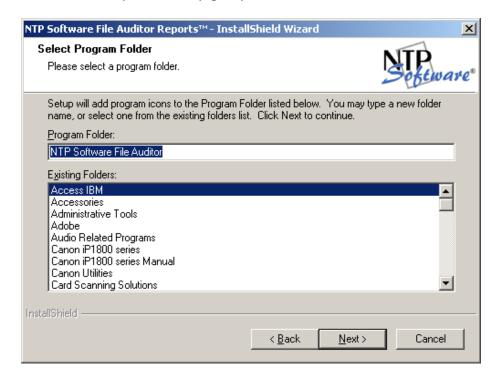
- 1. Open SQL Server Reporting Services Manager URL on the host machine [http:// [SQLReportingHostMachine] / Reports].
- 2. Open the **DefendX Software Control-Audit Reports** folder, or the reports folder specified in the installation.
- 3. Open **DFXPOps**.
- 4. Select the needed reports data source,

The network users who should run the reports must be assigned to the browser role on reporting Service reports. To give a user or group access to the reports, you need to do the following:

- 1. Open SQL Server Reporting Services Manager URL on the host machine [http://[SQLReportingHostMachine]/Reports].
- 2. Open the **DefendX Software Control-Audit Reports** folder, or the reports folder specified in the installation.
- 3. Open the **Properties** top tab, then select **Security** left tab.
- 4. Click on **New Role Assignment**.
- 5. Write the user or group name, select the Browser role, then click **OK**.
- 9. If the **Please upgrade to SP3** dialog box was displayed, click **OK**.

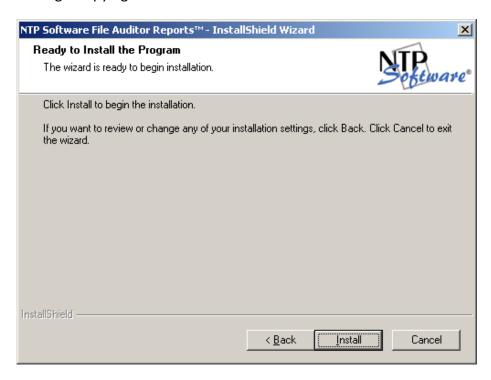


10. In the **Select Program Folder** dialog box, select the program folder to host the DefendX Software Control-Audit Reports startup group. Click **Next**.

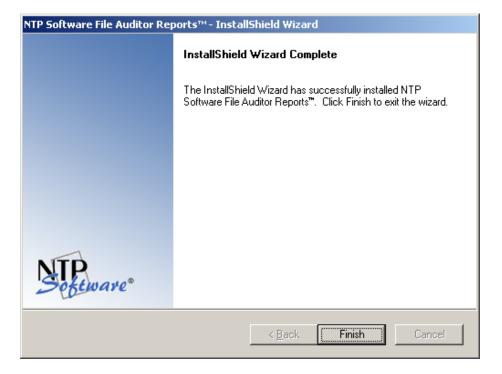




11. In the **Ready to Install the Program** dialog box, click **Back** to make any changes; otherwise, click **Install** to begin copying the files.



12. You have successfully installed the DefendX Software Control-Audit Reports. Click Finish.





Configuring Control-Audit Reports Website Security

For Historical Data feature to function properly under the Integrated Security setting, The Windows user account who will recall the historical data should have ADMINISTER BULK OPERATIONS permission to the database, along with ALTER and INSERT permissions to the HistoricalOperations and HistoricalDACLs tables.

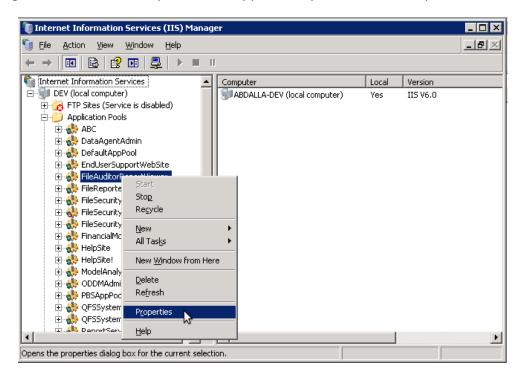
This section will help you configure Control-Audit Reports website to user integrated security authentication to operate with DefendX Software ODDM and Microsoft SQL Server.

- 1. Create a domain user account to be assigned to Control-Audit Reports website.
- 2. In SQL Server, create a login for that user and grant the user the following privileges to Control-Audit database:
 - a. db_datareader
 - b. db datawriter
 - c. EXECUTE.
- 3. If you will use Control-Audit ODDM Archiving feature, you must grant the user the following privileges as well:
 - a. ADMINISTER BULK OPERATIONS permission to Control-Audit database.
 - b. ALTER and INSERT permissions to the HistoricalOperations and HistoricalDACLs tables.
 - c. Read and Change permissions to a share on an DefendX Software ODDM Primary server.
- Configure Control-Audit Reports Viewer website application pool to use the user account you
 created. The following section will describe how to assign a user account to an application
 pool in IIS6 or IIS7.



To assign a User Account to an Application Pool in IIS 6, please follow the following:

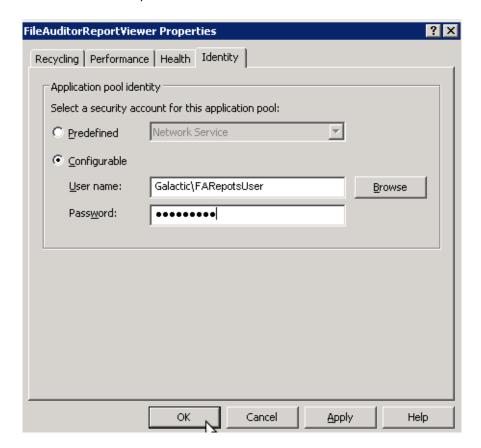
- 1. Open Internet Information Services (IIS) Manager console from Administrative Tools.
- 2. Right-click on the DFXReportViewer application pool and click Properties.



3. In the **Identity** tab, select **Configurable**.

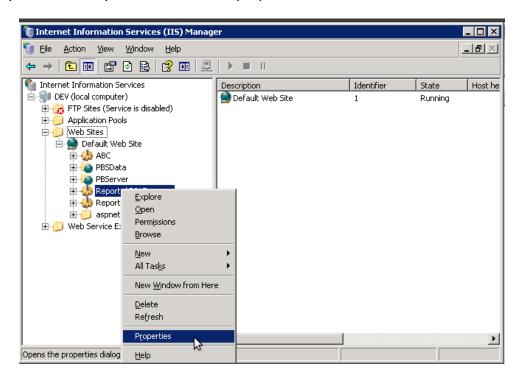


4. Enter the account details, then click **OK**.



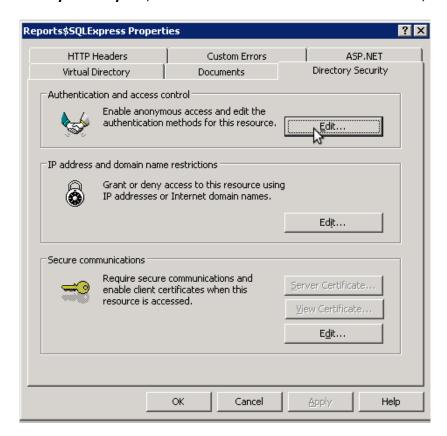


5. Open the DFXReportViewer website properties.





6. In the Directory Security tab, under Authentication and access control, click Edit.





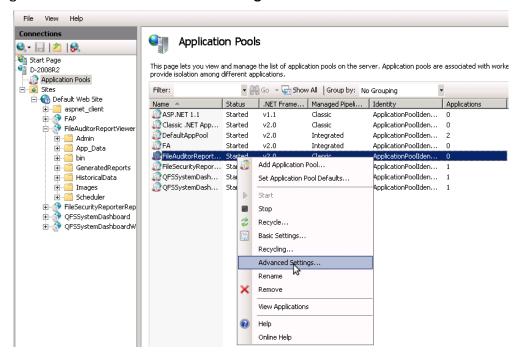
7. Disable all authentication methods except Integrated Windows Authentication.





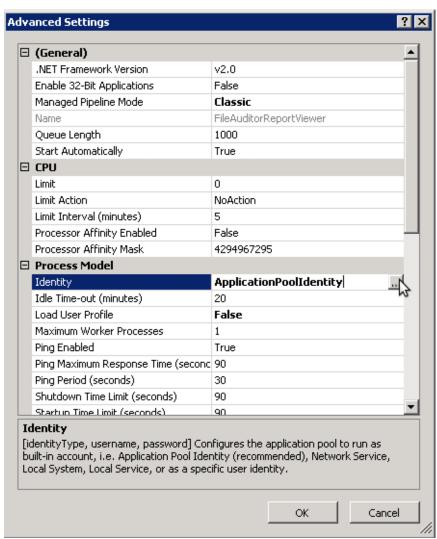
To assign a User Account to an Application Pool in IIS 7, please perform the following steps:

- 1. Open IIS from the control panel and choose the DFXReportViewer application pool.
- Right-click and choose Advanced Settings.

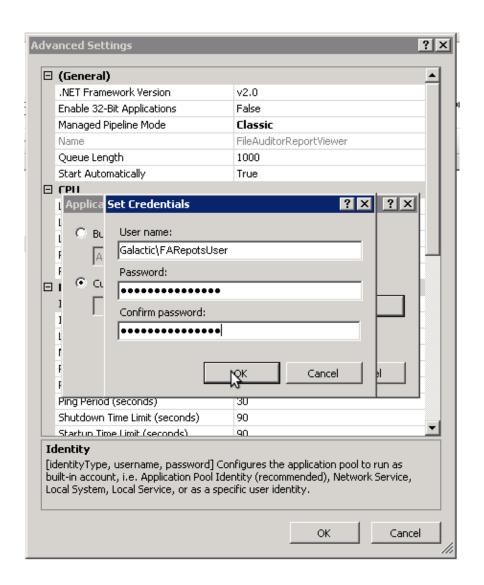




3. Change the default app pool created to the user you need.

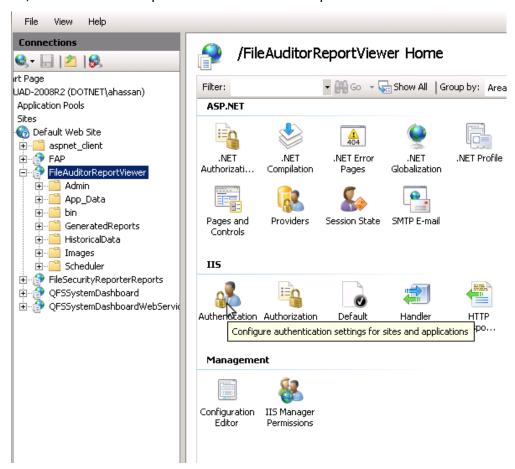






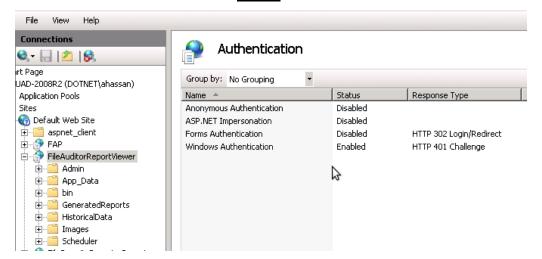


4. In IIS, choose the DFXReportViewer website and open the Authentication view.





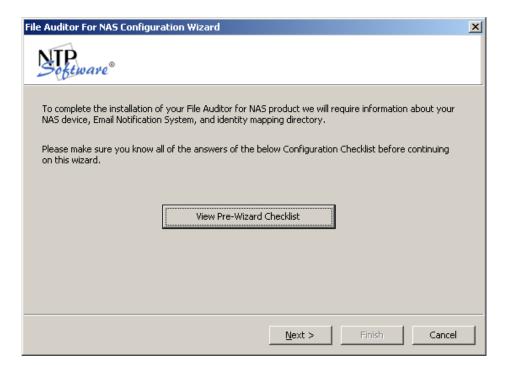
5. Disable all authentication methods except Windows Authentication.





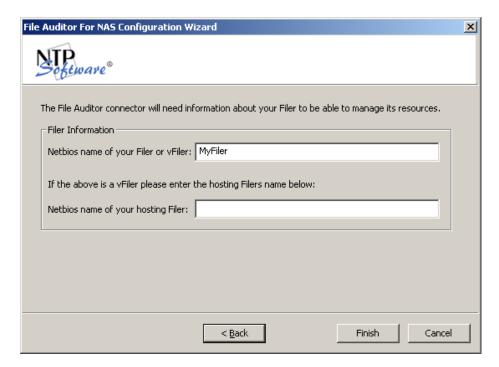
Using the Configuration Wizard

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



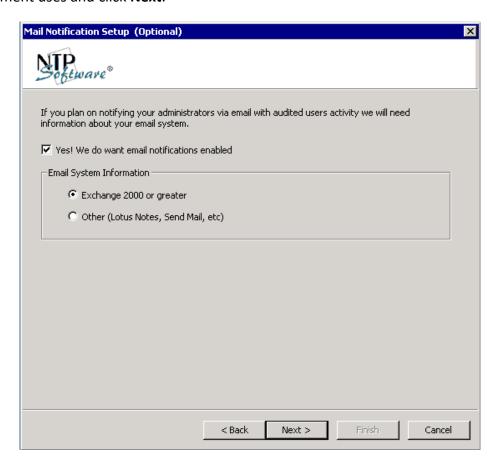


2. Enter the name of your Filer or vFiler. If using a vFiler, enter the name of the hosting Filer. Once finished, click **Finish**.



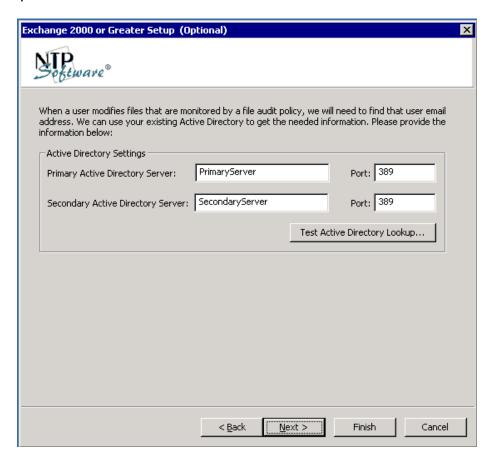


3. Check the **Yes! We do want email notifications enabled** option if you wish to notify your administrators about audited users' activities. Specify the email system that your environment uses and click **Next**.



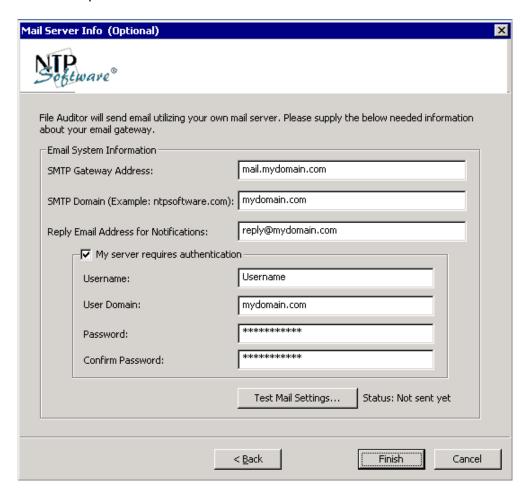


4. Enter the name of your primary active directory server; enter a secondary active directory server if you wish. Click the **Test Active Directory Lookup** and test one email address to verify connectivity.





5. Specify your email gateway information. Click the **Test Mail Settings** to verify the correctness of the information provided. Click **Finish**.

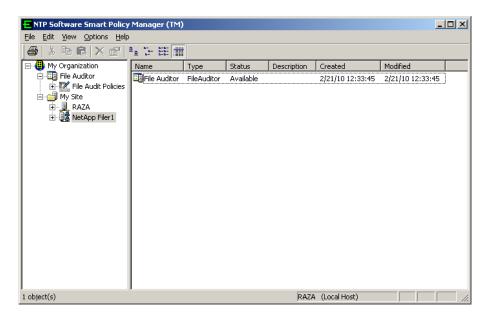




Adding the Filer to DefendX Software Control-Audit for NAS Admin

Before you can use DefendX Software Control-Audit for NAS, the Filer must be added to the DefendX Software Smart Policy Manager hierarchy. Follow these steps to add the Filer:

- 1. Click Start > All Programs > DefendX Software Control-Audit for NAS > DefendX Software Control-Audit 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 DefendX Software Control-Audit is installed.



Right-click on a container node, then select **New > Filer** to add the filer to the tree.

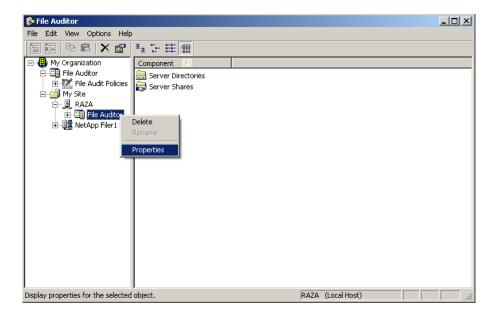
You need to add the Filer to the NAS Connector tab by providing the Control station IP, UserName, and Password and then restarting the service.

The NetApp filer will be listed in the Control-Audit Admin left panel tree view.

This allows a company with multiple Filers and multiple Control-Audit Servers to control which Control-Audit Server will manage which Filer.



3. In the left pane, expand the server on which DefendX Software Control-Audit is installed and right-click **Control-Audit**. From the pop-up menu, choose **Properties**.



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



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





To verify that the Filer has been associated with DefendX Software Control-Audit, follow these steps:

- 1. Log on to the Filer.
- 2. Run fpolicy to view fpolicy settings.

Your Filer and the associated policies should be displayed.



About DefendX Software

DefendX Software helps organizations secure their critical business files and maximize the value of their enterprise file storage resources. From comprehensive intelligence, modeling, costing and chargeback to seamless file movement, protection and archiving, DefendX provides industry-leading capabilities to eliminate waste and align the value of files with the storage resources they consume. With DefendX, important file locations and the users who access them can be monitored to provide governance, protect against theft and enforce compliance policies. For more than 20 years, DefendX Software has been helping public and private sector customers around the world save money and eliminate risk every day.

DefendX Software Professional Services

DefendX 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 DefendX Software Representative at 800-390-6937.



Legal & Contact Information

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