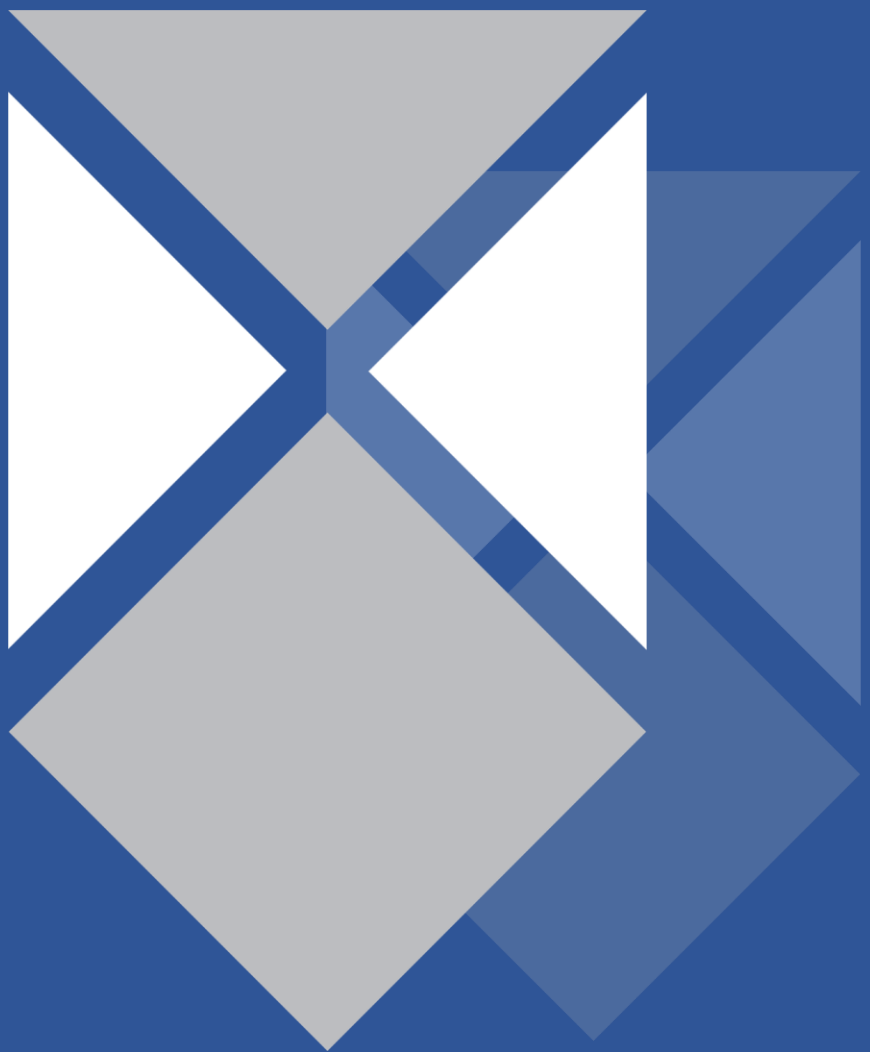
DefendX Software

# DefendX Software Control-Audit

## User Manual

Version 4.1

*This manual details the method for using DefendX Software Control-Audit, from an administrator's perspective. Upon completion of the steps within this document, DefendX Software Control-Audit will be used to monitor file and directory operations for users within your enterprise community.*



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# Executive Summary

Thank you for your interest in DefendX Software Control-Audit™. DefendX Software Control-Audit extends our best-of-breed technology, allowing you to manage NAS-hosted storage as a seamless whole.

DefendX Software Control-Audit lets you monitor your users' file and directory operations. It lets you create and enforce file audit policies that enable you to monitor certain events taking place in your environment. Such events include directories created, renamed, and/or deleted and files opened for read, write, create, rename, delete, and/or close in your environment.

DefendX Software Control-Audit has two main components:

1. DefendX Software Control-Audit Administrator
2. DefendX Software Control-Audit Reports

Each of the above components will be explained in further details in the next sections.

Please refer to the Network Attached Storage (NAS) Preparations section before you start working with DefendX Software Control-Audit.

Given the architecture of your NetApp® Filer®, EMC®Celerra®, BlueArc® Titan, or Hitachi NAS, DefendX Software Control-Audit does its job remotely. DefendX Software Control-Audit uses a connector service to create a bridge and include Filers/Celerras/Titans/Hitachi NASs as full participants in storage environments audited by DefendX Software Control-Audit. In light of this fact, you will need to install the NAS/EMC/BlueArc/Hitachi connector on one of the Windows Server® 2008 machines in your environment. This can be an existing server or workstation, or a standalone system.

To be audited by DefendX Software Control-Audit, version 6.5 or later (excluding version 7.1) of the Data ONTAP® operating system for Filers, or version 5.6.36.2 or later of the DART® operating system for Celerras, or version 6.1.1684.18 of the BOS operating system for Titans, or version 6.1.1684.18 of the NOS operation system for Hitachi NASs is required. DefendX Software Control-Audit can be used to audit Filers, Celerras, Titans, Hitachi NASs, Filer clusters, Celerra clusters, Titan clusters, and Hitachi NAS clusters; or any combination of these systems. DefendX Software Control-Audit imposes no restrictions on how you monitor your file and directory operations. You can impose policies on individual files, directories, users, and/or groups of users.

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/BlueArc/Hitachi connector service.

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

# DefendX Software Control-Audit Configuration

The DefendX Software Control-Audit Configuration Wizard appears once the DefendX Control-Audit installation completes. It enables you easily to add the Filer, Celerra, or EVS to be monitored by the DefendX Software Control-Audit application. To use the DefendX Software Control-Audit Configuration Wizard, please follow these steps:

1. Click **Start** > **Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit™ for NAS Configuration Wizard**.
2. Click the **View Pre-Wizard Checklist** button and gather the required information before continuing. Click **Next**.
3. Enter the name of your Filer, Celerra, or EVS. Click **Finish**.

# Setting DefendX Software Control-Audit Properties

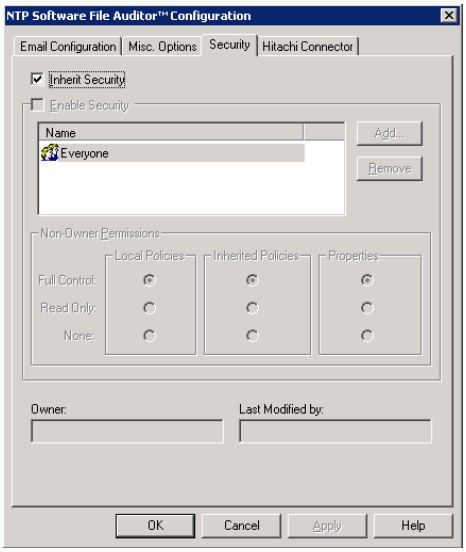
**NOTE:** For all the screens displayed in this user manual, an DefendX Software Control-Audit for NAS NetApp/IBM N Series edition is used. Please note that screenshots differ depending on the DefendX Software Control-Audit edition being installed.

## Setting the DefendX Software Control-Audit Security Level

The DefendX Software Control-Audit Properties tab enables you to set up several application properties, including the application security level. To adjust your DefendX Software Control-Audit application security level, please follow these steps:

1. On the left tree view, expand the MySite node.
2. Right-click **DefendX Software Control-Audit** under MySite navigate to the Windows server node and select **Properties** from the Menu.
3. Click the **Security** tab. Clear the **Inherit Security** box and check the **Enable Security** checkbox. Click **Add** to choose the users or groups for which you want to apply security options.

**Tip:** In the **Non-Owner Permissions** section of the dialog box, choose the desired settings for the types of policies and properties.




4. Click the **NAS/EMC/BlueArc/Hitachi Connector** tab to add/remove the NetApp/EMC/Titan(s)/Hitachi NAS(es) to be managed.

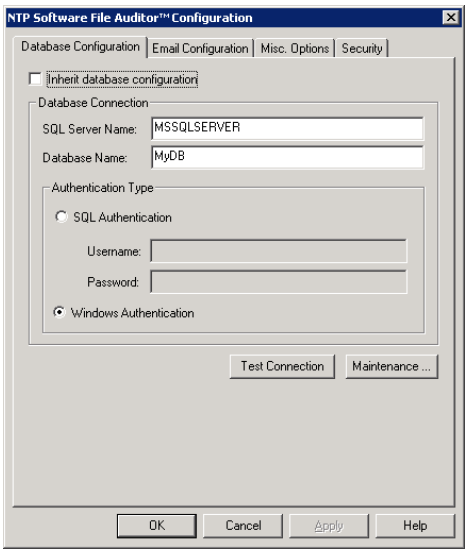
## Setting the DefendX Software Control-Audit Database

The DefendX Software Control-Audit Properties tab enables you to set up several application properties, including the application database. Your application database

configuration should be adjusted before creating any file audit policies, because all of the events monitored through the Control-Audit policies are saved to your configured database. To configure the database, please follow these steps:

1. Right-click **DefendX Software Control-Audit** under the main application container (**My Organization**, in this example).
2. Right-click **DefendX Software Control-Audit** under Organization Node and select **Properties** from the Menu.
3. On the **Database Configuration** tab, clear the **Inherit Database Configuration** box, enter the correct information in each of the text boxes as appropriate for your database, and click **OK**.

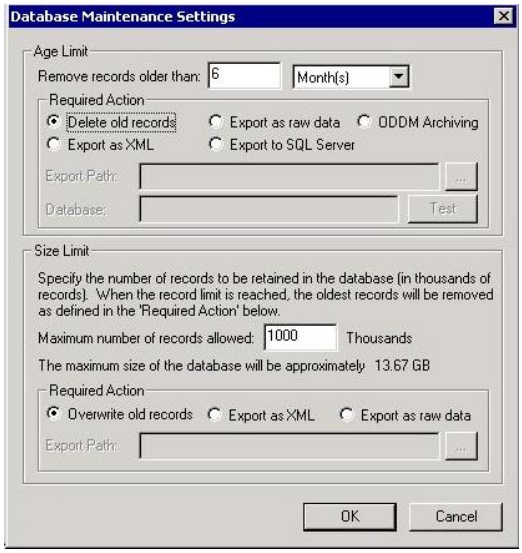
**NOTE:** "My Organization" is the main application container, so the database configuration specified here is inherited by any other server created within the tree. This saves the administrators from having to enter the database configuration manually.




4. If you want to specify different database configurations, right-click **Control-Audit** under the NetApp Filer/EMC Celerra/BlueArc Titan/ Hitachi NAS that has been added.

5. If you want to back up/delete old files to maintain the size of your database, click the **Maintenance** button.

**NOTE:** The DB Maintenance option works on two levels, the server level and the policy level.




On the **Database Maintenance Settings** dialog, under the **Age Limit** section use the **Remove records older than** field to set the number of days/weeks/months/years Control-Audit should keep records in the primary database, after which Control-Audit will attempt to back them up.

Based on the **Required Action** field; Control-Audit can delete old records from the database, export old records to a comma-separated file, export aging records to an XML file, export aging records to a database you specify on the SQL server instance you specify, or use On-Demand Data Movement (ODDM) to back-up old records.

Control-Audit Reports retrieve old records for reporting purposes. You can configure Control-Audit to use your On-Demand Data Movement (ODDM) by setting two fields, those are:

- The temp. share, which is a temporary share on your primary server that ODDM uses as a source for files to back-up. The Service account for Control-Audit services must have *Read, Write and Delete* permissions on this share. For information about ODDM Primary Servers, please refer to the *DefendX Software ODDM™ Administration Web Site - User Manual.*
- The Web Service, which is a URL to the ODDM Web Service. (e.g. http://BackupHost/ODDMAdmin/ODDMService.asmx)

Please refer to the Retrieving Records Archived via ODDM section for more details on how to use Control-Audit Reports to retrieve your old records archived via ODDM in order to run reports on them.

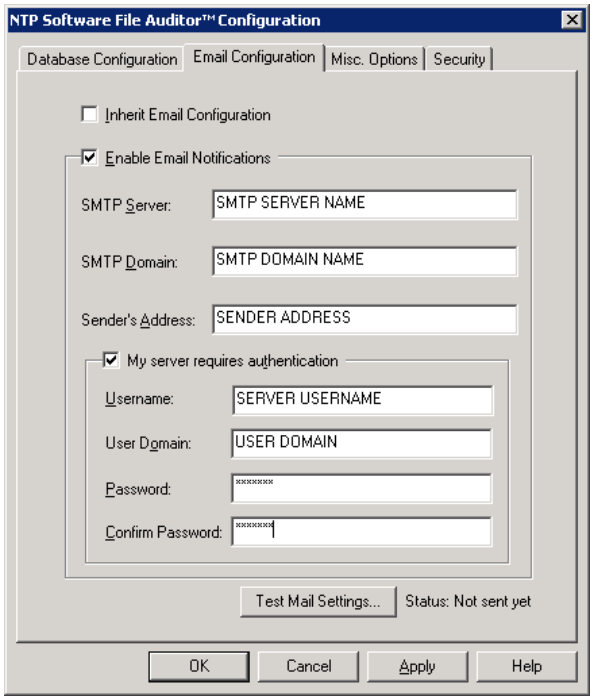
**NOTE:** Control-Audit reports will retrieve records only if the records are archived using On-Demand Data Movement (ODDM).

## Setting the DefendX Software Control-Audit Email

The DefendX Software Control-Audit Properties tab enables you to set up several application properties, including the application emails. To adjust your DefendX Software Control-Audit application email feature, please follow these steps:

1. Right-click **DefendX Software Control-Audit** under the main application container.
2. Click **Properties** on the pop-up menu.
3. Click the **Email Configuration** tab. Clear the **Inherit Email Configuration** box. Check the **Enable Email Notifications** option. Enter the correct information in each of the text boxes as appropriate for your email settings, and click **OK**.

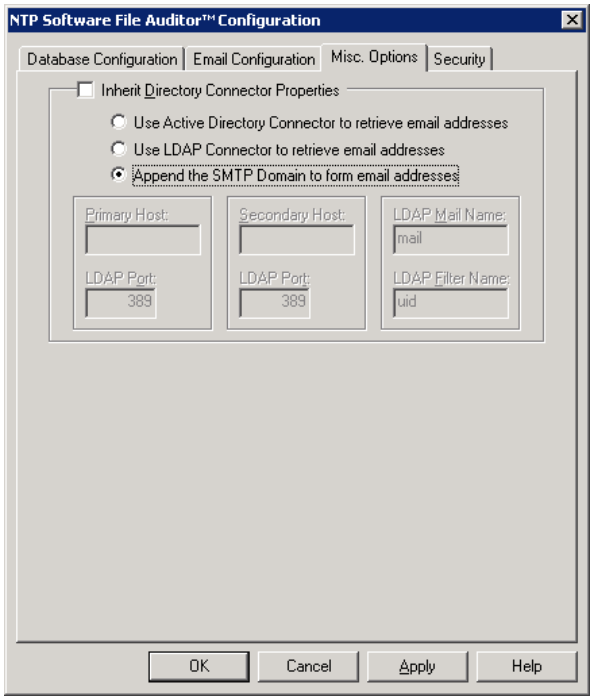
> **Tip:** Click the **Test Mail Settings** button to test your connection to the specified SMTP Sever. Specify the email ID to which the test email should be sent. If the email is sent successfully, the status field will display Test mail sent. Otherwise, it will display Test mail not sent.



## Setting the DefendX Software Control-Audit Miscellaneous Options

The DefendX Software Control-Audit Properties tab enables you to set up several application properties, including the application miscellaneous options. To adjust your DefendX Software Control-Audit application miscellaneous options, please follow these steps:

1. Right-click **DefendX Software Control-Audit** under the main application container.
2. Click **Properties** on the pop-up menu.
3. Click the **Misc Options** tab. Clear the **Inherit Directory Connector Properties** box and select the appropriate directory connector option.



# Policy Creation

This section outlines standard DefendX Software Control-Audit procedures for creating a Control-Audit policy.

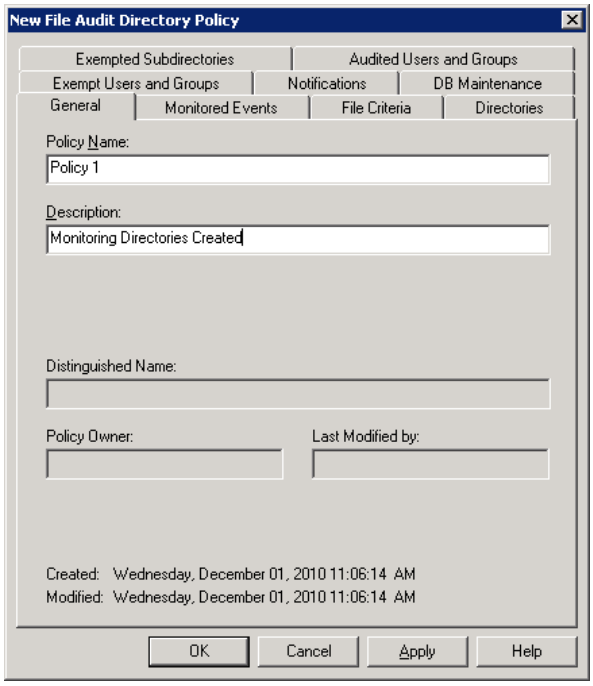
**NOTES:**

- DefendX Software Control-Audit monitors two main types of paths: **directory paths** and **share paths**. For share paths, all you need to do is add a share name. For directory paths, the format depends on the DefendX Software Control-Audit edition being used:
  - For NAS NetApp edition, the directory path format is \vol\<*volume name*>\<*some directory*>[…*optional subdirectory**another optional subdirectory*].
  - For NAS EMC, the directory path format is \<file system mount path>\<*some directory*>[…*optional subdirectory**another optional subdirectory*].
  - For BlueArc or Hitachi editions, the directory path format is \fs\<*volume name*>\<*some directory*>[…*optional subdirectory**another optional subdirectory*].
- When testing policies you have created, perform the tests from an independent machine that is *not* running DefendX Software Control-Audit.

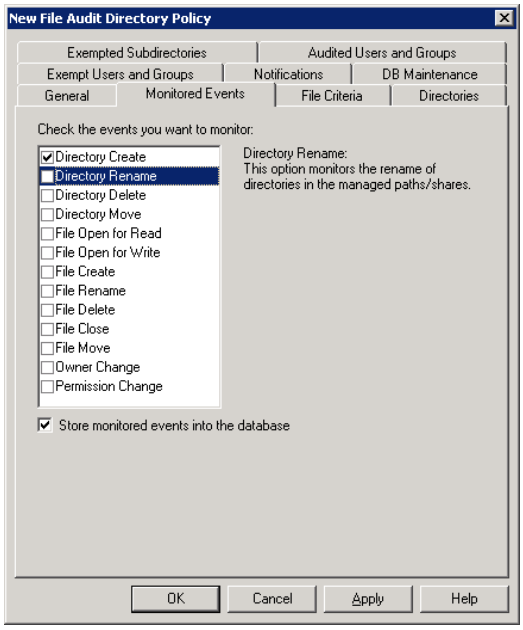
## Creating File Audit Policies

This section walks you through creating a typical file audit policy. We will create a file audit policy for all your user home directories in a typical server configuration. This policy will be applied to all users in your Users directory.

1. In the DefendX Software Smart Policy Manager hierarchy view, locate the Filer/Celerra/EVS you added earlier. If necessary, click the plus sign (**+**) adjacent to this entry to expand the tree. Then click the plus sign next to **Control-Audit** to expand the policy types.
2. Right-click **File Audit Policies** and select **New** > **Folder Policy Using Directories**.
3. In the **New File Audit Directory Policy** dialog box, click the **General** tab. Enter a name and a description for your new policy.



4. Click the **Monitored Events** tab; check the event(s) you want to monitor from the list of events. Check the **Store monitored events into the database** checkbox if you wish to store the monitored events in the Control-Audit database. You can clear the **Store monitored events into the database** checkbox if you wish to use the notifications option without recording the events to the Control-Audit database.



5. Click the **File Criteria** tab. Click the **Add** button, select the files that you wish to monitor, and the associated patters will be displayed automatically; you can also specify a custom pattern. Examples of custom patterns are using *.* (to manage all files) and using *.rtf, *.doc (to manage all Word files).

| **NOTE:** If the Patterns list is empty, the policy will audit all of the file(s). |
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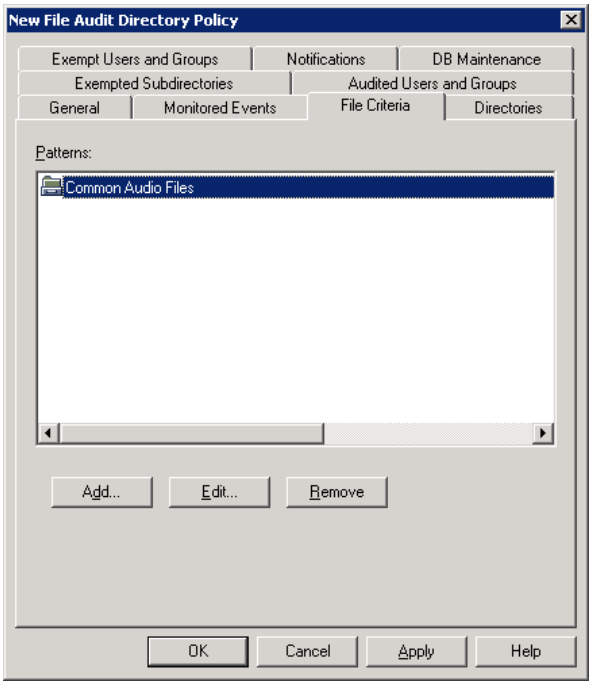
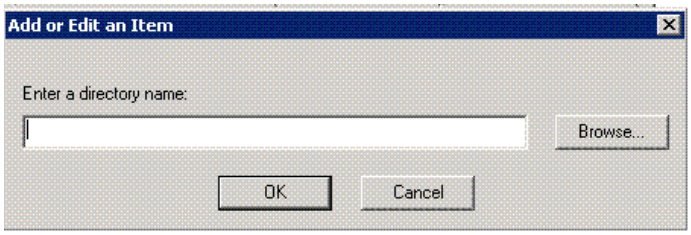
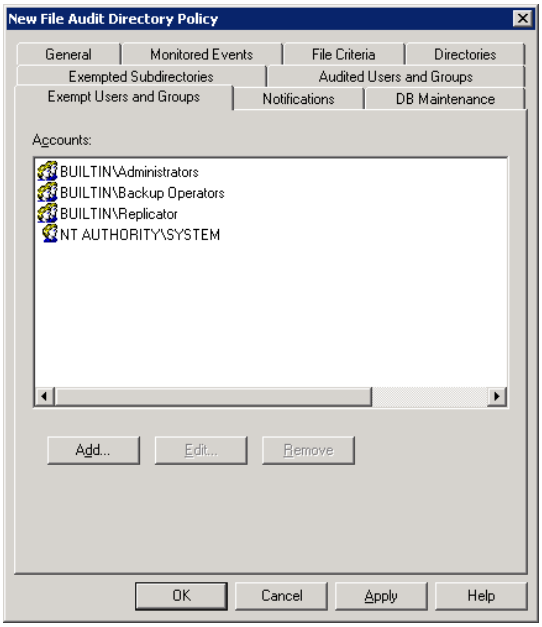


6. Click the **Directories** tab. Click the **Add** button, type the appropriate directory path for your Users directory followed by a backslash.

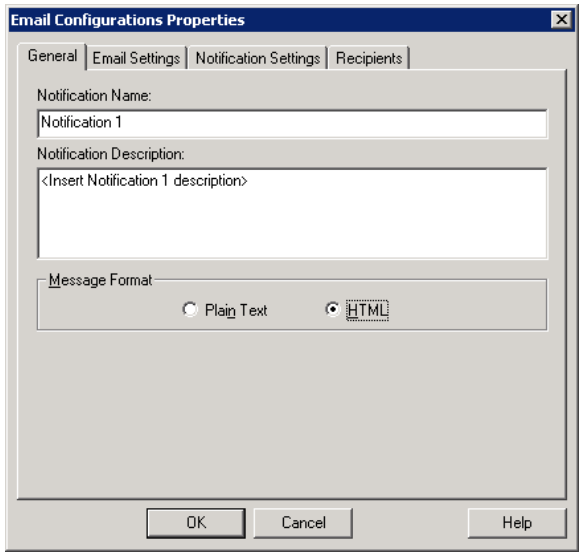
> **NOTE:** By default, this policy applies to all users. You can verify this fact by clicking the **Managed Users and Groups** tab.

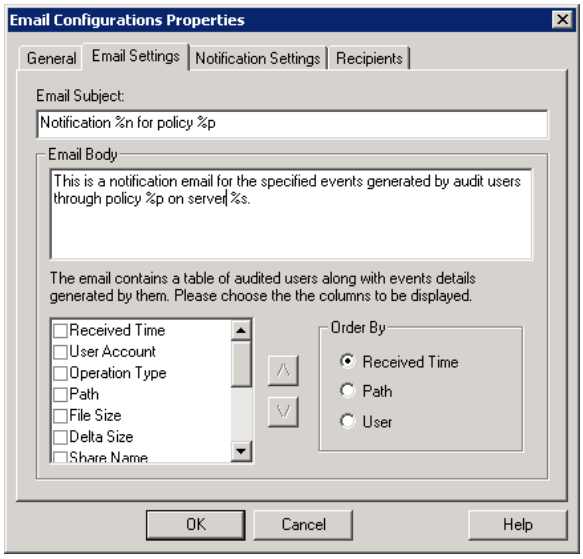


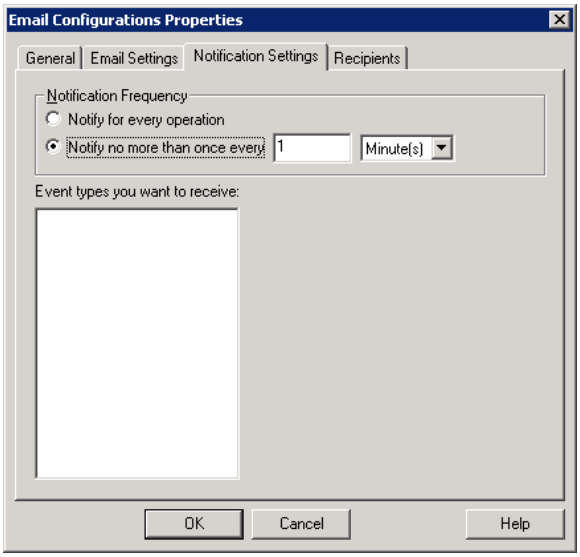

7. Usually administrators, backup operators, replicator, and the system account are exempt from policies. You can verify this fact by clicking the **Exempt Users and Groups** tab. To change this setting, select the appropriate entry and click **Remove**. To add an account click the **Add** button, browse and search for users/groups in Active Directory, select the user/group and click **OK**. The selected user/group will be added to the Exempt users list.

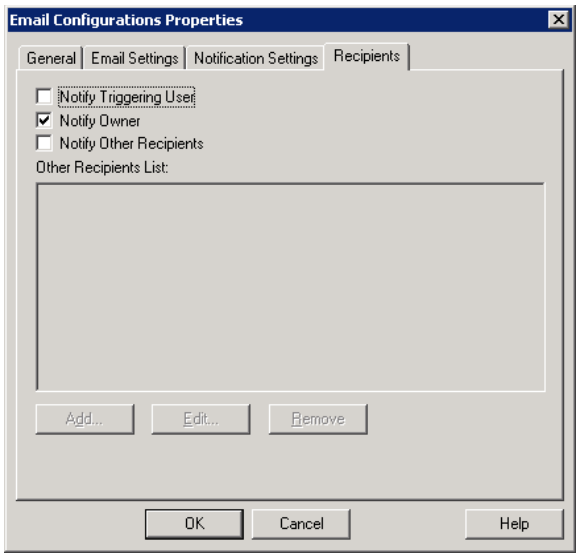


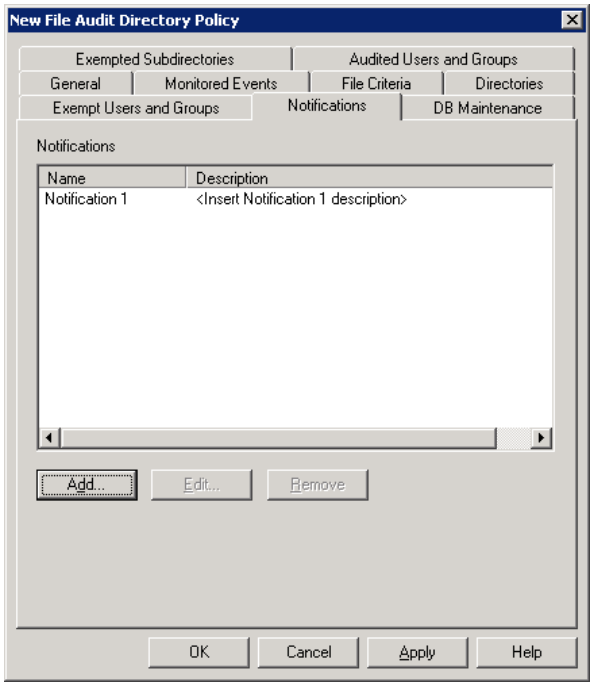
8. Click the **Notifications** tab, then click the **Add** button. On the **Email Configurations Properties dialog General** tab, specify the notification related details; including the notification name description and message format. On the **Email Settings** Tab, specify the email subject and the email body, customize the displayed information about the authorized users and the associating events, and choose the detail level. On the **Notification Settings** Tab, specify the notification frequency, along with the types of events you wish to receive. On the **Recipients** Tab, specify the user(s) who should receive the email.



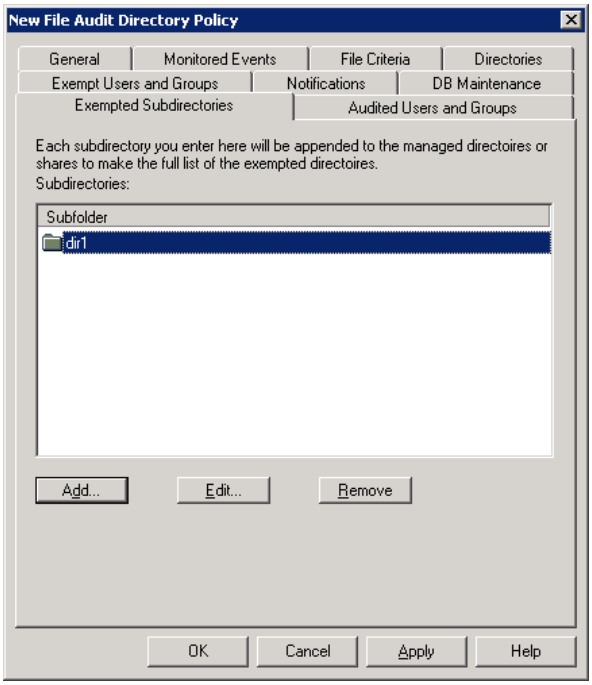





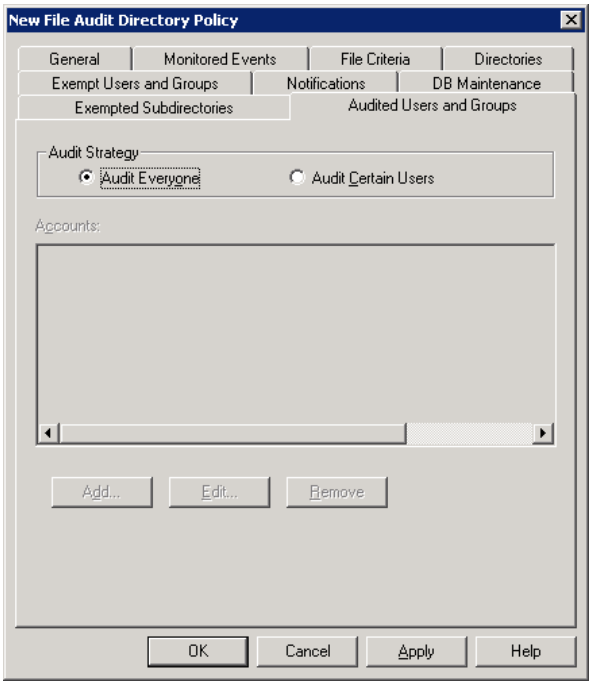





9. Click the **Exempted Subdirectories** tab. Click the **Add** button and type the subdirectory you want to exempt from the monitored directories list.




10. Click the **Audited User and Groups** tab, choose whether you want to audit all users within your environment or specify certain user(s) to audit.



11. Click **OK** to close the **New File Audit Directory Policy** dialog box. DefendX Software Control-Audit will create the new directory policy, which will be inherited by all systems from this point down in your hierarchy.

## Viewing Directories

This section shows how you can view all the directories that are located on a certain Filer, Celerra, or EVS.

1. In the DefendX Software Smart Policy Manager hierarchy view, locate the Filer, Celerra, or EVS containing directories you want to view. If necessary, click the plus sign (**+**) adjacent to this entry to expand the tree.
2. Click the plus sign next to **Control-Audit**.
   a. For the Filer, click the plus sign next to **Filer Directories** to view the volumes located on that Filer.

      **NOTE:** You can view that feature if you have a NetApp Filer attached to the DefendX Software Control-Audit application.

   b. For the Celerra, click the plus sign next to **Celerra Directories** to view the volumes located on that Celerra.

      **NOTE:** You can view that feature if you have an EMC Celerra attached to the DefendX Software Control-Audit application.

   c. For the EVS, click the plus sign next to **EVS Directories** to view the volumes located on the EVS.

      **NOTE:** You can view that feature if you have an EVS attached to the DefendX Software Control-Audit application.

## Viewing Shares

This section shows how you can view all the shared directories located on a certain Filer, Celerra, or EVS.

1. In the DefendX Software Smart Policy Manager hierarchy view, locate the Filer, Celerra, Titan, or Hitachi NAS with shared directories you want to view. If necessary, click the plus sign (**+**) adjacent to this entry to expand the tree.
2. Click the plus sign next to **Control-Audit**.
    a. For the Filer, click the plus sign next to **Filer Shares** to view the volumes located on that Filer.

    > **NOTE:** You can view that feature if you have a NetApp Filer attached to the DefendX Software Control-Audit application.

    b. For the Celerra, click the plus sign next to **Celerra Shares** to view the shared folders located on that Celerra.

    > **NOTE:** You can view that feature if you have an EMC Celerra attached to DefendX Software Control-Audit application.

    c. For the EVS, click the plus sign next to EVS Shares to view the shared folders located on that EVS.

    > **NOTE:** You can view that feature if you have an EVS attached to DefendX Software Control-Audit application.

# DefendX Software Control-Audit Reports

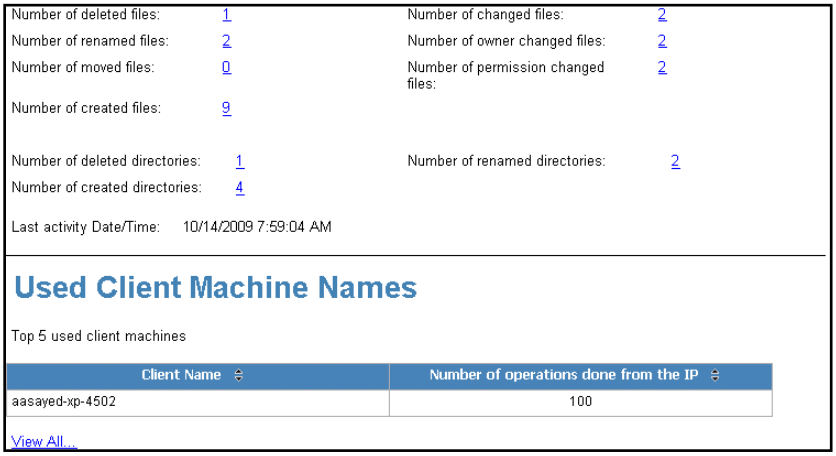
The DefendX Software Control-Audit reporting tool allows you to view the file and directory operations that took place at your environment in an easy and efficient display. Reports are categorized by user, file, policy, and folder.

To view DefendX Software Control-Audit Reports, please follow the following steps:

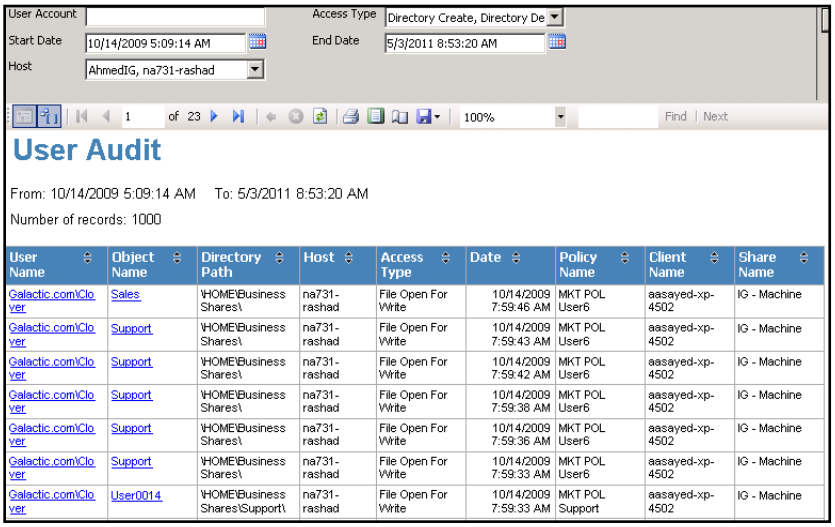
1. Run DefendX Software Control-Audit Administrator by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit Reports**.
2. In the left pane, click the report type you want to display.
3. In the upper pane, specify the search criteria, then click **View Report**.
4. In the lower pane, check the report output.
5. DefendX Software Control-Audit also allows you to export the report to different formats. Those include XML, CSV, TIFF, PDF, Web Archive, or Excel.

Listed as follows are the different types of reports provided by DefendX Software Control-Audit:

1. The **User Reports** category has four different views: the User Summary, the User Audit, the Access History, and the Most Active Users.
   a. **User Summary:** This report allows you to search by user name. Clicking on a specific user name, you can review the count of each operation performed, including the count of the deleted/renamed/moved files, the count of the created/changed/owner changed/permission changed files, the count of the created/deleted directories, and the count of the renamed directories files. In addition, it displays a list of the most-used client names, along with the count of operation(s) performed using the specified IP address.



b. **User Audit:** This report allows you to review all the file and directory operations performed by user(s). The report input is the user account, and/or the access type, and/or the date range, and/or the host name. The report displays the user's name, the object name, the directory path, the host name, the operation performed, the date the operation was performed, the policy name, the client, and the share name within the specified criteria.



User Account | Access Type: Directory Create, Directory De
Start Date: 10/14/2009 5:09:14 AM | End Date: 5/3/2011 8:53:20 AM
Host: AhmedIG, na731-rashad

1 of 23 | 100% | Find | Next

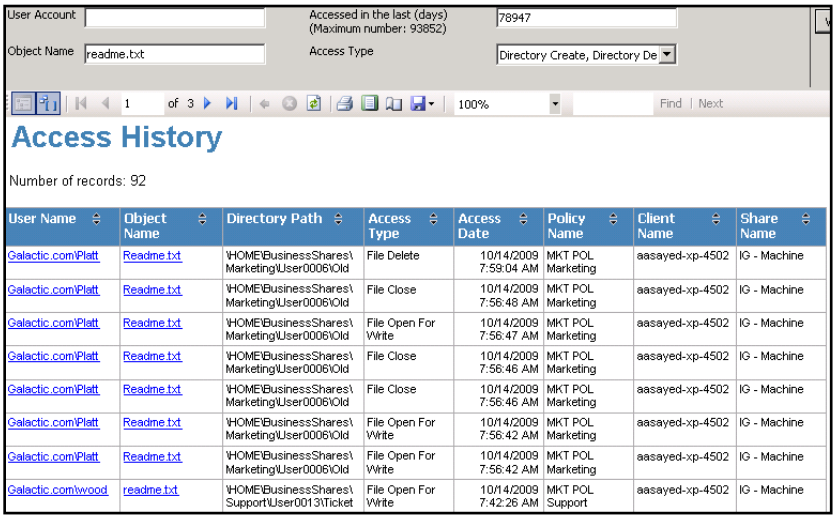
## User Audit

From: 10/14/2009 5:09:14 AM To: 5/3/2011 8:53:20 AM

Number of records: 1000

| User Name | Object Name | Directory Path | Host | Access Type | Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|---|
| Galactic.com\Clover | Sales | \HOME\Business Shares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:46 AM | MKT POL User6 | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Clover | Support | \HOME\Business Shares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:43 AM | MKT POL User6 | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Clover | Support | \HOME\Business Shares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:42 AM | MKT POL User6 | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Clover | Support | \HOME\Business Shares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:38 AM | MKT POL User6 | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Clover | Support | \HOME\Business Shares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:36 AM | MKT POL User6 | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Clover | Support | \HOME\Business Shares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:33 AM | MKT POL User6 | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Clover | User0014 | \HOME\Business Shares\Support\ | na731-rashad | File Open For Write | 10/14/2009 7:59:33 AM | MKT POL Support | aasayed-xp-4502 | IG - Machine |

c. **Access History:** This report allows you to review all the file and directory operations performed within a specified number of days. The report input is the user account, and/or the number of day(s) in which the file/directory was accessed, and/or the file name, and/or the access type performed on the file/directory. The report displays the user's name, the object name, the directory path, the operation performed, the date the operation was performed, the policy name, the client name, and the share name within the specified criteria.



User Account | Accessed in the last (days) (Maximum number: 93852): 78947
Object Name: readme.txt | Access Type: Directory Create, Directory De

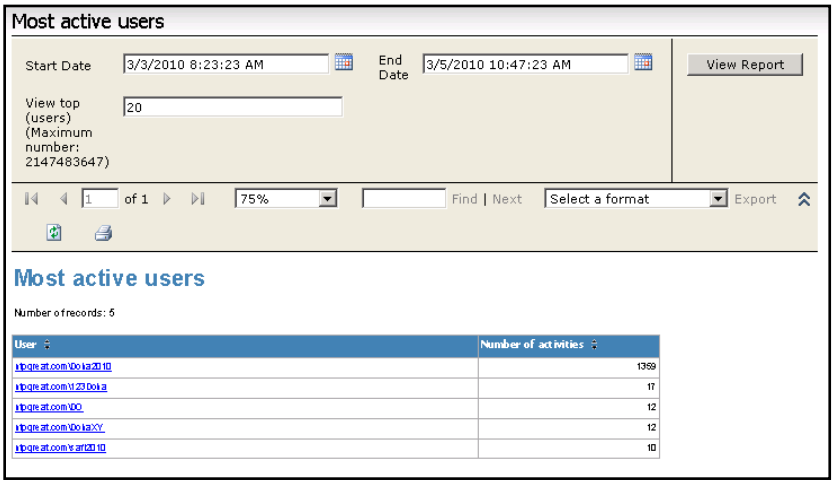
1 of 3 | 100% | Find | Next

## Access History

Number of records: 92

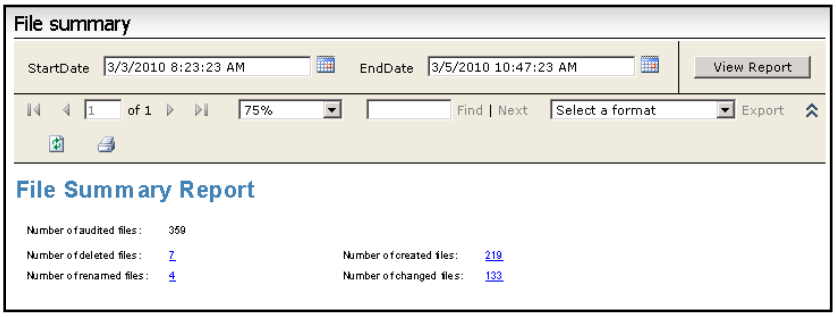
| User Name | Object Name | Directory Path | Access Type | Access Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Delete | 10/14/2009 7:59:04 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Close | 10/14/2009 7:56:48 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Open For Write | 10/14/2009 7:56:47 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Close | 10/14/2009 7:56:46 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Close | 10/14/2009 7:56:46 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Open For Write | 10/14/2009 7:56:42 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Platt | Readme.txt | \HOME\BusinessShares\Marketing\User0006\Old | File Open For Write | 10/14/2009 7:56:42 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| Galactic.com\wood | readme.txt | \HOME\BusinessShares\Support\User0013\Ticket | File Open For Write | 10/14/2009 7:42:26 AM | MKT POL Support | aasayed-xp-4502 | IG - Machine |

d. **Most Active Users:** This report allows you to review the most active users with the users' activities sorted in a descending or ascending order. The report input is the date range and/or the number of most active users to view. The report displays the user name and the number of activities performed by this user within the specified criteria.

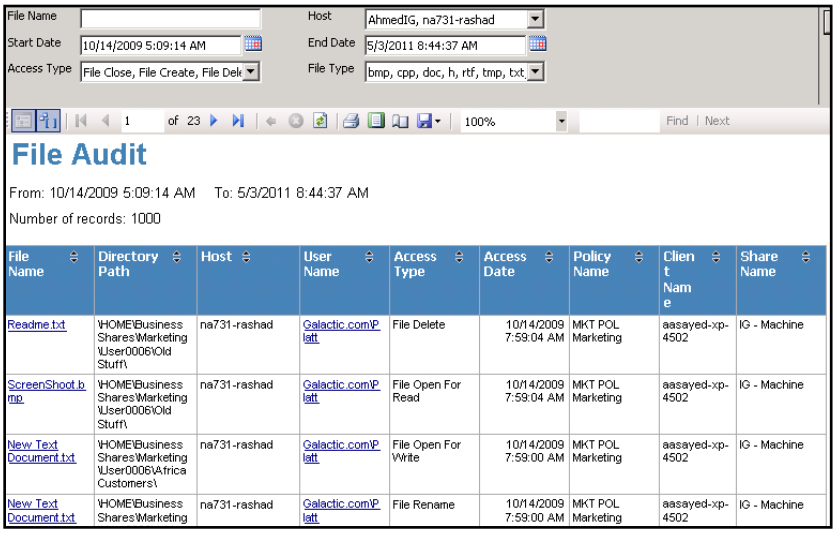



2. The **File Reports** category has nine different views: File Summary, File Audit, Files Changed, Files Deleted, Files Renamed, Files Created, Deletion Compliance, Owner Changed, and Permission Changed.

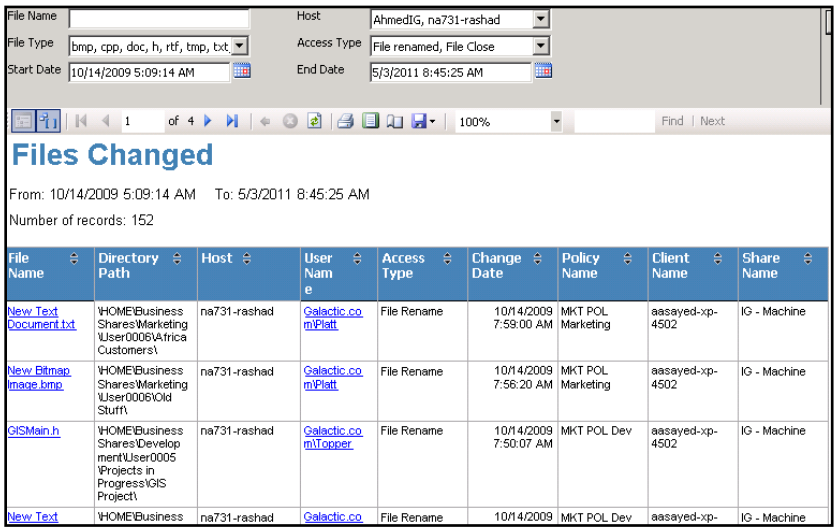
   a. **File Summary:** This report allows you to review the count of all the audited files. It also displays a breakdown for the count of deleted, renamed, created, or changed files. You can click the count next to any file operation to display a detailed list of the specified file operation.



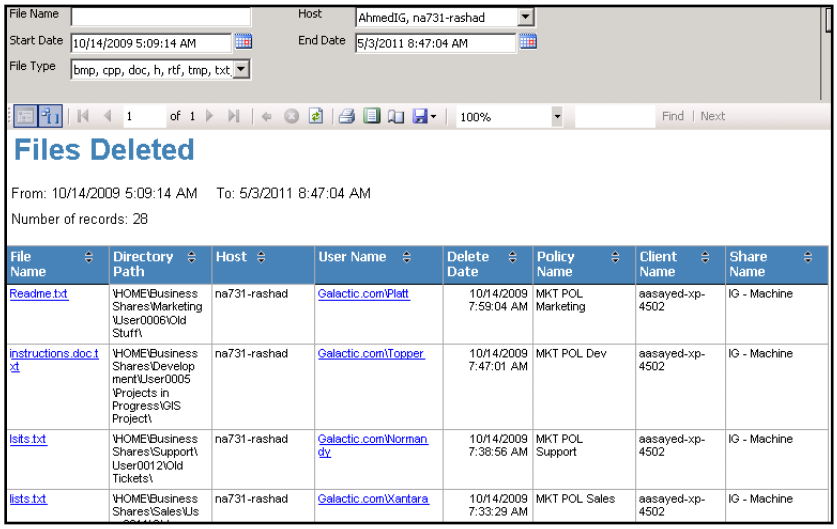
b. **File Audit:** This report allows you to review all the file operations performed. The report input is the file name, and/or the host name, and/or the file operation performed, and/or the file type, and/or the date range. The report displays the file name, the directory name where the specified file is located, the user name accessing the file, access type, access date, the name of the policy applied on the directory, the client name, and the share name within the specified criteria.




c. **Files Changed:** This report allows you to view all the changed files. The report input is the file name, and/or the host name, and/or the date range, and/or the file type(s). The report displays the file name, directory path in which the file is located, the user name accessing the file, the access type, the access date, the name of the policy applied, the client name, and the share name within the specified criteria.



d. **Files Deleted:** This report allows you to review all the files that have been deleted. The report's input is the file name, and/or the host name, and/or the date range, and/or the file type. The report displays the file name, the directory path in which the file was located, the user name, the date the file was last accessed, the policy name, the client name, and the share name within the specified criteria.



File Name | Host: AhmedIG, na731-rashad
Start Date: 10/14/2009 5:09:14 AM | End Date: 5/3/2011 8:47:04 AM
File Type: bmp, cpp, doc, h, rtf, tmp, txt

1 of 1 | 100% | Find | Next

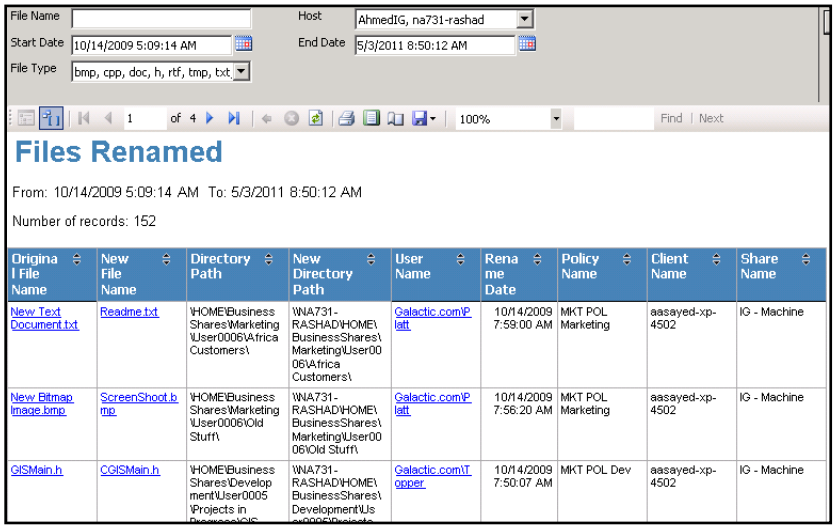
## Files Deleted

From: 10/14/2009 5:09:14 AM To: 5/3/2011 8:47:04 AM

Number of records: 28

| File Name | Directory Path | Host | User Name | Delete Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| Readme.txt | \HOME\Business Shares\Marketing \User0006\Old Stuff\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:59:04 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| instructions.doc.txt | \HOME\Business Shares\Development\User0005 \Projects in Progress\GIS Project\ | na731-rashad | Galactic.com\Topper | 10/14/2009 7:47:01 AM | MKT POL Dev | aasayed-xp-4502 | IG - Machine |
| lsits.txt | \HOME\Business Shares\Support\ User0012\Old Tickets\ | na731-rashad | Galactic.com\Normandy | 10/14/2009 7:38:56 AM | MKT POL Support | aasayed-xp-4502 | IG - Machine |
| lists.txt | \HOME\Business Shares\Sales\Us | na731-rashad | Galactic.com\Xantara | 10/14/2009 7:33:29 AM | MKT POL Sales | aasayed-xp-4502 | IG - Machine |

e. **Files Renamed:** This type of report allows you to review all the files that have been renamed. The report's input is the file name and/or, the host machine name, and/or the date range, and/or the file type. The report displays the original file name before the change, the new file name after the rename, the directory path in which the file is located, the user name, the date the file was accessed, the policy name, the client name, and the share name within the specified criteria.



File Name | Host: AhmedIG, na731-rashad
Start Date: 10/14/2009 5:09:14 AM | End Date: 5/3/2011 8:50:12 AM
File Type: bmp, cpp, doc, h, rtf, tmp, txt

1 of 4 | 100% | Find | Next

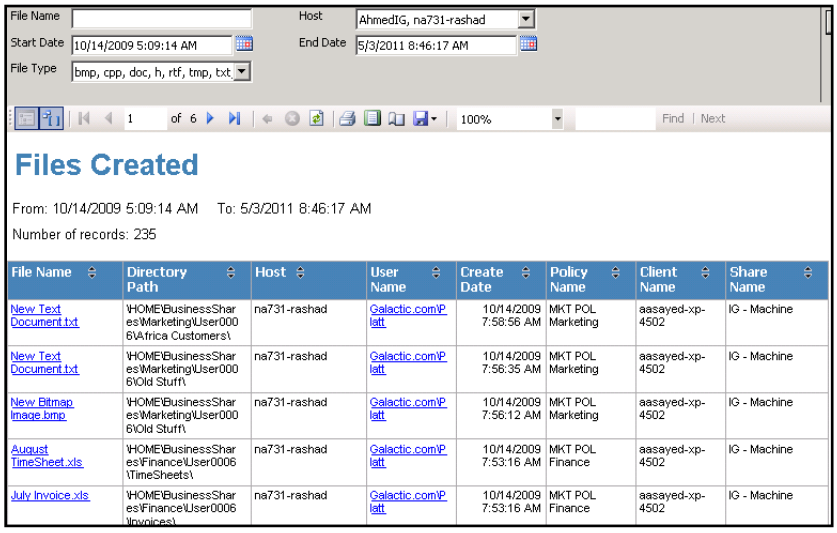
## Files Renamed

From: 10/14/2009 5:09:14 AM To: 5/3/2011 8:50:12 AM

Number of records: 152

| Original File Name | New File Name | Directory Path | New Directory Path | User Name | Rename Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|---|
| New Text Document.txt | Readme.txt | \HOME\Business Shares\Marketing \User0006\Africa Customers\ | \\NA731-RASHAD\HOME\ BusinessShares\ Marketing\User0006\Africa Customers\ | Galactic.com\Platt | 10/14/2009 7:59:00 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| New Bitmap Image.bmp | ScreenShoot.bmp | \HOME\Business Shares\Marketing \User0006\Old Stuff\ | \\NA731-RASHAD\HOME\ BusinessShares\ Marketing\User0006\Old Stuff\ | Galactic.com\Platt | 10/14/2009 7:56:20 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| GISMain.h | CGISMain.h | \HOME\Business Shares\Development\User0005 \Projects in | \\NA731-RASHAD\HOME\ BusinessShares\ DevelopmentUs | Galactic.com\Topper | 10/14/2009 7:50:07 AM | MKT POL Dev | aasayed-xp-4502 | IG - Machine |

f. **Files Created:** This type of report allows you to review all the files that have been created. The report's input is the date range, and/or the file name, and/or the file type, and/or the user account. The report displays the file name, the directory path in which the file exists, the user name, the access type (which is "file create"), the access date, the policy name, the client name, and the share name within the specified criteria.



File Name | Host: AhmedIG, na731-rashad
Start Date: 10/14/2009 5:09:14 AM | End Date: 5/3/2011 8:46:17 AM
File Type: bmp, cpp, doc, h, rtf, tmp, txt

1 of 6 | 100% | Find | Next

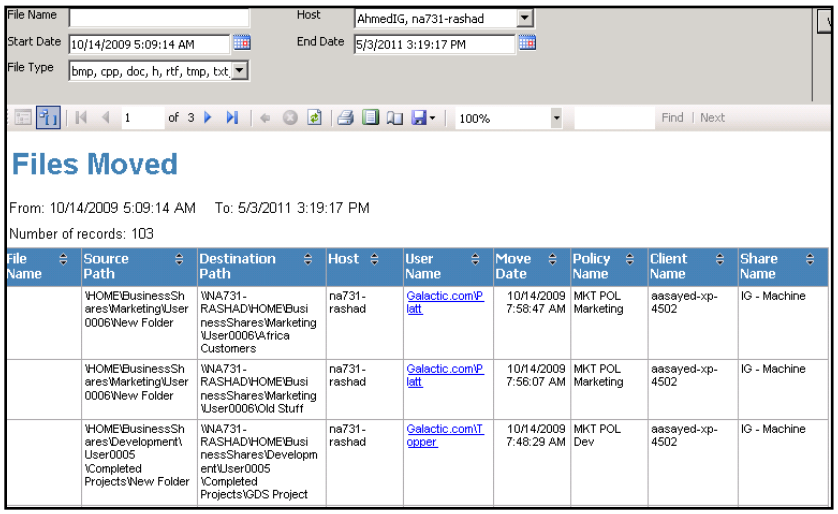
## Files Created

From: 10/14/2009 5:09:14 AM To: 5/3/2011 8:46:17 AM

Number of records: 235

| File Name | Directory Path | Host | User Name | Create Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| New Text Document.txt | \HOME\BusinessShares\Marketing\User0006\Africa Customers\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:58:56 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| New Text Document.txt | \HOME\BusinessShares\Marketing\User0006\Old Stuff\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:56:35 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| New Bitmap Image.bmp | \HOME\BusinessShares\Marketing\User0006\Old Stuff\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:56:12 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| August TimeSheet.xls | \HOME\BusinessShares\Finance\User0006\TimeSheets\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:53:16 AM | MKT POL Finance | aasayed-xp-4502 | IG - Machine |
| July Invoice.xls | \HOME\BusinessShares\Finance\User0006\Invoices\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:53:16 AM | MKT POL Finance | aasayed-xp-4502 | IG - Machine |

g. **Files Moved:** This type of report allows you to review all the files that have been moved. The report's input is the date range, and/or the file name, and/or the file type, and/or the host name. The report displays the file name, the source path and the destination path of the moved file, the host name, the date on which the file was moved, the policy name, the machine IP address, and the share name within the specified criteria.



File Name | Host: AhmedIG, na731-rashad
Start Date: 10/14/2009 5:09:14 AM | End Date: 5/3/2011 3:19:17 PM
File Type: bmp, cpp, doc, h, rtf, tmp, txt

1 of 3 | 100% | Find | Next

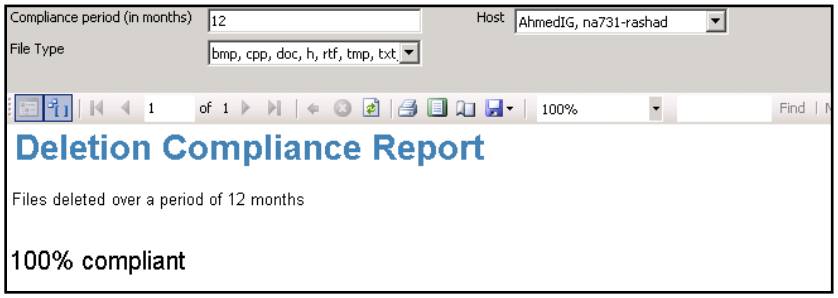
## Files Moved

From: 10/14/2009 5:09:14 AM To: 5/3/2011 3:19:17 PM

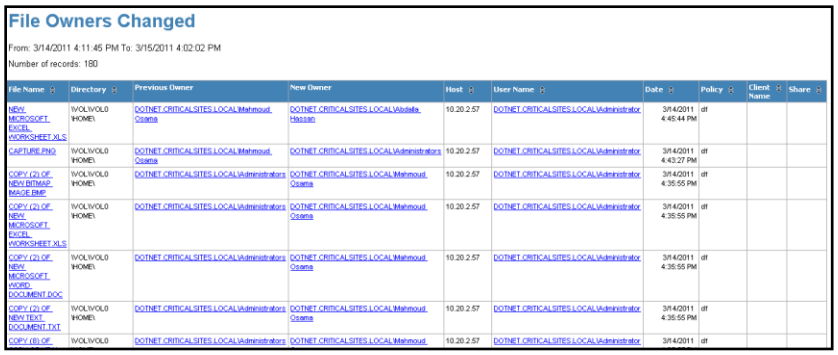
Number of records: 103

| File Name | Source Path | Destination Path | Host | User Name | Move Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|---|
| | \HOME\BusinessShares\Marketing\User0006\New Folder | \\NA731-RASHAD\HOME\BusinessShares\Marketing\User0006\Africa Customers | na731-rashad | Galactic.com\Platt | 10/14/2009 7:58:47 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| | \HOME\BusinessShares\Marketing\User0006\New Folder | \\NA731-RASHAD\HOME\BusinessShares\Marketing\User0006\Old Stuff | na731-rashad | Galactic.com\Platt | 10/14/2009 7:56:07 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| | \HOME\BusinessShares\Development\User0005\Completed Projects\New Folder | \\NA731-RASHAD\HOME\BusinessShares\Development\User0005\Completed Projects\GDS Project | na731-rashad | Galactic.com\Topper | 10/14/2009 7:48:29 AM | MKT POL Dev | aasayed-xp-4502 | IG - Machine |

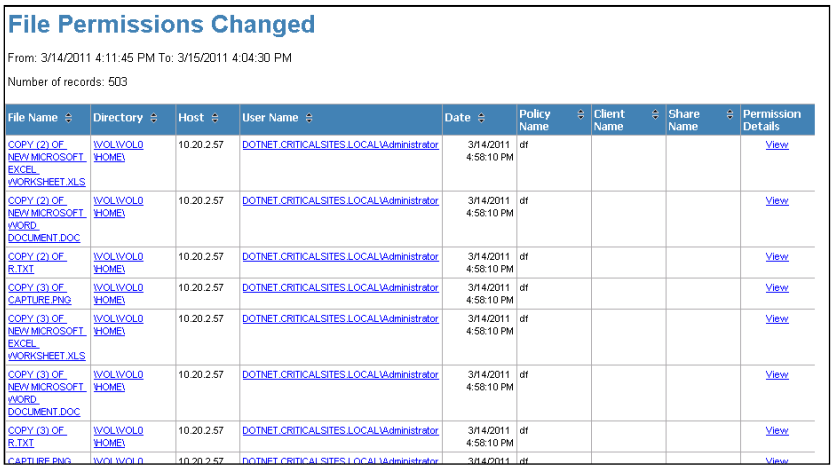
h. **Deletion Compliance:** This type of report allows you to review the files deleted over the specified compliance period. The report's input is the compliance period in months, the host name, and the file type. The report displays the files deleted over the specified period.




i. **Owner Changed:** This type of report allows you to review the file(s) whose owner(s) has changed. The report displays the name of the file whose owner has changed, the previous owner, the new owner, the host IP address, the user name, the policy name, the client, and the share name within the specified criteria.



j. **Permission Changed:** This type of report allows you to review the file(s) whose permission(s) has changed among user. The report displays the name of the file whose permission has changed, the directory where the file exists, the host IP address, the user name, the policy name, the client, and the share name, as well as the permission details within the specified criteria.



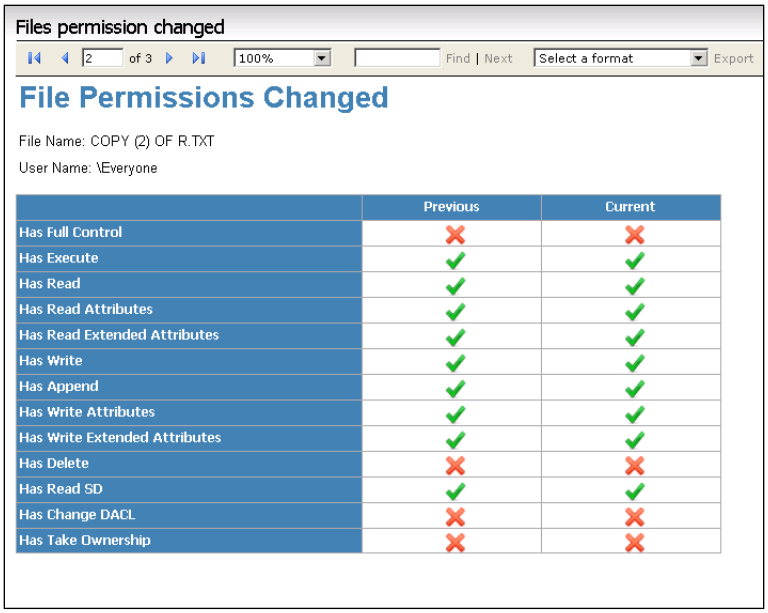
File Permissions Changed

From: 3/14/2011 4:11:45 PM To: 3/15/2011 4:04:30 PM

Number of records: 503

| File Name | Directory | Host | User Name | Date | Policy Name | Client Name | Share Name | Permission Details |
|---|---|---|---|---|---|---|---|---|
| COPY (2) OF NEW MICROSOFT EXCEL WORKSHEET.XLS | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| COPY (2) OF NEW MICROSOFT WORD DOCUMENT.DOC | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| COPY (2) OF R.TXT | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| COPY (3) OF CAPTURE.PNG | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| COPY (3) OF NEW MICROSOFT EXCEL WORKSHEET.XLS | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| COPY (3) OF NEW MICROSOFT WORD DOCUMENT.DOC | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| COPY (3) OF R.TXT | \VOL\VOL0 \HOME\ | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 4:58:10 PM | df | | | View |
| CAPTURE.PNG | \VOL\VOL0 | 10.20.2.57 | DOTNET.CRITICALSITES.LOCAL\Administrator | 3/14/2011 | df | | | View |

Clicking on the **View** link of the **Permission Details** field displays more details, as outlined below.



Files permission changed

2 of 3 100% Find | Next Select a format Export

File Permissions Changed

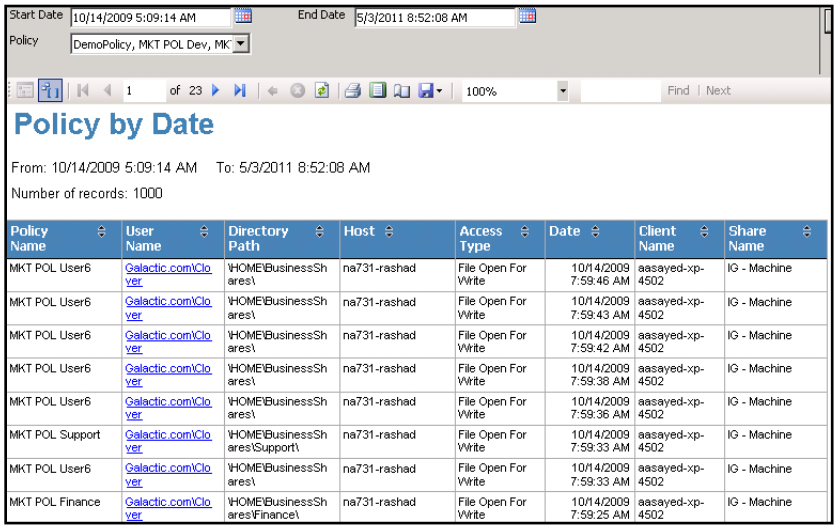
File Name: COPY (2) OF R.TXT

User Name: \Everyone

| | Previous | Current |
|---|---|---|
| Has Full Control | ✗ | ✗ |
| Has Execute | ✓ | ✓ |
| Has Read | ✓ | ✓ |
| Has Read Attributes | ✓ | ✓ |
| Has Read Extended Attributes | ✓ | ✓ |
| Has Write | ✓ | ✓ |
| Has Append | ✓ | ✓ |
| Has Write Attributes | ✓ | ✓ |
| Has Write Extended Attributes | ✓ | ✓ |
| Has Delete | ✗ | ✗ |
| Has Read SD | ✓ | ✓ |
| Has Change DACL | ✗ | ✗ |
| Has Take Ownership | ✗ | ✗ |

3. **Policy Reports** category has one view: the Policy by Date report.

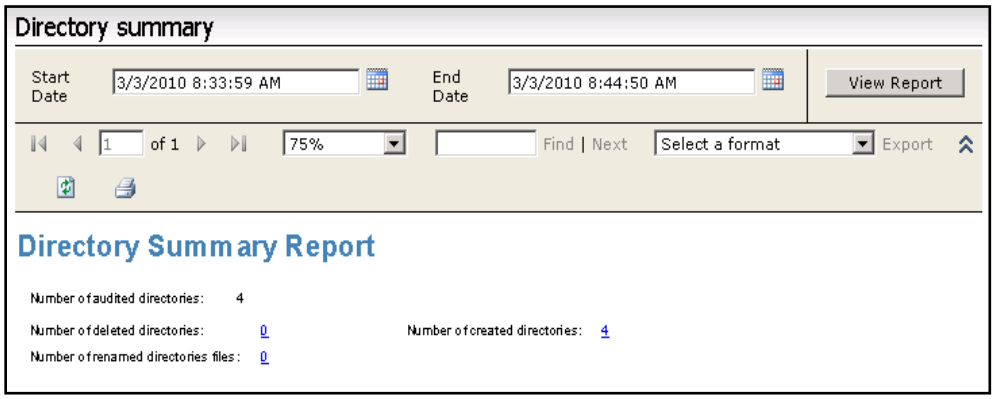
   a. **Policy by Date:** This report allows you to review all the policy details within a certain date range. The report's input is the date range and/or the policy name. The report displays the policy name, the user name, the directory path on which the policy applies, the access type, the access date, the machine IP address, and the share name within the specified criteria.



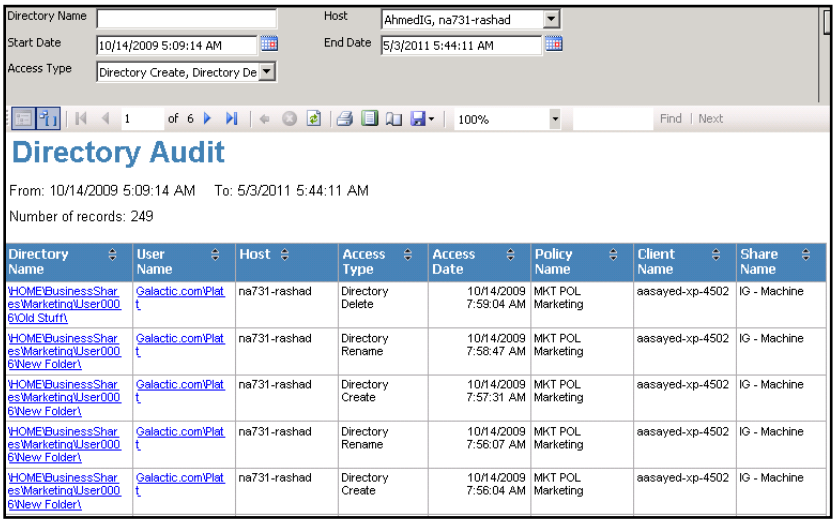

| Policy Name | User Name | Directory Path | Host | Access Type | Date | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| MKT POL User6 | Galactic.com\Clover | \HOME\BusinessShares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:46 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL User6 | Galactic.com\Clover | \HOME\BusinessShares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:43 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL User6 | Galactic.com\Clover | \HOME\BusinessShares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:42 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL User6 | Galactic.com\Clover | \HOME\BusinessShares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:38 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL User6 | Galactic.com\Clover | \HOME\BusinessShares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:36 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL Support | Galactic.com\Clover | \HOME\BusinessShares\Support\ | na731-rashad | File Open For Write | 10/14/2009 7:59:33 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL User6 | Galactic.com\Clover | \HOME\BusinessShares\ | na731-rashad | File Open For Write | 10/14/2009 7:59:33 AM | aasayed-xp-4502 | IG - Machine |
| MKT POL Finance | Galactic.com\Clover | \HOME\BusinessShares\Finance\ | na731-rashad | File Open For Write | 10/14/2009 7:59:25 AM | aasayed-xp-4502 | IG - Machine |

4. The **Directory Reports** category has eight views: Directory Summary, Directory Audit, Directory Created, Directory Renamed, Directory Deleted, Deleted Files by Folder, Deleted Files Count by Folder, and Most Accessed Folders.

   a. **Directory Summary:** This report allows you to review the count of all the audited directories. It also displays a breakdown for the count of deleted, renamed, or created directories. You can click the count next to any directory operation to display a detailed list of the specified directory operation.

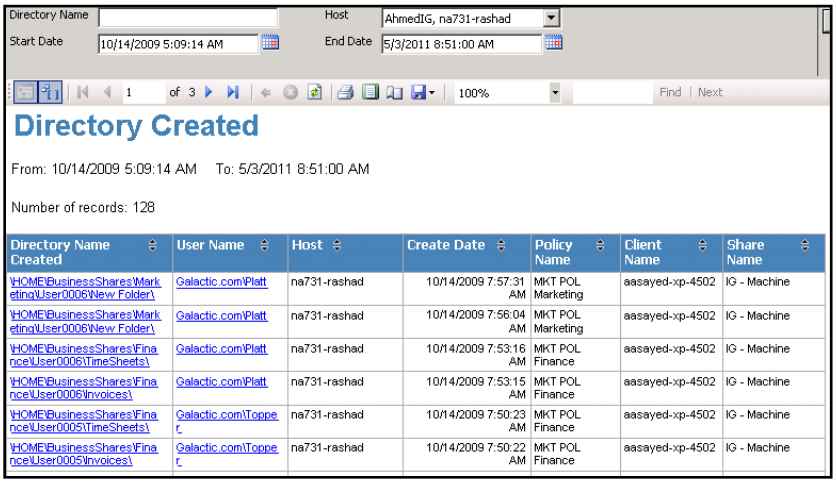


b. **Directory Audit:** This report allows you to review all the directory operations performed. The report's input is the directory name, and/or the host name, and/or the date range, and/or the access type. The report displays the directory name, the user name accessing the directory, access type, access date, the name of the policy applied on the directory, the client name, and the share name. You can choose to display the previous information within a certain date range and/or for a certain access type(s) and/or for a certain directory name.



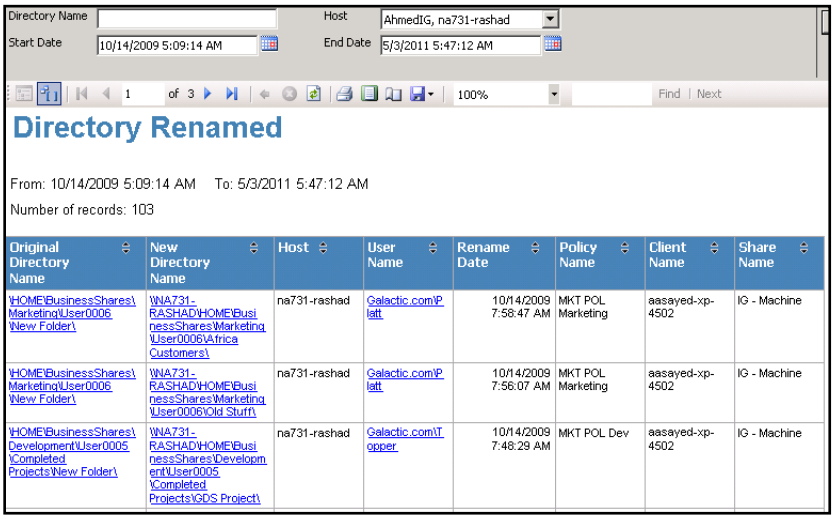

| Directory Name | User Name | Host | Access Type | Access Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| \HOME\BusinessShares\Marketing\User0006\Old Stuff\ | Galactic.com\Platt | na731-rashad | Directory Delete | 10/14/2009 7:59:04 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | Galactic.com\Platt | na731-rashad | Directory Rename | 10/14/2009 7:58:47 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | Galactic.com\Platt | na731-rashad | Directory Create | 10/14/2009 7:57:31 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | Galactic.com\Platt | na731-rashad | Directory Rename | 10/14/2009 7:56:07 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | Galactic.com\Platt | na731-rashad | Directory Create | 10/14/2009 7:56:04 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |

c. **Directory Created:** This report allows you to review all the directories created. The report's input is the date range, and/or the directory name, and/or the host name. The report displays the name of the created directory, the user's name performing the directory create operation, the date in which the directory was created, the name of the policy governing this directory creation operation, the IP address of the machine used to perform the directory create operation, and the share name based on the specified criteria.



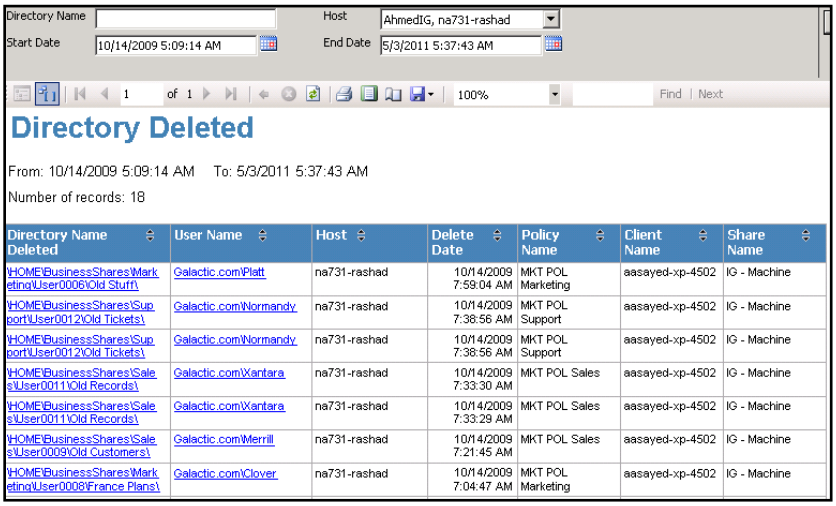

| Directory Name Created | User Name | Host | Create Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | Galactic.com\Platt | na731-rashad | 10/14/2009 7:57:31 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | Galactic.com\Platt | na731-rashad | 10/14/2009 7:56:04 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Finance\User0006\TimeSheets\ | Galactic.com\Platt | na731-rashad | 10/14/2009 7:53:16 AM | MKT POL Finance | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Finance\User0006\Invoices\ | Galactic.com\Platt | na731-rashad | 10/14/2009 7:53:15 AM | MKT POL Finance | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Finance\User0005\TimeSheets\ | Galactic.com\Topper | na731-rashad | 10/14/2009 7:50:23 AM | MKT POL Finance | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Finance\User0005\Invoices\ | Galactic.com\Topper | na731-rashad | 10/14/2009 7:50:22 AM | MKT POL Finance | aasayed-xp-4502 | IG - Machine |

d. **Directory Renamed:** This report allows you to review all the renamed directories. The report's inputs are the directory name, and/or the host name, and/or the date range. The report displays the original directory name before the renaming operation, the new directory name after renaming, the user's name performing the directory rename operation, the date on which the directory was renamed, the name of the policy governing this directory rename operation, the IP address of the machine used to perform the directory rename operation, and the share name based on the specified criteria.




| Original Directory Name | New Directory Name | Host | User Name | Rename Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | \\NA731-RASHAD\HOME\BusinessShares\Marketing\User0006\Africa Customers\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:58:47 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0006\New Folder\ | \\NA731-RASHAD\HOME\BusinessShares\Marketing\User0006\Old Stuff\ | na731-rashad | Galactic.com\Platt | 10/14/2009 7:56:07 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Development\User0005\Completed Projects\New Folder\ | \\NA731-RASHAD\HOME\BusinessShares\Development\User0005\Completed Projects\GDS Project\ | na731-rashad | Galactic.com\Topper | 10/14/2009 7:48:29 AM | MKT POL Dev | aasayed-xp-4502 | IG - Machine |

e. **Directory Deleted:** This report allows you to review all the deleted directories. The report's input is the date range, and/or the directory name, and/or the host name. The report displays the name of the deleted directory, the user's name performing the directory delete operation, the date in which the directory was deleted, the name of the policy governing this directory deletion operation, the client name used to perform the directory delete operation, and the share name based on the specified criteria.



Directory Name | Host: AhmedIG, na731-rashad
Start Date: 10/14/2009 5:09:14 AM | End Date: 5/3/2011 5:37:43 AM

1 of 1 | 100% | Find | Next

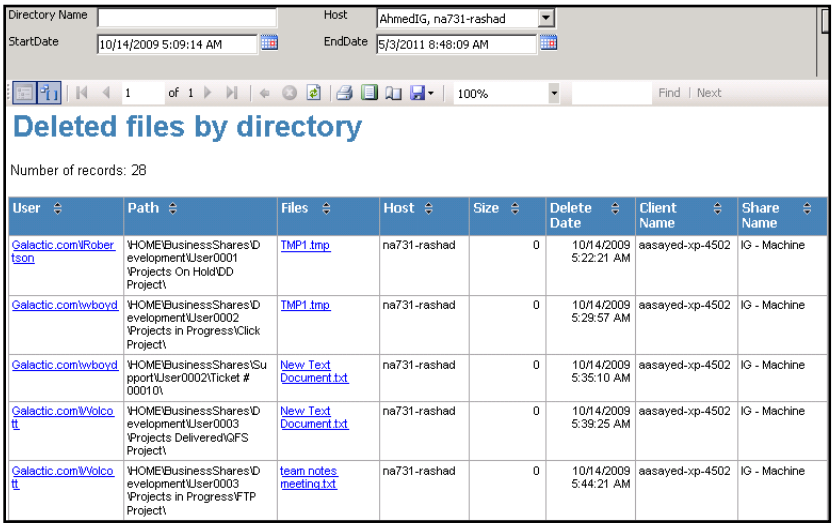
## Directory Deleted

From: 10/14/2009 5:09:14 AM To: 5/3/2011 5:37:43 AM

Number of records: 18

| Directory Name Deleted | User Name | Host | Delete Date | Policy Name | Client Name | Share Name |
|---|---|---|---|---|---|---|
| \HOME\BusinessShares\Marketing\User0006\Old Stuff\ | Galactic.com\Platt | na731-rashad | 10/14/2009 7:59:04 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Support\User0012\Old Tickets\ | Galactic.com\Normandy | na731-rashad | 10/14/2009 7:38:56 AM | MKT POL Support | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Support\User0012\Old Tickets\ | Galactic.com\Normandy | na731-rashad | 10/14/2009 7:38:56 AM | MKT POL Support | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Sales\User0011\Old Records\ | Galactic.com\Xantara | na731-rashad | 10/14/2009 7:33:30 AM | MKT POL Sales | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Sales\User0011\Old Records\ | Galactic.com\Xantara | na731-rashad | 10/14/2009 7:33:29 AM | MKT POL Sales | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Sales\User0009\Old Customers\ | Galactic.com\Merrill | na731-rashad | 10/14/2009 7:21:45 AM | MKT POL Sales | aasayed-xp-4502 | IG - Machine |
| \HOME\BusinessShares\Marketing\User0008\France Plans\ | Galactic.com\Clover | na731-rashad | 10/14/2009 7:04:47 AM | MKT POL Marketing | aasayed-xp-4502 | IG - Machine |

f. **Deleted Files by Directory:** This report allows you to review all the deleted files grouped by directory. The report's input is the directory name, and/or the host, and/or the date range. The report displays the user's name who has deleted the file(s), the path from which the file was deleted, the file name, the host name, the file size, the date on which the file was deleted, the client name used to perform the file delete operation, and the share name based on the specified criteria.



Directory Name | Host: AhmedIG, na731-rashad
StartDate: 10/14/2009 5:09:14 AM | EndDate: 5/3/2011 8:48:09 AM

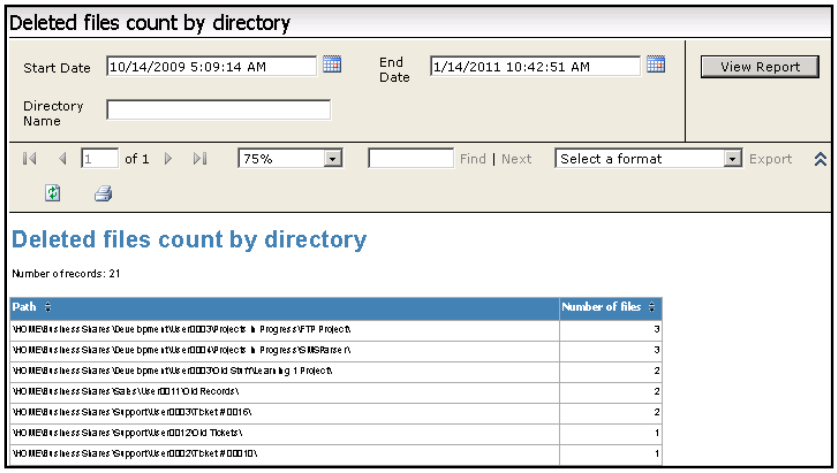
1 of 1 | 100% | Find | Next

## Deleted files by directory

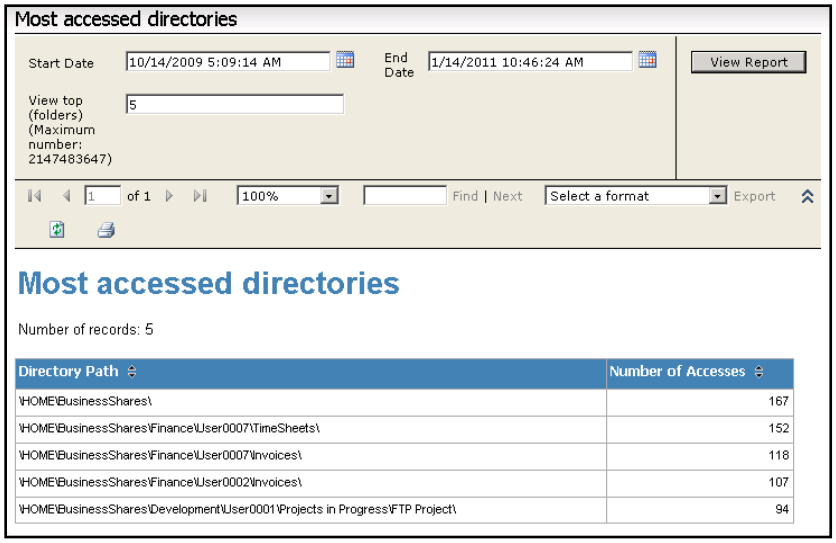
Number of records: 28

| User | Path | Files | Host | Size | Delete Date | Client Name | Share Name |
|---|---|---|---|---|---|---|---|
| Galactic.com\Robertson | \HOME\BusinessShares\Development\User0001\Projects On Hold\DD Project\ | TMP1.tmp | na731-rashad | 0 | 10/14/2009 5:22:21 AM | aasayed-xp-4502 | IG - Machine |
| Galactic.com\wboyd | \HOME\BusinessShares\Development\User0002\Projects in Progress\Click Project\ | TMP1.tmp | na731-rashad | 0 | 10/14/2009 5:29:57 AM | aasayed-xp-4502 | IG - Machine |
| Galactic.com\wboyd | \HOME\BusinessShares\Support\User0002\Ticket # 00010\ | New Text Document.txt | na731-rashad | 0 | 10/14/2009 5:35:10 AM | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Volcott | \HOME\BusinessShares\Development\User0003\Projects Delivered\QFS Project\ | New Text Document.txt | na731-rashad | 0 | 10/14/2009 5:39:25 AM | aasayed-xp-4502 | IG - Machine |
| Galactic.com\Volcott | \HOME\BusinessShares\Development\User0003\Projects in Progress\FTP Project\ | team notes meeting.txt | na731-rashad | 0 | 10/14/2009 5:44:21 AM | aasayed-xp-4502 | IG - Machine |

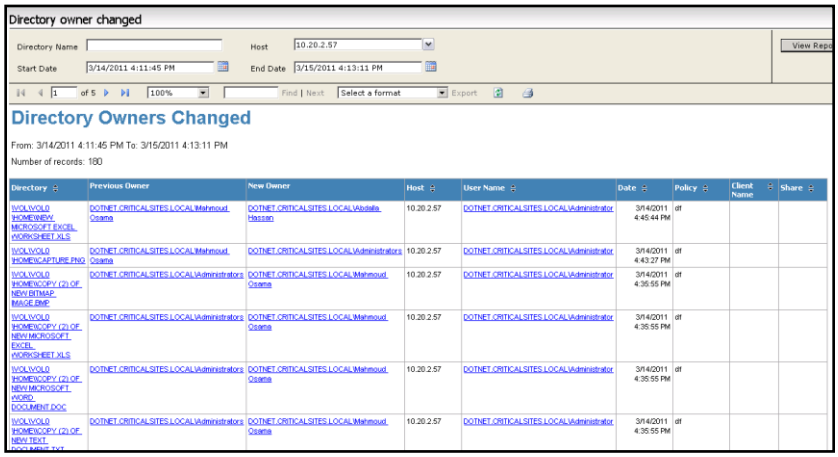
g. **Deleted Files Count by Directory:** This report allows you to review the number of deleted files with a directory. The report's input is the date range and/or the directory name. The report displays the folder path and the number of files deleted within the specified directory/directories within the specified date range.



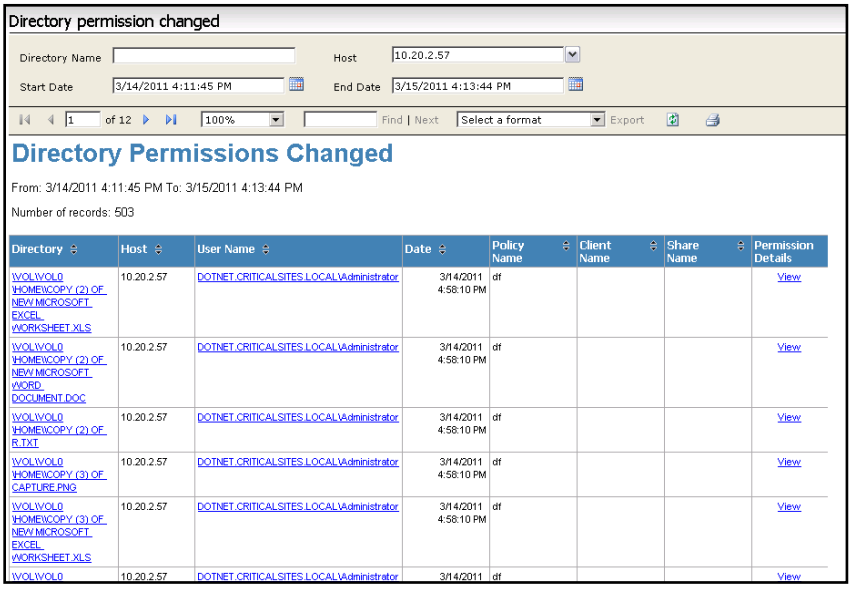

h. **Most Accessed Directories:** This report allows you to review the most-accessed directories. The report's input is the date range, and/or number of most-accessed directories to display. The report displays the directory path and the number of times each directory was accessed.



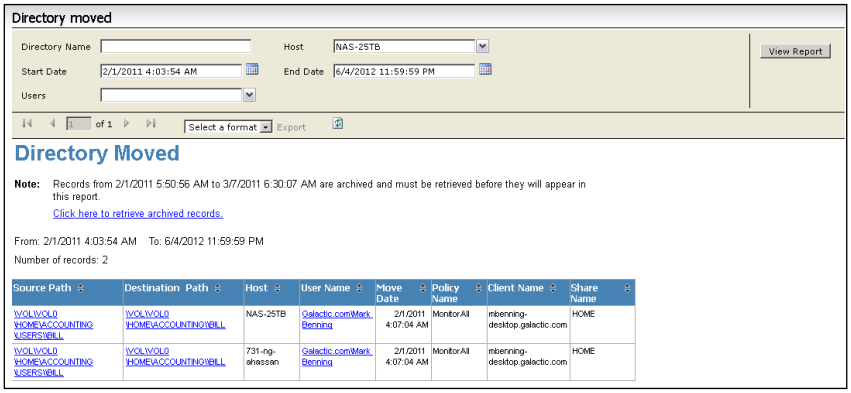
i. **Directory Owner Changed:** This report allows you to review all directories whose owners have changed. The report displays the directory name, the previous and new owners, the host IP address, the user name, the date, the policy name, the client name, and the share name based on the specified criteria.




j. **Directory Permission Changed:** This report allows you to review all directories whose permissions have changed. The report displays the directory name, the host IP address, the user name, the date, the policy name, the client name, the share name, and the permission details based on the specified criteria.



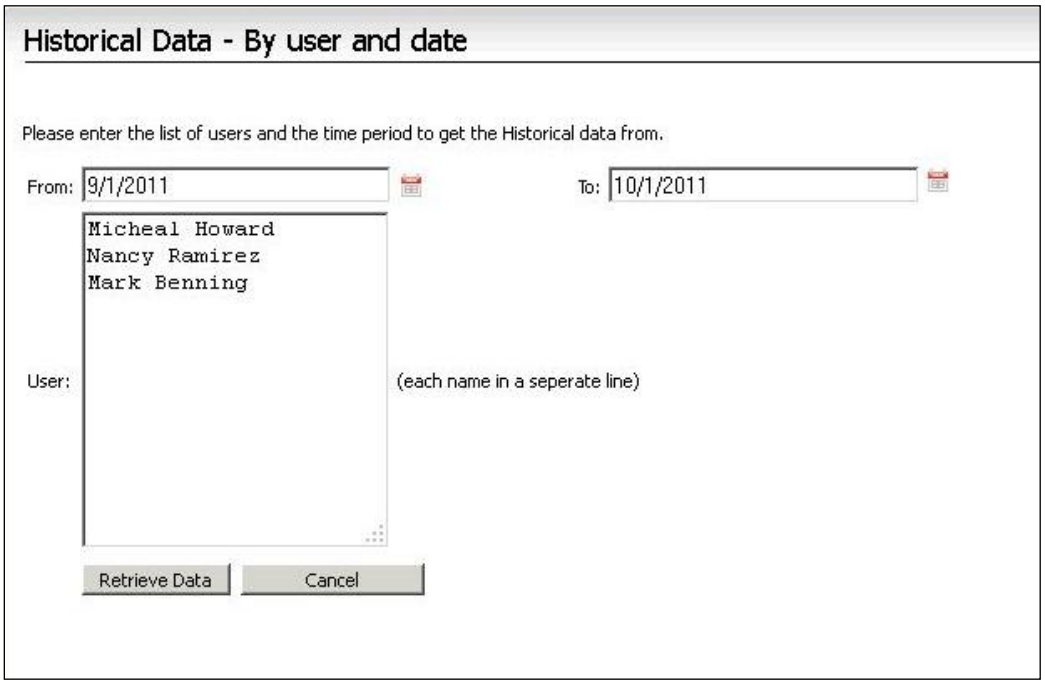
k. **Directory Moved:** This report allows you to review all directories that have moved. The report displays the source path, the destination path, the host name, the user name, the date the directory was moved, the policy name, the client name, and the share name.



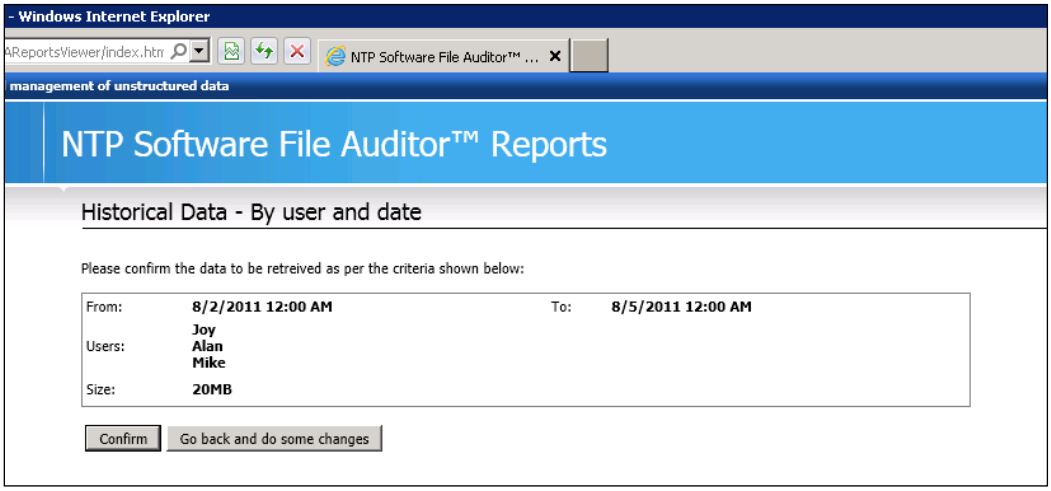
# Retrieving Records Archived via ODDM

There are two methods to retrieve the archived records; the first method is as follows:

1. Run DefendX Software Control-Audit Administrator by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit Reports**.
2. Click **Prepare Historical Data**.
3. Specify the time period and the user(s) you wish to retrieve their activities. Click the **Retrieve Data** button.



4. Control-Audit displays the specified date range, the specified users and calculates the overall size of the data retrieved for the DX server. Review the details and click **Confirm** to proceed.



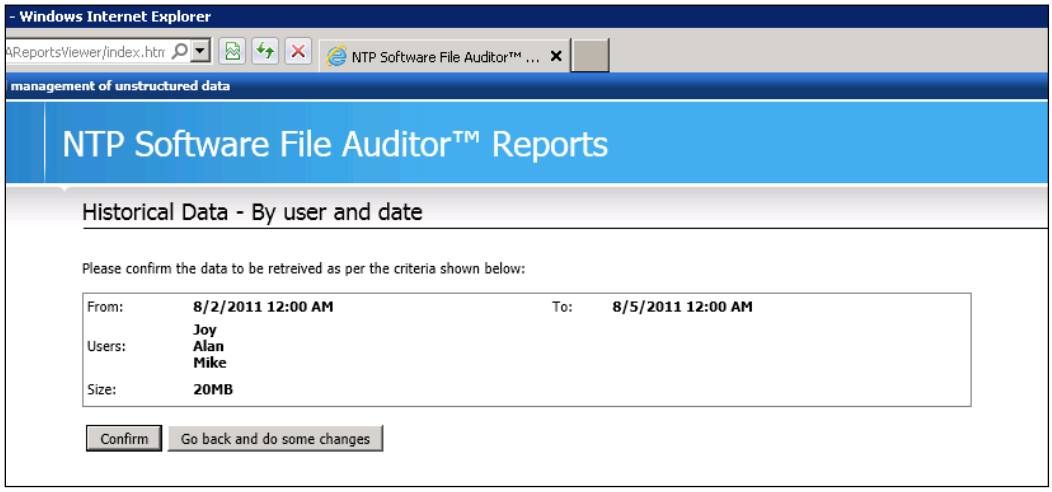

**NOTE:** Please make sure your primary SQL Server has enough space for the retrieved data before you press the **Confirm** button.

5. Control-Audit will retrieve the old data and insert it in the same database that Control-Audit uses.
6. You can now select any report, and the report results will contain the historical data.

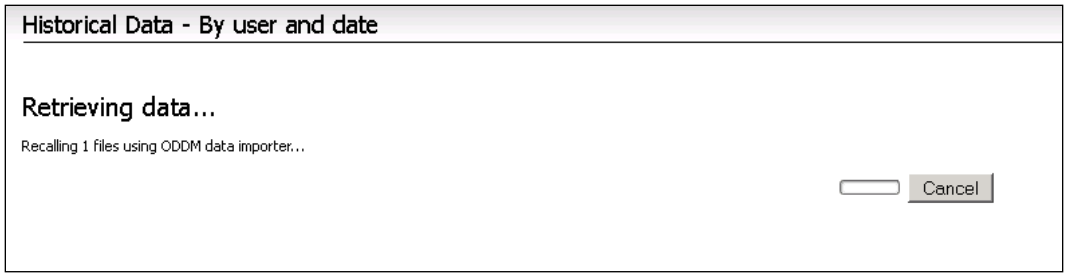
The second method is as follows:

1. Run DefendX Software Control-Audit Administrator by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit Reports**.
2. Select any report you wish to view, specify the report input, and click **View Report**.
3. Control-Audit Reports will look up the database to see if there are any archived files based on the criteria specified.
4. If archived data exists that has not previously been retrieved, Control-Audit will display the following note:

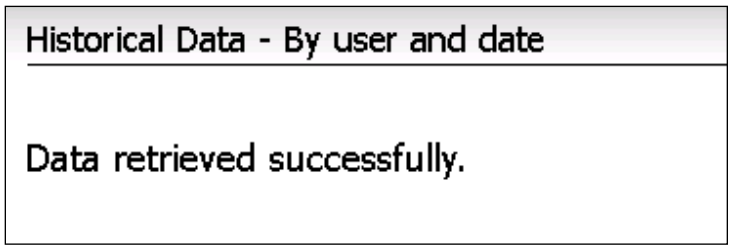
   Note: Records from "oldest Archived record" to "newest archived record" are archived and must be retrieved before they will appear in this report. Click Here to retrieve archived records.
5. Click the **Click Here to retrieve archived records** option and Control-Audit will display the specified date range and the specified users and will calculate the overall size of the data retrieved for the DX server. Review the details and click **Confirm** to proceed.




6. A progress dialog will show the progress of the data retrieval.



7. Once the data has been retrieved, please close the dialog box and rerun the report.




8. The report will show the date with the archived records included.

# Control-Audit Business Overwatch Tasks (BOTs)

Control-Audit Business Overwatch Tasks (BOTs) are configured to run regularly against the Control-Audit database to detect users' unexpected behavior.

For example, BOTs can warn administrators when a user downloads hundreds of files or gain access to secure or sensitive information; they can also warn of hacking attacks when a user deletes important files, etc.

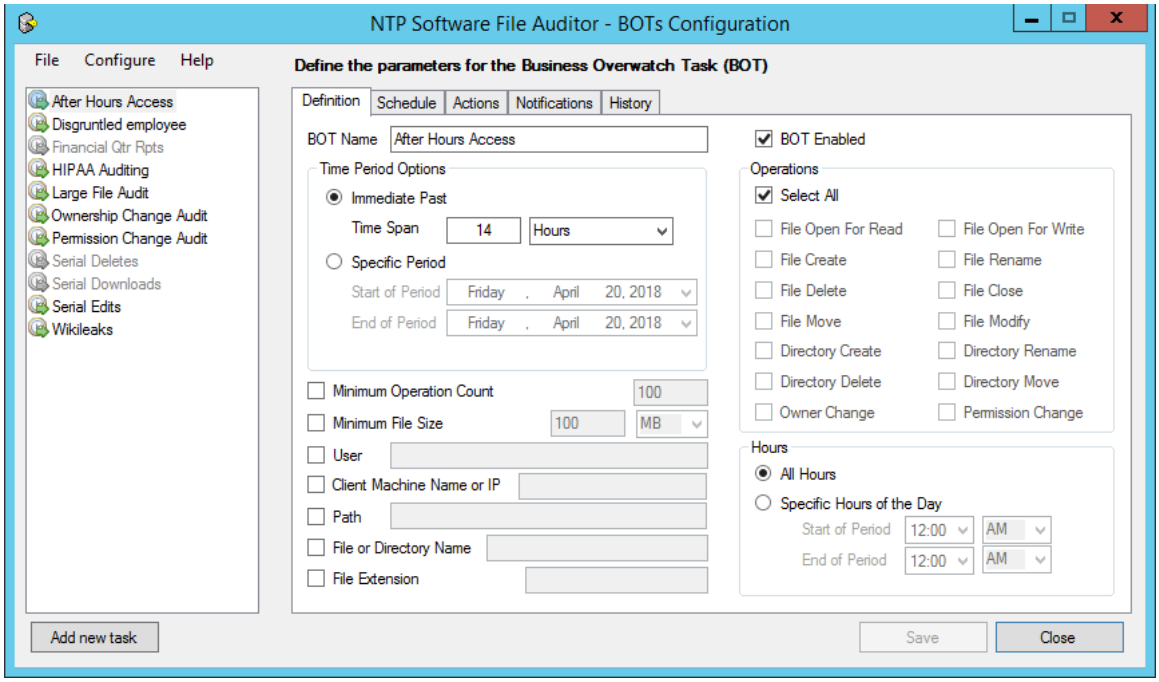
When a BOT runs, it searches the database for a specified user activity and notifies administrators accordingly via email.

**NOTE:** For Control-Audit BOTs to function properly, a Control-Audit policy must exist that monitors your NAS Device and is configured to store users' activity into a database.

# Defining or Editing a BOT

A BOT has the following main parameters.

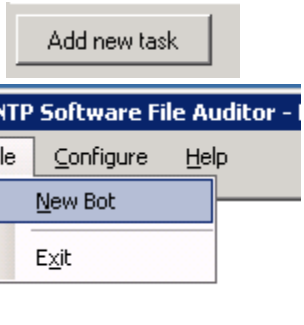
1. Definition
2. Schedule
3. Actions
4. Notifications

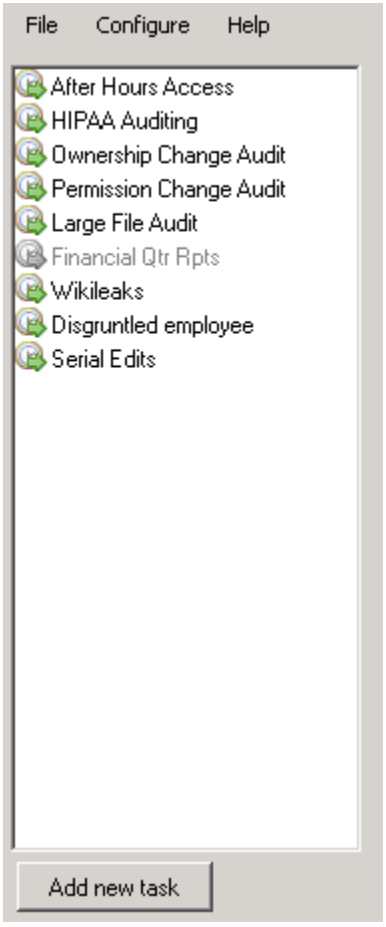


To define a new BOT or edit an existing one, please perform the following steps:

1. On the **Start** menu, navigate to **Programs > DefendX Software Control-Audit > DefendX Software Control-Audit BOT configuration**.

2. Click the **Add New Task** button or **File > New BOT** or select an existing BOT to edit from the list on the left panel.



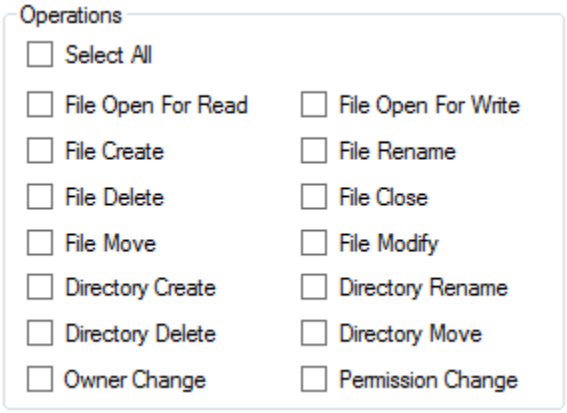

3. On the **Definition** tab, specify the BOT name.
4. Use the **Time Period Options** to set the scanning period.

**NOTES:**

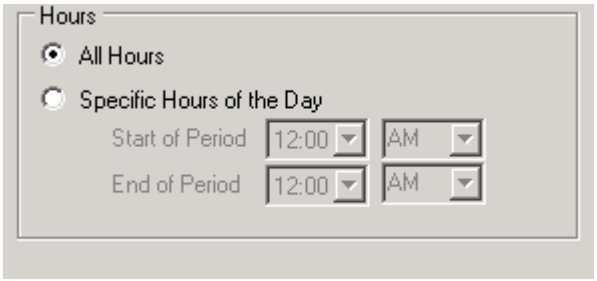
a. Set the Time Period to 'Immediate Past' if you wish to notify the user of all the matching operations that occurred in a past period.

b. Set the Time Period to 'Specific Period' if you wish to notify the user of all the matching operations that occurred within a specific time period, ignoring any operations that occurred at any other time.

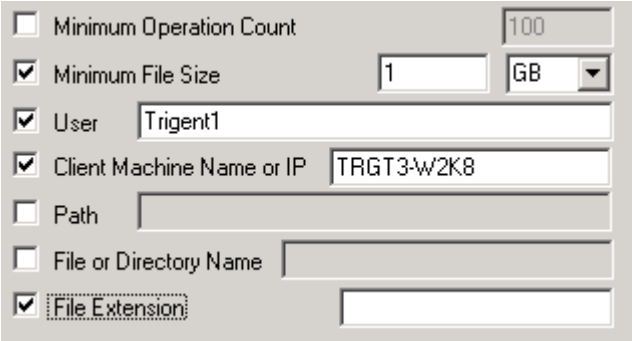
5. Use the **Operations** section to check the operations you want the BOT to monitor. You can either check all operations or select individual operations to monitor.



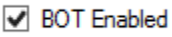

6. Use the **Hours** section to specify the scanning exact time.



7. You can specify additional criteria for other operations details such as file extensions, the user who performed the operation, etc.




8. You can enable/disable the BOT by checking/un-checking the **Enabled** checkbox. A disabled BOT will not send notification emails or generate history.



**NOTES:**

a. The 'Minimum Operation Count' defines the minimum number of operations that should match for the BOT to notify the user.

b. The 'Minimum File Size' defines the minimum file size that counts as an operation for the BOT.

c. The 'User' defines the full name of the user a BOT monitors.

   Leave this field blank if you wish to search for all operations done by all users. This field does not accept account names and does not accept group names, only full names are accepted. Wildcards (* and ?) can be used (e.g., you can enter "Mark *", which will match all users whose first name is Mark).

d. The 'Client System name or IP' defines the computer name/IP a BOT monitors.

   Leave this field blank to monitor access from all computers.This field accepts only one computer name or one IP. Wildcards are used.
   Examples :

- To match a range of IPs, the IP can be entered as "10.20.2.*", this will match any IP in the range 10.20.2.0 to 10.20.2.255.
- To match only the range of IPs from 10.20.2.1 to 10.20.2.9, the filter "10.20.2.?" is used.

e. The 'Path' defines the path the BOT monitors. The BOT will only monitor operations on files or directories that reside on the specified path. Only one path supported for each BOT. Wildcards are used (e.g. "\vol\vol0\Users*", this will match with any subdirectory of Users).

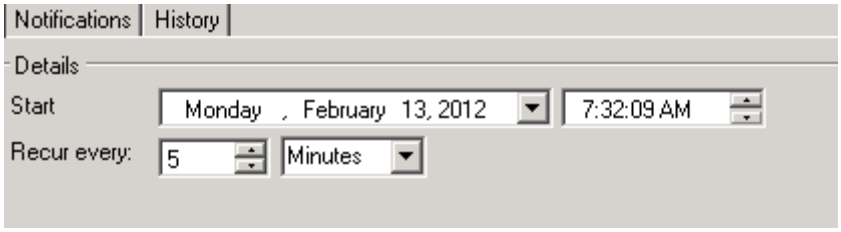
f. The 'File or Directory Name' defines a certain file or directory name to match. Only one file or directory name is allowed. Wildcards are used (e.g., "*Sales*", this will match all folders/files that contains the word Sales within it.)

g. The 'Extension' defines the extension the BOT monitors. The BOT will monitor operations on files with the specified extension. Only one extension is allowed. Wildcards are used (e.g., "mp?" will match with file extensions as mp3 or mp4).

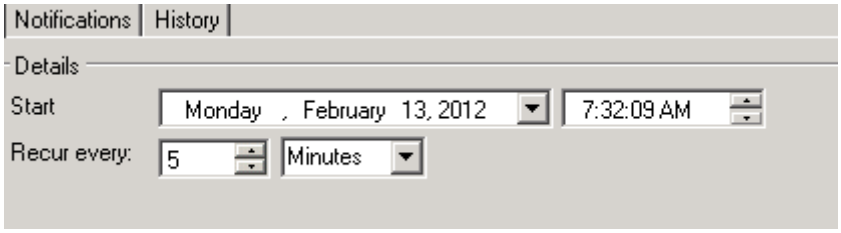
h. Wildcards supported are ('*': Zero or more characters, '?': Exactly one character).

9. On the **Schedule** tab, select whether the BOT is to run only once or recurrently.

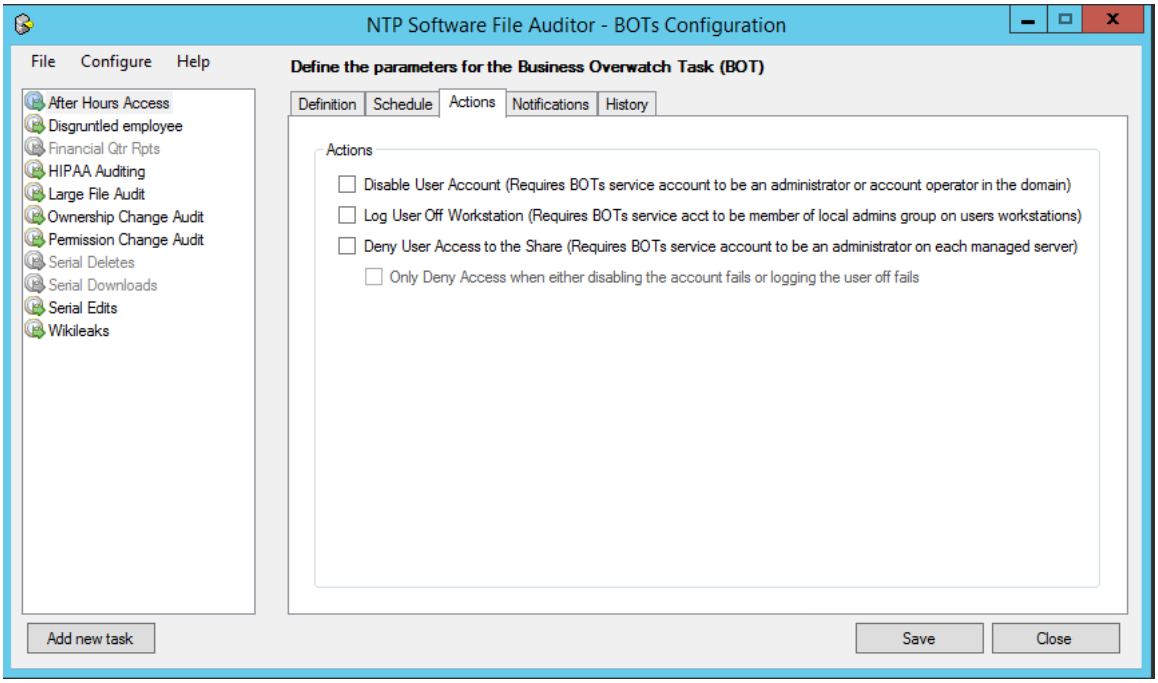

10. Select the BOT start time.



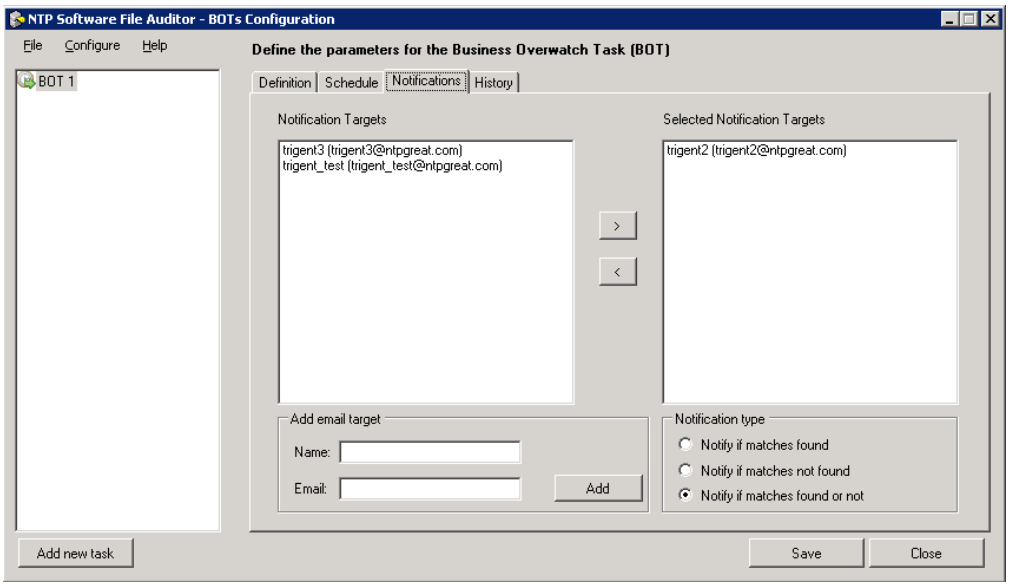

11. If you selected the BOT to be recurring, select how often it should run. When the BOT runs, it will notify the administrator about any behavior that matches the BOT that occurred during the specified time period. The minimum reoccurring time is 5 minutes.




12. From the **Actions** tab you can determine which action(s) will be taken if a BOT violation is detected. You may select multiple actions if desired.

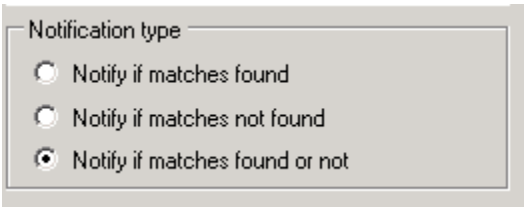


13. From the **Notifications** tab, specify the email accounts to receive notifications when the BOT runs. The **Selected Notifications Targets** lists the recipients of notifications. The **Potential Notification Targets** lists the available email accounts from which you can select. If you move an email from the **Potential Notification Targets** list to the **Selected Notification Targets** list, the BOT will notify these users.




14. You may add email accounts from the **Add Email Target** panel by providing the target name and the email address. Click the **Add** button.

15. Specify when notifications should be sent.




**NOTES:**

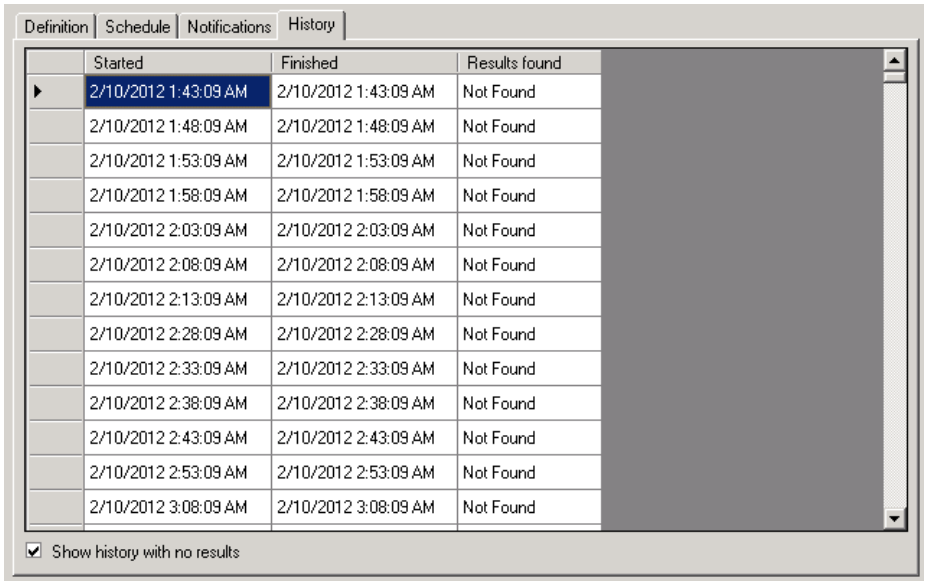
a. The 'Notify if matches found' sends an email notification only if the criteria defined in BOT definition is met.

b. The 'Notify if matches not found' sends an email notification only if the criteria defined in BOT Definition is not met.

c. The 'Notify if matches found or not' sends an email notification every time the BOT executes.

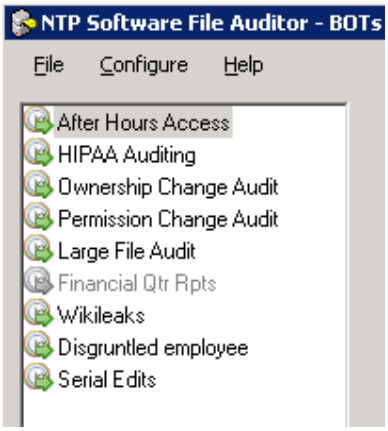
16. Save the BOT after specifying the BOT criteria. You must save the changes before selecting another BOT from the existing BOTs list otherwise you will lose your changes. You may choose to close at any time.

17. Use the **History** tab to check the scans done along with the matches that the BOT found with the Control-Audit database, if any.



# Default BOTs

Control-Audit BOTs ship with a set of default BOTs; they provide examples of how Control-Audit BOTs are used. The user can also edit the default BOTs to satisfy his needs.



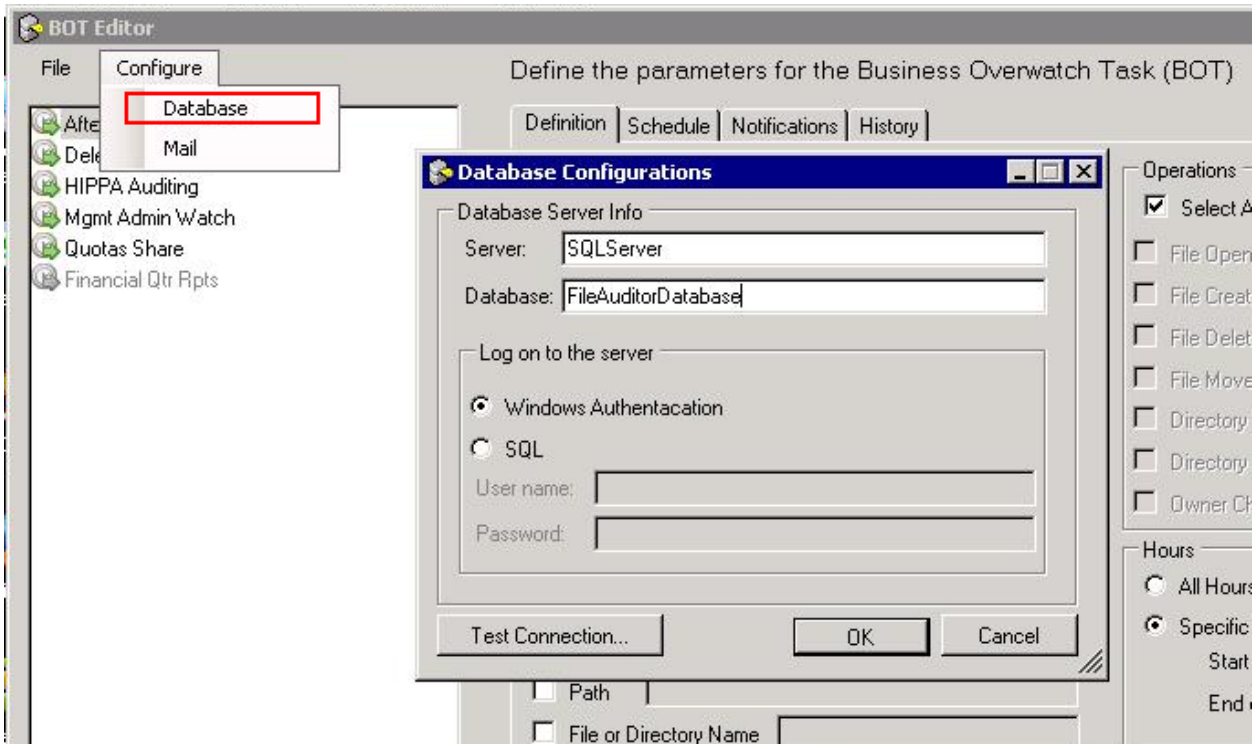

1. After Hours Access: This BOT is used to discover any operations done after hours. It runs every day (by default, at 8 am) and analyzes the data of the previous 14 hours to see if someone performed any operations. For best results, this BOT should be set to run every day at the start of the working day.
2. HIPAA Auditing: This BOT discovers any suspicious behavior done to the folder that contains health information. This ensures compliance with the Health Insurance Portability and Accountability Act (HIPAA). This BOT runs every 30 minutes and notifies you if someone read/edited these private documents in the past hour.
3. Ownership Change Audit: This BOT notifies you when a user takes ownership of a file or changes the owner of a file. Make sure to specify the path to monitor.
4. Permission Change Audit: This BOT notifies you when a user changes the security of a file or a directory.
5. Large File Audit: This BOT notifies you when a user creates any file larger than 500MB in a specific directory.
6. Financial Qtr Rpts: This BOT is used for financial quarterly reports to discover all modifications done to the financial reports directory by any user in the last quarter.
7. Wikileaks: This BOT discovers problems similar to the Wikileaks problem. It will discover whether any user has performed a large number of file copies/downloads in the last 30 minutes.
8. Disgruntled Employee: This BOT discovers whether any user has deleted a large number of files in the last hour.
9. Serial Edits: This BOT discovers whether any user has edited many files in the last hour.

# Control-Audit Database and Email Settings

Control-Audit Business Overwatch Tasks scan the Control-Audit database and send email notifications once they finds the pattern you defined for a task. This section shows how to point Control-Audit BOTs to a certain Control-Audit database and how to add your email server configurations.

## Database Settings

Once the BOT editor starts, it will load all the BOTs defined in the database that you entered during installing Control-Audit. You can also point the BOT Editor to a different database.

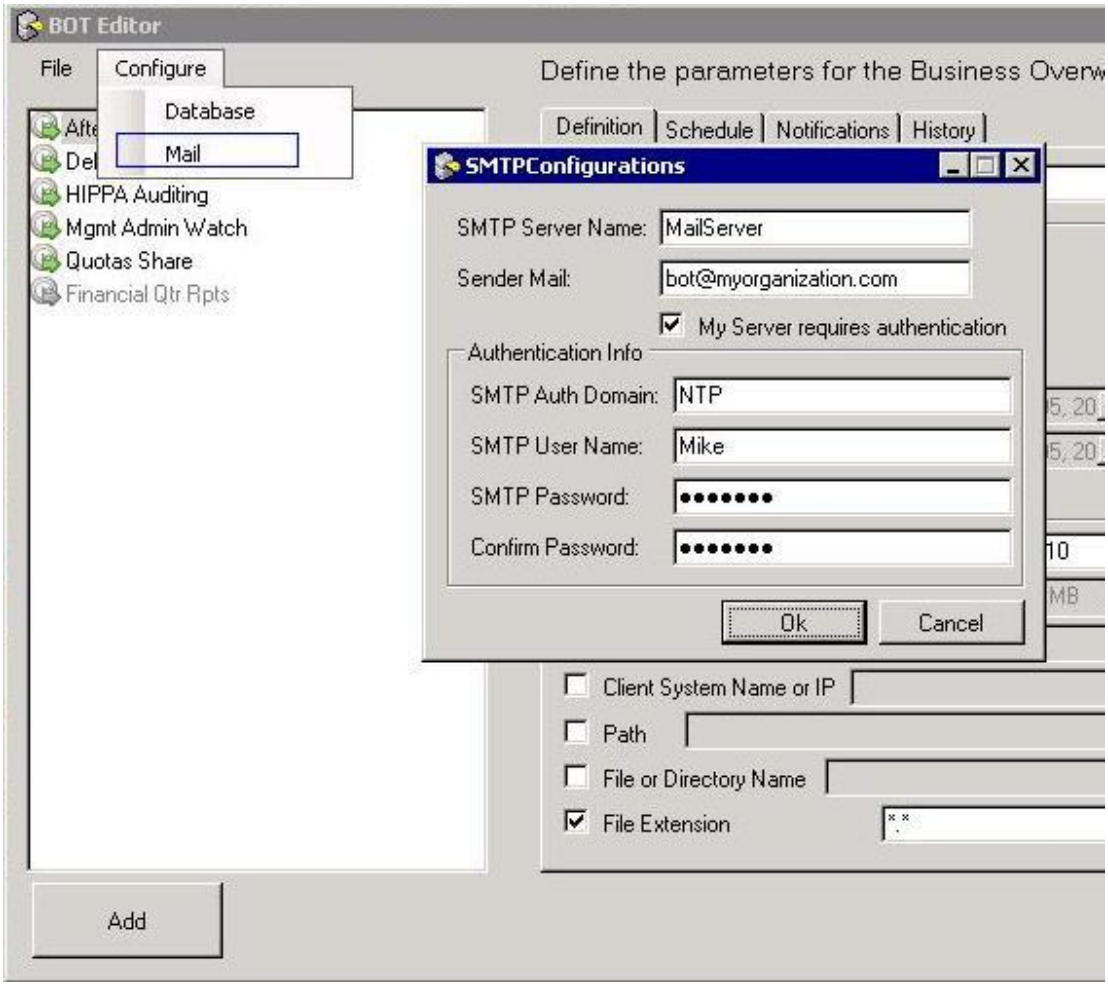


## Email Configuration

You can configure the email server that Control-Audit BOTs should use to send notification emails. BOTs support the following SMTP authentication methods:

1. Anonymous.
2. Integrated Windows Authentication (NTLM).

Select **My Server requires authentication** to enable Integrated Windows authentication as shown below. Anonymous authentication is the default option.



# Control-Audit BOTs Demo Mode

Initially, your Control-Audit database is empty and does not contain any suspicious user operations about which Control-Audit BOTs should notify you. For Demo purposes, you can enable Demo mode, which will make BOT editor use a demo database installed with Control-Audit, this database contains pre-configured BOTs and actions that will send demo emails to your inbox.

In order to use the Demo mode, please perform the following:

1. Enable Demo Mode; go to Windows Registry Editor and go to the key (HKEY_LOCAL_MACHINE\SOFTWARE\DefendXSoftware\Control-Audit\Bot) and change the value **DemoModeOn** to **1.**
2. Restart the service and the BOT interface.
3. You will notice some BOTs defined in the BOT editor:
    - After Hours Access
    - HIPAA Auditing
    - Mgmt Admin Watch
    - Quota Share
    - Financial Qtr Rpts
    - Wikileaks
    - Disgruntled employee
    - Serial Edits
4. Open the BOT Editor and configure your email settings. Please refer to the Email Configuration section.
5. Add your email to the Selected Targets list in the Notification settings for each BOT (at least one). Please refer to How to Define a BOT.
6. Check your Inbox; you should find an email from the BOT service, listing some demo operations.

# DefendX Software Smart Policy Manager

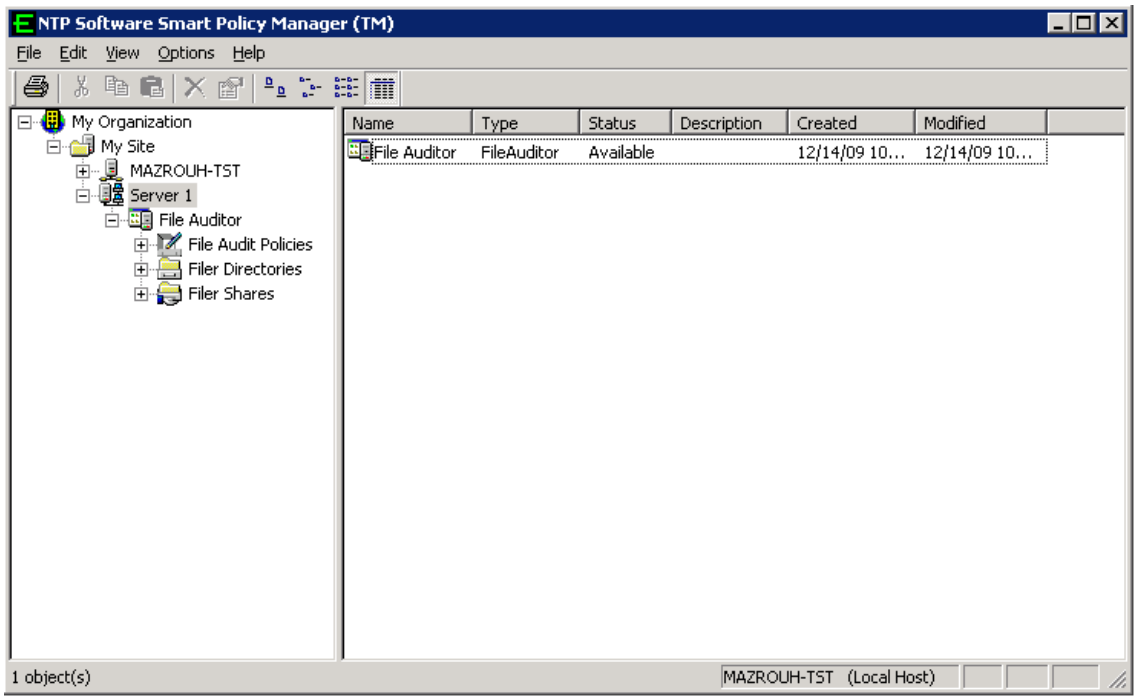
## DefendX Software Smart Policy Manager Overview

The first step in using DefendX Software Control-Audit is to lay out your strategy for managing users' file and directory operations. Before doing this, though, let us look at our underlying policy-based rules engine: DefendX Software Smart Policy Manager™.

DefendX Software Smart Policy Manager allows you to monitor your users' file and directory operations in a way that is a unique fit to your organization. If you manage by geography or administrative unit, you can use that plan. If you manage by class of machine, that approach works just as well. Often, companies use a mixed mode—perhaps geography, a department, and a machine type. DefendX Software Smart Policy Manager has the flexibility you need to make using DefendX Software Control-Audit simple.

Once you have laid out your management structure, DefendX Software Smart Policy Manager provides policy replication throughout your enterprise. It allows machines to access the policies in their containers and inherit policies from all levels above that point in your hierarchy. You no longer need to configure and manage the machines on your network one by one.

As you start to configure the software you have installed, begin with the top-level container under the root organization (in the following example, *My Site*). This is the Global Network configuration, whose container is created during installation.



## Managing the DefendX Software Control-Audit Service through an DefendX Software Control-Audit Admin Client Running on a Different Machine

This section provides step-by-step instructions for installing the DefendX Software Control-Audit Admin Client, enabling you to administer the DefendX Software Control-Audit service running on a different machine. This kind of DefendX Software Control-Audit Admin Client installation enables DefendX Software Control-Audit administrators to administer DefendX Software Control-Audit easily when it is installed on all the servers over the entire network. This can be done through a local user interface that is easily installed on the administrator's local machine.

For an DefendX Software Control-Audit administrator to be able to use the DefendX Software Control-Audit Admin Client, the DefendX Software Smart Policy Manager Admin and DefendX Software Control-Audit Admin components should be installed on the administrator's local machine per the following instructions.

**IMPORTANT NOTES**

There is a slight difference in the installation of DefendX Software Smart Policy Manager and DefendX Software Control-Audit on an DefendX Software Control-Audit Server versus the installation on an administrator's local machine.

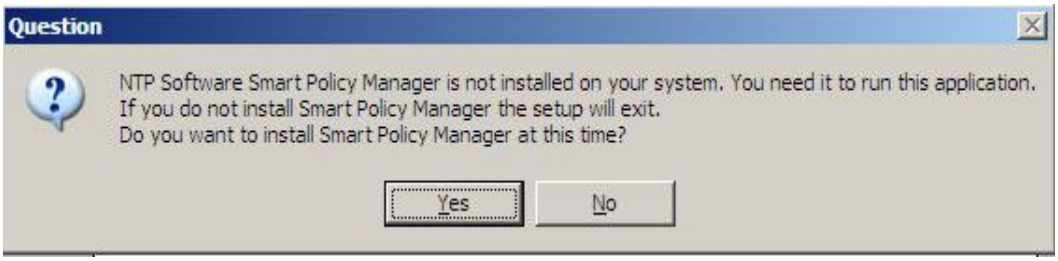
DefendX Software Control-Audit Admin Client User Interface is using RPC to communicate to the DefendX Software Smart Policy Manager service. Therefore, DefendX Software Control-Audit Administrator needs to have permissions to run and execute RPC on the managed machine. A standard user does not have RPC Permission by default. Thus, if the user performing the administration is not an administrator in the domain, the user needs to be added to the Distributed COM Users group on the machine to be managed.

## Installing the DefendX Software Smart Policy Manager Admin Component

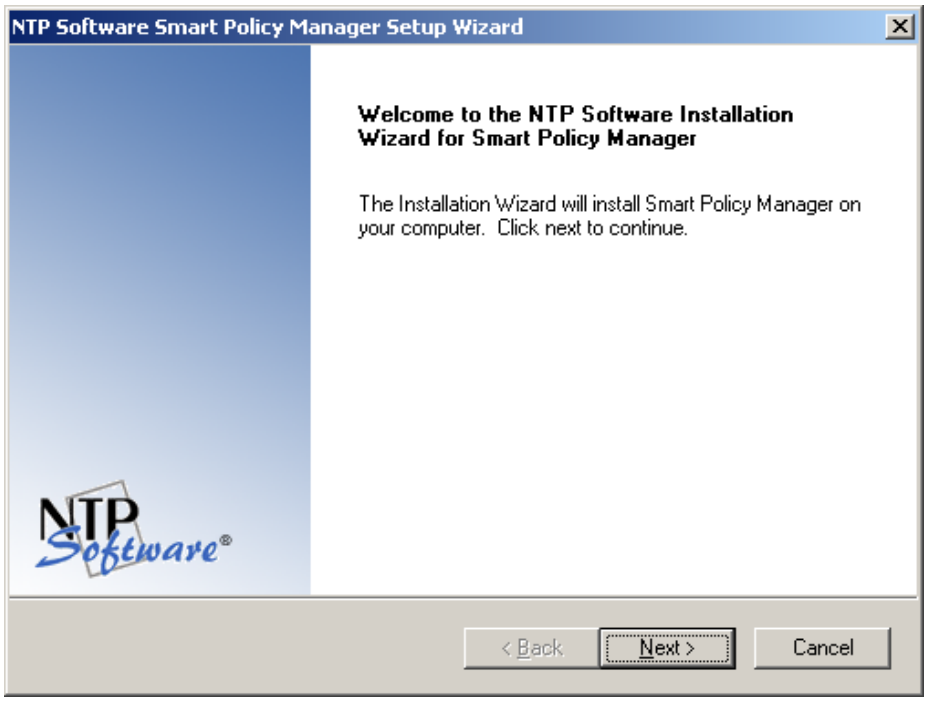
1. Log on to your local computer using an account with administrator privileges.

2. On the DefendX Software Product Installation page, click your product installation link under the **Product Components** section.

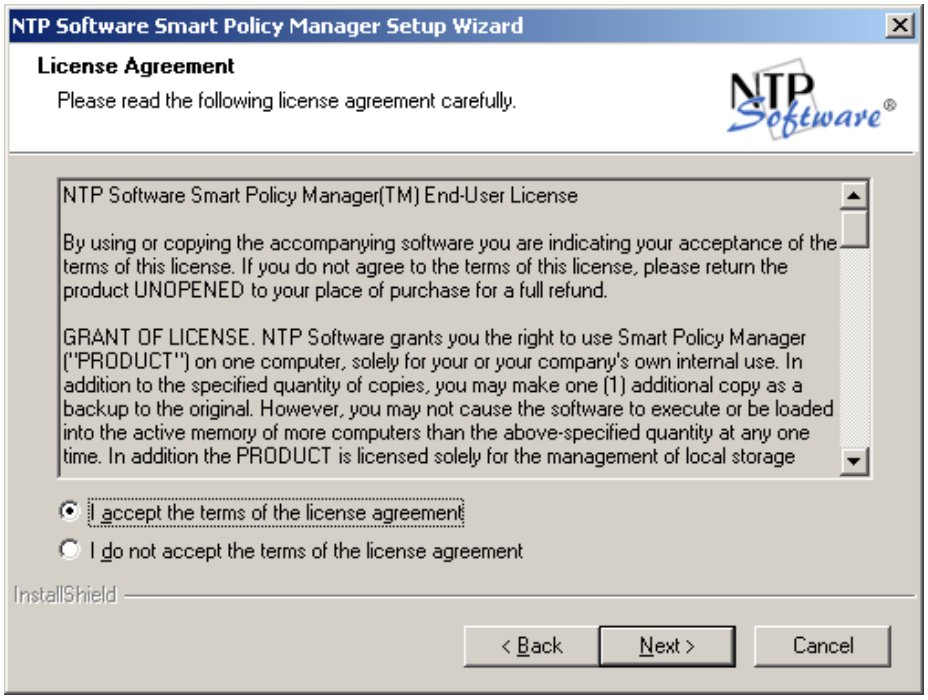
3. When prompted to install DefendX Software Smart Policy Manager, click **Yes** to launch the Installation Wizard.



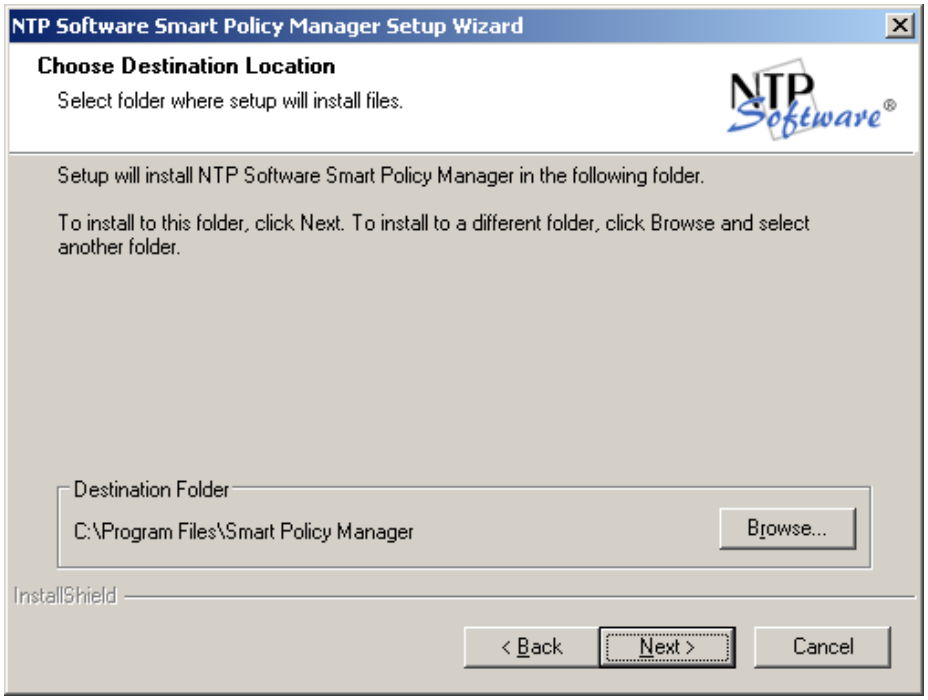

4. In the DefendX Software Smart Policy Manager installation welcome dialog box, click **Next**.



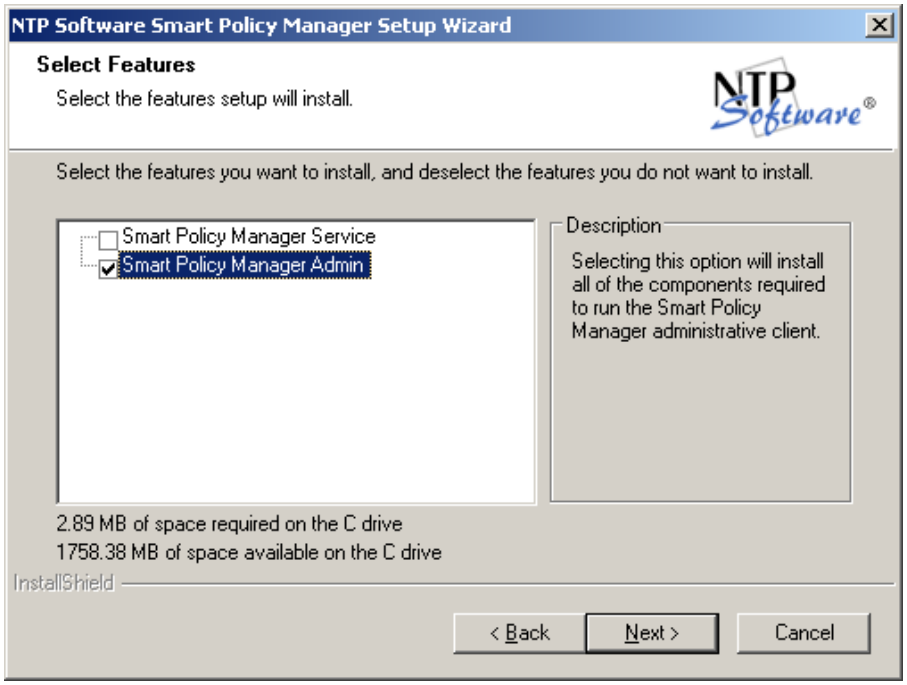
5. Select **I accept the terms of the license agreement** in the License Agreement dialog box and then click **Next**.



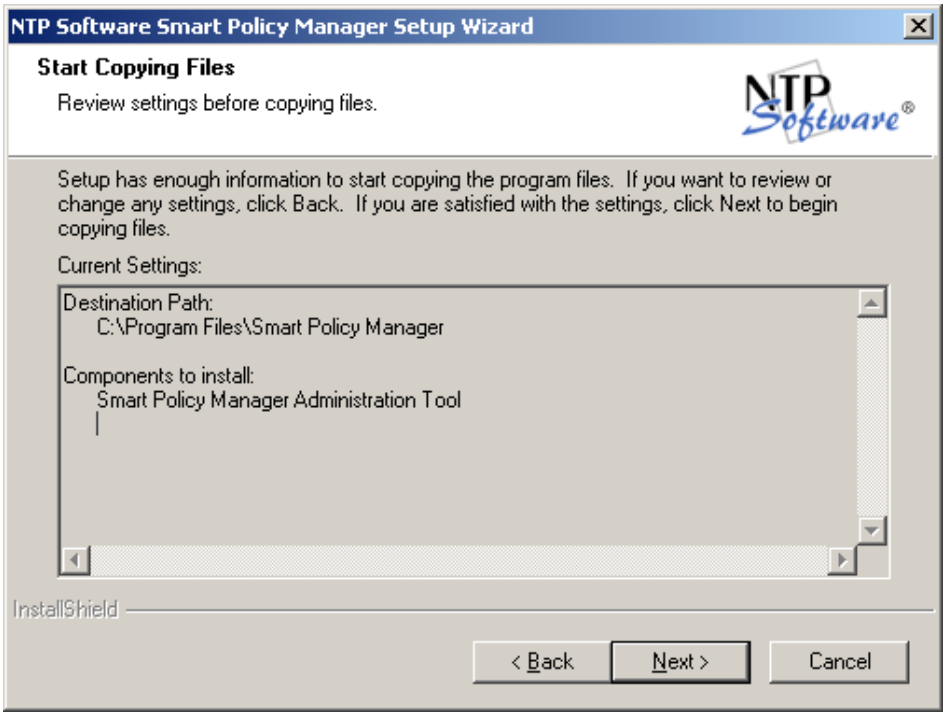

6. In the **Choose Destination Location** dialog box, browse to the needed location and then click **Next**.



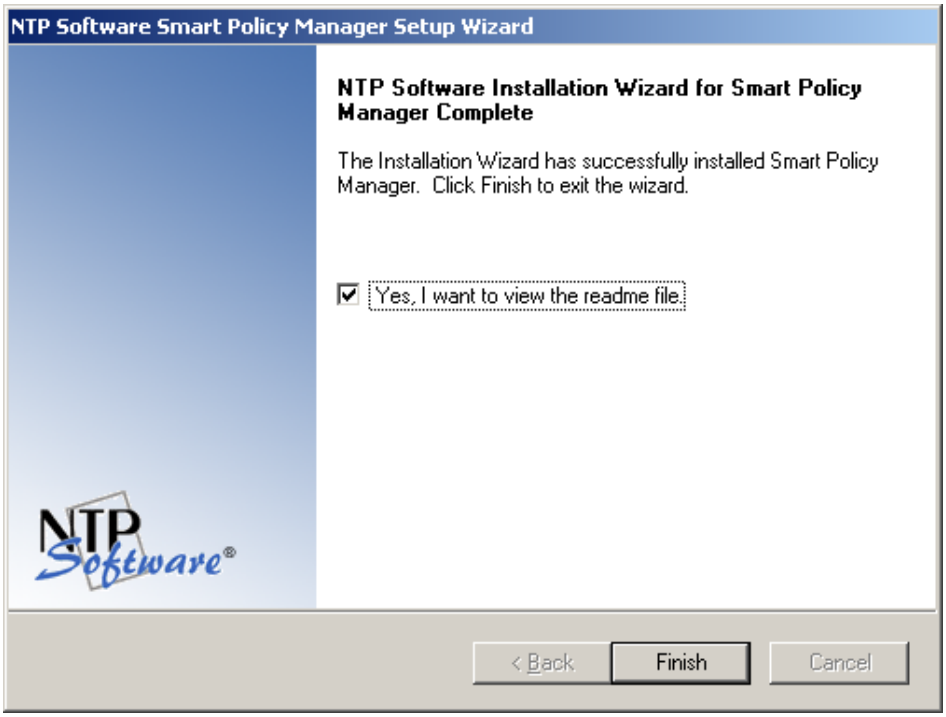
7. Select only the **Smart Policy Manager Admin** component in the **Select Features** dialog box. Click **Next**.




8. The **Start Copying Files** dialog box prompts you to begin copying files.

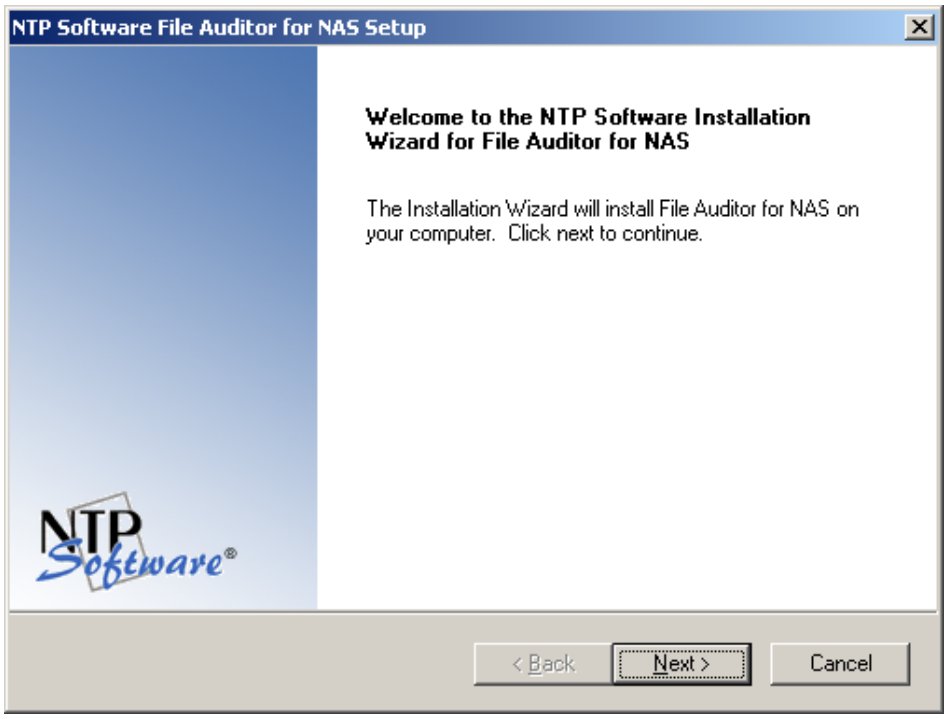


9. When the file installation is complete, a dialog box offers you the opportunity to view the readme file, which may contain documentation updates and other items. If you *do not* want to view the readme file at this time, clear the option **Yes, I want to view the readme file**. Click **Finish**.

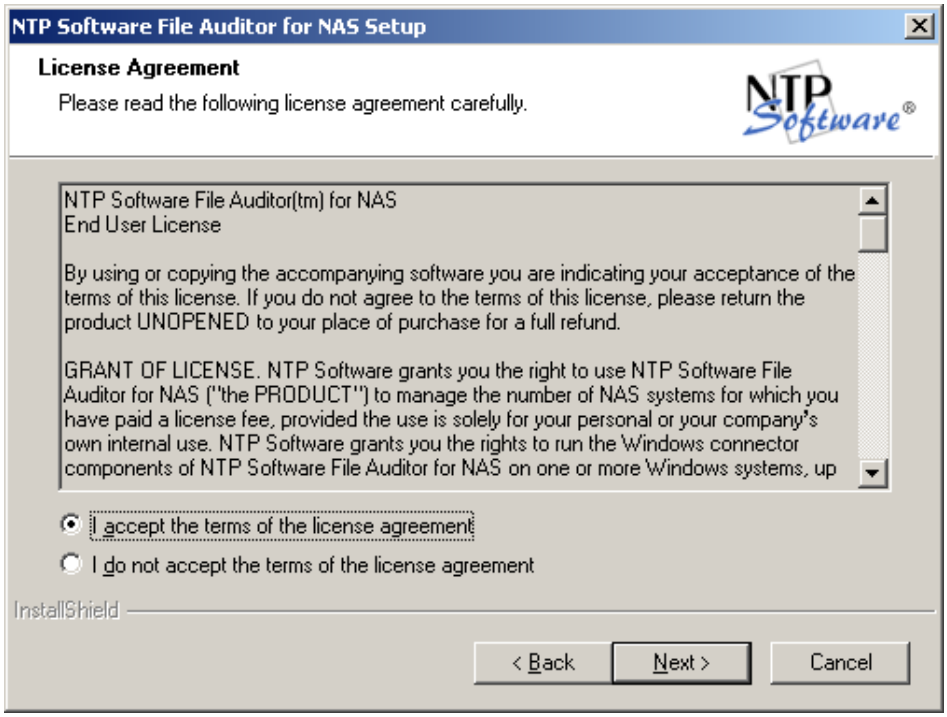


## Installing the DefendX Software Control-Audit Admin Component

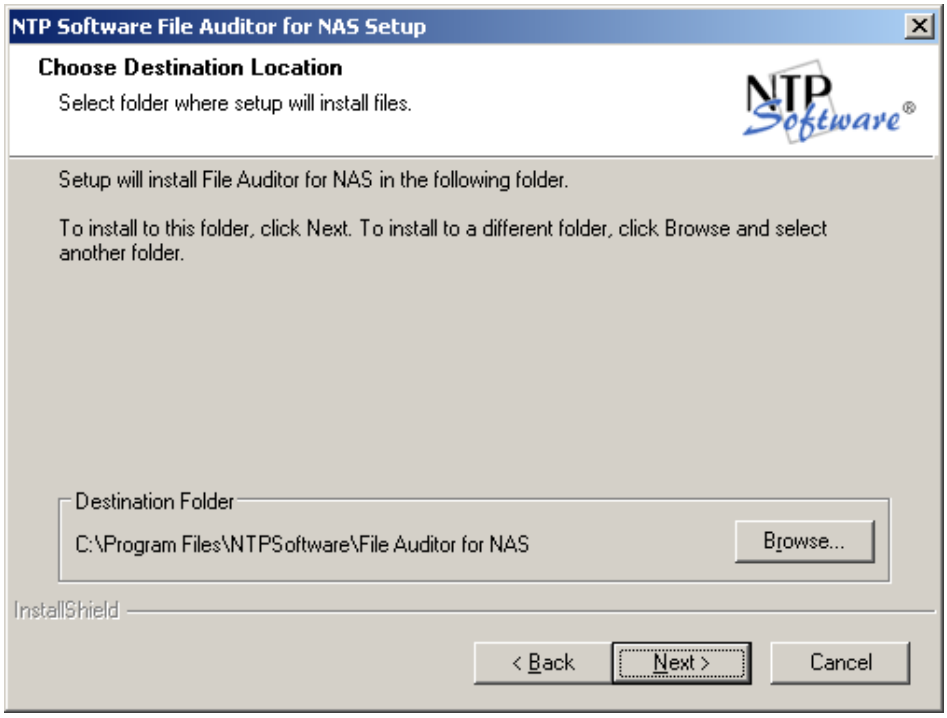
1. The DefendX Software Control-Audit welcome dialog box pops up automatically. Click **Next** to continue.



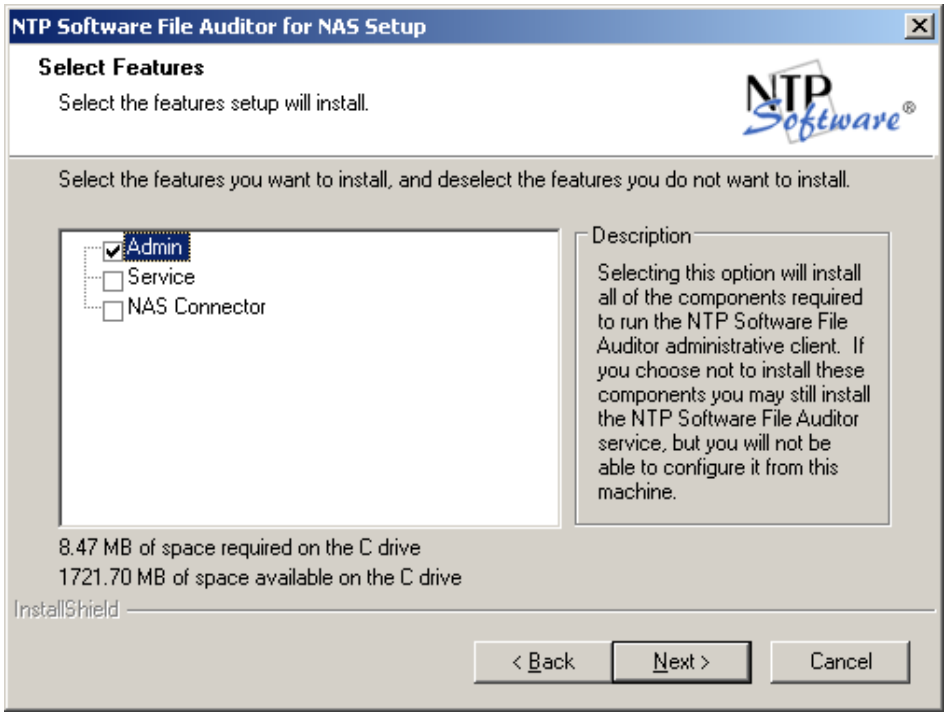
2. In the **License Agreement** dialog box, select **I accept the terms of the license agreement** and then click **Next**.



3. In the **Choose Destination Location** dialog box, browse to the desired destination, or click **Next** if the default destination location is appropriate.

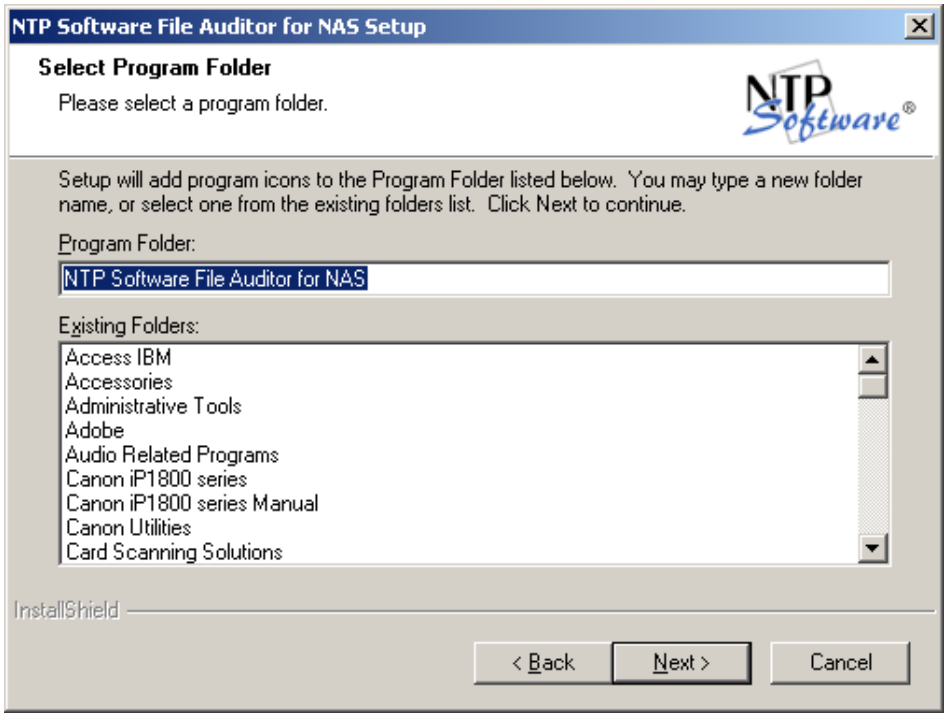


4. In the **Select Features** dialog box, make sure that only the **Admin** component is selected and then click **Next**.

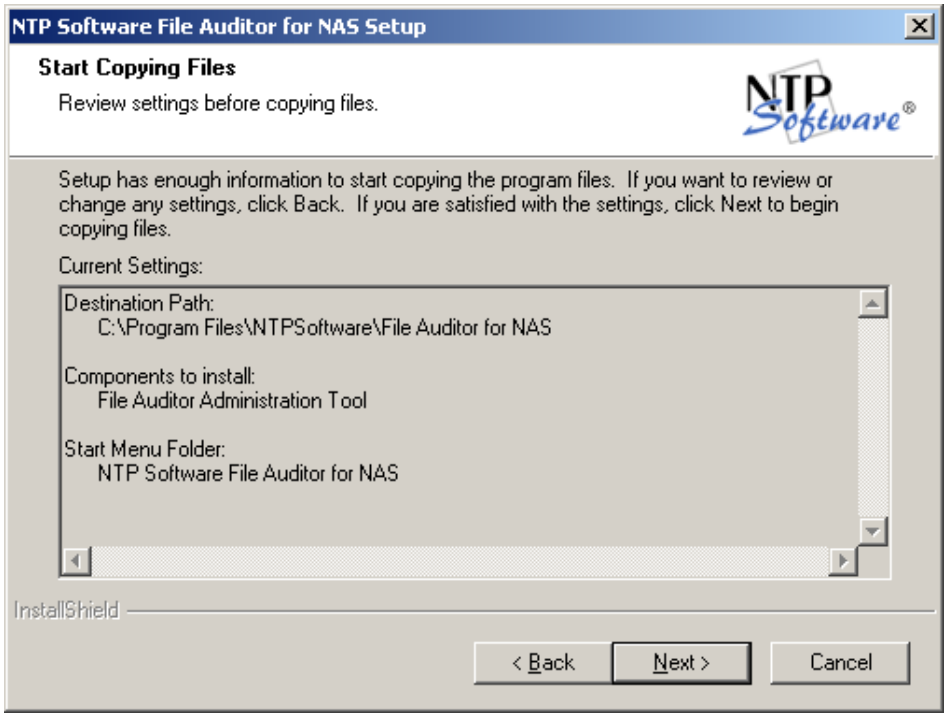



**IMPORTANT**: Because we only need the Admin User Interface to manage and configure the policies, we checked the Admin Client only. We are not seeking a full DefendX Software Control-Audit installation.

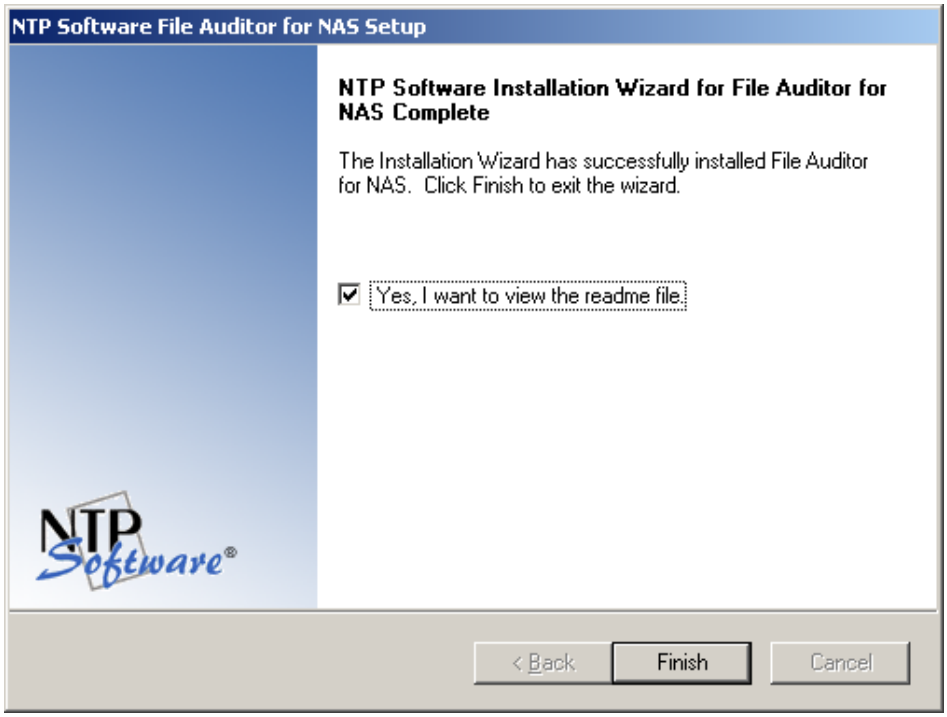
5. Specify the program folder (using the default program folder is recommended) and click **Next**. The setup program adds program icons to the program folder.



6. Click **Next** when the **Start Copying Files** dialog box appears (assuming that the destination paths are correct). DefendX Software Control-Audit setup begins transferring files to the specified locations.

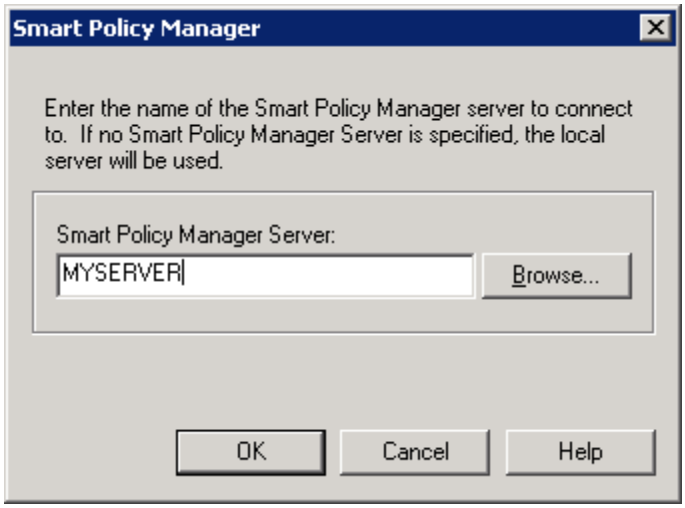


7. When the file installation is complete, a dialog box offers you the opportunity to view the readme file. If you *do not* want to view the readme file at this time, clear the option **Yes, I want to view the readme file**. Click **Finish**. With this step, DefendX Software Control-Audit installation is completed.



## Administering DefendX Software Control-Audit through an DefendX Software Control-Audit Admin Client Running on a Different Machine.

1. Click **Start > Programs > DefendX Software Control-Audit > DefendX Software Control-Audit Admin**.
2. In the **Smart Policy Manager** dialog box, specify the Smart Policy Manager Server to which you want to connect.




**NOTE:** The Smart Policy Manager Admin component is installed on the local machine, so there is no Smart Policy Manager service installed. Thus, DefendX Software Control-Audit cannot talk to the local Smart Policy Manager service because it does not exist, so we specify the Smart Policy Manager service with which DefendX Software Control-Audit should communicate.

In very large organizations, you may have offices all over the world. Make sure you connect to the server(s) at a reasonable distance to maintain good speed.

As shown, the DefendX Software Control-Audit Admin Client User interface is displayed with **MYSERVER** as a node in the left menu tree and all the DefendX Software Control-Audit policy details.

To connect to more than one Smart Policy Manager service at the same time, click **File > Active Server** and then insert the server name or the server IP address. This allows you to add all the servers on your entire network administer them as needed.

# Installing Control-Audit in Clustered Environments

**NOTES:**

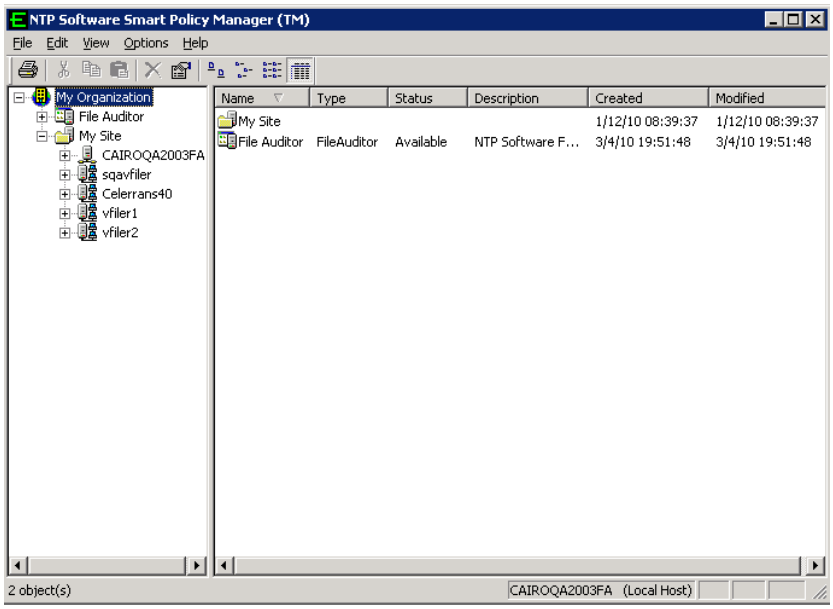
- DefendX Software Control-Audit requires a manual setup by an administrator for clustered environments.
- Although the Connector service can be started on the servers on which DefendX Software Control-Audit was installed, in the DefendX Software Control-Audit user interface, the Filer, Celerra, or EVS is assigned to only one server node and must be reassigned manually from a previously assigned node.
- A Filer, Celerra, or EVS cannot communicate with more than one DefendX Software Control-Audit server at a time.

## Installing the DefendX Software Control-Audit in Clustered Environments

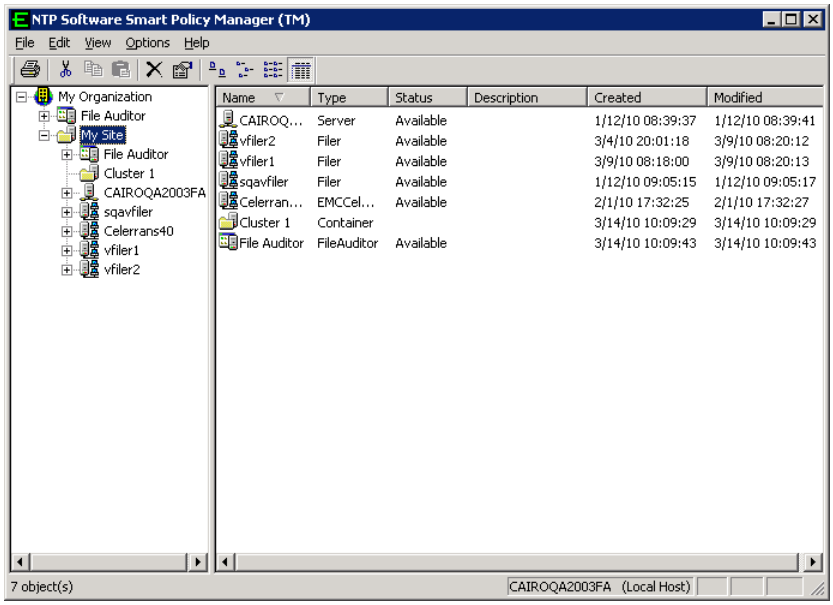
To install DefendX Software Control-Audit in a clustered environment, apply the following steps:

1. Install DefendX Software Control-Audit on a server, as described in DefendX Software Control-Audit installation guides.
2. After DefendX Software Control-Audit is installed successfully, open DefendX Software Control-Audit to find the global container (**My Organization** in this example) at the top of the hierarchy. Click the plus sign (**+**) to expand the container.
3. Click the plus sign (**+**) to expand your site container (**My Site** in this example) in the second tier of the hierarchy.

   Notice the installation server (**Primary Server** in this example) in the third tier of the hierarchy. The DefendX Software Control-Audit application is also in the third tier.



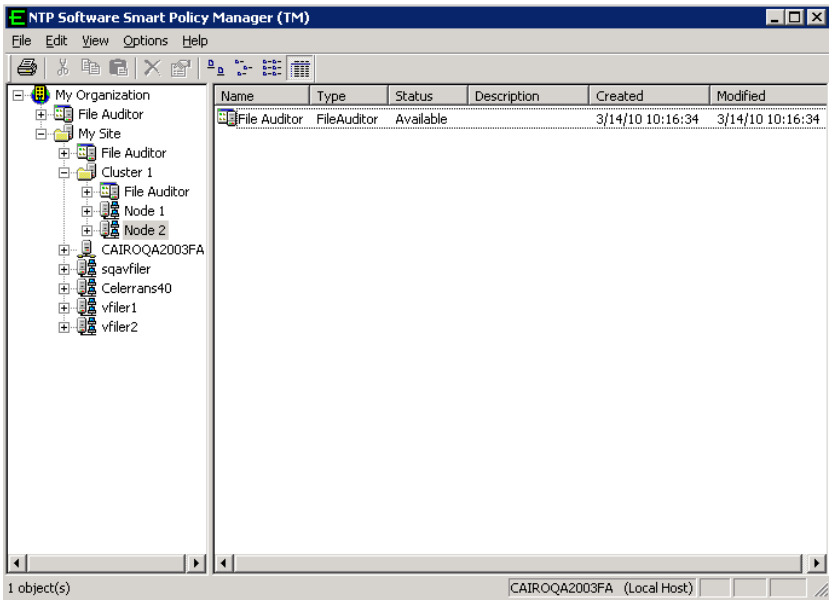
4. Right-click the site container (**My Site** in this example) and then select **New > Container** from the pop-up menu to create your cluster container. Give the new container the name of the cluster. In the example, we have used **Cluster 1** as the name.




5. Right-click the cluster container (**Cluster 1** in this example) and select **New** > **DefendX Software Control-Audit** from the pop-up menu.

   It is necessary to install DefendX Software Control-Audit manually on each server you want to add to the tree (**Node 1** and **Node 2** in this example). Choose the option **Adding to an enterprise installation** during the local DefendX Software Smart Policy Manager installation on each node and point to the first DefendX Software Control-Audit server.

6. Open the cluster container in the DefendX Software Smart Policy Manager hierarchy and use the drag-and-drop method to move the nodes into the cluster container. They will appear at the same level as the container Control-Audit application, as shown here.



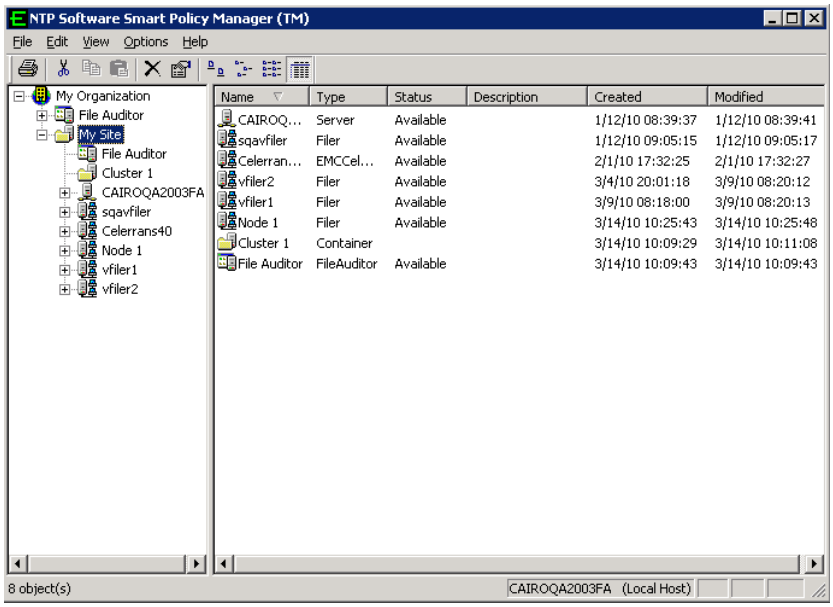

7. Click the plus sign (**+**) next to the DefendX Software Control-Audit application you have just added to view the global (cluster) policies. Create all policies within this application that will be applied to both nodes. They will be propagated automatically to all nodes within the container.

## Installing the DefendX Software Control-Audit onto a Node Server

This feature enables administrators to group servers, Filers, and Celerras logically to reflect their organizational physical structure, creating policies under a node that can be inherited by all the machines of that node.

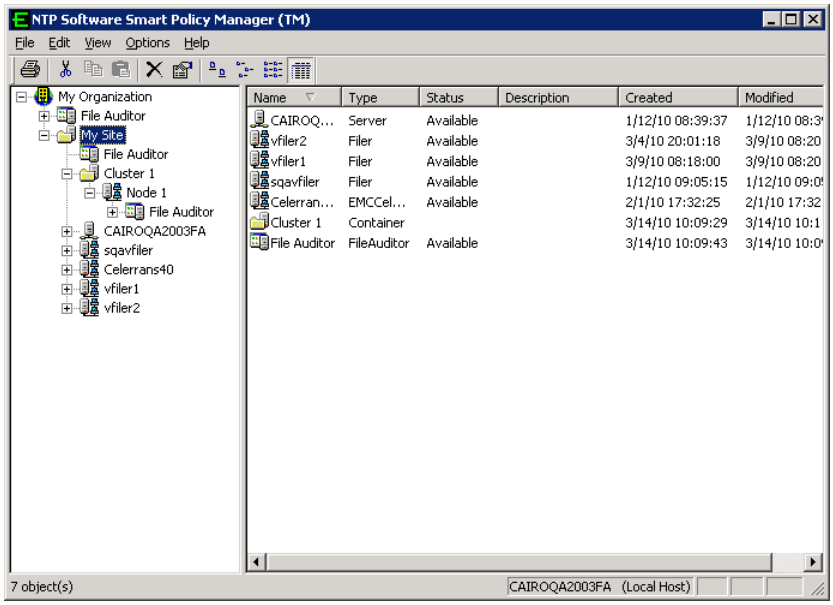
To install DefendX Software Control-Audit onto a node server, apply the following steps:

1. It is necessary to install DefendX Software Control-Audit manually on each of the added nodes (on **Node 1** in this example). Choose the option **Adding to an enterprise installation** during the local DefendX Software Smart Policy Manager installation.
2. Right-click the site container and select **New** > **Container** to create a container for the cluster. Give the new container the cluster name.




3. Click the existing server (node) and, while holding down the mouse button, drag and drop the server onto the cluster container to move the server into the cluster hierarchy.
4. Right-click the cluster container and select **New** > **DefendX Software Control-Audit** from the pop-up menu.

5. To view the global (cluster) policies, click the plus sign (**+**) next to the DefendX Software Control-Audit application you have just added.




Create all policies within this application that will be applied to both nodes. They will be propagated down automatically to all nodes within the container.

# Network Attached Storage (NAS) Preparations

## Preparing the NetApp Filer

**NOTE:** Refer to this section only if you have NetApp Filers attached to your environment. *If you do not have NetApp Filers, you should not apply the instructions specified in this section.*

### Enabling the fpolicy Management Service (NetApp Filers)

DefendX Software Control-Audit requires NetApp Filers to run Data ONTAP version 6.5 or later (excluding version 7.1). If your Filer is running a version prior to 6.5, you must upgrade your operating system before you proceed. (Please refer to your Network Appliance documentation for instructions.)

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

For more information on NetApp Filers, consult *NetApp Customer Support Bulletin CSB-0704-02: Fpolicy Update for Data ONTAP*.

Apply the following steps to enable the Data ONTAP fpolicy management service:

1. Log on to the NetApp Filer with an account that has administrative privileges.
2. At the prompt, enter the following command:

   **fpolicy create DefendXSoftware_FA screen**
3. Enter the following command:

   **fpolicy enable DefendXSoftware_FA**
4. To verify that CIFS file policies are now enabled, enter the following command:

   **fpolicy show DefendXSoftware_FA**
5. 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_FA cifs_setattr on**

**NOTE:** If you don't have any File 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. Later in this document, a Control-Audit policy server with be registered with the Filer. No further Filer administration is required.

**NOTES:**

- 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. For NetApp Filers, NetApp strongly recommends that customers using fpolicy move to one of these Data ONTAP versions or later (excluding version 7.1).
- The Data ONTAP 7.1 release family is currently not supported with fpolicy.

## Adding Your Filer to the DefendX Software Control-Audit Policy Hierarchy

Next, you need to add your Filer to the collection of servers being monitored by DefendX Software Control-Audit.

1. Run DefendX Software Control-Audit Admin by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit for NAS Admin**.
2. Right-click **My Site** and select **New** > **Filer**.
3. You will be prompted to enter a name. The name you enter here must match the name of your NetApp Filer.
4. Now that you have added your Filer to the collection of servers recognized by DefendX Software Control-Audit, right-click the Filer you just added and select **New** > **Control-Audit Application**.
5. Next, you need to associate the policies you will create here with a Filer. In the DefendX Software Smart Policy Manager hierarchy view (the left pane), click the plus sign (**+**) adjacent to the name of the Windows-based server on which you installed DefendX Software Control-Audit.
6. Right-click **Control-Audit** under that entry and select **Properties** to open the **DefendX Software Control-Audit Configuration** screen.
7. Click the **NAS Connector** tab.
8. Click the **Add** button.
9. Enter the name of your Filer/vFiler and click **OK**.
10. Click **OK** in the **DefendX Software Control-Audit Configuration** screen.

You are now ready to move on and create some Control-Audit policies.

# Preparing the EMC Celerra

**NOTE:** Refer to this section only if you have one or more EMC Celerras attached to your environment. *If you do not have EMC Celerras, you should not apply the instructions specified in this section.*

## Preparing EMC Celerra to be managed by Control-Audit

### Preparing Control-Audit Windows Machine – Scenario A

This section describes how to prepare your EMC Celerra if you have either of the following environments:

- If you do not have an DefendX Software Quota and File Sentinel (QFS) installation in your environment.
- If you have DefendX Software and DefendX Software Quota and File Sentinel (QFS) installed on the same machine.

If your QFS installation is older than version 7.1, you cannot manage the same EMC Celerra that QFS manages with Control-Audit.

If your QFS installation is on a different machine, consult the section *Prepare EMC Celerra to be managed by Control-Audit and QFS each installed on a separate machine*.

#### *Configuring EMC Celerra Event Enabler (CEE)*

Follow these steps to prepare the Windows machine to host DefendX Software Control-Audit:

1. Before installing DefendX Software Control-Audit, you have to make sure that Celerra Event Enabler (CEE) version 4.2.2 or later is appropriately installed and configured in your environment. Contact EMC for further information on this configuration.
2. DefendX Software Control-Audit requires the EMC Celerra to run DART version 5.6.36.2 or later. If your Celerra is not running version 5.6.36.2 or later, you must upgrade your operating system before you proceed. (Refer to your EMC documentation for instructions.)
3. After installing the Celerra Event Enabler on the DefendX Software Control-Audit machine, you need to specify the software with which the CEE will register. To do this, set **ntp** for the following key:

   HKEY_LOCAL_MACHINE\SOFTWARE\EMC\CelerraEventEnabler\CEPP\CQM\Configuration\EndPoint

### *Preparing the EMC Celerra for DefendX Software Control-Audit Management*

For any Celerra that will be managed by DefendX Software Control-Audit, once the server is started and has mounted its root filesystem, go to the .etc directory and create the cepp.conf file (if it does not exist). You have to edit this file to include your CEPP pool description.

**NOTE:** The cepp.conf file must contain at least one line defining the pool of CEPP servers. If the line is too long, you can add \ at the end of each line:

pool name=<poolname> servers=<IP addr1>|<IP addr2>|... \

preevents=<event1>|<event2>|....\

postevents=<event3>|<event4>|.. \

posterrevents=<event5>|<event6>|... \

option=ignore or denied \

reqtimeout=<time out in ms> \ retrytimeout=<time out in ms>

**NOTES:**

Each event can include one or more (or all) of the following events:

- OpenFileNoAccess
- OpenFileRead
- OpenFileWrite
- CreateFile
- CreateDir
- DeleteFile
- DeleteDir
- CloseModified
- CloseUnmodified
- RenameFile
- RenameDir
- SetAclFile
- SetAclDir

Postevents and posterrevents are not supported in DefendX Software Control-Audit. We recommend turning them off to improve performance. Dropping those two fields from the CEPP will stop the Celerra from generating events of those types.

At least one event, one pool, and one server per pool must be defined.

Recommended timeout values:

- The recommended value for *reqtimeout* is 5000.
- The recommended value for *retrytimeout* is 750.

Apply the following steps to edit the cepp.conf file:

| **NOTE:** Replace **server_2** with the name of the server you want to configure. |
|---|

1. Log on to the Celerra control station as **su**.
    a. Type **mount server_2:/ /mnt2** to mount the root filesystem. (Create /mnt2 if it does not exist, and replace **server_2** with your server name if you are configuring a different server.)
    b. Type **cd /mnt2/.etc** and look for the file cepp.conf. Create the file if it does not exist.
    c. Use vi to edit the cepp.conf file. Edit the servers field to use the IP address of the machine running DefendX Software Control-Audit. The result should look something like this:

    pool name=cqm servers=10.30.3.57 preevents=* option=ignore reqtimeout=5000 retrytimeout=750
2. Type **.server_config server_2 -v "cepp stop"** and press **Enter**.
3. Type **.server_config server_2 -v "cepp start"** and press **Enter**.

These steps create the configuration that allows DefendX Software Control-Audit to register with and manage your Celerra. They must be completed before you attempt to configure DefendX Software Control-Audit.

## Adding a Celerra to the DefendX Software Control-Audit Policy Hierarchy

Next, you need to add your EMC Celerra to the collection of servers being monitored by DefendX Software Control-Audit:

1. Run DefendX Software Control-Audit Admin by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit for NAS Admin**.
2. Right-click **My Site** and choose **New** > **Celerra**.
3. You will be prompted to enter a name. The name you enter here must match the name of your CIFS server.
4. Now that you have added your CIFS server to the collection of servers recognized by DefendX Software Control-Audit, right-click the CIFS server you just added and select **New** > **Control-Audit Application**.
5. Next, you need to associate the policies you will create here with a CIFS server. In the DefendX Software Smart Policy Manager hierarchy view (the left pane), click the plus sign (**+**) adjacent to the name of the Windows-based server on which you installed DefendX Software Control-Audit.
6. Right-click **Control-Audit** under that entry and select **Properties** to open the **DefendX Software Control-Audit Configuration** screen.
7. Click the **EMC Connector** tab.
8. Click the **Add** button.
9. Enter the name of your CIFS server the control station IP, user name, and password and then click **OK**.
10. Click **OK** in the **DefendX Software Control-Audit Configuration** screen.

You are now ready to move on and create some Control-Audit policies.

### Preparing Control-Audit Windows Machine – Scenario B

This section describes how to prepare your EMC Celerra If you have an installation of DefendX Software Quota and File Sentinel (QFS) 7.1 or higher on a different machine and you want QFS to manage the same EMC Celerra that Control-Audit will manage, perform the following steps.

**NOTES:**

If your QFS installation is older than version 7.1, you cannot manage the same EMC Celerra that QFS manages with Control-Audit.

If QFS and Control-Audit are both installed on the same machine consult the section *Prepare EMC Celerra to be managed by Control-Audit*.

If you do not have QFS in your environment, consult the section *Prepare EMC Celerra to be managed by Control-Audit*.

#### *Configure EMC Celerra Event Enabler (CEE)*

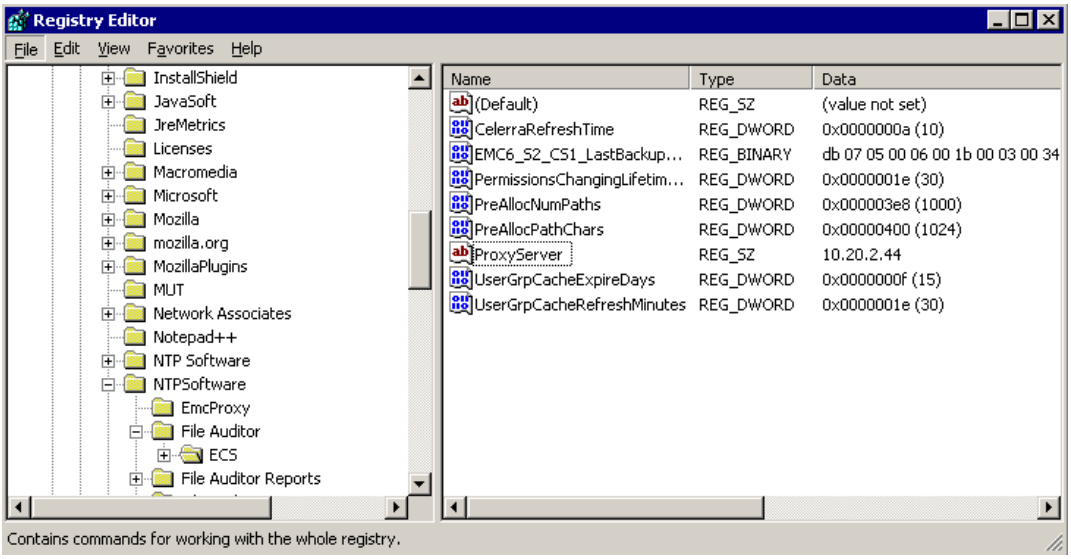
Follow these steps to prepare the Windows machine that hosts DefendX Software QFS:

- Before installing DefendX Software QFS, you have to make sure that Celerra Event Enabler (CEE) version 4.2.2 or later is appropriately installed and configured in your environment. Contact EMC for further information on this configuration.
- DefendX Software Control-Audit requires the EMC Celerra to run DART version 5.6.36.2 or later. If your Celerra is not running version 5.6.36.2 or later, you must upgrade your operating system before you proceed. (Refer to your EMC documentation for instructions.)
- After installing the Celerra Event Enabler on the DefendX Software QFS machine, you need to specify the software with which the CEE will register. To do this, set **ntp** for the following key:

  HKEY_LOCAL_MACHINE\SOFTWARE\EMC\CelerraEvent Enabler\CEPP\CQM\Configuration\EndPoint

- Make sure that the DefendX Software EMC Proxy Service is started:
  a. Open the Windows Service Manager from Control Panel\Administrative tools\Services
  b. Look for DefendX Software EMC Proxy Service entry, and make sure its status is **Started.**

- On the DefendX Software Control-Audit machine, you need to specify the machine on which DefendX Software QFS resides. To do this, perform the following steps:
    a. Go to the following key in the registry editor HKEY_LOCAL_MACHINE\SOFTWARE\DefendXSoftware\Control-Audit\ECS
    b. Create a string value called **ProxyServer** if it does not exist.
    c. Set the **ProxyServer** value to the machine IP or name of the DefendX Software Quota and File Sentinel machine.
- On the DefendX Software Control-Audit machine, Make sure that the DefendX Software EMC Proxy Service is disabled:
    a. Open the Windows Service Manager from Control Panel\Administrative tools\Services
    b. Look for DefendX Software EMC Proxy Service entry; right click this entry and select **Stop.**
    c. Right click DefendX Software EMC Proxy Service entry, and select **Properties**, then in the **General** tab, change **Startup type** to **Disabled**.




- On the DefendX Software Control-Audit machine, restart the DefendX Software Control-Audit EMC Connector Service.
    a. Open the Windows Service Manager from Control Panel\Administrative tools\Services
    b. Restart the DefendX Software Control-Audit EMC Connector Service**.**

### *Preparing the EMC Celerra for DefendX Software Control-Audit Management*

For any Celerra that will be managed by DefendX Software Control-Audit, once the server is started and has mounted its root filesystem, go to the .etc directory and create the cepp.conf file (if it does not exist). You have to edit this file to include your CEPP pool description.

**NOTE:** The cepp.conf file must contain at least one line defining the pool of CEPP servers. If the line is too long, you can add \ at the end of each line:

pool name=<poolname> servers=<IP addr1>|<IP addr2>|... \

preevents=<event1>|<event2>|....\

postevents=<event3>|<event4>|.. \

posterrevents=<event5>|<event6>|... \

option=ignore or denied \

reqtimeout=<time out in ms> \ retrytimeout=<time out in ms>

**ADDITIONAL NOTES:**

Each event can include one or more (or all) of the following events:

- OpenFileNoAccess
- OpenFileRead
- OpenFileWrite
- CreateFile
- CreateDir
- DeleteFile
- DeleteDir
- CloseModified
- CloseUnmodified
- RenameFile
- RenameDir
- SetAclFile
- SetAclDir

Postevents and posterrevents are not supported in DefendX Software Control-Audit. We recommend turning them off to improve performance. Dropping those two fields from the CEPP will stop the Celerra from generating events of those types.

At least one event, one pool, and one server per pool must be defined.

Recommended timeout values:

- The recommended value for *reqtimeout* is 5000.
- The recommended value for *retrytimeout* is 750.

Apply the following steps to edit the cepp.conf file:

1. Log on to the Celerra control station as **su**.
    a. Type **mount server_2:/ /mnt2** to mount the root filesystem. (Create /mnt2 if it does not exist, and replace **server_2** with your server name if you are configuring a different server.)
    b. Type **cd /mnt2/.etc** and look for the file cepp.conf. Create the file if it does not exist.
    c. Use vi to edit the cepp.conf file. Edit the servers field to use the IP address of the machine running DefendX Software Control-Audit and the machine running DefendX Software QFS. The result should look something like this:

    pool name=cqm servers=10.30.3.57|10.30.3.58 preevents=* option=ignore reqtimeout=5000 retrytimeout=750
2. Type **.server_config server_2 -v "cepp stop"** and press **Enter**.
3. Type **.server_config server_2 -v "cepp start"** and press **Enter**.

**NOTE:** Replace **server_2** with the name of the server you want to configure.

These steps create the configuration that allows DefendX Software Control-Audit to register with and manage your Celerra. They must be completed before you try to configure DefendX Software Control-Audit.

### *Adding a Celerra to the DefendX Software Control-Audit Policy Hierarchy*

Next, you need to add your EMC Celerra to the collection of servers being monitored by DefendX Software Control-Audit:

1. Run DefendX Software Control-Audit Admin by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit for NAS Admin**.
2. Right-click **My Site** and choose **New** > **Celerra**.
3. You will be prompted to enter a name. The name you enter here must match the name of your CIFS server.
4. Now that you have added your CIFS server to the collection of servers recognized by DefendX Software Control-Audit, right-click the CIFS server you just added and select **New** > **Control-Audit Application**.
5. Next, you need to associate the policies you will create here with a CIFS server. In the DefendX Software Smart Policy Manager hierarchy view (the left pane), click the plus sign (**+**) adjacent to the name of the Windows-based server on which you installed DefendX Software Control-Audit.
6. Right-click **Control-Audit** under that entry and select **Properties** to open the **DefendX Software Control-Audit Configuration** screen.
7. Click the **EMC Connector** tab.
8. Click the **Add** button.
9. Enter the name of your CIFS server the control station IP, user name, and password and then click **OK**.
10. Click **OK** in the **DefendX Software Control-Audit Configuration** screen.

You are now ready to move on and create some Control-Audit policies.

# Preparing the BlueArc Titan or Hitachi NAS

**NOTE:** Refer to this section only if you have BlueArc Titans or Hitachi Hitachi NASs attached to your environment. *If you do not have* BlueArc Titans or Hitachi Hitachi NASs, *you should not apply the instructions specified in this section.*

## Preparing the BlueArc Titan/ Hitachi NAS for DefendX Software Control-Audit Management

To prepare the Titan/Hitachi NAS server, the following must be taken into consideration:

1. For each EVS (virtual server) managed by DefendX Software Control-Audit, at least one CIFS server name must be created and must join the same domain as the DefendX Software Control-Audit machine.
2. The logon account used to register with the Titan server (the account that will be assigned to the DefendX Software Control-Audit service) needs to be a member of the Titan server's local group **Backup Operators**, which can be added from the Titan Server command-line interface (CLI) using the following command:

   localgroup add "Backup Operators" <FQDomainName\AccountName>
3. The File-Filtering feature must be enabled. To enable it, use the following command:

   fsm set allow-ntp-file-filtering true

## Adding an EVS to the DefendX Software Control-Audit Policy Hierarchy

Next, you need to add your EVS to the collection of servers being managed by DefendX Software Control-Audit:

1. Run DefendX Software Control-Audit Admin by clicking **Start** > **All Programs** > **DefendX Software Control-Audit for NAS** > **DefendX Software Control-Audit for NAS Admin**.
2. Right-click **My Site** and choose **New** > **EVS**.
3. You will be prompted to enter a name. The name you enter here must match the name of your EVS.
4. Now that you have added your EVS to the collection of servers recognized by DefendX Software Control-Audit, right-click the EVS you just added and select **New** > **Control-Audit Application**.
5. Next, you need to associate the policies you will create here with an EVS In the DefendX Software Smart Policy Manager hierarchy view (the left pane), click the plus sign (**+**) adjacent to the name of the Windows-based server on which you installed DefendX Software Control-Audit.
6. Right-click **Control-Audit** under that entry and select **Properties** to open the **DefendX Software Control-Audit Configuration** screen.
7. Click the **BlueArc/Hitachi Connector** tab.
8. Click the **Add** button.
9. Enter the name of your EVS.
10. Click **OK**.
11. Click **OK** in the **DefendX Software Control-Audit Configuration** screen.

You are now ready to move on and create some Control-Audit policies.

## 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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