



NETWRIX AUDITOR:

GROUP POLICY

ADMINISTRATOR'S GUIDE

Product Version: 5.0

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1. INTRODUCTION

1.1. Overview

This guide contains an overview of the Netwrix Auditor functionality, features intended for Group Policy auditing and detailed step-by-step instructions on how to configure and use the product for Group Policy auditing. For instructions on how to install the product and configure the target Active Directory domain for auditing, refer to [Netwrix Auditor Installation and Configuration Guide](#).

1.2. How This Guide is Organized

This section explains how this guide is organized and provides a brief overview of each chapter.

- Chapter [1 Introduction](#): the current chapter. It explains the purpose of this document and outlines its structure.
- Chapter [2 Product Overview](#) provides an overview of the Netwrix Auditor functionality for Group Policy audit, lists its main features and benefits, and explains the product workflow. It also contains information on the product editions and a side-by-side comparison of their features.
- Chapter [3 Netwrix Auditor Console Overview](#) provides a description of the Netwrix Auditor console.
- Chapter [4 Managed Object](#) explains how to configure a Managed Object, i.e. an Active Directory domain that you want to monitor for changes. It also explains how to modify Managed Object settings.
- Chapter [5 Data Collection](#) explains the Netwrix Auditor data collection workflow and contains detailed information on the Change Summary options and Sessions.
- Chapter [6 Reports](#) provides an overview of the Reports feature, explains how to configure and view reports and contains report examples. It also contains step-by-step instructions on how to configure subscriptions to Reports.
- Chapter [7 Configuring Global Settings](#) explains how to configure or modify the settings that are applied to all Managed Objects and all target systems audited with Netwrix Auditor.
- Chapter [8 Additional Configuration](#) provides a description of the product additional configuration options, such as enabling integration with SIEM (Security Information and Event Management) solutions and excluding data types from data collection and product reports.
- Chapter [9 Restoring Group Policy Objects](#) explains how to revert unwanted changes to Group Policy Objects.
- [A Appendix: SQL Database Retention Script](#) contains a SQL script used to configure the SQL database retention policy.
- [B Appendix: Registry Keys](#) contains a description of the product registry keys that can be used for additional configuration.
- [C Appendix: Related Documentation](#) contains a list of all documentation published to support Group Policy auditing with Netwrix Auditor.

2. PRODUCT OVERVIEW

Group Policy auditing is a must-have procedure for all organizations relying on Group Policy infrastructure. Relatively small changes to security policies, desktop configurations, software deployment and other settings can severely impact enterprise security, compliance, and performance. An uncontrolled and unaudited change process imposes major security and compliance risks for an IT infrastructure run by multiple IT professionals.

Built-in Group Policy management tools do not provide any auditing and change reporting capabilities, and it is just impossible to track the WHO, WHAT, WHERE and WHEN data for critical modifications by using these tools. For example, auditing with the native Windows tools can only indicate that a Group Policy Object changed, but it does not say WHAT setting has been changed; you can get only cryptic GUIDs for cross-referencing as a source of information.

Windows 2003 and earlier versions do not provide the before and after values for the Group Policy Object (GPO) link. Windows 2008 provides this data but it is difficult to use it efficiently. For detailed comparison of the native auditing tools and Netwrix products refer to [Summary: Limitations of Native Active Directory Auditing Tools](#).

Powered by the [Netwrix AuditAssurance™](#) technology, Netwrix Auditor makes the Group Policy change auditing an easy and straightforward process, resulting in a complete and concise picture of all changes taking place in your monitored environment. [AuditAssurance™](#) is a patent-pending technology that consolidates audit data from multiple independent sources such as event logs, configuration snapshots, change history records, and others. This allows detecting WHO changed WHAT, WHERE and WHEN, even if one or several sources of information do not contain all of the required data, for example because it was deleted, overwritten, and so on.

Netwrix Auditor collects data on every single change made to the Group Policy configuration, including newly created and deleted GPOs, GPO link changes, changes made to audit policy, password policy, software deployment, user desktops, and other settings. The data includes detailed information for all changes with the previous and current values for all modified settings.

The product records all Group Policy modifications and archives them to enable historical reporting. You can build a summary of changes made to Group Policy during any period. For example, you can analyze any policy violations that took place in the past, see who turned off invalid logon auditing in your domain security policy, who added new software to deploy on client computers, who changed desktop firewall and lockdown settings, and so on.

Netwrix offers long-term data archiving that uses a two-tiered system:

- Audit Archive, a local file-based storage
- SQL Server database

Netwrix offers both agent-based and agentless data collection methods. The use of agents is recommended for distributed deployments or multi-site networks due to their ability to compress network traffic.

This guide only covers the configuration and usage of the Netwrix Auditor for Group Policy audit. For information on how to audit the entire Active Directory infrastructure, refer to [Netwrix Auditor: Active Directory Administrator's Guide](#) and [Netwrix Auditor: Exchange Servers Administrator's Guide](#) respectively.

2.1. Key Features and Benefits

Netwrix Auditor allows tracking and reporting on changes to Group Policy Objects configuration in the monitored domain. It enables you to do the following:

- **Monitor day-to-day administrative activities:** the product captures detailed information on all changes made to Group Policy Objects and their settings in the monitored Active Directory environment, including the information on WHO changed WHAT, WHEN and WHERE.
- **Sustain compliance** by using in-depth change information. Audit data can be archived and stored for more than 7 years to be used for reports generation.
- **Streamline change control:** paint the most complete picture of Group Policy security settings throughout Active Directory by monitoring all settings and permission changes.

The main Group Policy auditing features are:

- **Reports** with the previous and current values for every object- and setting-level change. Reports are based on SQL Server Reporting Services (SSRS) with over 40 predefined report templates and support for custom reports.
- **Report subscriptions** allow for scheduled report generation and delivery to the specified recipients. You can apply different report filters and select report output format.
- **State-in-Time reports:** reports on the current or historical configuration state of your Group Policy Objects.
- **Automatic Backup and Recovery of Group Policy Objects:** the product supports recovery of unwanted Group Policy Objects changes.
- **Long-term data storage:** allows for recreating the full audit trail of changes made to the monitored Active Directory environment and provides historical reporting for any specified period of time. Organizations can analyze any policy violations which occurred in the past, and maintain ongoing compliance with internal and external regulations.
- **Integration with SIEM systems:** the product can be integrated with multiple SIEM systems, including RSA enVision®, ArcSight® Logger™, Novell® Sentinel™, NetIQ® Security Manager™, IBM Tivoli® Security Information and Event Manager™ and more. The product can also be configured to feed data to Microsoft System Center Operations Manager, thus providing organizations that use SCOM with fully automated Active Directory auditing and helping protect these investments.

2.2. Product Workflow

A typical Netwrix Auditor for Group Policy audit data collection and reporting workflow is as follows:

1. An administrator configures Managed Objects and sets the parameters for automated data collection and reporting.
2. Netwrix Auditor monitors the target AD domain and collects data on Group Policy Objects changes. Audit data is written to a local file-based storage, referred to as the Audit Archive.
3. The product emails Change Summaries that list all changes occurred in the last 24 hours to the specified recipients daily at 3:00 AM by default.
4. If the Reports functionality is enabled and configured, data is imported from the Audit Archive to a dedicated SQL database. Reports based on the audit data can be

viewed via the Netwrix Auditor console or in a web browser, or delivered automatically on a specified scheduled if a subscription is configured.

2.3. Product Editions

Netwrix Auditor is available in two editions: Freeware and Enterprise. The Freeware Edition can be used by companies or individuals for an unlimited period of time. The Enterprise Edition can be evaluated free of charge for 20 days.

Note: Licenses for different target systems auditing with Netwrix Auditor (for example, Active Directory auditing, Group Policy and Exchange Servers auditing) can be purchased separately.

[Table 1:](#) below outlines the difference between the Netwrix Auditor editions for Group Policy audit:

Table 1: Netwrix Auditor Editions For Group Policy Audit

Feature	Freeware Edition	Enterprise Edition
WHO, WHEN and WHERE fields for every change	No	Yes
The before and after values for every change	No	Yes
SSRS-based Reports, with filtering, grouping and sorting, and dozens of predefined report templates	No	Yes
Custom reports	No	Yes Create manually, or order from Netwrix
Predefined reports for SOX, HIPAA, GLBA, and FISMA compliance	No	Yes
Report Subscriptions	No	Yes
Integration with Microsoft System Center Operations Manager Pack (SCOM) (via Netwrix SCOM Management Pack for Group Policy Change Reporter)	No	Yes
Long-term archiving of audit data	No Data is only stored 4 days	Yes Any period of time
Daily Change Summary email reflecting the changes made during the last day	Yes	Yes
A single installation handles multiple Managed Objects, each with its own individual settings	No	Yes
Integrated interface for different target systems audit, which provides centralized configuration and settings management	No	Yes
Reports can be viewed directly from the Netwrix Auditor console	No	Yes
Technical Support	Support Forum Knowledge Base	Full range of options: Phone, email, submission of support tickets , Support Forum , Knowledge Base
Licensing	Free of charge	Per enabled AD account or volume license, see our pricing information or request a quote

3. NETWRIX AUDITOR CONSOLE OVERVIEW

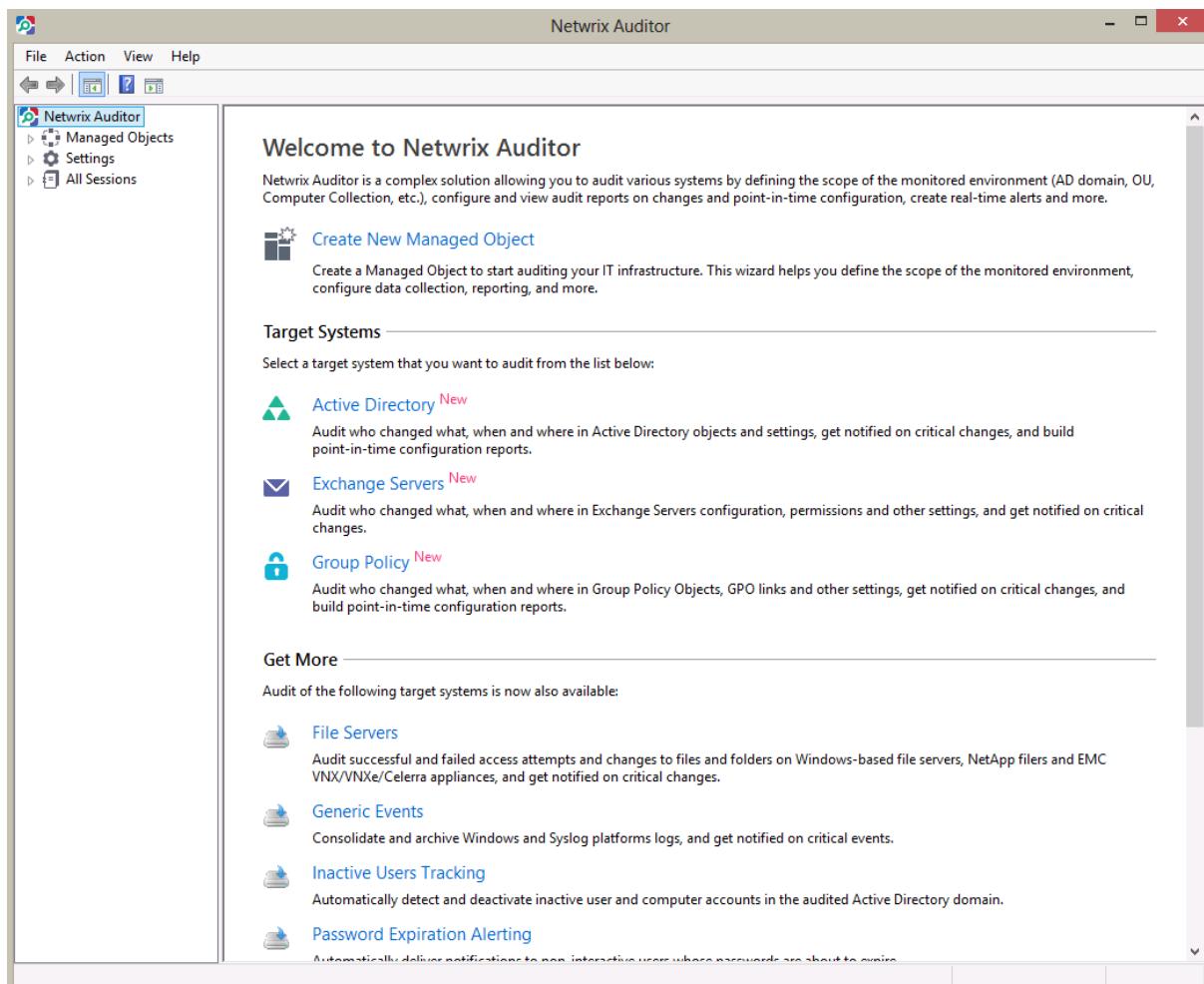
The Netwrix Auditor console is an MMC snap-in that allows configuring Managed Objects and their settings, and the reporting options.

The Netwrix Auditor console enables you to do the following:

- [Manage the audit settings for all target systems via an integrated interface](#)
- [Create and configure Managed Objects](#)
- [Enable and configure SSRS-based Reports](#)
- [View Reports](#)
- [Configure long-term archiving](#)
- [Configure Subscriptions to Reports](#)
- [Handle numerous Managed Objects with a single installation](#)
- [Configure your Managed Objects settings in a batch](#)

To start the Netwrix Auditor console, navigate to Start → All Programs → Netwrix → Netwrix Auditor. The Netwrix Auditor console main page will be displayed:

Figure 1: Netwrix Auditor Console



4. MANAGED OBJECT

For Group Policy audit, a Managed Object is an Active Directory domain that is monitored for changes and point-in-time configuration.

This chapter provides detailed step-by-step instructions on how to:

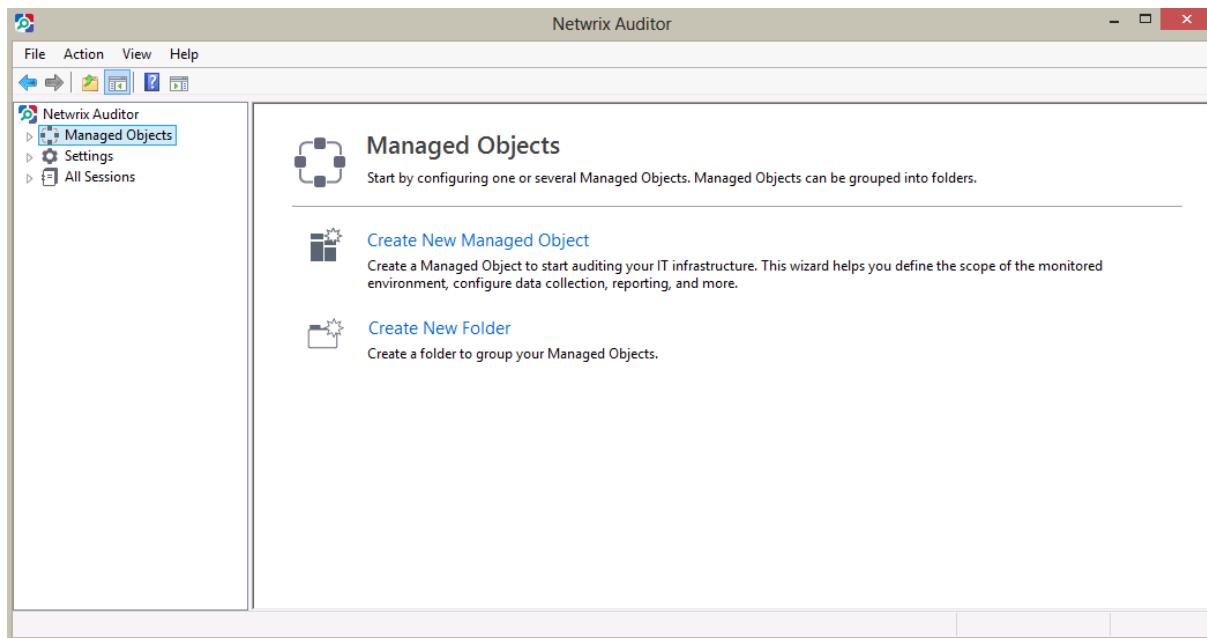
- [Create and configure a Managed Object](#)
- [Modify Managed Object settings](#)

4.1. Creating Managed Object

Procedure 1. To create and configure a Managed Object

1. In the Netwrix Auditor console, select the **Managed Objects** node in the left pane. The **Managed Objects** page will be displayed:

Figure 2: Managed Objects Page



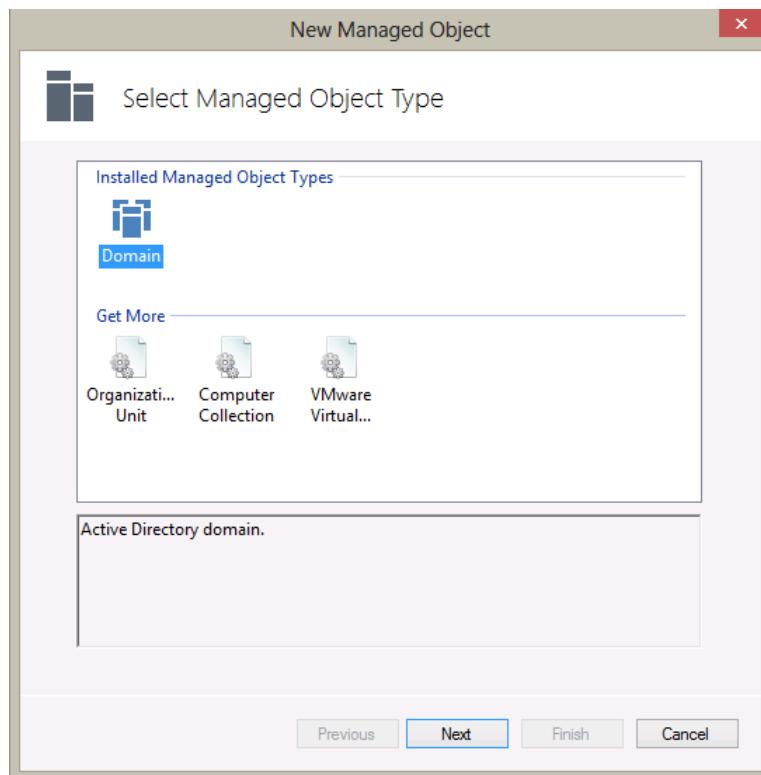
2. Click **Create New Managed Object** in the right pane. Alternatively, right-click the **Managed Objects** node and select **New Managed Object** from the pop-up menu to start the **New Managed Object** wizard.

Note: For your convenience, you can group Managed Objects into folders. To create a folder, right-click the **Managed Objects** node, select **New Folder**, and specify the folder name. Then create a new Managed Object inside this folder. You cannot move existing Managed Objects into folders once they have been created.

3. On the **Select Managed Object Type** step, select **Domain** as the Managed Object type and click **Next**.

Note: If you have installed Netwrix Auditor to audit other target systems before, the list of Managed Object types may contain several options.

Figure 3: New Managed Object: Select Managed Object Type

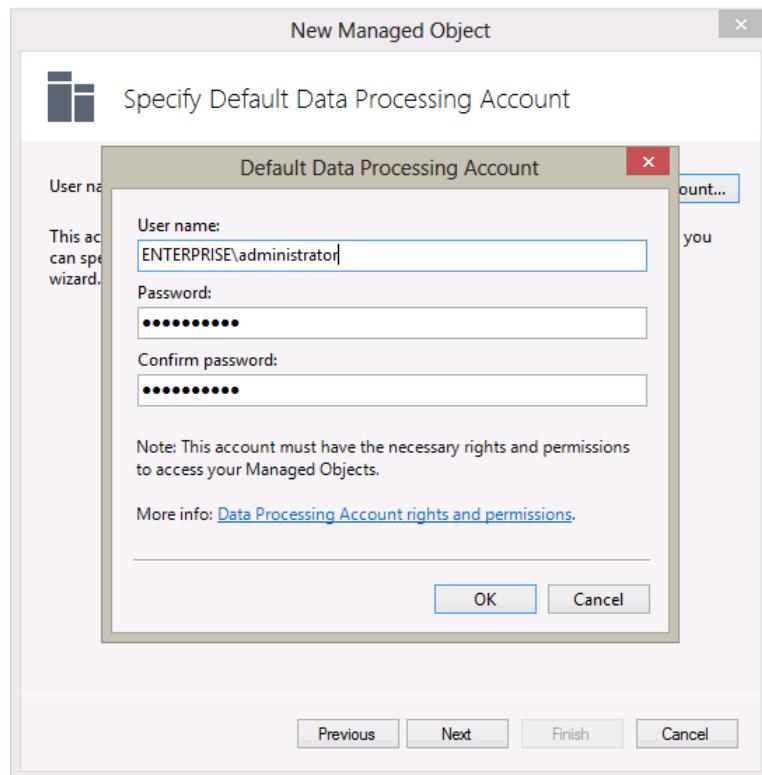


4. On the **Specify Default Data Processing Account** step, click the **Specify Account** button.

Note: If you have installed Netwrix Auditor to monitor other target systems before and specified the default account and email settings on Managed Object configuration, the **Specify Default Data Processing Account** and **Specify Email Settings** steps of the wizard will be omitted.

5. In the dialog that opens, enter the default Data Processing Account credentials that will be used by Netwrix Auditor for data collection. The name should be specified in the following format: `domain_name\account_name`. For the details on the rights and permissions required for this account, refer to Chapter 5.Configuring Rights and Permissions of [Netwrix Auditor Installation and Configuration Guide](#).

Figure 4: New Managed Object: Specify Default Data Processing Account

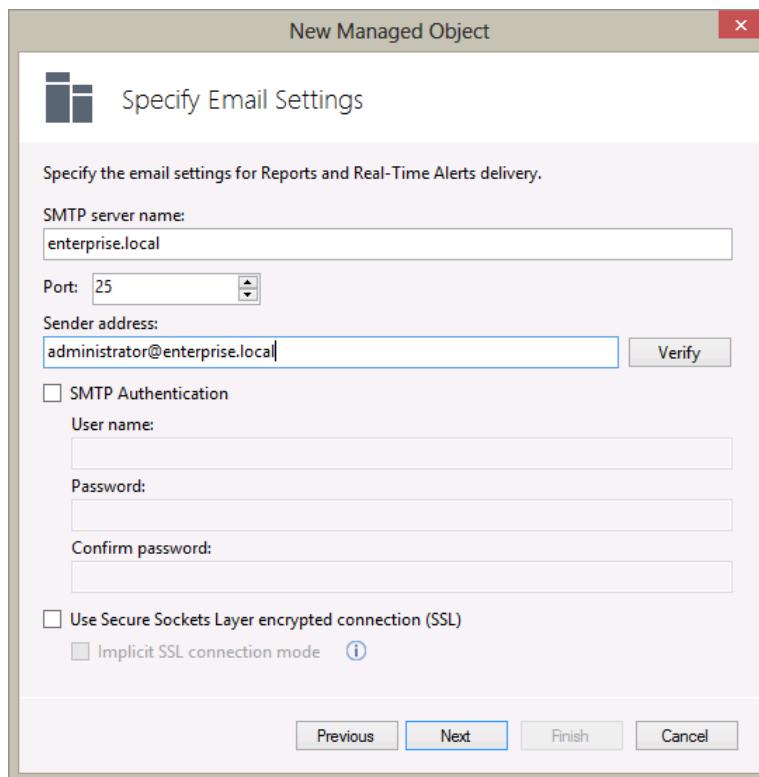


Click **OK** to continue and then **Next**.

Note: If later you need to modify the default Data Processing Account, you can do this either for an individual Managed Object (for instructions, refer to [Procedure 3 To modify the Data Processing Account](#)) or for all Managed Objects in a batch (for instructions, refer to [Procedure 26 To configure Data Collection settings](#)).

6. On the **Specify Email Settings** step, specify the email settings that will be used for the Change Summary and Reports delivery:

Figure 5: New Managed Object: Specify Email Settings



The following parameters must be specified:

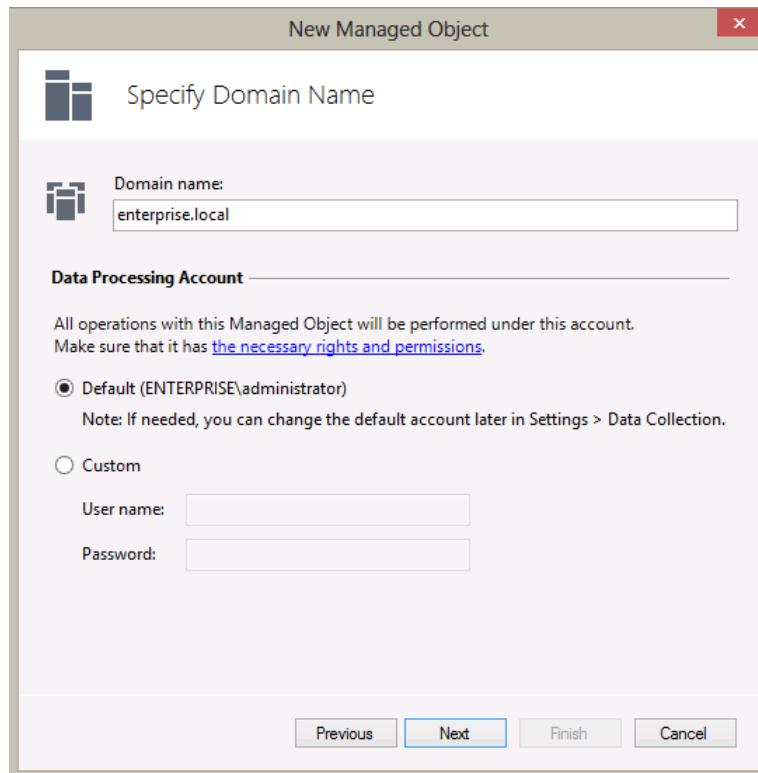
Table 2: Email Settings Parameters

Parameter	Description
SMTP server name	Enter your SMTP server name.
Port	Specify your SMTP server port number.
Sender address	Enter the address that will appear in the "From" field in reports and Change Summaries. To check the email address, click Verify . The system will send a test message to the specified address and will inform you if any problems are detected.
SMTP Authentication	Select this check box if your mail server requires the SMTP authentication.
User name	Enter a user name for the SMTP authentication.
Password	Enter a password for the SMTP authentication.
Confirm password	Confirm the password.
Use Secure Sockets Layer encrypted connection (SSL)	Select this check box if your SMTP server requires SSL to be enabled.
Use Implicit SSL connection mode	Select this check box if the implicit SSL mode is used, which means that an SSL connection is established before any meaningful data is sent.

Note: If later you need to modify the email settings, in the Netwrix Auditor console, navigate to **Settings** → **Email Notifications**. In the right pane, click the **Configure** button and edit the required parameters. For instructions, refer to [Procedure 24 To configure the email notifications settings](#).

7. On the **Specify Domain Name** step, specify your domain name in the FQDN format:

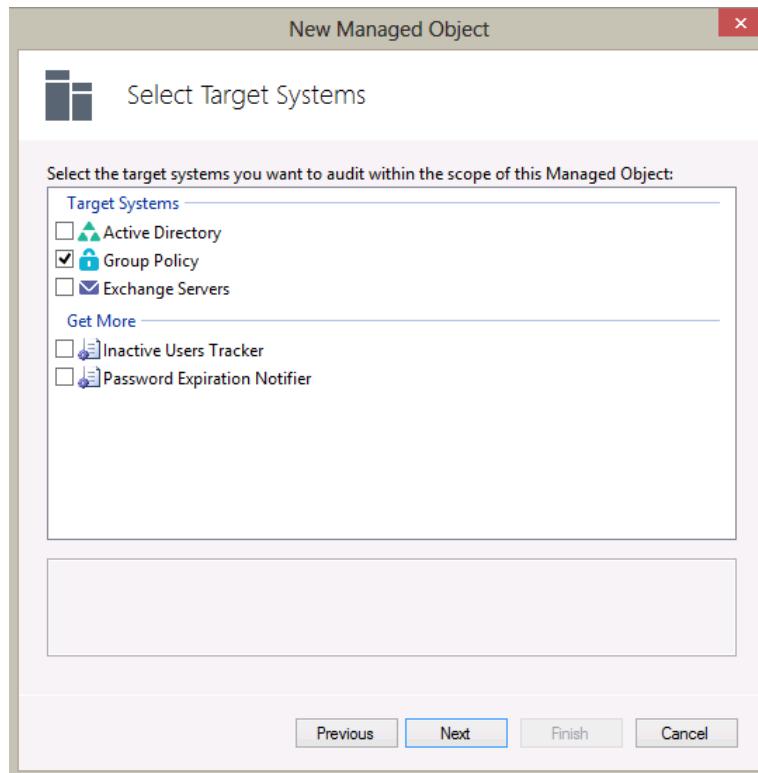
Figure 6: New Managed Object: Specify Domain Name



If you want to use a specific account to access data from this domain (other than the one you have specified as the default Data Processing Account earlier in this procedure), select the **Custom** option and enter the credentials. This account must be granted the same permissions and access rights as the default Data Processing Account. Click **Next** to continue.

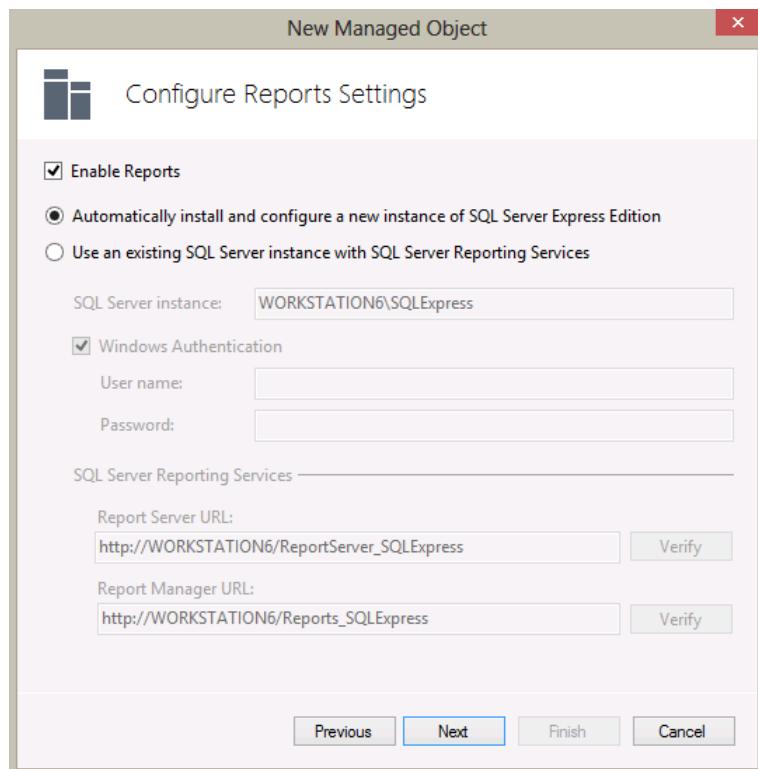
8. On the **Select Target Systems** step, make sure Group Policy is selected under **Target Systems**:

Figure 7: New Managed Object: Select Target Systems



9. On the **Configure Reports Settings** step, select the **Enable Reports** check box if you want to use SSRS-based Reports:

Figure 8: New Managed Object: Configure Reports Settings



Note: If you do not enable the **Reports** feature, audit data will not be written to a SQL database. You can enable and configure the feature later (for details, refer to Section [6.2 Configuring Reports](#)).

Select one of the following options:

- **Automatically install and configure a new instance of SQL Server Express Edition** to automatically install and configure SQL Server 2008/2012 Express with Advanced Services. Once you have selected this option and clicked **Next**, the Reports Configuration wizard will start. Follow the instructions of the wizard to install and configure SQL Server 2008/2012 Express.
- **Use an existing SQL Server instance with SQL Reporting Services** to use an already installed SQL Server instance, or to install and configure it manually before proceeding with Netwrix Auditor configuration. For detailed instructions on how to install Microsoft SQL Server 2005/2008 R2/2012 Express with Advanced Services and configure the Reporting Services, refer to the following Netwrix Technical Article: [Installing Microsoft SQL Server and Configuring the Reporting Services](#).

Note: It is recommended to consider the maximum database size in different SQL Server versions, and make your choice based on the size of the environment you are going to monitor, the number of users and other factors. Note that the maximum database size in SQL Server Express editions may be insufficient.

If you have selected the second option, specify the following parameters:

Table 3: Reports Parameters

Parameter	Description
SQL Server	Specify the name of the SQL Server instance name where a database of collected audit data will be created.
User name	Specify a user name for the SQL Server authentication. NOTE: This user must belong to the target database owner (dbo) role. For instructions on how to assign this role to a user, refer to Chapter 5. Configuring Rights and Permissions of Netwrix Auditor Installation and Configuration Guide .
Password	Enter a password for the SQL Server authentication.
Windows Authentication	Select this option if you want to use the Data Processing Account specified earlier in this procedure to be used to access the SQL database.
Report Server URL	Specify the Report Server URL NOTE: It is recommended to click the Verify button to ensure that the resource is reachable.
Report Manager URL	Specify the Report Manager URL. NOTE: It is recommended to click the Verify button to ensure that the resource is reachable.

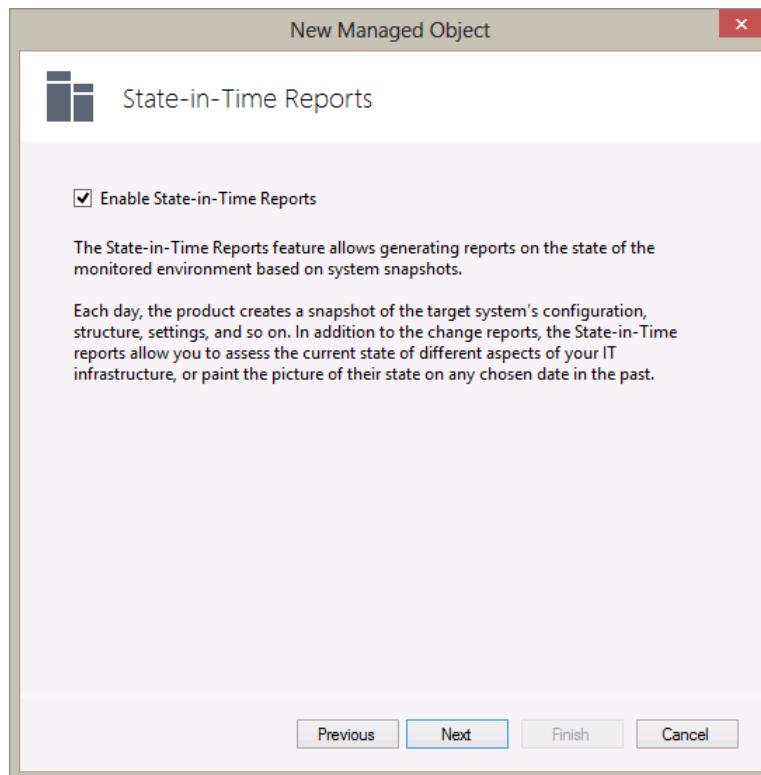
Note: If you have already created other Managed Objects, and configured the Reports settings for them, on this step you will only be prompted to enable or disable the Reports feature. If you want to use custom Reports settings for this Managed Object (for example, write data to a different SQL database), you can change the Reports settings later (for instructions, refer to [6.2.1 Configuring SQL Server Settings](#)).

Click **Next** to continue and wait until the Netwrix Auditor console has established a connection with the Report Server.

10. On the **State-in-Time Reports** step, you can enable or disable the **State-in-Time Reports** feature. It allows generating reports on your system configuration state at a specific moment of time in addition to change reports. If this feature is enabled,

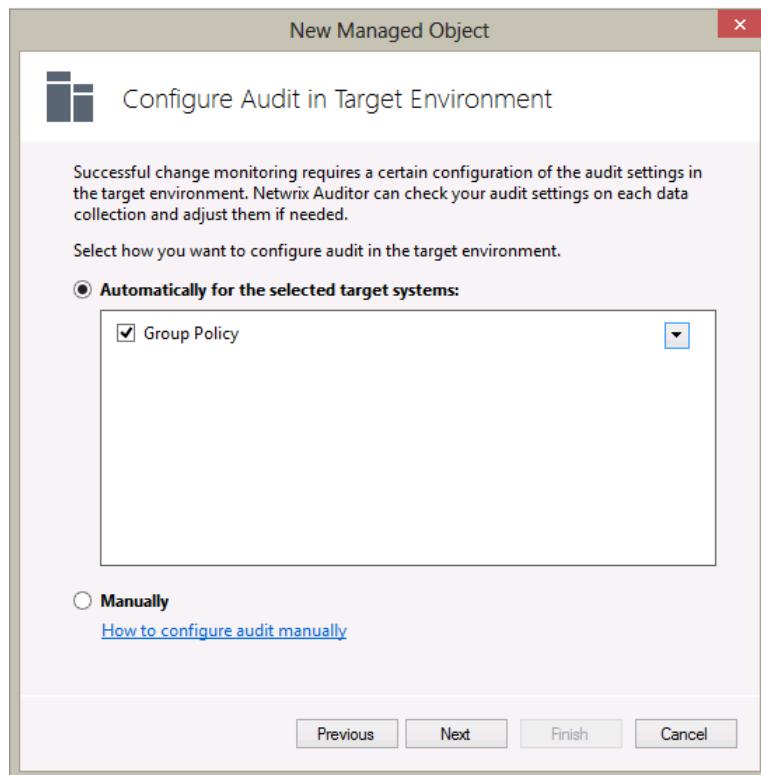
snapshots of Group Policy Objects configuration will be stored in the database. This option is unavailable if the **Reports** feature is disabled. Select/deselect this option and click **Next**.

Figure 9: New Managed Object: Snapshot Reporting



11. On the **Configure Audit in Target Environment** step, select one of the following options:
 - Automatically for the selected target systems: for details on the settings that are configured automatically, click the arrow next to the Group Policy checkbox. Your current audit settings will be checked on each data collection and adjusted if needed. This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will fail.
 - Manually: for instructions on how to configure audit on your target environment, refer to [Netwrix Auditor Installation and Configuration Guide](#).

Figure 10: New Managed Object: Configure Audit in Target Environment



12. On the Select Additional Audit Details step, select the following options:

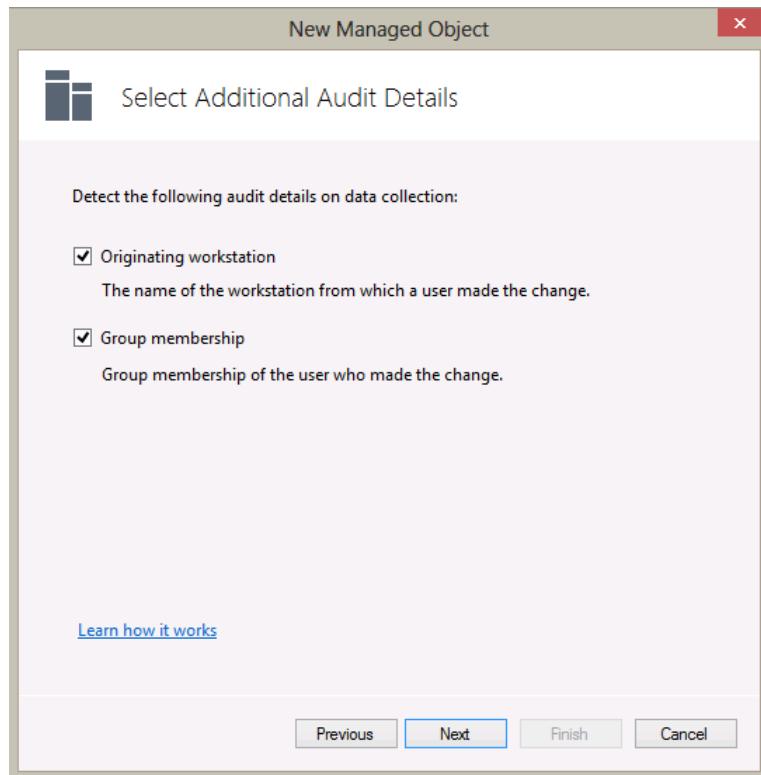
- Originating workstation allows collecting the information on the originating workstation, that is the name of the workstation where the users were logged on when they made the change. Netwrix Auditor for Group Policy contains a number of reports, where the **Workstation** field under each change in these reports contains the name/IP address and the MAC address of the computer from which the change was made. For the details on these reports, refer to Section [6.8 Reports With Extended Audit Data](#) of this guide.

Note: For the product to be able to collect the information on the originating workstation, you must configure the Audit logon events policy. If automatic audit configuration is enabled, this setting is adjusted automatically. For instructions on how to configure it manually, refer to [Netwrix Auditor Installation and Configuration Guide](#).

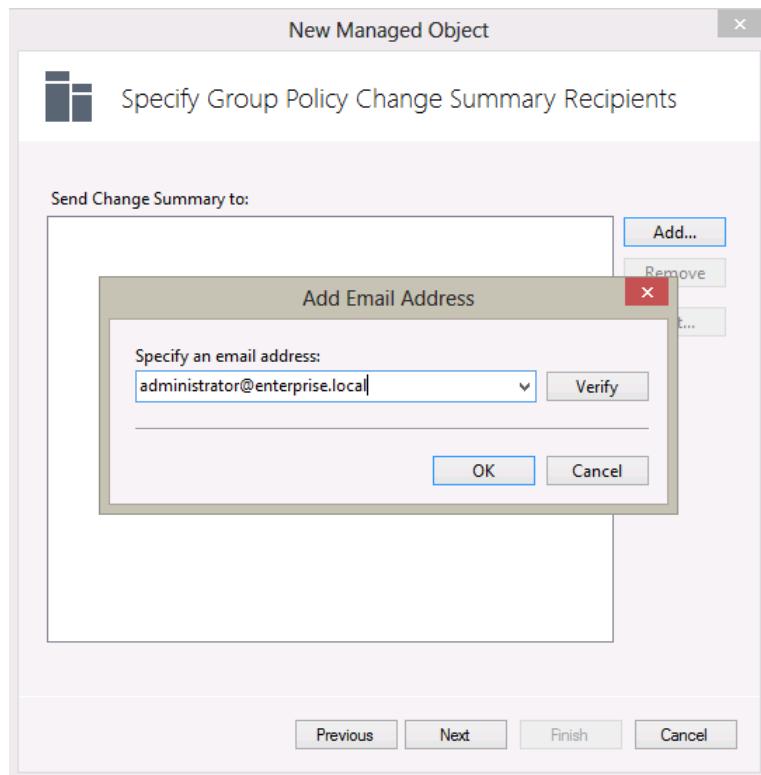
- Group membership allows collecting the information on the group membership of the users who make the changes. This information can be used to apply filters to the collected audit data and get the information on changes performed by members of specific groups only. For the details on these reports, refer to Section [6.8 Reports With Extended Audit Data](#) of this guide.

Note: If these options are enabled, additional events are written to the Security event log. This may lead to data overwrites. To prevent data loss it is recommended to configure the maximum size and retention settings of the Security event log as described in [Netwrix Auditor Installation and Configuration Guide](#).

For more details on these options, refer to the following Netwrix Knowledge Base Article: [Additional Audit Details: How it Works](#).

Figure 11: New Managed Object: Select Additional Audit Details

13. On the **Specify Group Policy Change Summary Recipients** step, click the **Add** button to specify the Change Summary recipient(s):

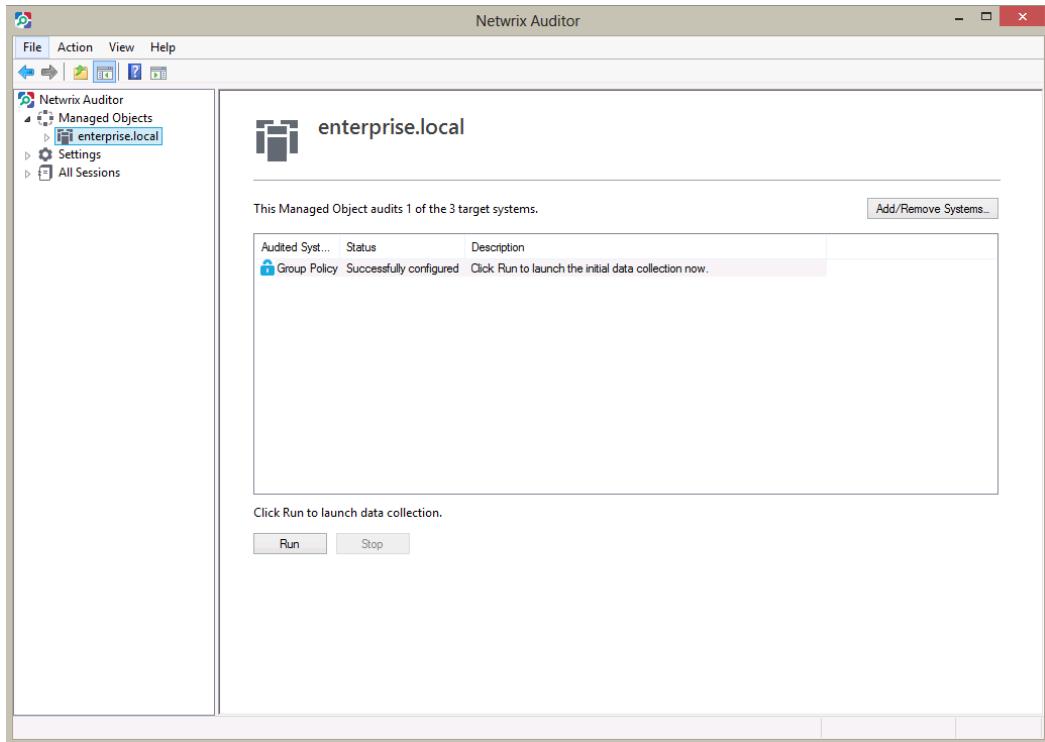
Figure 12: New Managed Object: Specify Group Policy Change Summary Recipients

It is recommended to click the **Verify** button. The system will send a test message to the specified email address and will inform you if any problems are detected. Click **OK** to save the changes and then click **Next**.

14. On the last step, review your Managed Object settings and click **Finish**. A confirmation message will be displayed.

The newly created Managed Object will appear under the **Managed Objects** node, and its details will be displayed in the right pane:

Figure 13: Managed Object Page



4.2. Modifying Managed Object Settings

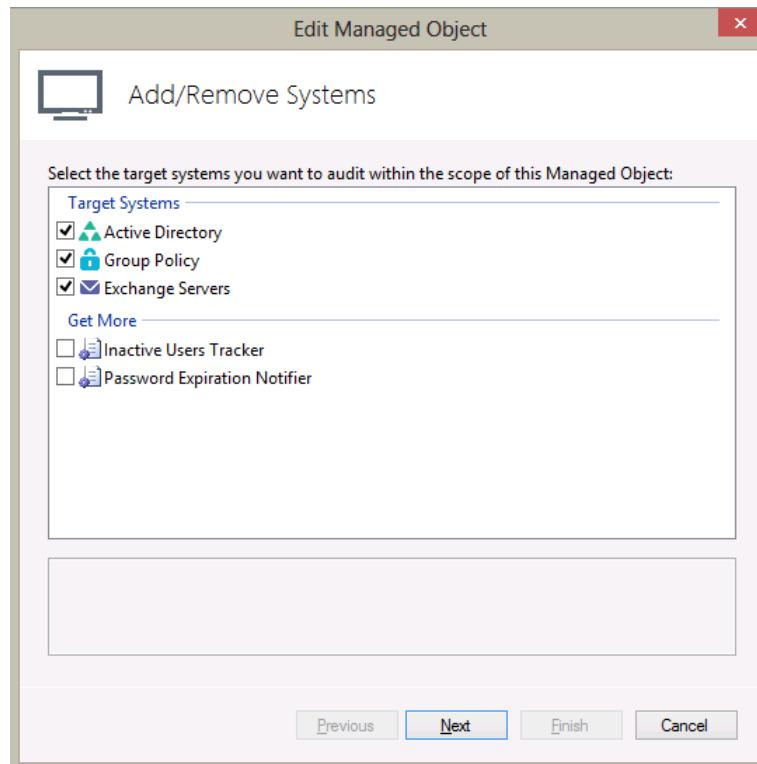
To modify the settings for an existing Managed Object, perform one of the following procedures:

- [To modify general settings](#): add or remove target systems for the selected Managed Object.
- [To modify the Data Processing Account](#): override the default Data Processing Account for this Managed Object and specify a different account for data collection.
- [To modify the Group Policy audit settings](#).

Procedure 2. To modify general settings

1. In the Netwrix Auditor console, expand the **Managed Objects** node and select your Managed Object. The Managed Object details page will be displayed showing a list of target systems audited within the scope of this Managed Object.
2. Click the **Add/Remove Systems** button. The Edit Managed Object wizard will start with the Add/Remove Systems screen.

Figure 14: Add/Remove Systems

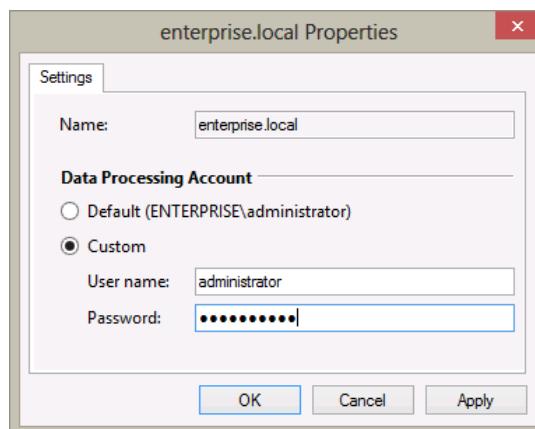


3. In the **Target Systems** list, select or clear the required check box to add the system or remove it respectively. Click **Next**. Follow the steps of the wizard to configure the selected target system audit.

Procedure 3. To modify the Data Processing Account

1. In the Netwrix Auditor console, expand the **Managed Objects** node and select your Managed Object. Right-click it and select **Properties** from the pop-up menu.
2. In the dialog that opens, select the **Custom** option under **Data Processing Account** and specify the credentials:

Figure 15: Managed Object Properties

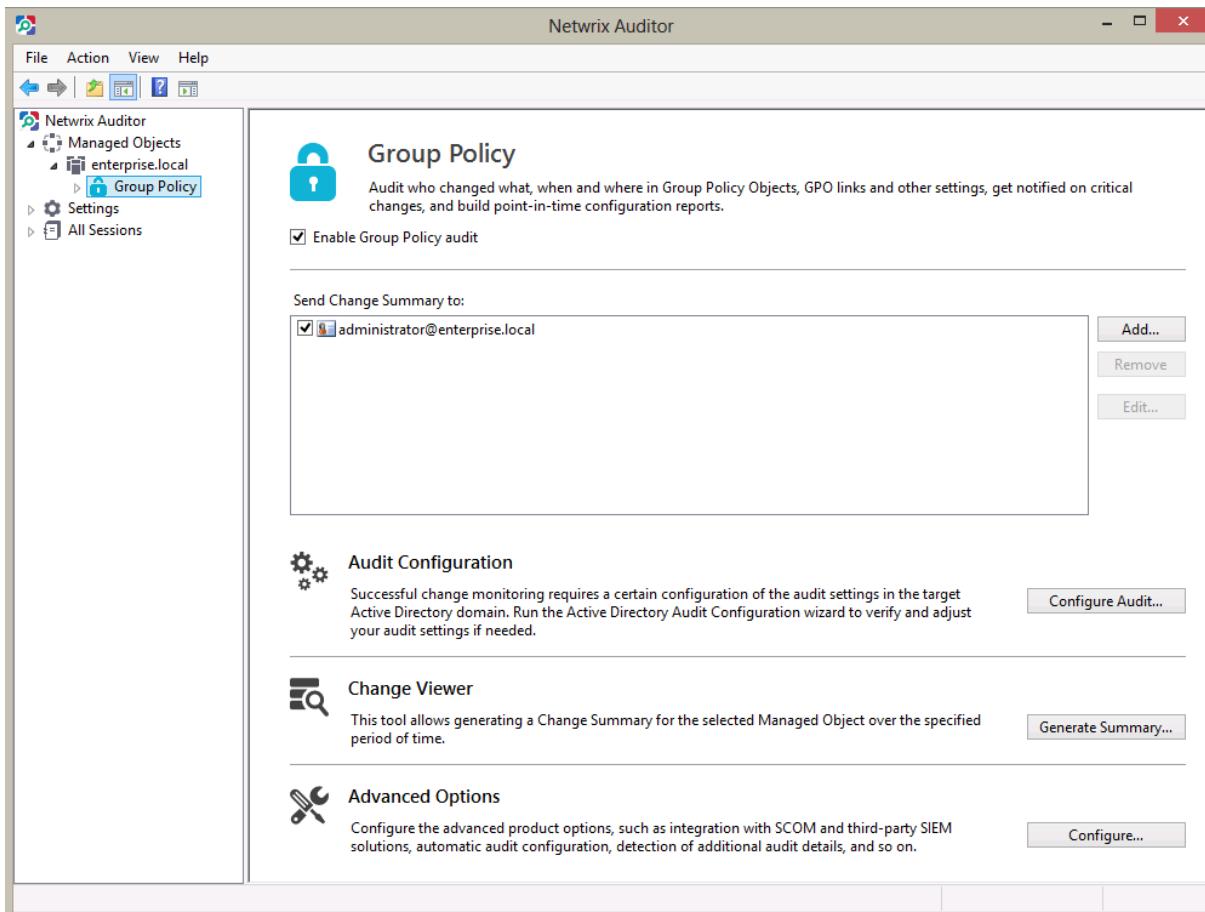


3. Click **OK** to save the changes. This account will be used for data collection for this Managed Object.

Procedure 4. To modify the Group Policy audit settings

1. In the Netwrix Auditor console, navigate to **Managed Objects** → <Managed_Object_name> and select **Group Policy**. The Group Policy audit settings page will be displayed:

Figure 16: Group Policy Audit Settings Page



2. Modify the Group Policy audit settings as follows:

- To enable or disable Group Policy audit, select or clear respectively the **Enable Group Policy audit** check box.
- To add an email address to the Change Summary Recipients list, click the **Add** button. Specify the email address and click **OK**. It is recommended to click the **Verify** button to validate this address. The system will send a test message and will inform you if any problems are detected.
- To modify an email address in the Change Summary Recipients list, select it and click the **Edit** button. Edit the address and click **OK**.
- To remove an email address from the Change Summary Recipients list, select it and click the **Remove** button. The selected address will be deleted.
- To adjust your audit settings, click the **Configure Audit** button.
- To generate Change Summary on a particular Managed Object for a specific period of time, click the **Generate Summary** button. For details, refer to [Procedure 6 To generate Change Summary on demand](#).
- To use the advanced product options, click the **Configure** button. The advanced options allow to: enable integration with third-party SIEM solutions, enable automatic audit configuration, and detect additional audit details such as

originating workstation and group membership. To enable advanced options, select or clear the corresponding check box. For details on integration with third-party SIEM solutions, refer to Section [8.2 Enabling Integration with Third-Party SIEM Solutions](#) of the current document.

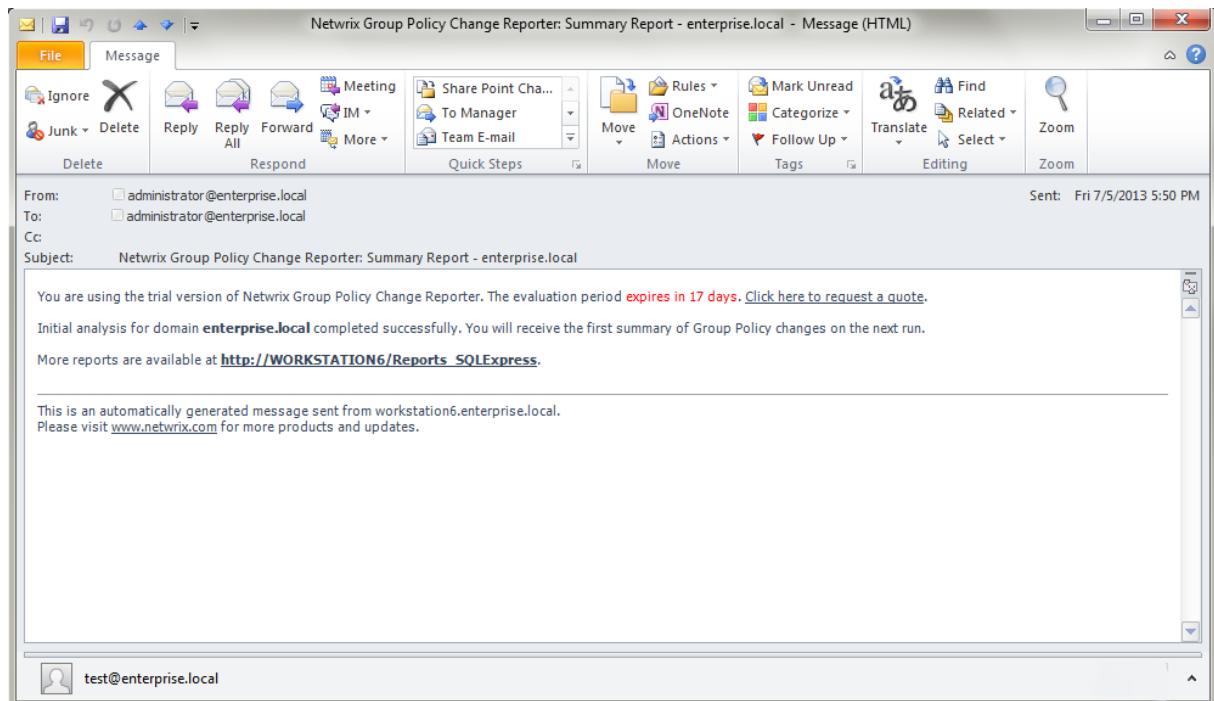
5. DATA COLLECTION

5.1. Data Collection Workflow

Netwrix Auditor data collection workflow is as follows:

1. When a new Managed Object is created, Netwrix Auditor starts collecting data from the monitored domain. The first data collection creates an initial snapshot of your monitored domain's current state. Netwrix Auditor uses this information as a benchmark to collect data on changes made to the managed domain.
2. After the initial analysis has been completed, an email notification is sent to the specified recipient(s) like in the example below:

Figure 17: Initial Analysis Notification



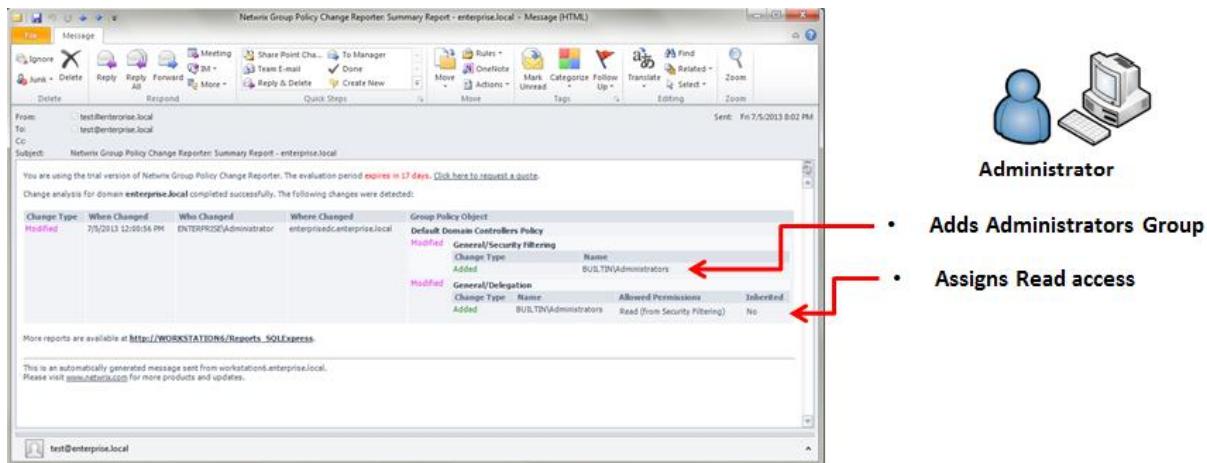
3. Once a day (at 3:00 AM by default), Netwrix Auditor writes data on the detected changes to a local storage of audit data, the Audit Archive. If the Reports feature is enabled and configured, data is then imported from the Audit Archive to a SQL database. If the State-in-Time Reports feature is enabled, the product will also write data on the monitored domain's configuration state.
4. At the same time, the product generates and emails a Change Summary to the specified recipients (for instructions on how to modify the Change Summary delivery schedule, refer to Section [5.2.1 Modifying Change Summary Delivery Schedule](#)). If Report Subscriptions are configured, the product also emails them to the specified recipients (for instructions on how to configure Subscription, refer to Section [6.4 Configuring Report Subscriptions](#)).

Note: For Netwrix Auditor to be able to collect audit data successfully, you need to configure your monitored Active Directory domain for audit prior to using the product. For detailed instructions on how to do this, refer to Chapter 4. Configuring Target Environment for Audit of [Netwrix Auditor Installation and Configuration Guide](#).

5.2. Change Summary

Each day (at 3:00 AM by default), Netwrix Auditor generates a Change Summary that contains the information on the changes that occurred in the last 24 hours and emails it to the specified recipients:

Figure 18: Change Summary Example



It provides the following information:

Table 4: Change Summary Fields

Parameter	Description
Change Type	Shows the type of action that was performed on the Group Policy Object. The values are: <ul style="list-style-type: none"> • Added • Removed • Modified
When Changed	Shows the exact time when the change occurred.
Who Changed	Shows the name of the account under which the change was made.
Where Changed	Shows the name of the domain controller from which the change was made.
Group Policy Object	Shows the Group Policy Object that was changed with the details on its “before” and “after” values.

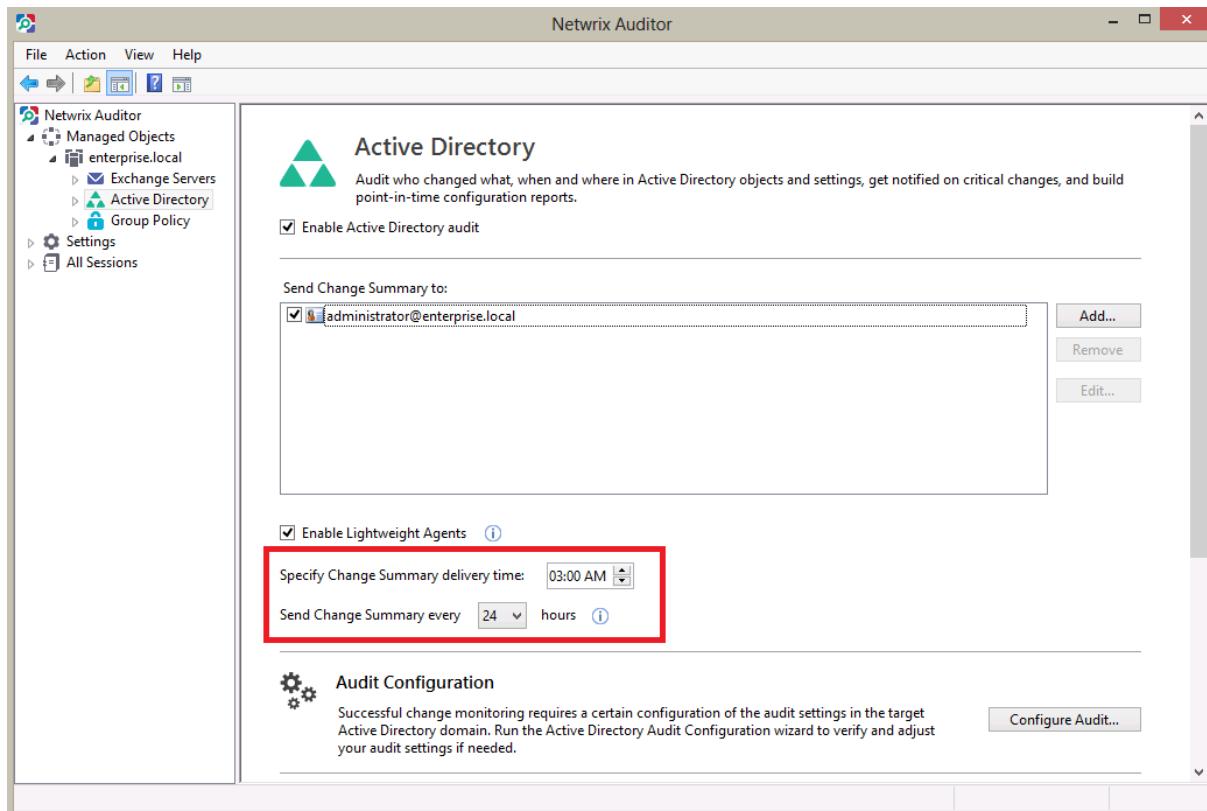
5.2.1. Modifying Change Summary Delivery Schedule

The Group Policy Change Summary delivery schedule can only be modified if the Active Directory audit is enabled for your Managed Object.

Procedure 5. To modify Change Summary delivery schedule

1. In the Netwrix Auditor console, navigate to **Managed Objects** → **<Managed_Object_name>** → **Active Directory**:

Figure 19: Active Directory Audit Page



2. In the right pane, set the time for the Change Summary delivery in the **Specify Change Summary delivery time** entry field.
3. If you wish to receive the Change Summary more frequently than once a day, modify the default value in the **Send Change Summary every x hours** entry field. The Change Summary will be delivered at a specified interval starting from the time indicated above.

Note: The changes will be applied to all target systems audited within the scope of this Managed Object.

5.2.2. Generating Change Summary on Demand

If you wish to generate an on-demand Change Summary without waiting for a scheduled delivery, do the following:

Procedure 6. To generate Change Summary on demand

1. In the Netwrix Auditor console, navigate to **Managed Objects** → <Managed_Object_name> (see [Figure 13: Managed Object Page](#)).
2. In the right pane, click the **Run** button.
3. A Change Summary will be generated and sent to the specified recipient(s).

Note: Depending on the size of the monitored environment and the number of changes, Change Summary generation may take quite long.

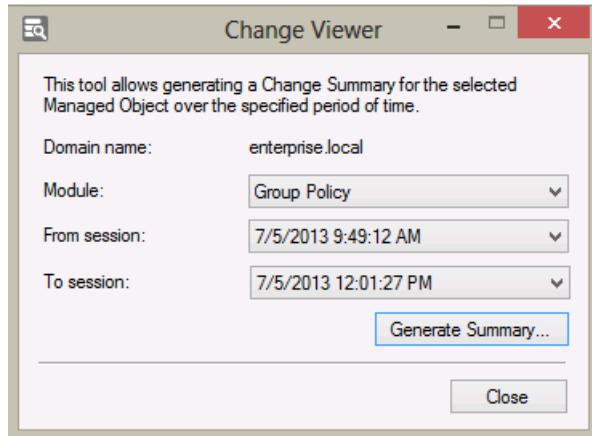
5.2.3. Viewing Change Summary for Specified Date Range

If you want to generate a Change Summary for a specific date range, do the following:

Procedure 7. To generate Change Summary for a specific date range

1. In the Netwrix Auditor console, navigate to Managed Objects → <Managed_Object_name> → Group Policy.
2. In the right pane, click the Generate Summary button next to Change Viewer. The Change Viewer tool will open:

Figure 20: Change Viewer



3. Make sure **Group Policy** is selected in the **Module** drop-down list.
4. Specify the date range by selecting Netwrix Auditor snapshots in the **From session** and **To session** drop-down lists.
5. Click the **Generate Summary** button. In the **Save as** dialog, specify the target location for the Change Summary. Once generated, it will be displayed in your default web browser:

Figure 21: Change Summary for a Specific Date Range

Change Type	When Changed	Who Changed	Where Changed	Group Policy Object												
Modified	7/5/2013 12:00:56 PM	ENTERPRISE\Administrator	enterprisedc.enterprise.local	Default Domain Controllers Policy Modified General/Security Filtering <table border="1"> <thead> <tr> <th>Change Type</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>Added</td> <td>BUILTIN\Administrators</td> </tr> </tbody> </table> Modified General/Delegation <table border="1"> <thead> <tr> <th>Change Type</th> <th>Name</th> <th>Allowed Permissions</th> <th>Inherited</th> </tr> </thead> <tbody> <tr> <td>Added</td> <td>BUILTIN\Administrators</td> <td>Read (from Security Filtering)</td> <td>No</td> </tr> </tbody> </table>	Change Type	Name	Added	BUILTIN\Administrators	Change Type	Name	Allowed Permissions	Inherited	Added	BUILTIN\Administrators	Read (from Security Filtering)	No
Change Type	Name															
Added	BUILTIN\Administrators															
Change Type	Name	Allowed Permissions	Inherited													
Added	BUILTIN\Administrators	Read (from Security Filtering)	No													

Note: Change Summary generation time depends on the selected date range and the size of the monitored environment, and can take quite long. It is

recommended to use the [Reports](#) functionality to review changes made to the monitored domain.

5.3. Sessions

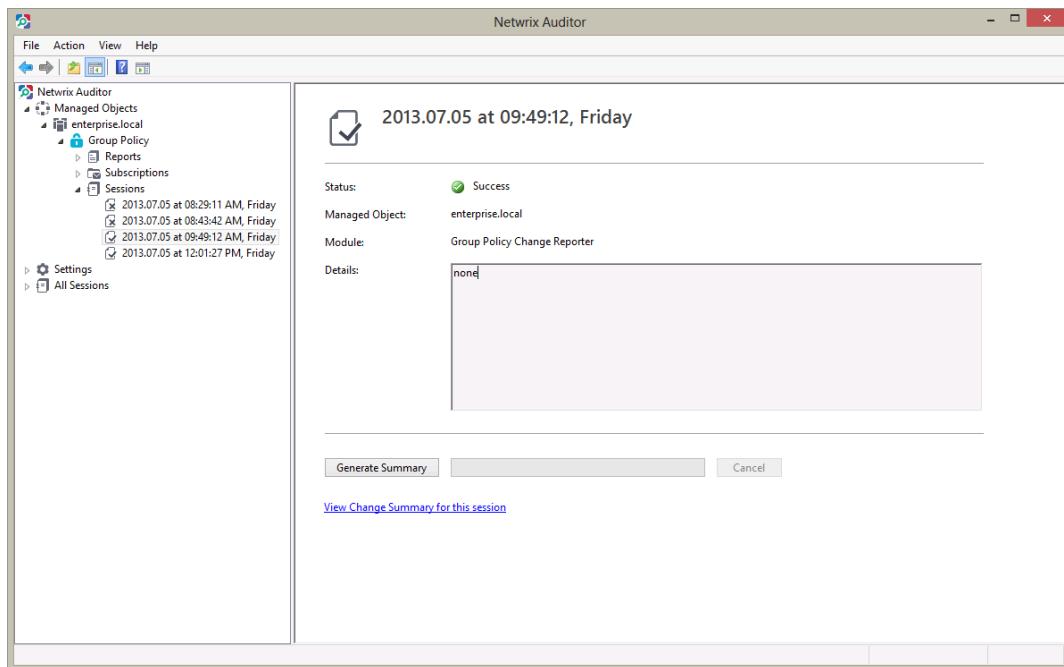
A Session is a scheduled or on-demand data collection that triggers Change Summary generation and delivery.

You can view Sessions in two ways:

- Under a particular Managed Object → target system node: in the Netwrix Auditor console navigate to **Managed Objects** → <Managed_Object_name> → **Group Policy** → **Sessions**.
- In bulk for all Managed Objects and installed modules: in the Netwrix Auditor console select the **All Sessions** node in the left pane.

When you select a Session, its details are displayed in the right pane:

Figure 22: The Session Details Page



The following information is provided:

Table 5: Session Details

Parameter	Description
Status	Shows Session status. The possible values are Success and Error.
Managed Object	Shows the name of the monitored domain.
Module	Shows the target system that this Session is for.
Details	Displays an error text if the Session status is Error.

From this page, you can also view a Change Summary for a particular Session in a web browser. For detailed instructions on how to do it, refer to Section [5.3.1 Viewing Change Summary for Sessions](#).

You can configure the number of Sessions available for review in the Netwrix Auditor console by specifying the date range for Sessions to be stored. For detailed instructions on how to do this, refer to Section [7.3 Configuring Audit Archive Settings](#).

5.3.1. Viewing Change Summary for Sessions

Procedure 8. To view Change Summary for a Session

1. Select a Session that you want to view a Change Summary for.
2. In the right pane, click the **Generate Summary** button. If you have already generated the Change Summary for this session before, click the **View Change Summary for this session** link.
3. The Change Summary for this session will be displayed in your default web browser:

Figure 23: Web-based Change Summary

The screenshot shows a web browser window displaying a report titled "GP changes report 7/5/2013...". The title bar includes standard icons for back, forward, search, and refresh, along with the URL "C:\Users\test\Documents\GP changes report 7/5/2013..." and a close button. Below the title bar, a message states: "You are using the trial version of Netwrix Group Policy Change Reporter. The evaluation period **expires in 17 days**. [Click here to request a quote](#)." A note below says: "Change analysis for domain **enterprise.local** completed successfully. The following changes were detected:". The main content area is a table with the following columns and data:

Change Type	When Changed	Who Changed	Where Changed	Group Policy Object												
Modified	7/5/2013 12:00:56 PM	ENTERPRISE\Administrator	enterprisedc.enterprise.local	Default Domain Controllers Policy Modified General/Security Filtering <table border="1"> <tr> <td>Change Type</td> <td>Name</td> </tr> <tr> <td>Added</td> <td>BUILTIN\Administrators</td> </tr> </table> Modified General/Delegation <table border="1"> <tr> <td>Change Type</td> <td>Name</td> <td>Allowed Permissions</td> <td>Inherited</td> </tr> <tr> <td>Added</td> <td>BUILTIN\Administrators</td> <td>Read (from Security Filtering)</td> <td>No</td> </tr> </table>	Change Type	Name	Added	BUILTIN\Administrators	Change Type	Name	Allowed Permissions	Inherited	Added	BUILTIN\Administrators	Read (from Security Filtering)	No
Change Type	Name															
Added	BUILTIN\Administrators															
Change Type	Name	Allowed Permissions	Inherited													
Added	BUILTIN\Administrators	Read (from Security Filtering)	No													

At the bottom of the report, there is a link: "More reports are available at http://WORKSTATION6/Reports_SQLExpress". Below that, a note says: "Please visit www.netwrix.com for more products and updates."

6. REPORTS

6.1. Reports Overview

Netwrix Auditor allows generating reports on Group Policy changes and configuration snapshots based on Microsoft SQL Server Reporting Services (SSRS). The product provides a wide variety of predefined report templates that will help you stay compliant with various standards and regulations (GLBA, HIPAA, PCI, SOX, and many others). You can use different output formats for your reports, such as PDF, XLS, and so on.

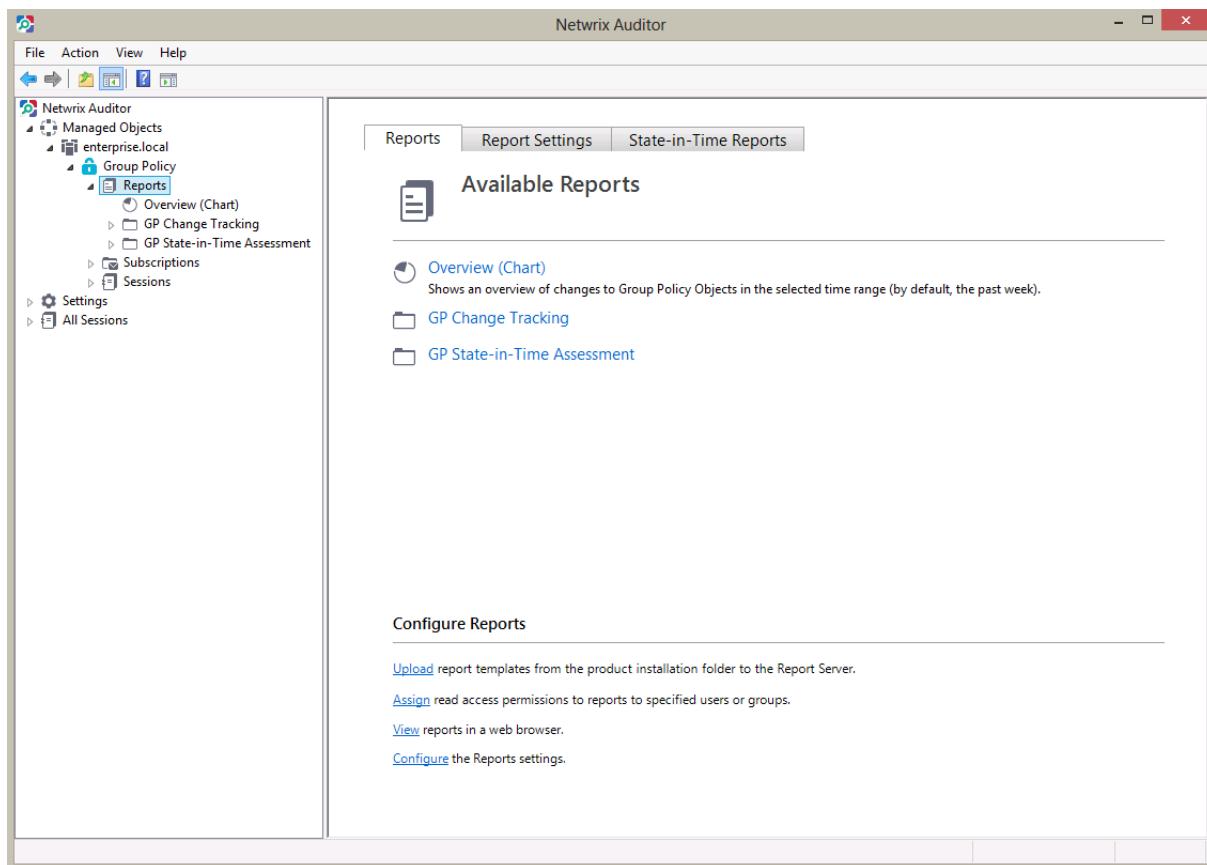
Note: If your situation requires the use of additional report types, you can [order custom report templates](#) from Netwrix.

In Netwrix Auditor, the following types of Group Policy reports are available:

- [Overview](#): This is a chart report that shows an overview of changes to Group Policy Objects within the selected time frame. Three charts show data grouped by the monitored domain controller, where the changes were made, date, and the user who made the changes. This is a drill-through report, which means that by clicking a chart you will be redirected to a report with the corresponding grouping of data that provides the next level of detail. For details, refer to Section [6.5 Overview Report](#).
- [Change Review History](#): This is a report that shows all changes made to Group Policy. This report is an auxiliary tool that can be used in the basic change management process. For more details, refer to Section [6.6 Change Management](#).
- [GP Change Tracking Reports](#): Reports that provide data on changes made to Group Policy. These reports all have a different set of filters allowing you to manage the collected audit data in the most convenient way. The product provides many pre-defined report templates, covering the most important areas of Group Policy audit such as GPO links, security settings, software settings, user configuration, and so on.
- [GP State-in-Time Assessment Reports](#): Reports that provide data on your Group Policy state at a specific moment of time in addition to change reports. These reports are only available if the State-in-Time Reports feature is enabled. For detailed information on State-in-Time Reports, refer to Section [6.7 State-in-Time Assessment Report](#) of this guide.
- [Reports with extended audit data](#): Reports that provided extended audit data on changes to Group Policy such as originating workstation and group membership. For detailed information on these reports, refer to Section [6.8 Reports With Extended Audit Data](#) of this guide.
- [Reports with Video](#): Reports that in addition to the data on changes to Group Policy provide links to the corresponding video files showing how a particular change was made. For detailed information on the reports with video, refer to Section [8.1 Configuring Integration with User Session Activity Audit](#) of this guide.

For a full list of available reports, expand the Reports node under **Managed Objects → <Managed_Object_name> → Group Policy**:

Figure 24: Reports



6.2. Configuring Reports

To configure SSRS-based Reports, or modify the Reports settings for your Managed Object, perform the following operations:

- [Configuring SQL Server Settings](#)
- [Uploading report templates to the Report Server](#)
- [Importing audit data from the Audit Archive to an SQL database](#)
- [Configuring Audit Database Retention Policy](#)
- [Assigning Permissions to View Reports](#)

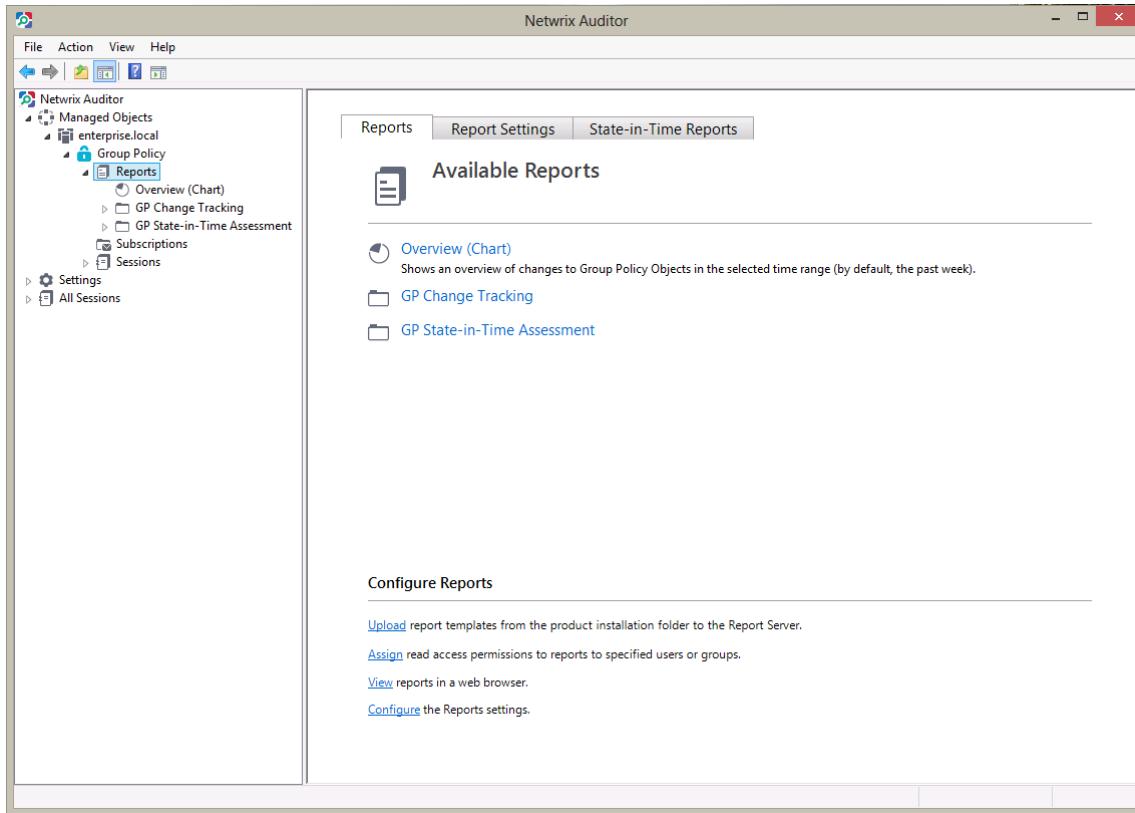
6.2.1. Configuring SQL Server Settings

If you have not enabled and configured the Reports feature on Managed Object creation, or if you want to modify the Reports settings for an existing Managed Object, do the following:

Procedure 9. To configure SQL Server Settings

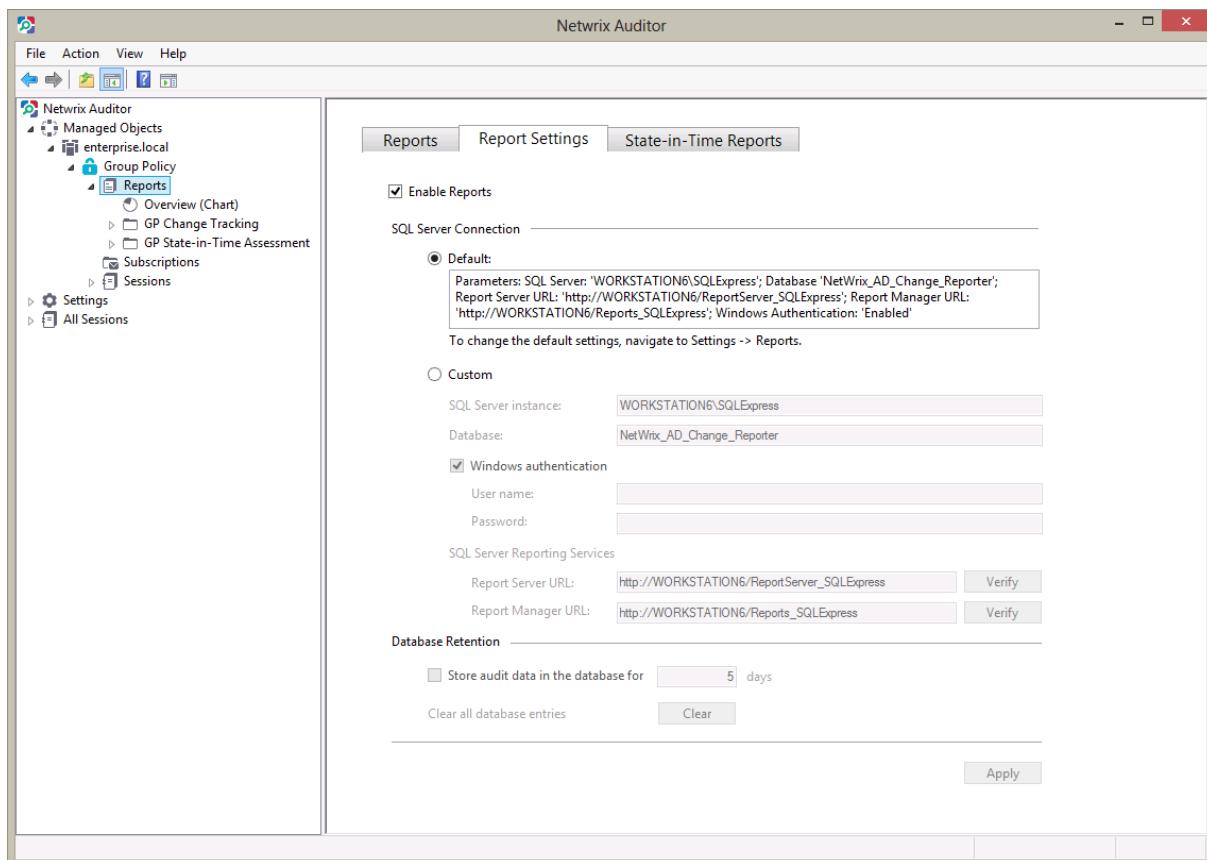
1. In the Netwrix Auditor console, navigate to **Managed Object** → **<Managed_Object_name>** → **Group Policy** → **Reports**. The following page will be displayed:

Figure 25: Reports Page



2. Select **Configure** under **Configure Reports**, or switch to the **Report Settings** tab. The Reports Settings page will be displayed:

Figure 26: Reports Settings



3. Specify or modify the following parameters:

Table 6: Reports Settings

Parameter	Description
Enable Reports	Select this check box to enable the Reports functionality for the selected Managed Object.
Default	Select this option to use the default SQL Server connection settings.
Custom	Select this option to specify your custom SQL Server connection settings.
Server	Specify the name of an existing SQL Server instance where a database of audit data will be created.
Database	Specify the SQL database name.
User name	Enter a user name for the SMTP authentication. This user must belong to the target database owner role.
Password	Enter a password for the SMTP authentication.
Windows Authentication	Select this check box if you want to use the default Data Processing Account (specified on Managed Object creation) to access the SQL database. Clear this box to use the SQL Server authentication.
Report Server URL	Specify the Report Server URL. NOTE: It is recommended to click the Verify button to ensure that the resource is reachable.
Report Manager URL	Specify the Report Manager URL. NOTE: It is recommended to click the Verify button to ensure that the resource is reachable.
Store audit data in the	This option is disabled in this product version.

database for x days	
Clear all database entries	This option is disabled in this product version.

- Click **Apply** to save the changes.

Note: When you configure the Reports settings, a SQL database for audit data is created. If you skip the Reports configuration on Managed Object creation, the database will not be created, and audit data will only be written to the local repository, the Audit Archive. If later you decide to enable the Reports feature for this Managed Object and want historical audit data to be available for reporting, you will have to import data from the Audit Archive to the SQL database using the DB Importer tool. For detailed instructions on how to do this, refer to Section [6.2.3 Importing Audit Data to SQL Database](#).

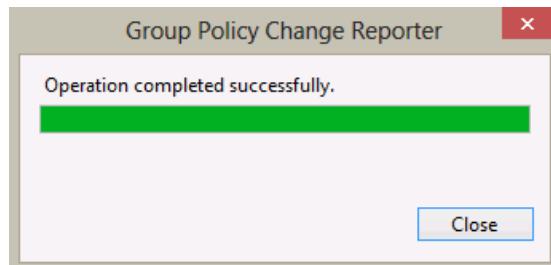
6.2.2. Uploading Report Templates to the Report Server

If you have not enabled the Reports feature when creating a Managed Object, and decided to enable it later, you need to upload the report templates to the Report Server.

Procedure 10. To upload report templates to the Report Server

- On the Reports page (see [Figure 25: Reports Page](#)), click **Upload** under **Web-based Reports**. The system will upload the report templates to the Report Server and will display the following confirmation message when the operation is completed:

Figure 27: Uploading Report Templates



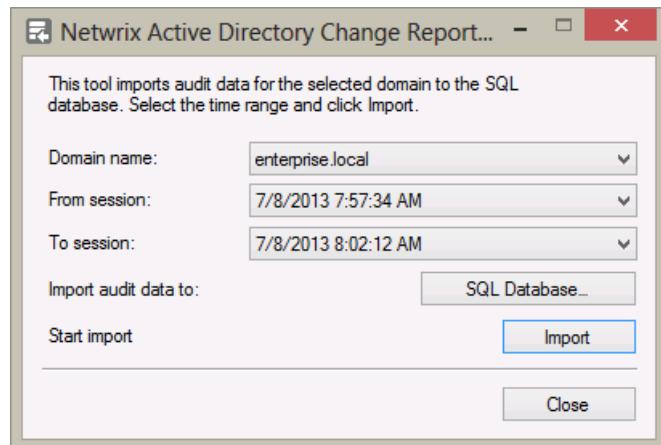
6.2.3. Importing Audit Data to SQL Database

If you have not enabled the Reports feature when creating a Managed Object, and decided to enable it later, you may want to make audit data stored in the Audit Archive available for Reports. This can be done by importing data from the Audit Archive to a SQL database with the DB Importer tool. This tool can also be used for data recovery in case the database is corrupted.

Procedure 11. To import audit data

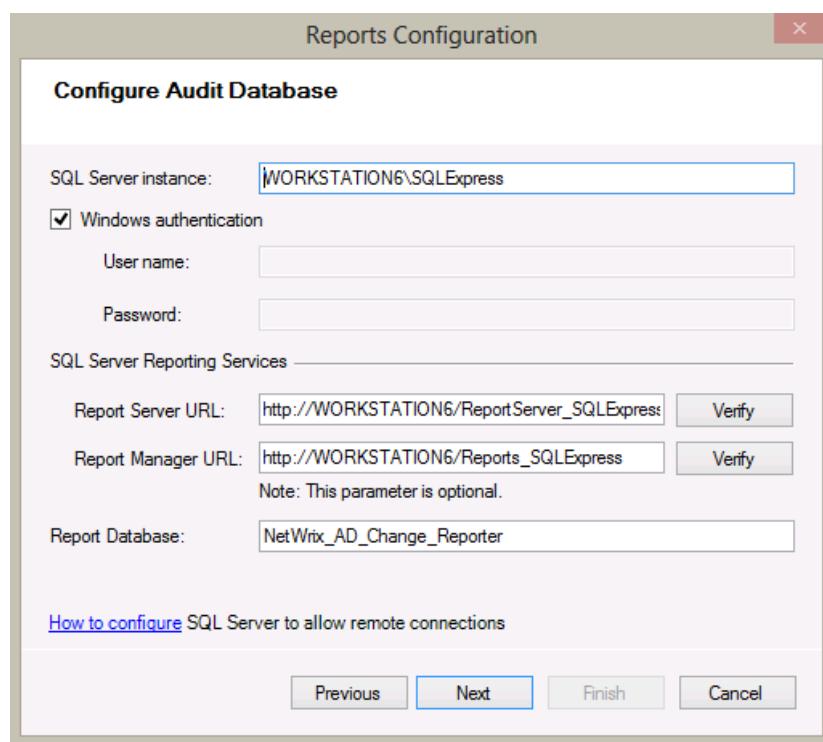
- Navigate to Start → All Programs → Netwrix → Exchange Change Reporter → Advanced Tools and select DB Importer. The DB Importer dialog will open:

Figure 28: Netwrix DB Importer



2. Select your monitored domain in the **Domain name** menu and the time range for which you want to import data from the **From session** and **To session** drop-down lists.
3. Click the **SQL Database** button to select the target database. The following dialog will be displayed with the default SQL Server and Report Server Settings:

Figure 29: Reports Settings



4. Verify the database settings and click **OK**.
5. Click the **Import** button to start importing data from the Audit Archive to the selected database. A confirmation message will be displayed on successful operation completion.

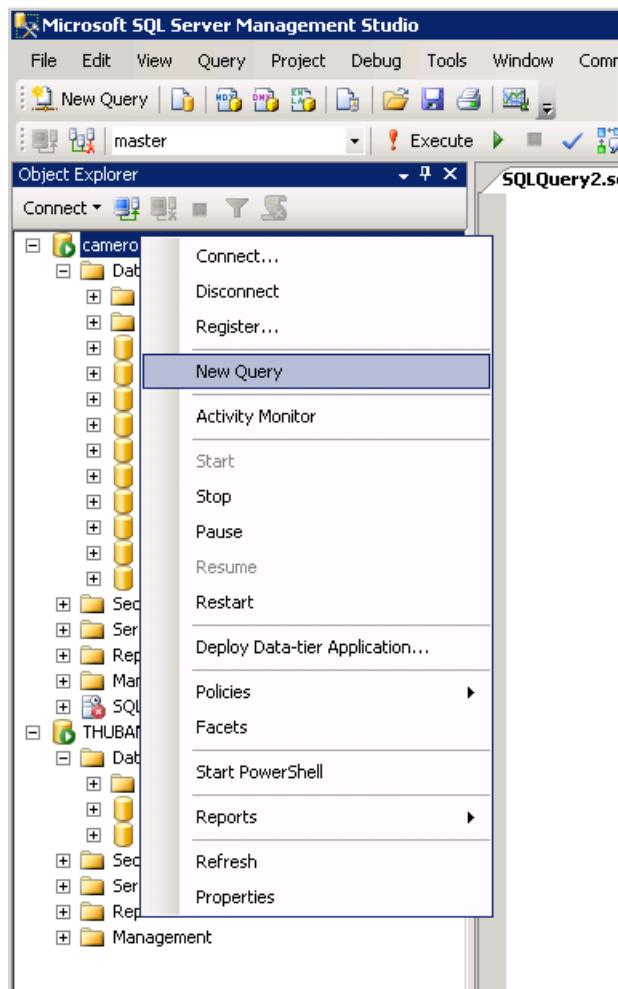
6.2.4. Configuring Audit Database Retention Policy

If you want audit data to be deleted automatically from your SQL database after a certain period of time, you can specify the retention policy for audit data.

Procedure 12. To configure audit database retention period

1. Navigate to Start → All Programs → Microsoft SQL Server → SQL Server Management Studio and connect to your SQL Server instance.
2. In the left pane, navigate to your target database, right-click it and select New Query from the popup menu:

Figure 30: Create New Query

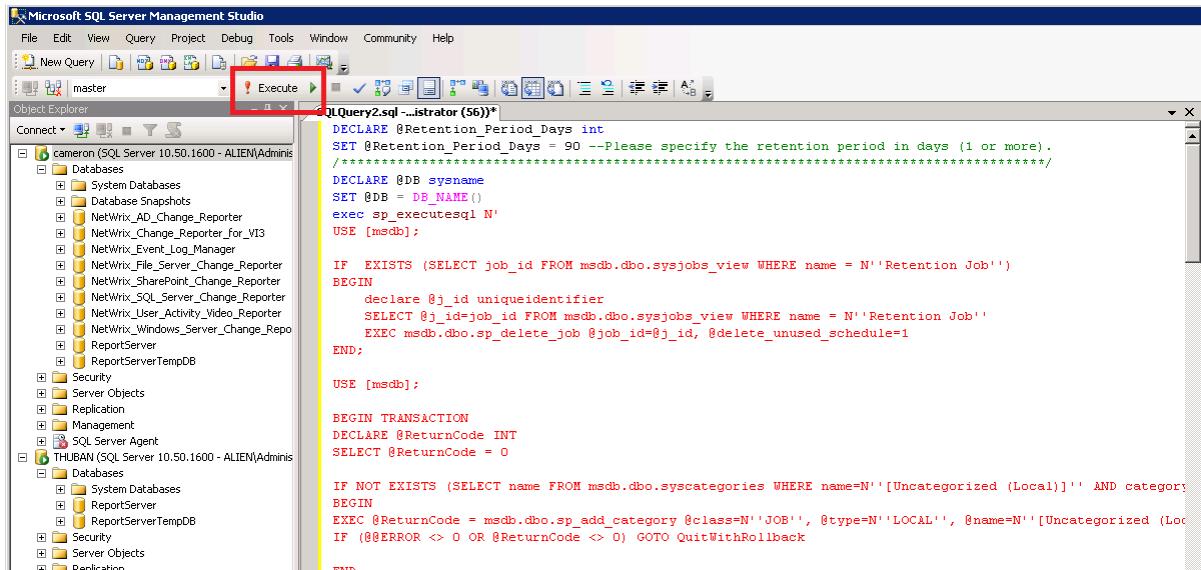


3. Copy the script contained in [A Appendix: SQL Database Retention Script](#) of this document and paste it into the Query tab.
4. In the second line of the query, specify the retention period for your audit data in days:

```
SET @Retention_Period_Days = 90
```

5. Click Execute in the Microsoft SQL Server Management Studio toolbar to execute the query:

Figure 31: Execute Query



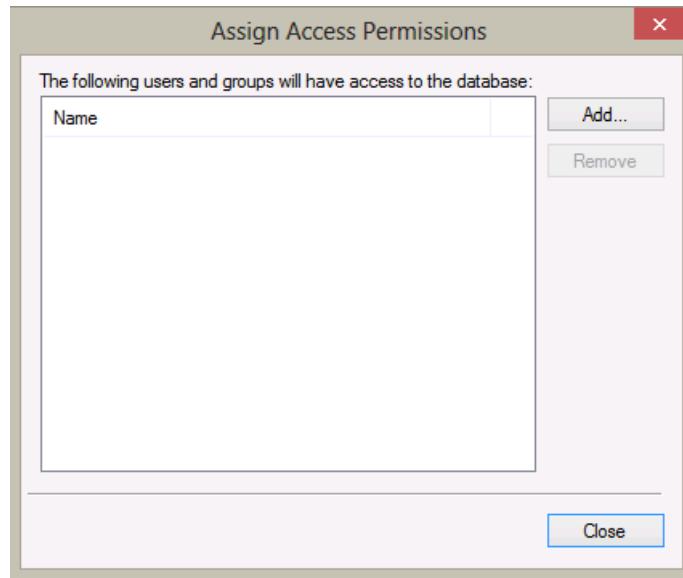
6.2.5. Assigning Permissions to View Reports

Your situation may require that different users in your organization have access to reports. By default, reports can only be accessed by domain administrators. To grant other users access to reports, do the following:

Procedure 13. To assign permissions to view reports

1. On the Reports page (see [Figure 25: Reports Page](#)), click **Assign** under **Configure Reports**. The following dialog will be displayed:

Figure 32: Assign Access Permissions



2. Click the **Add** button and specify the name of the user or group that you want to assign permissions to. You can click the button to search for users or groups inside your Active Directory domain. Then click **OK**. The selected user(s) will now be able to view reports.

6.3. Viewing Reports

Netwrix Auditor provides two options for viewing reports on Group Policy changes:

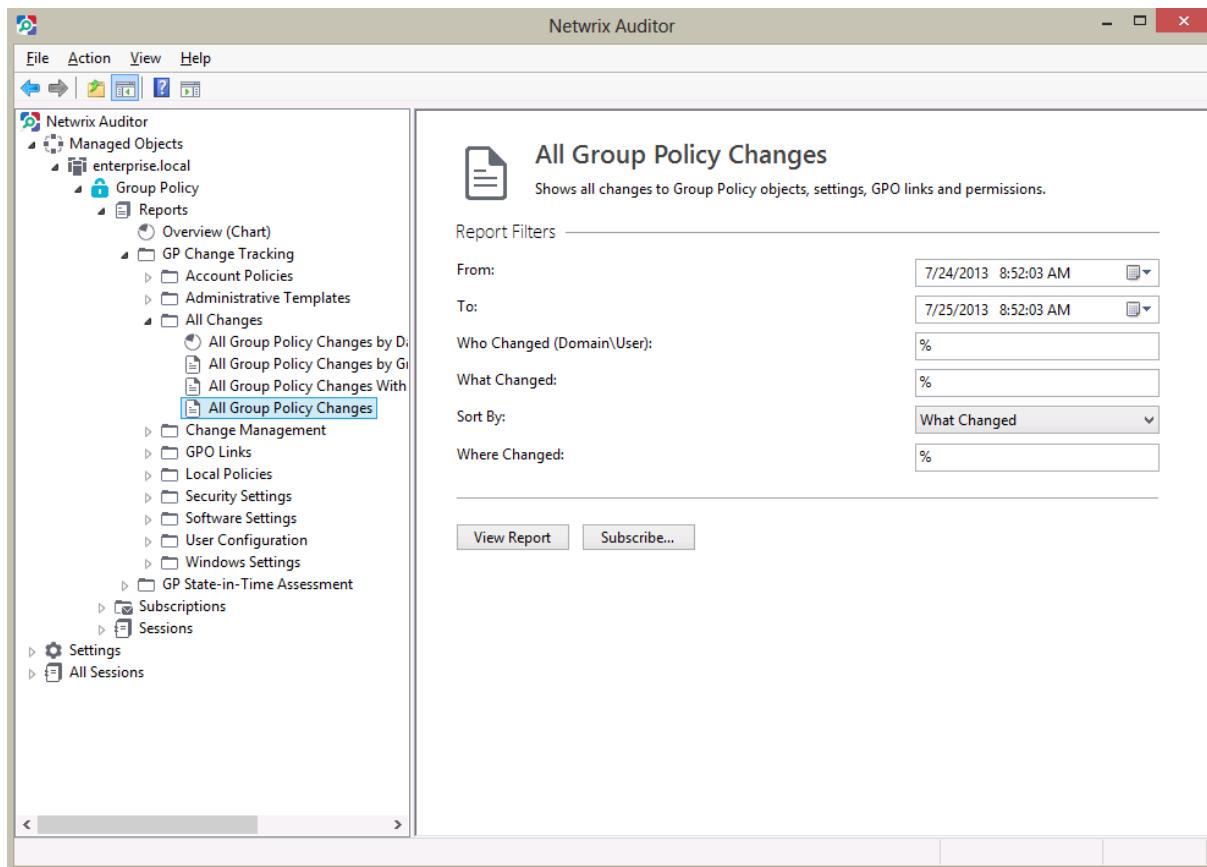
- [In the Netwrix Auditor console](#)
- [In a web browser](#)

6.3.1. Viewing Reports in Netwrix Auditor Console

Procedure 14. To view a report in the Netwrix Auditor console

1. In the Netwrix Auditor console, navigate to Managed Objects → <Managed_Object_name> → Group Policy → Reports.
2. Select a report from one of the folders. A page like the following will be displayed (report filters may vary depending on the selected report):

Figure 33: All Group Policy Changes Report Page



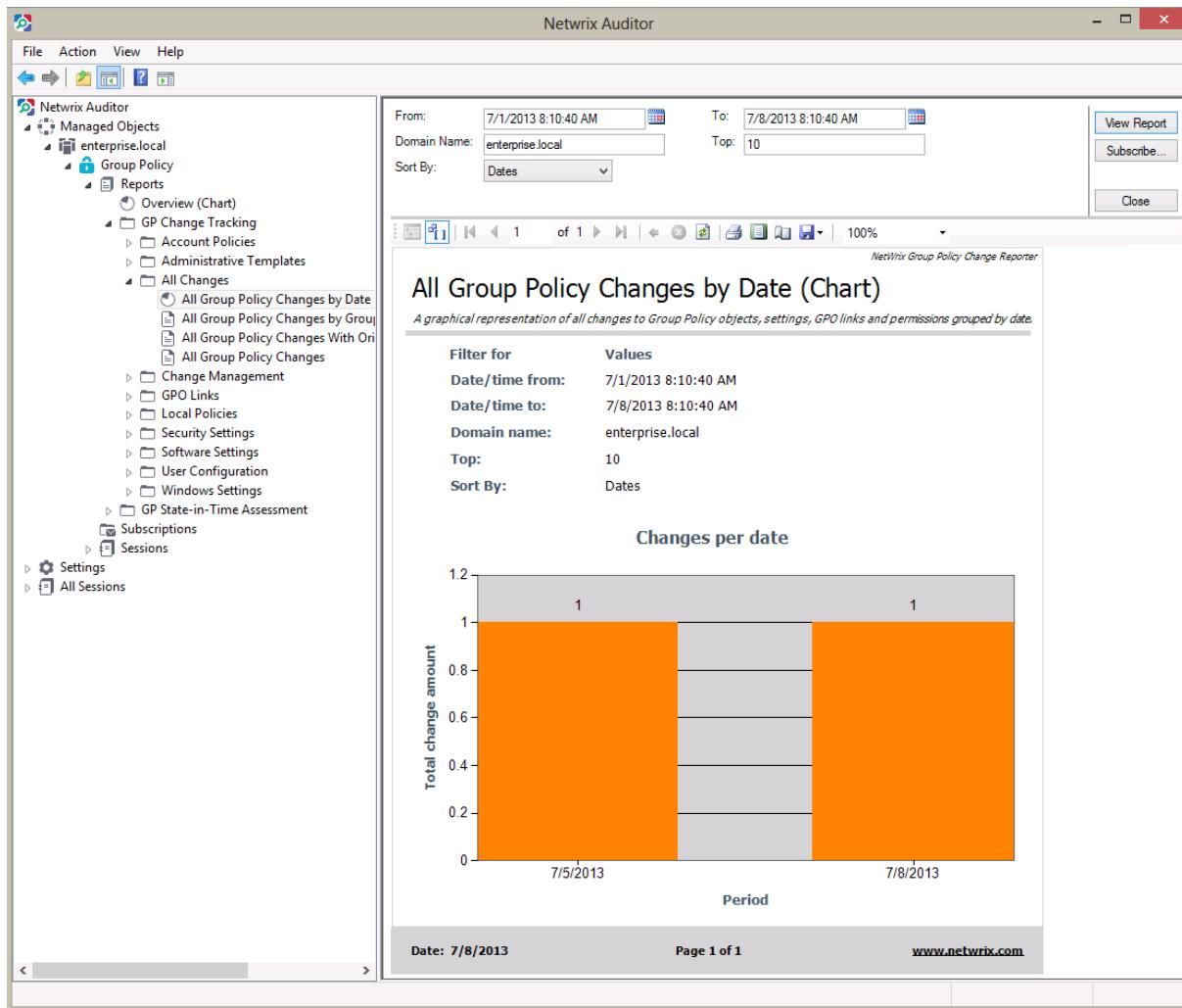
3. Specify the report filters (a wildcard (%) can be used to replace any number of characters) and click the **View Report** button (**View Chart** for chart reports). The report will be displayed in the right pane:

Figure 34: All Group Policy Changes Report

Action	Who Changed	What Changed	Where Changed	When Changed
Modified	ENTERPRISE\Administrator	Default Domain Policy	enterprise\dc\enterprise.local	7/8/2013 8:01:33 AM
	Action	Path		
Modified	General/Delegation			
Added	Name: ENTERPRISE\test; Allowed Permissions: Read; Inherited: No;			

The chart reports provide a visual representation of the changes statistics in the monitored domain:

Figure 35: All Group Policy Changes Chart (Chart)



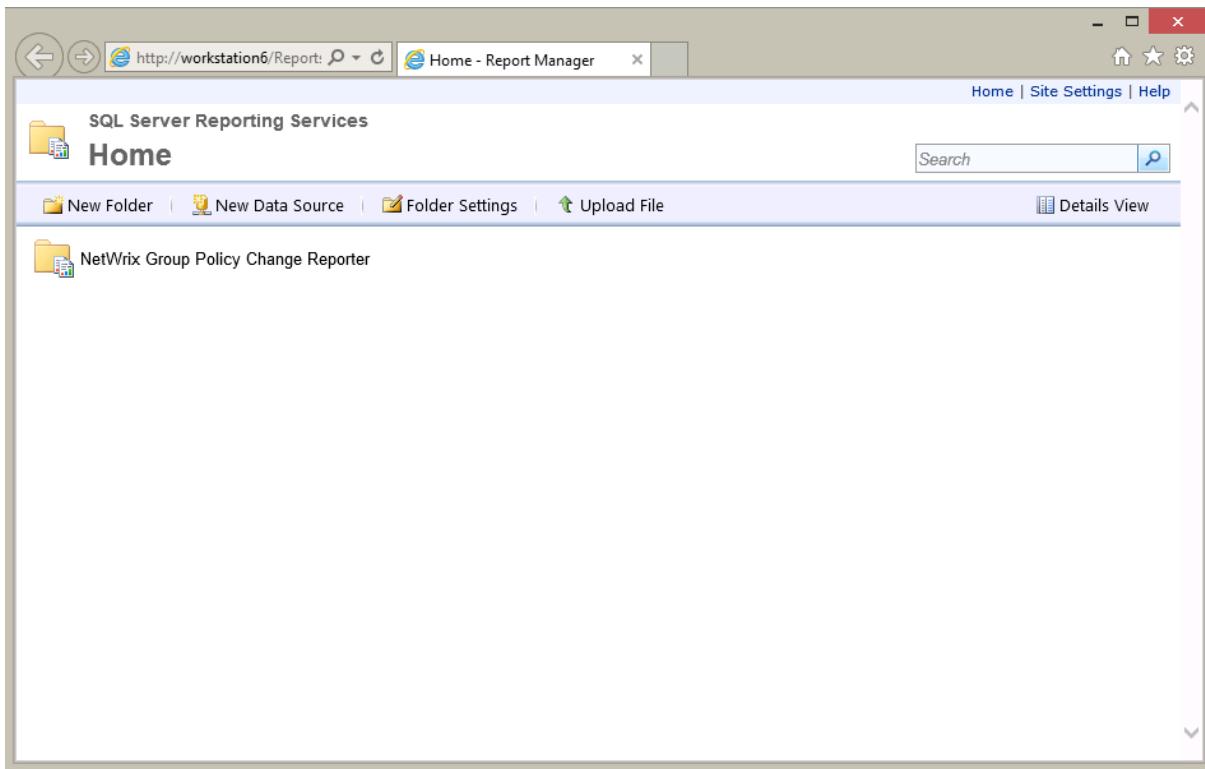
6.3.2. Viewing Reports in Web Browser

To view a report in a web browser, do the following:

Procedure 15. To view a report in a web browser

1. Open a web browser and type the Report Server URL (you can find the URL in the Netwrix Auditor console by navigating to **Settings** → **Reports**). Alternatively, in the Netwrix Auditor console, navigate to the Reports page (see [Figure 25: Reports Page](#)) and click **View** under **Configure Reports**. The following page will be displayed:

Figure 36: SQL Server Reporting Services Page



Note: If you have configured Netwrix Auditor to audit other target systems, and if the Reports feature is enabled and configured for them, the SQL Server Reporting Services page will contain reports folders for all of these target systems.

2. Click the **Netwrix Group Policy Change Reporter** folder and navigate to the report you want to generate. Click the report name. The report will be displayed showing the changes that occurred in the last 24 hours. On this page, you can specify filters to the selected report and click the **View Report** button (**View Chart** for chart reports) to apply them:

Figure 37: All Group Policy Changes Report (Web Browser)

The screenshot shows a web browser window for the Netwrix Group Policy Change Reporter. The URL is <http://workstation6/Rep>. The page title is "All Group Policy Changes - ...". The top navigation bar includes links for Home, Site Settings, and Help.

Filter settings (top left):

- From: 7/7/2013 8:26:37 AM
- To: 7/8/2013 8:26:37 AM
- Who Changed (Domain\User): %
- What Changed: %
- Sort By: What Changed
- Where Changed: %
- Domain Name: %

Buttons: View Report, Find, Next, Print, Copy, Paste.

Section title: All Group Policy Changes

Description: Shows all changes to Group Policy objects, settings, GPO links and permissions.

Filter for Values:

Date/time from:	7/7/2013 8:26:37 AM
Date/time to:	7/8/2013 8:26:37 AM
Domain name:	%
Where changed:	%
Who changed:	%
What changed:	%
Sort by:	What Changed

Table of changes (bottom left):

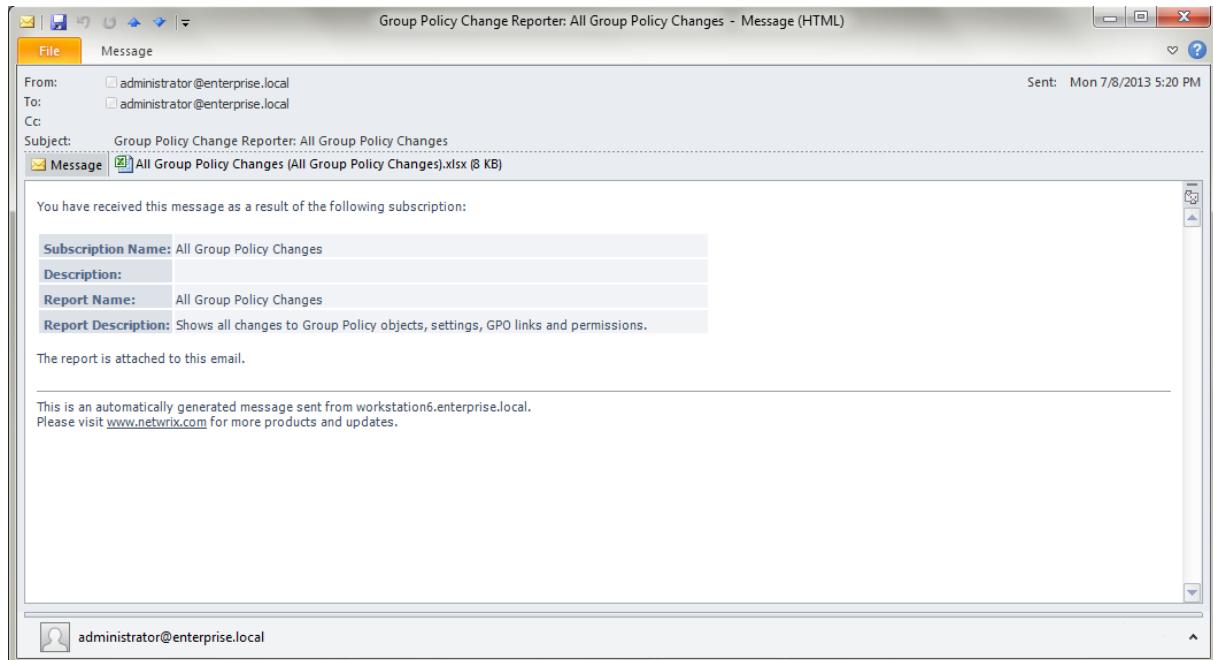
Action	Who Changed	What Changed	Where Changed	When Changed
Modified	ENTERPRISE\Administrator	Default Domain Policy	enterprisedc.enterprise.local	7/8/2013 8:01:33 AM
	Action	Path		
Modified		General/Delegation		
Added		Name: ENTERPRISE\test; Allowed Permissions: Read; Inherited: No;		

Page footer: Date: 7/8/2013, Page 1 of 1, www.netwrix.com

6.4. Configuring Report Subscriptions

In Netwrix Group Policy Change Reporter, you can configure a Subscription to schedule automatic report generation and delivery. You can apply various filters to your reports, and select their output format. The report will be sent as an email attachment in the selected format:

Figure 38: Report Delivered by Subscription



This section provides detailed instructions on how to:

- [Create a Subscription](#)
- [Modify a Subscription](#)
- [Force on-demand report delivery](#)

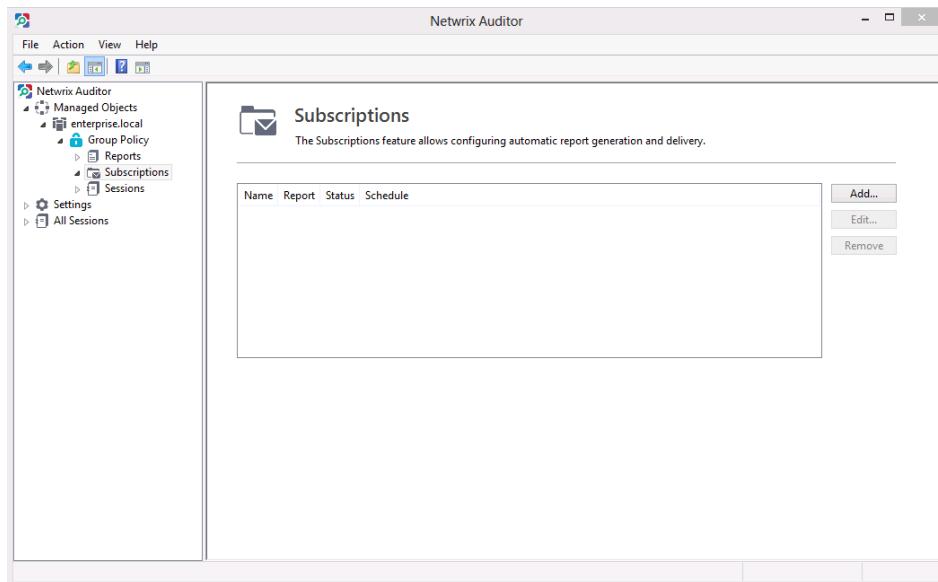
6.4.1. Creating Subscription

To subscribe to a report, do the following:

Procedure 16. To create a Subscription

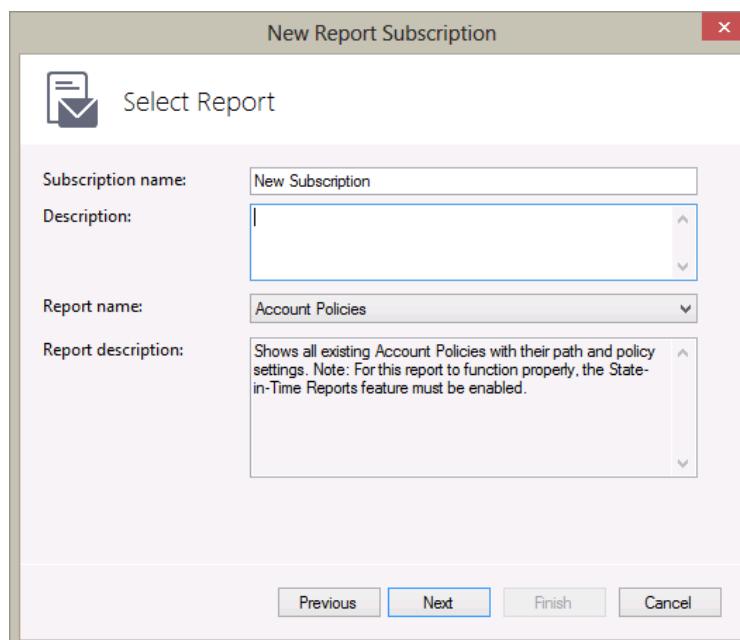
1. In the Netwrix Auditor console, navigate to **Managed Objects** → <Managed_Object_name> → **Group Policy** → **Subscriptions**. The following page will be displayed:

Figure 39: Subscriptions Page



2. Click the **Add** button to start the Report Subscription wizard. You can also start the Report Subscription wizard by selecting a report and clicking the **Subscribe** button on the report page.
3. On the Welcome page, click **Next**. When connection with the Report Server is established, the following dialog will be displayed:

Figure 40: New Report Subscription: Select Report



4. Specify the following parameters and click **Next** to proceed:

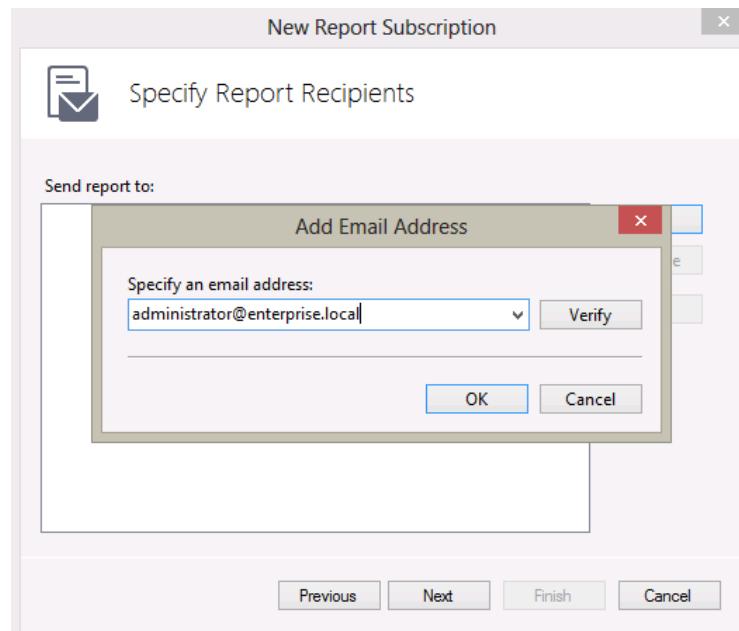
Table 7: Subscription Settings

Parameter	Description
Subscription name	Specify the subscription name. This name will be displayed in Netwrix Enterprise Management Console under the Subscriptions node.
Description	Enter the subscription description (optional).

Report name	Select the report that you want to subscribe to from the drop-down list. NOTE: If you start the Report Subscription wizard from a specific report, this field will be filled in automatically.
Report description	This field is filled in automatically depending on the selected report.

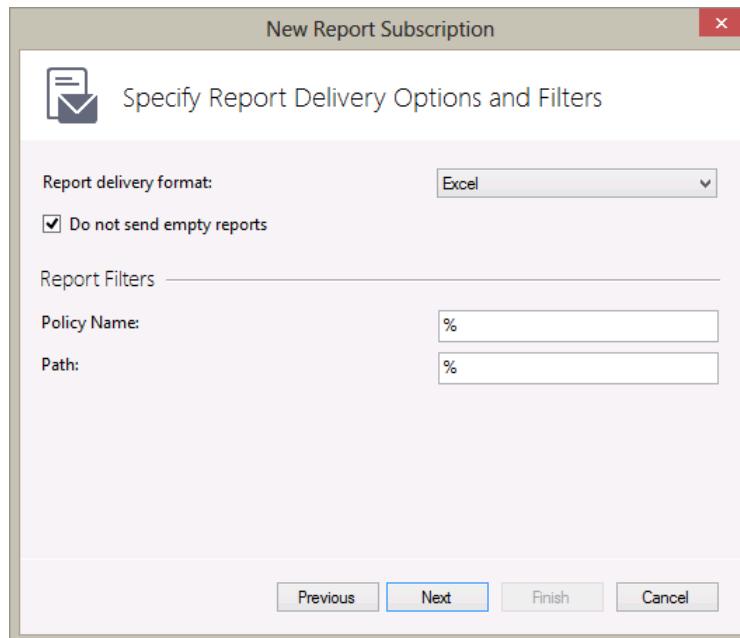
- On the **Specify Report Recipients** step, click the **Add** button and specify the email address(es) of the report recipients. It is recommended to click the **Verify** button. The system will send a test message to the specified address and will inform you if any problems are detected. Click **OK** to add the address and then **Next** to proceed.

Figure 41: New Report Subscription: Specify Report Recipients



- On the **Specify Report Delivery Options and Filters** step, select the report delivery format and select the **Do not send empty reports** option, if you do not want reports to be generated when no changes occurred during the reporting period. Specify the report filters (which differ depending on the selected report) and click **Next** to proceed.

Figure 42: New Report Subscription: Specify Report Delivery Options and Filters

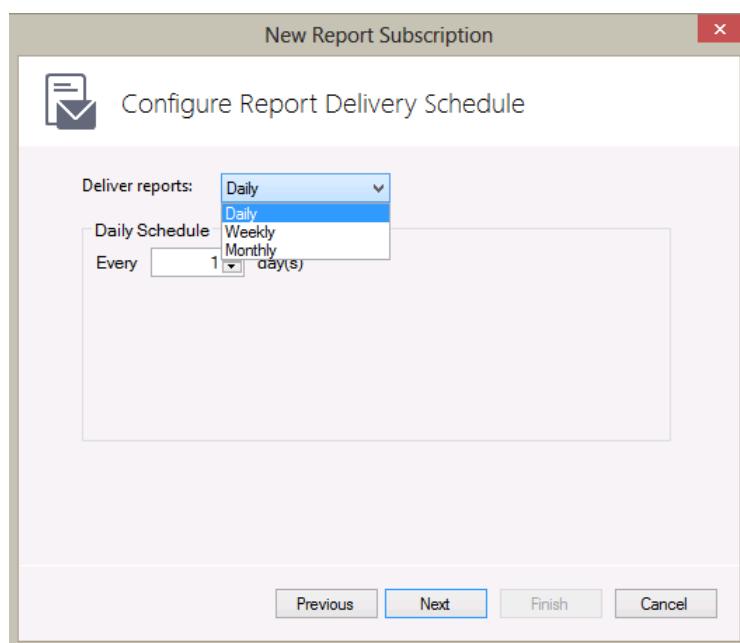


7. On the **Subscription Schedule** step, specify the report delivery schedule. The following options are supported:

- **Daily**: reports will be delivered at a specified interval (in days) at 3:00 AM.
- **Weekly**: reports will be delivered on the specified day(s) of the week at 3:00 AM.
- **Monthly**: reports will be delivered in the specified months on the selected date at 3:00 AM.

Note: The time specified is the local time on the computer where Netwrix Auditor is installed.

Figure 43: New Report Subscription Wizard: Subscription Schedule



8. On the last step, review your Subscription settings and click **Finish**. The new Subscription will appear under the **Subscriptions** node in the left pane.

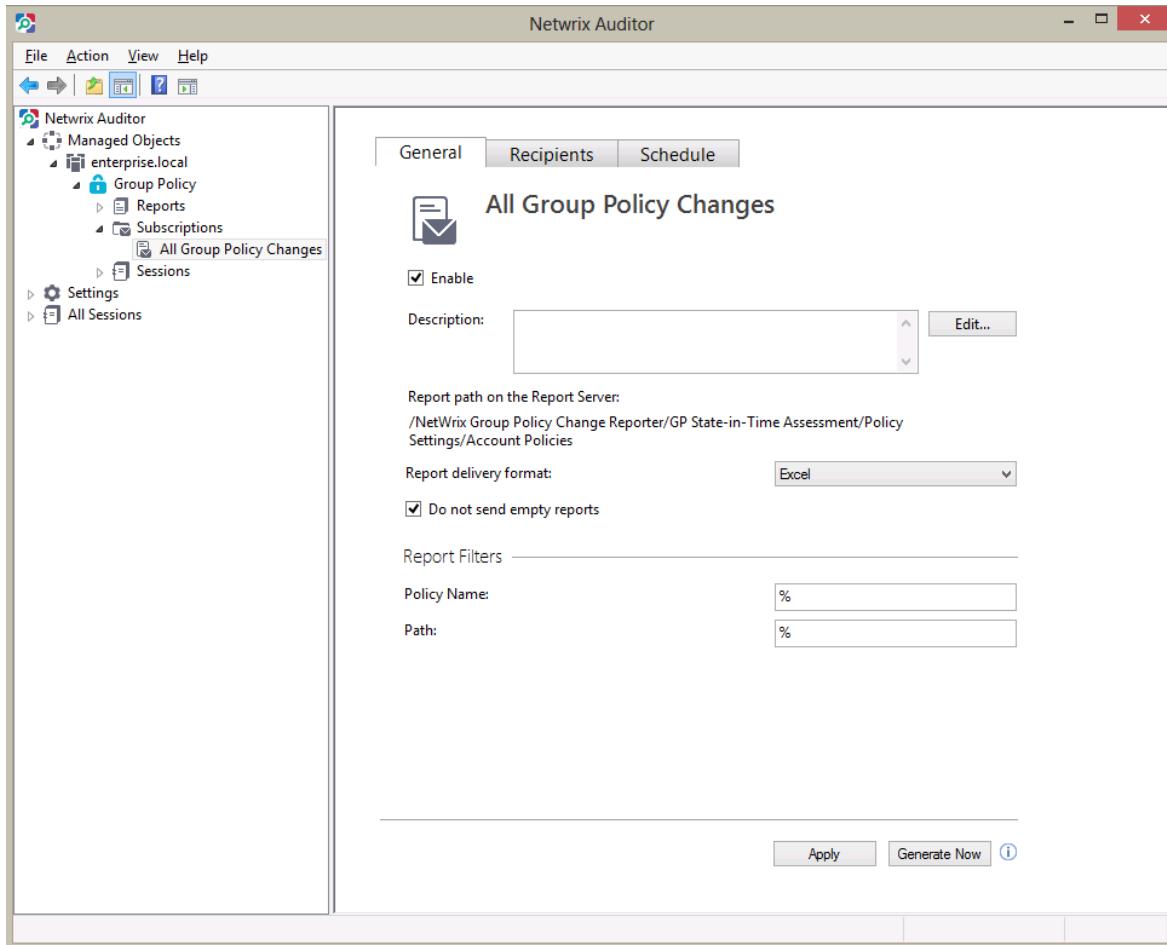
6.4.2. Modifying Subscription

If later you need to modify an existing Subscription, perform the following procedure:

Procedure 17. To modify a Subscription

1. In the Netwrix Auditor console, navigate to **Managed Objects** → <Managed_Object_name> → **Group Policy** → **Subscriptions** and select the Subscription you want to modify. The Subscription page will be displayed:

Figure 44: Subscription Page



2. Modify the subscription parameters in the **General**, **Recipients** and/or **Schedule** tabs and click **Apply** to save the changes.

6.4.3. Forcing on-Demand Report Delivery

You can force an on-demand delivery of any report that you have configured a subscription for.

Procedure 18. To force on-demand report delivery

1. In the Netwrix Auditor console, expand the **Managed Objects** → <Managed_Object_name> → **Group Policy** → **Subscriptions** node and select the Subscription for the report that you want to generate and send now.
2. On the report Subscription page, click **Generate Now** (see [Figure 44: Subscription Page](#))

The report will be generated and sent to the specified recipient(s). The report will contain data starting from the last scheduled report delivery (or from Subscription creation time, if no scheduled deliveries have occurred so far) and until the last scheduled data collection time (3:00 AM by default).

6.5. Overview Report

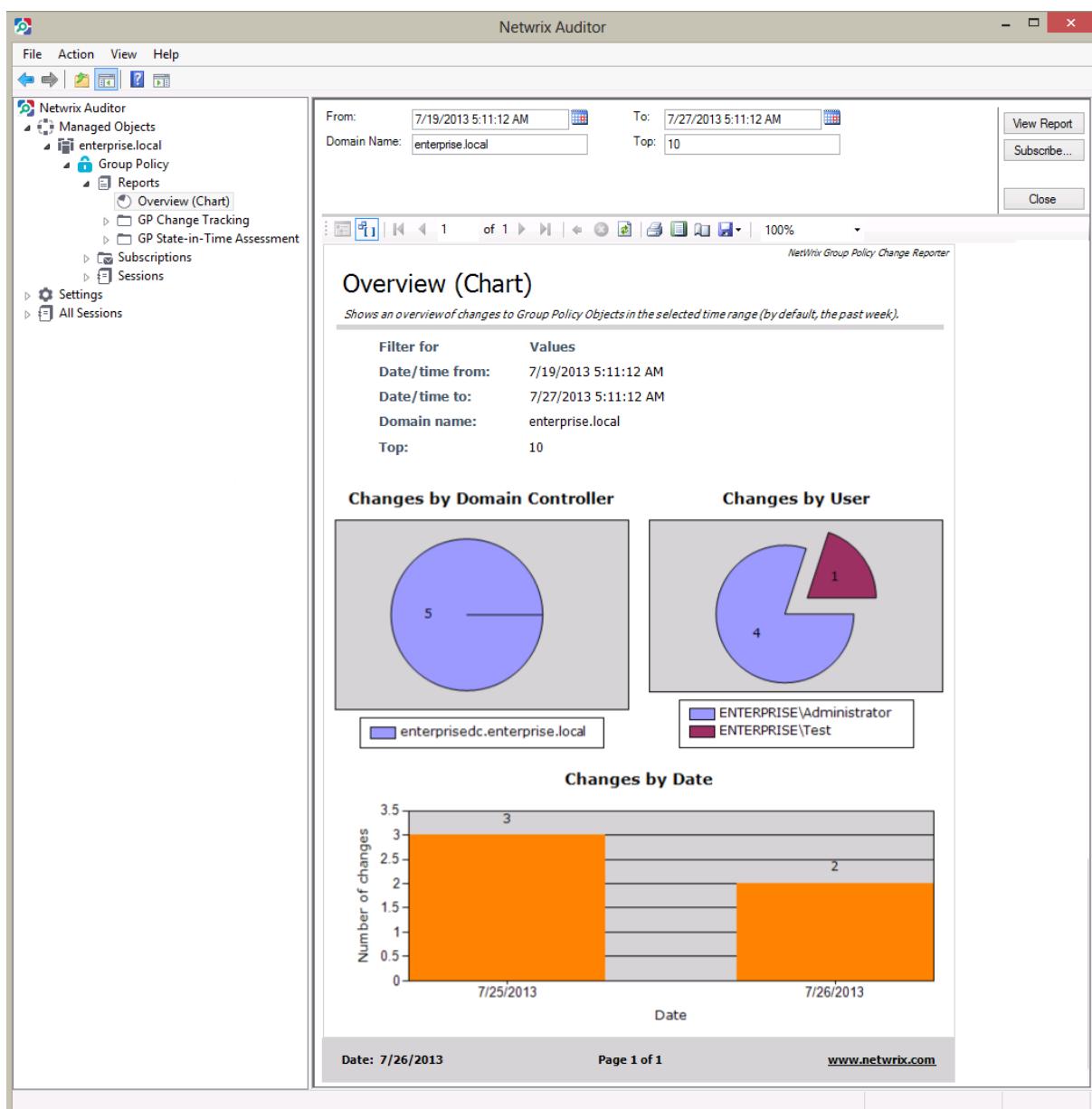
Netwrix Auditor provides a visual representation of all changes to Group Policy in the Overview report.

The Overview report is comprised of three charts showing the changes made to the Group Policy grouped by Domain Controller, date, and the user who made the changes. Every chart has a drill-down functionality. When viewing this report you can navigate to the next level of details by clicking one of the segments in a chart.

Procedure 19. To view Overview Report

1. In the Netwrix Auditor console, expand the **Managed Objects** → <Managed_Object_name> → **Group Policy** → **Reports** and select the **Overview (Chart)** report.
2. Specify filters to the report and click the **View Chart** button to apply them. The report will be displayed showing the changes made to Group Policy within the specified time frame:

Figure 45: Overview Report



To get more information on the server configuration changes, click on a chart segment to drill down to the next level of detail. For example, by clicking a segment of the **Changes by User** chart you will see the detailed report on the changes made by the corresponding user.

Figure 46: Overview Report: Changes by User

The screenshot shows the Netwrix Auditor application window. On the left, there is a navigation tree under 'Managed Objects' for 'enterprise.local' including 'Group Policy', 'Reports' (with 'Overview (Chart)' selected), 'Subscriptions', and 'Sessions'. The main pane displays the 'All Group Policy Changes' report with the following details:

Filter for

- Date/time from: 7/1/2013 8:17:06 AM
- Date/time to: 7/8/2013 8:17:06 AM
- Domain name: enterprise.local
- Where changed: %
- Who changed: ENTERPRISE\Administrator
- What changed: %
- Sort by: What Changed

Action **Who Changed** **What Changed** **Where Changed** **When Changed**

Modified	ENTERPRISE\Administrato	Default Domain Controller Policy	enterprisedc.enterprise.local	7/5/2013 12:00:56 PM
	Action Path	General/Delegation		
	Modified	General/Delegation	Name: BUILTIN\Administrators; Allowed Permissions: Read (from Security Filtering); Inherited: No;	
	Action Path	General/Security Filtering		
	Modified	General/Security Filtering	Name: BUILTIN\Administrators;	
Modified	ENTERPRISE\Administrato	Default Domain Policy	enterprisedc.enterprise.local	7/8/2013 8:01:33 AM
	Action Path	General/Delegation		
	Modified	General/Delegation	Name: ENTERPRISE\test; Allowed Permissions: Read; Inherited: No;	

Date: 7/8/2013 Page 1 of 1 www.netwrix.com

6.6. Change Management

The change management process is one of the critical processes for many companies referring to such areas as requesting, planning, implementing, and evaluating changes to various systems. Netwrix Auditor allows facilitating the change auditing process for Group Policy by providing the change monitoring and reporting capabilities. Additionally, you can review and assign such properties as a review status and reason for each change made to the monitored components.

All Group Policy changes detected by Netwrix Auditor have the *New* status by default. If any of the changes seems to require an additional check regarding its validity, approval, and so on, you can set the status of the change to *In Review* and provide the reason for such status. Once the change has been approved or rolled back, you can set its status to *Resolved*.

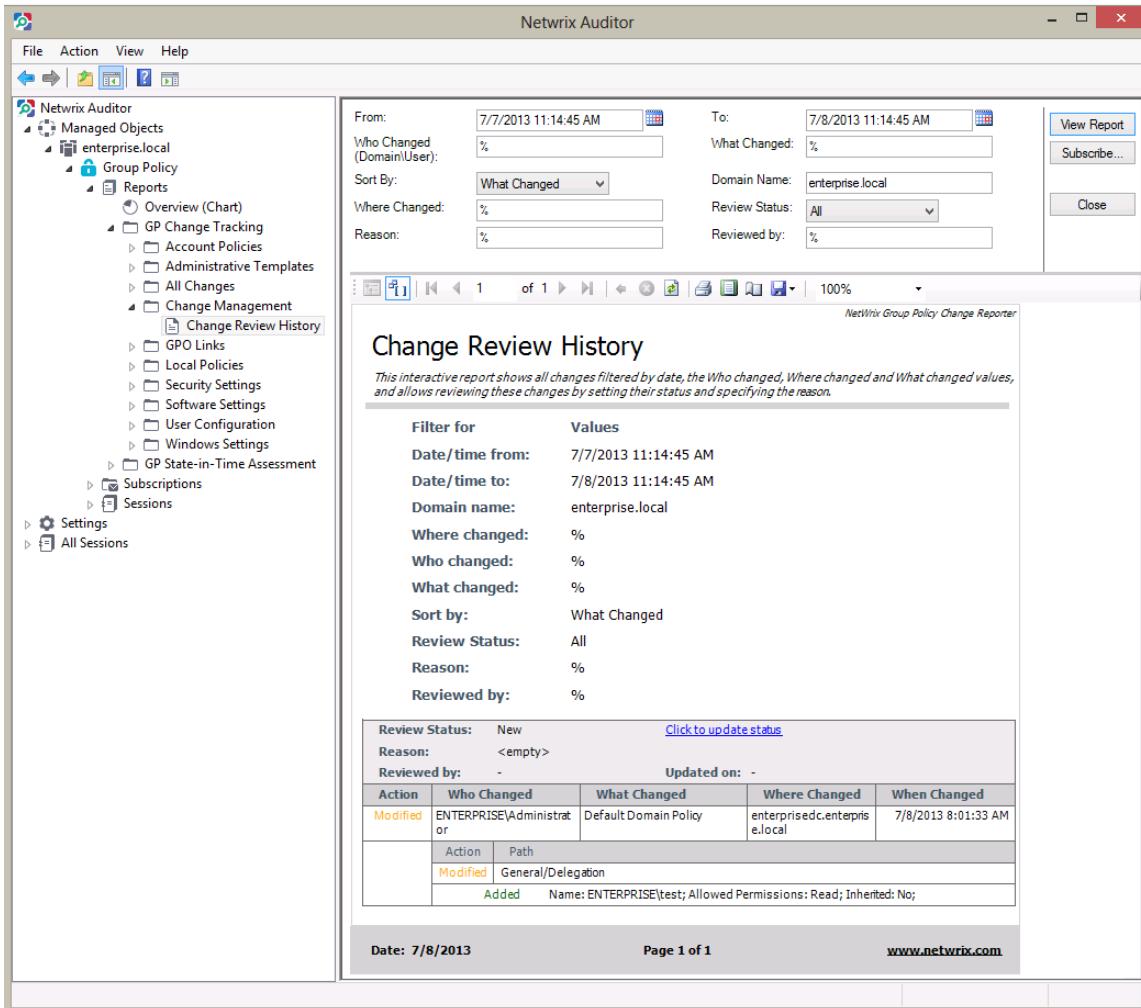
6.6.1. Reviewing Changes to Group Policy

To be able to review changes and assign their statuses you need to open the *Change Review History* report in the Netwrix Auditor console or in a web browser.

Procedure 20. To review changes made to Group Policy

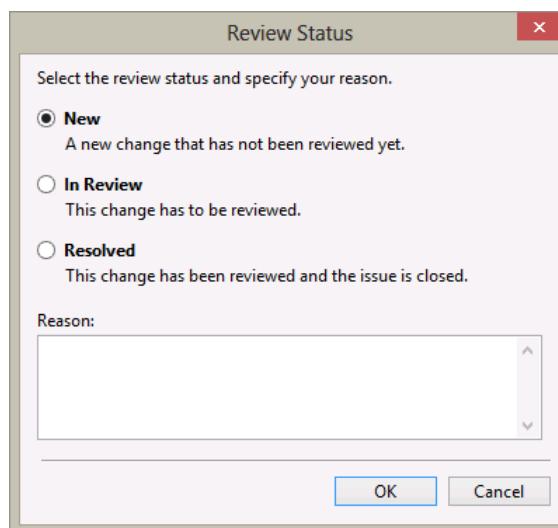
1. Open the **Change Review History** report located under **Reports → GP Change Tracking → Change Management**.
2. Specify the report filters and click the **View Report** button to apply them. The report will be displayed showing the changes made to Group Policy within the specified time frame:

Figure 47: Change Review History Report



- Click the **Click to update status** link, select one of the statuses and provide your comments if required.

Figure 48: Review Status



- Click **OK** to save the changes. The **Review Status** and **Reason** fields will be updated with the information provided on the previous step

Figure 49: Updated Review Status

Review Status:	In Review	Click to update status		
Reason:	The change is being checked.			
Reviewed by:	ENTERPRISE\test	Updated on: 7/8/2013 11:21:11 AM		
Action	Who Changed	What Changed	Where Changed	When Changed
Modified	ENTERPRISE\Administrat or	Default Domain Policy	enterprisedc.enterpris e.local	7/8/2013 8:01:33 AM
	Action	Path		
	Modified	General/Delegation		
	Added	Name: ENTERPRISE\test; Allowed Permissions: Read; Inherited: No;		

Note: If you are updating the status of a change in a web browser, you can specify as much information in the comments field as required, however, if the text contains more than 150 characters, you will not be able to change the status for this change once again. Provide long descriptions only for those changes for which you do not plan to change the status in the future.

6.7. State-in-Time Assessment Reports

The State-in-Time Reports feature allows generating reports on your Group Policy configuration state at a specific moment of time in addition to change reports. In addition to the Group Policy changes, Netwrix Auditor stores the audited system's snapshots that show the configuration state of the system on a certain date in the past.

Like all other Netwrix Auditor Reports, State-in-Time Reports can be viewed in the Netwrix Auditor console or in a web browser. You can also subscribe to State-in-Time Reports in the same way as to other report types (for detailed instructions, refer to Section [6.4 Configuring Report Subscriptions](#)).

This section provides detailed instructions on how to:

- [View State-in-Time Assessment Reports](#)
- [Import historical snapshots to the database](#)

6.7.1. Viewing State-in-Time Assessment Reports

Procedure 21. To view State-in-Time Assessment Reports

1. In the Netwrix Auditor console, expand the Managed Objects → <Managed_Object_name> → Group Policy → Reports → GP State-in-Time Assessment Reports node.
2. Select the report you want to generate and specify the report filters.
3. Click the View Report button and wait for the report to be generated:

Figure 50: State-in-Time Report: All Group Policy Objects Grouped by Settings

The screenshot shows the Netwrix Auditor interface with the following details:

- Left Navigation Bar:** Shows 'Managed Objects' under 'enterprise.local', including 'Group Policy Objects' which is expanded to show 'All Group Policy Objects' and 'Empty Group Policy Obj'.
- Top Headers:** 'Domain Name: enterprise.local', 'Snapshot Date: Current Session', 'Policy Name: %', 'Setting Name: %', 'View Report', 'Subscribe...', and 'Close'.
- Report Title:** 'All Group Policy Objects Grouped by Settings'. A subtitle below it reads: 'Shows all Group Policy settings with a list of Group Policy Objects for which these settings are defined, and their values.'
- Report Content:** A table with columns 'Filter for' and 'Values'. It lists several Group Policy settings:
 - Default Domain Policy:**
 - Computer Configuration (Enabled)/Policies/Windows Settings/Security
Setting Name: Settings/Account Policies/Account Lockout Policy
 - Policy: Account lockout threshold; Setting: 0 invalid logon attempts;
 - Default Domain Controllers Policy:**
 - Computer Configuration (Enabled)/Policies/Windows Settings/Security
Setting Name: Settings/Local Policies/Audit Policy
 - Policy: Audit account management; Setting: Success;
 - Policy: Audit directory service access; Setting: Success;
 - Policy: Audit logon events; Setting: Success;
 - Default Domain Controller Policy:**
 - Computer Configuration (Enabled)/Policies/Windows Settings/Security
Setting Name: Settings/Local Policies/Security Options/Domain Controller
 - Policy: Domain controller: LDAP server signing requirements; Setting: None;
 - Default Domain Controllers Policy:**
 - Computer Configuration (Enabled)/Policies/Windows Settings/Security
Setting Name: Settings/Local Policies/Security Options/Domain Member
 - Policy: Domain member: Digitally encrypt or sign secure channel data (always); Setting: Enabled;
 - Default Domain Controllers Policy:**
 - Computer Configuration (Enabled)/Policies/Windows Settings/Security
Setting Name: Settings/Local Policies/Security Options/Microsoft Network Server
 - Policy: Microsoft network server: Digitally sign communications (always); Setting: Enabled;
 - Policy: Microsoft network server: Digitally sign communications (if client agrees); Setting: Enabled;
 - Default Domain Controllers Policy:**
 - Computer Configuration (Enabled)/Policies/Windows Settings/Security
Setting Name: Settings/Local Policies/Security Options/Network Access
 - Policy: Network access: Allow anonymous SID/Name translation; Setting: Disabled;
- Bottom Footer:** 'Date: 7/8/2013', 'Page 1 of 3', and 'www.netwrix.com'.

By default, State-in-Time Reports display the current configuration state of your monitored domain. If you want to generate a report showing the configuration state of the audited domain on some specific date, select it from the **Session** filter.

Note: To be able to generate reports on different snapshots, you need to import them to the database. Otherwise, only the Current Session option is available. For detailed instructions on how to import snapshots, refer to Section [6.7.2 Importing Historical Snapshots](#).

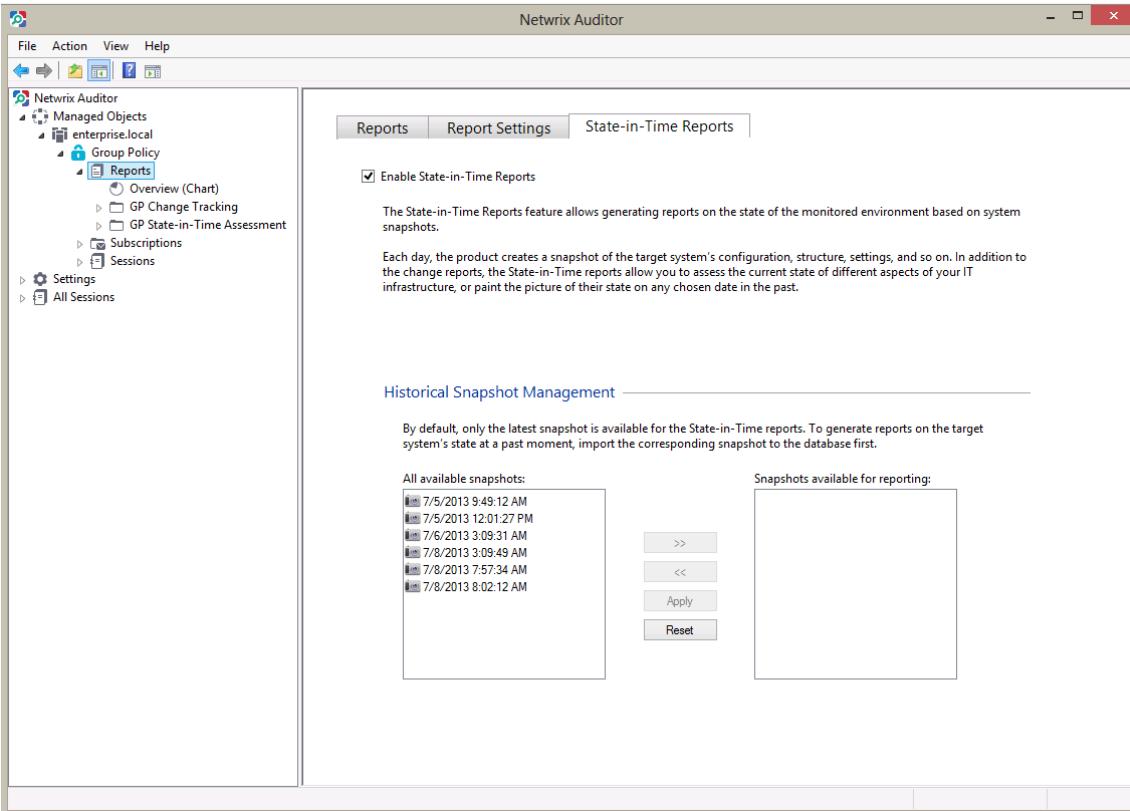
6.7.2. Importing Historical Snapshots

By default, only the most recent snapshot is available for reporting. To be able to generate reports on historical snapshots, you must import them to the database. To do this, perform the following procedure:

Procedure 22. To import historical snapshots to the SQL database

1. In the Netwrix Auditor console, expand the Managed Objects → <Managed_Object_name> → Group Policy → Reports node and select the State-in-Time Reports tab. The following page will be displayed:

Figure 51: State-in-Time Reports Settings Page



2. Select a snapshot that you want to generate a report on from the All available snapshots list and click the **>>** button to add it to the Snapshots available for reporting list.
3. Repeat this step for all snapshots that you want to make available for reporting, and click the **Apply** button. Wait until connection with the Report Server is established and the snapshots are imported.

6.8. Reports With Extended Audit Data

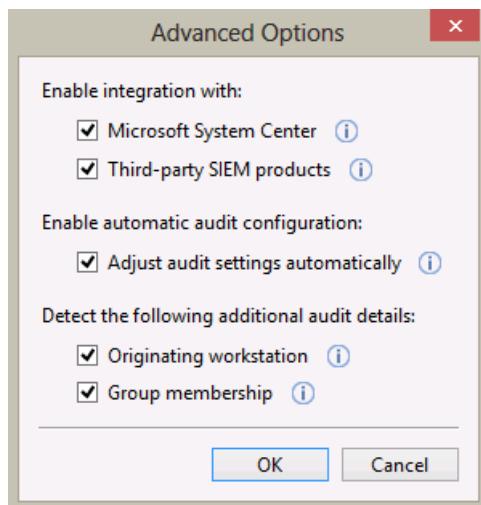
The latest version of Netwrix Auditor for Group Policy audit provides reports with extended audit data that show additional details on changes to the monitored environment.

Two types of extended reports are available:

- [Reports With Originating Workstation](#)
- [Reports With Data Filtering by Groups](#)

By default, Netwrix Auditor is configured to collect extended audit data. If you want to disable this functionality, in the Netwrix Auditor console navigate to **Managed Objects** → <Managed_Object_name> → **Group Policy**, and click **Configure** under **Advanced Options** in the right pane. In the dialog that opens, deselect the **Originating workstation** and/or the **Group membership** options:

Figure 52: Advanced Options



Note: If these options are enabled, additional events are written to the Security event log, which may lead to data overwrites. To prevent data loss, it is recommended to configure the maximum size and retention settings of the Security event log as described in Section 4.2.2. Configuration Security Event Log Size and Retention Settings of [Netwrix Auditor Installation and Configuration Guide](#).

6.8.1. Reports With Originating Workstation

Netwrix Auditor for Group Policy audit provides a number of reports that, in addition to the standard WHO, WHAT, WHERE and WHEN fields, provide the information on the originating workstation, that is the name of the workstation where the user was logged on when they made the change.

The following reports are available containing the name of the originating workstation (they can be found in the All Changes folder under Reports → GP Change Tracking):

- All Group Policy Changes by Groups With Originating Workstation
- All Group Policy Changes With Originating Workstation

Note: For the product to be able to collect the information on the originating workstation, you must configure the Audit logon events policy. If automatic audit configuration is enabled, this setting is adjusted automatically. For instructions on

how to configure it manually, refer to Section 4.2.1. Configuring Domain Controller Audit Policies of [Netwrix Auditor Installation and Configuration Guide](#).

Note: The **Workstation** field under each change provides the name/IP address and the MAC address of the computer from which the change was made:

Figure 53: All Group Policy Changes With Originating Workstation

The screenshot shows the Netwrix Auditor interface with the following details:

- Report Title:** All Group Policy Changes With Originating Workstation
- Filter:**
 - Date/time from: 7/17/2013 6:03:41 AM
 - Date/time to: 7/27/2013 6:03:41 AM
 - Domain name: enterprise.local
 - Where changed: %
 - Who changed: %
 - What changed: %
 - Workstation: %
- Report Content:**

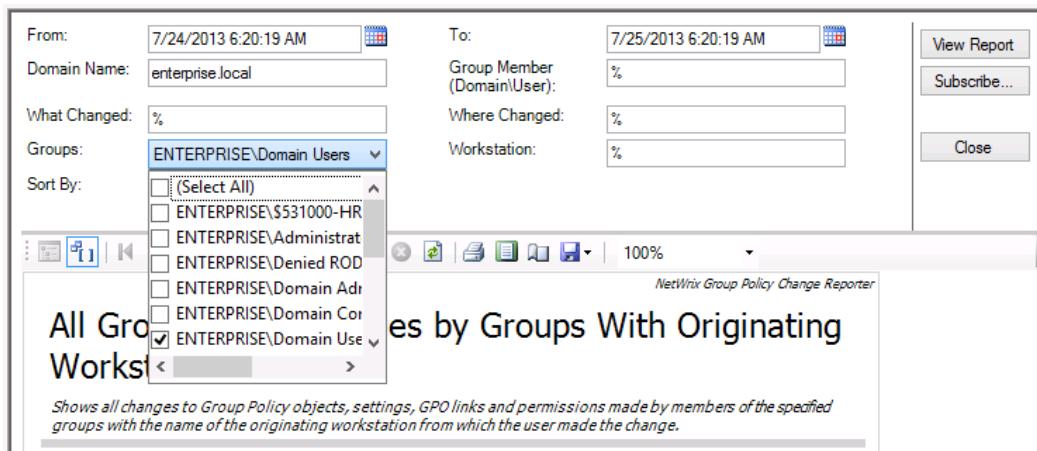
Action	Who Changed	What Changed	Where Changed	When Changed
Modified	ENTERPRISE\Administrator	Default Domain Controllers Policy	enterprisedc.enterprise.local	7/25/2013 8:37:29 AM
Workstation: workstation6, MAC Address: 00:15:5D:04:3B:0B				
Action	Path			
Modified	General/Delegation			
Added	Name: ENTERPRISE\administrator; Allowed Permissions: Read (from Security Filtering); Inherited: No;			
Added	Name: ENTERPRISE\Administrator_2; Allowed Permissions: Read (from Security Filtering); Inherited: No;			
Action	Path			
Modified	General/Security Filtering			
Added	Name: ENTERPRISE\administrator;			
Added	Name: ENTERPRISE\Administrator_2;			
Modified	ENTERPRISE\Administrator	Default Domain Policy	enterprisedc.enterprise.local	7/25/2013 8:38:17 AM
Workstation: workstation6, MAC Address: 00:15:5D:04:3B:0B				
Action	Path			
Modified	General/Delegation			
Added	Name: ENTERPRISE\Administrator_2; Allowed Permissions: Read; Inherited: No;			
- Footer:**
 - Date: 7/25/2013
 - Page 1 of 1
 - www.netwrix.com

6.8.2. Reports With Data Filtering by Groups

Netwrix Auditor can be configured to collect the information on the group membership of the users who make the changes. This information can be used to apply filters to the collected audit data and get the information on changes performed by members of specific groups only. This functionality is available in the report titled *All Group Policy Changes by Groups With Originating Workstation*.

By default, this report shows all changes to Group Policy grouped by the groups to which users who made the changes belong. If you want to get the information on the changes performed by members of a specific group, select this group (or several groups) in the corresponding filter, and click **View Report**:

Figure 54: Filtering By Group



The report will only show the changes made by the members of the specified group(s):

Figure 55: All Group Policy Changes by Groups With Originating Workstation

The screenshot shows the Netwrix Auditor interface with the following details:

- Toolbar:** File, Action, View, Help.
- Left Panel (Managed Objects):**
 - enterprise.local
 - Exchange Servers
 - Active Directory
 - Group Policy
 - All Changes
 - All Group Policy
 - All Group Policy
 - All Group Policy
 - All Group Policy
 - Change Manager
 - GPO Links
 - Local Policies
 - Security Settings
 - Software Settings
 - User Configuration
 - Windows Settings
 - GP State-in-Time Ass
 - Subscriptions
 - Sessions
 - Settings
 - All Sessions
- Search/Filter:** From: 7/24/2013 6:20:19 AM, To: 7/26/2013 6:20:19 AM, Domain Name: enterprise.local, What Changed: %, Groups: ENTERPRISE\Domain Users, Sort By: What Changed.
- Report Content:**

All Group Policy Changes by Groups With Originating Workstation

Shows all changes to Group Policy objects, settings, GPO links and permissions made by members of the specified groups with the name of the originating workstation from which the user made the change.

Filter for	Values
Date/time from:	7/24/2013 6:20:19 AM
Date/time to:	7/26/2013 6:20:19 AM
Domain name:	enterprise.local
Group Member:	%
What changed:	%
Where changed:	%
Groups:	ENTERPRISE\Domain Users
Workstation:	%
Sort by:	What Changed

Group name: ENTERPRISE\Domain Users

Action	Group Member	What Changed	Where Changed	When Changed
Modified	ENTERPRISE\Administrator	Default Domain Policy	enterprisedc.enterprise.local	7/25/2013 8:37:29 AM
Workstation: workstation6, MAC Address: 00:15:5D:04:3B:0B				
	Action	Path		
Modified	General/Delegation			
	Added	Name: ENTERPRISE\administrator; Allowed Permissions: Read (from Security Filtering); Inherited: No;		
	Added	Name: ENTERPRISE\Administrator_2; Allowed Permissions: Read (from Security Filtering); Inherited: No;		
	Action	Path		
Modified	General/Security Filtering			
	Added	Name: ENTERPRISE\administrator;		
	Added	Name: ENTERPRISE\Administrator_2;		
Modified	ENTERPRISE\Administrator	Default Domain Policy	enterprisedc.enterprise.local	7/25/2013 8:38:17 AM
Workstation: workstation6, MAC Address: 00:15:5D:04:3B:0B				
	Action	Path		
Modified	General/Delegation			
	Added	Name: ENTERPRISE\Administrator_2; Allowed Permissions: Read; Inherited: No;		

Date: 7/25/2013 **Page:** 1 of 1 **www.netwrix.com**

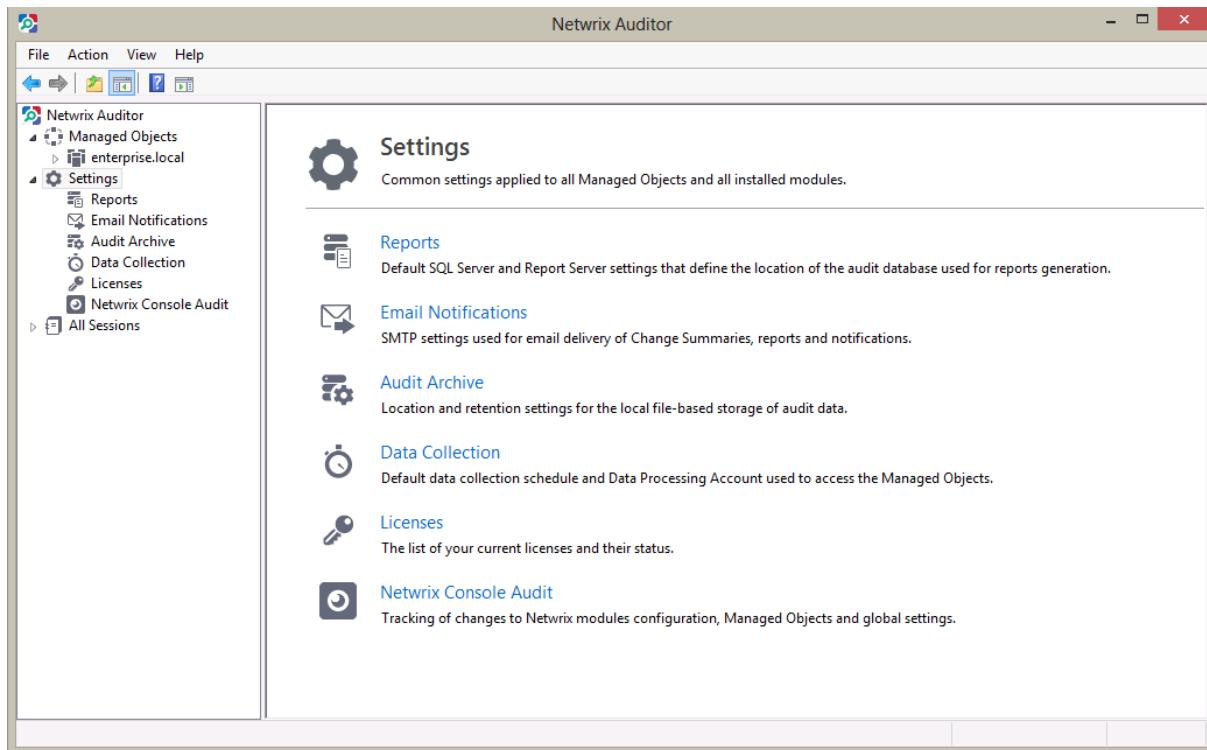
7. CONFIGURING GLOBAL SETTINGS

The Netwrix Auditor console provides a convenient interface for configuring or modifying the settings that will be applied to *all* existing Managed Objects and all target systems audited with the product. This chapter provides detailed instructions on how to configure these settings.

Note: For instructions on how to configure or modify the settings for an individual Managed Object, or the target system audited with the product, refer to Section [4.2 Modifying Managed Object Settings](#).

To access global settings, expand the **Settings** node in the left pane:

Figure 56: *Settings Page*



The following global settings can be configured:

- [Reports settings](#)
- [Email Notifications settings](#)
- [Audit Archive settings](#)
- [Data Collection settings](#)
- [Licenses settings](#)
- [Netwrix Console Audit](#)

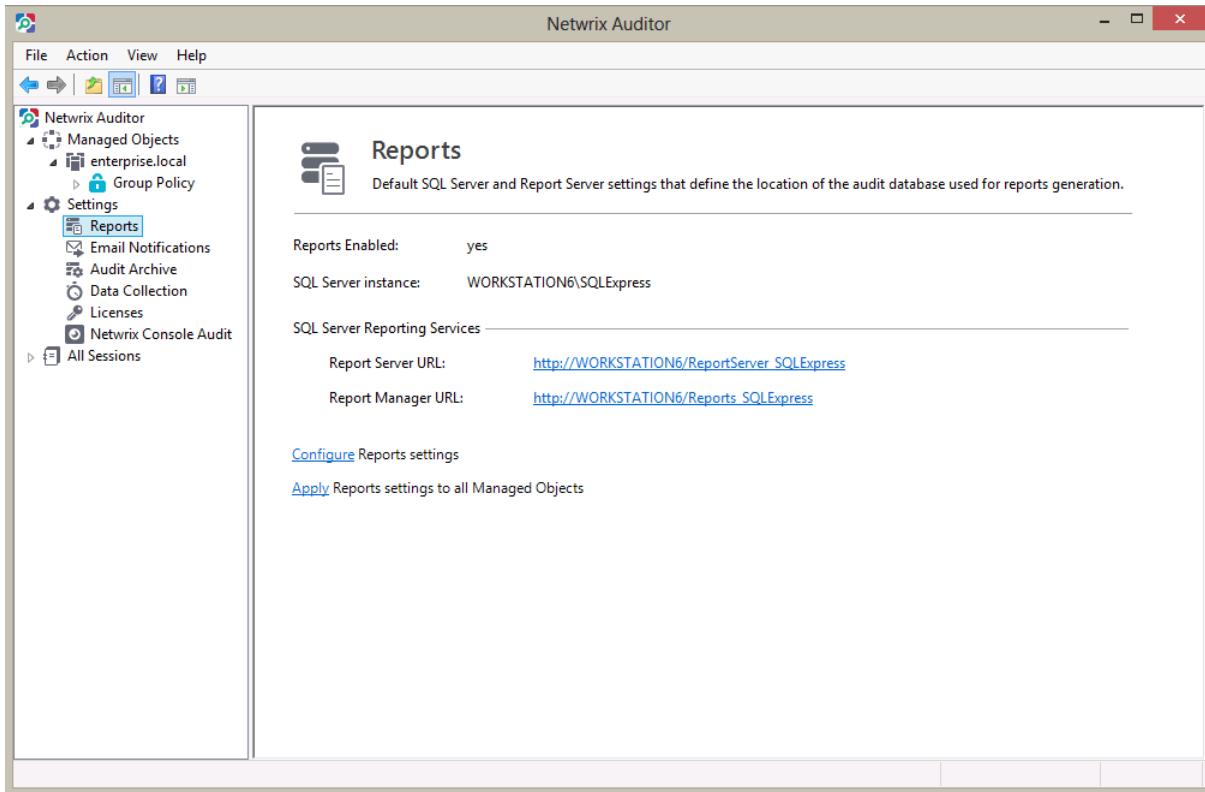
7.1. Configuring Reports Settings

The Reports option allows configuring the SQL Server and Report Server settings. To configure these settings, or modify your existing Reports settings, do the following:

Procedure 23. To configure the Reports settings

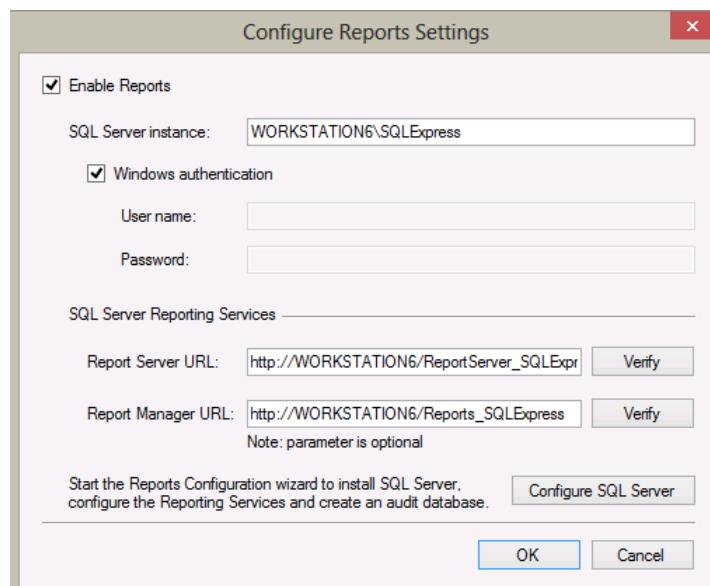
1. In the Netwrix Auditor console, expand the **Settings** node and select the **Reports** node. Alternatively, you can click **Reports** in the **Settings** page. The following page will be displayed showing the current Reports settings:

Figure 57: Settings: Reports



2. Click **Configure** in the right pane. The following dialog will be displayed:

Figure 58: Configure Reports Settings



3. Modify your current reports settings if necessary and click **OK** to save the changes. For a detailed explanation of the reports parameters, refer to [Table 3: Reports Parameters](#).

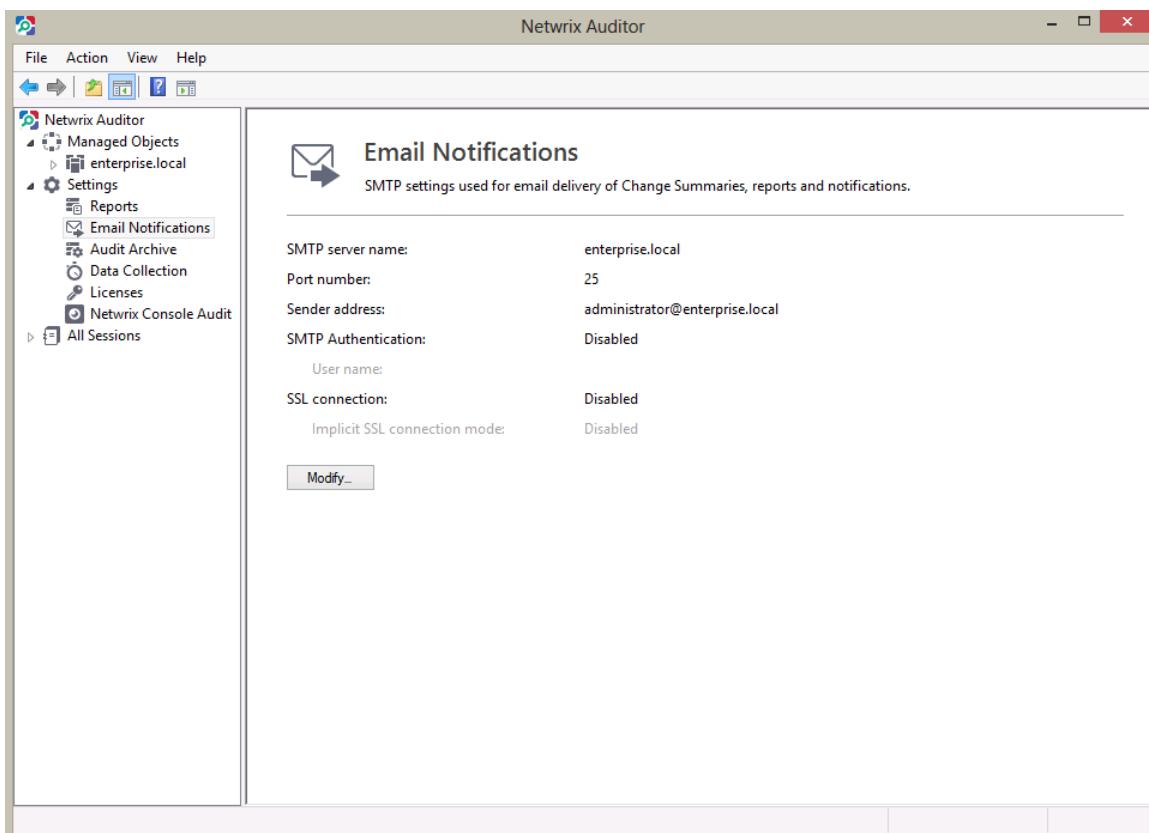
7.2. Configuring Email Notifications Settings

The **Email Notifications** option allows configuring the SMTP settings used to deliver Change Summaries and Reports. To configure these settings or modify your existing email delivery settings do the following:

Procedure 24. To configure the email notifications settings

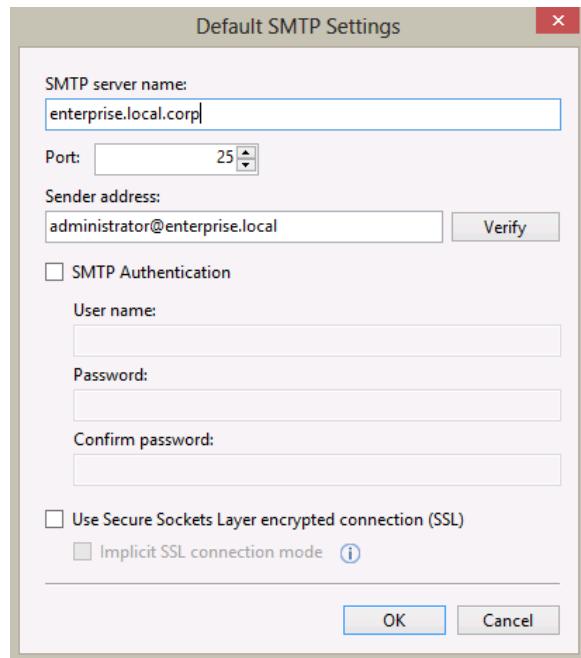
1. In the Netwrix Auditor console, expand the **Settings** node and select **Email Notifications**. Alternatively, you can click **Email Notifications** in the **Settings** page. The following page will be displayed showing the current email settings:

Figure 59: Settings: Email Notifications



2. Click the **Modify** button in the right pane. The SMTP Settings dialog will be displayed:

Figure 60: Default SMTP Settings



3. Modify your current email settings if necessary and click **OK** to save the changes. For a detailed explanation of the email parameters, refer to [Table 2: Email Settings Parameters](#).

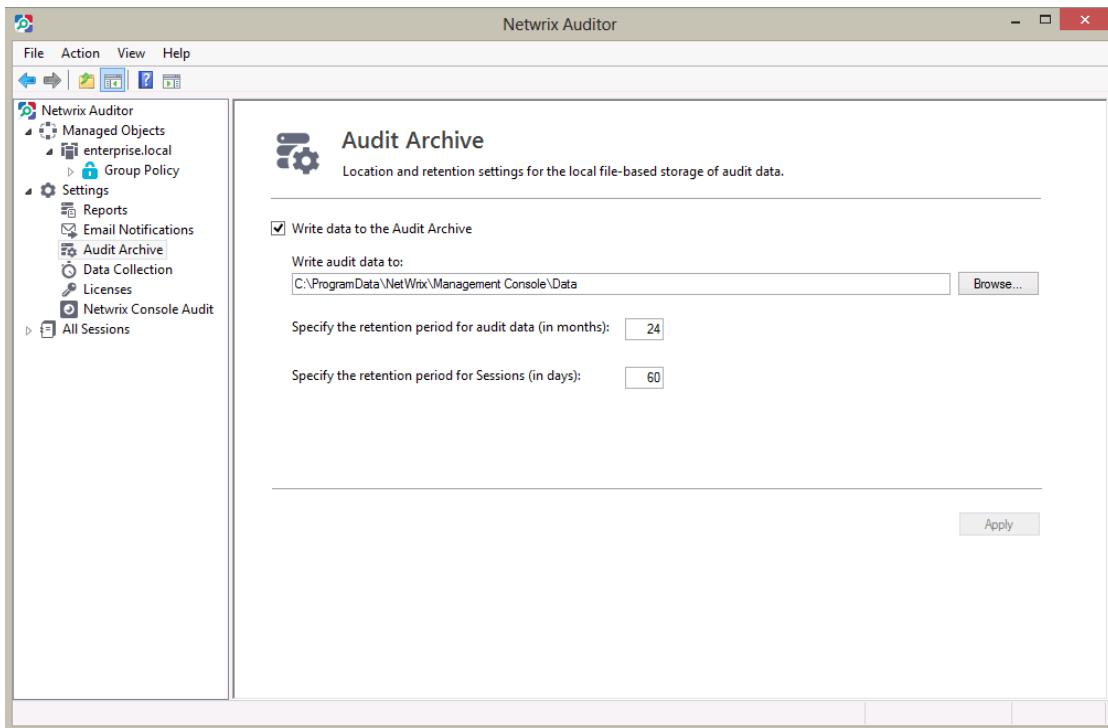
7.3. Configuring Audit Archive Settings

The **Audit Archive** option allows configuring the location and the retention period for the local repository of audit data. To configure these settings, do the following:

Procedure 25. To configure the Audit Archive settings

1. In the Netwrix Auditor console, expand the **Settings** node and select the **Audit Archive** option. Alternatively, you can click **Audit Archive** in the **Settings** page. The following page will be displayed showing the current Audit Archive settings:

Figure 61: Settings: Audit Archive



2. Modify the following settings if necessary:

Table 8: Audit Archive Settings

Parameter	Description
Write data to the Audit Archive	Enable this checkbox to be able to store audit data for a longer period.
Write audit data to	Specify the path to the folder where your audit data will be stored. Click the Browse button to select a location.
Specify the retention period for audit data (in months)	Specify the number of months for which audit data will be stored. Data will be deleted automatically when its retention period is over. If the Write data to the Audit Archive option is disabled, or the retention period is set to 0, data will be stored for the last 4 sessions.
Specify the retention period for Sessions (in days)	Specify the number of days for which Sessions (i.e. the information on daily data collection status) are stored and are available for review in the Netwrix Auditor console. NOTE: The Session retention period does not affect the Audit Archive retention setting.

Note: It is strongly recommended not to disable the **Write data to the Audit Archive** option, since if audit data is not written locally, it will not be imported to the SQL database and will be unavailable for reports.

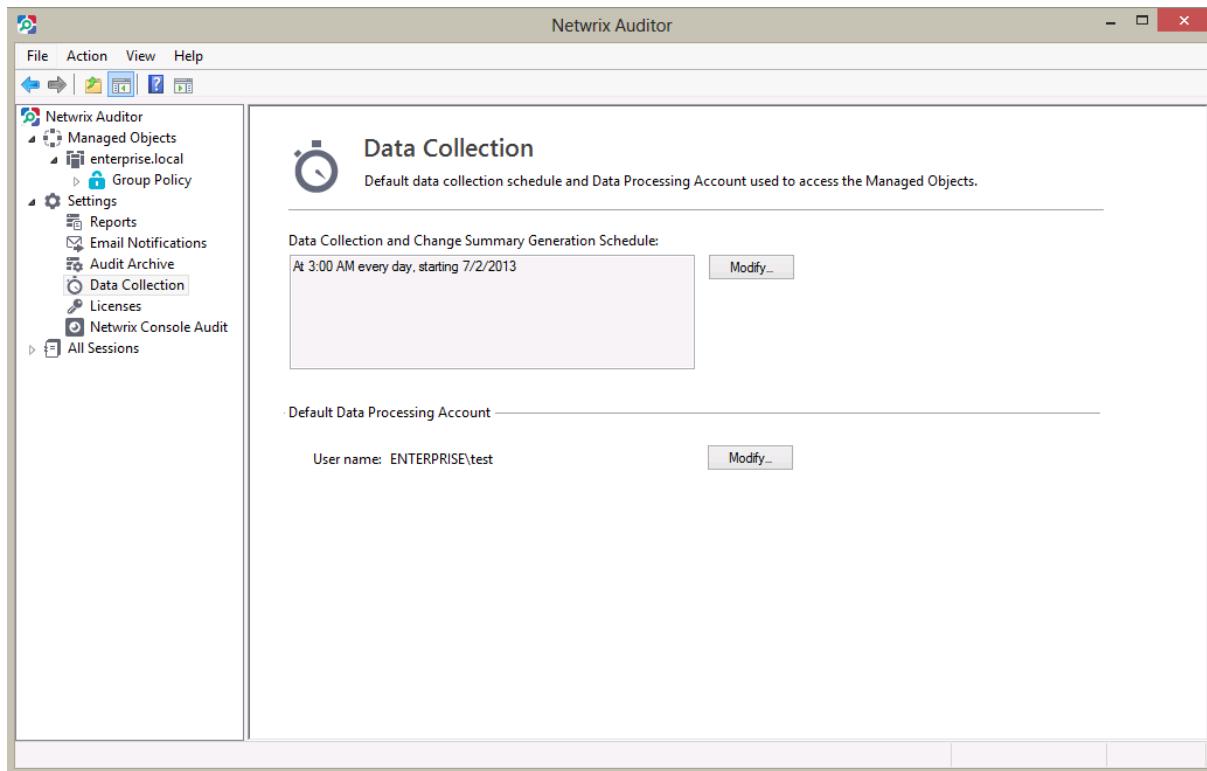
7.4. Configuring Data Collection Setting

The **Data Collection** option allows modifying the default Data Processing Account:

Procedure 26. To configure Data Collection settings

- In the Netwrix Auditor console, expand the **Settings** node and select the **Data Collection** option. Alternatively, you can click **Data Collection** in the **Settings** page. The following page will be displayed showing the current data processing settings:

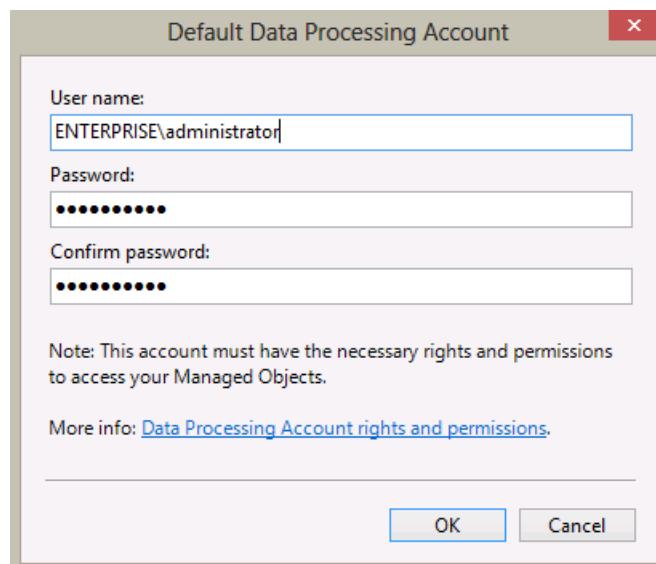
Figure 62: Settings: Data Collection



Note: The Data Collection and Change Summary Generation Schedule is not applicable to Group Policy audit.

2. To specify a different account for data collection and processing, click the **Modify** button next to the **Default Data Processing Account** option.
3. In the **Default Data Processing Account** dialog, enter the account name, and password, and click **OK**:

Figure 63: Default Data Processing Account



Note: Ensure that the new account has the required rights to collect data from the monitored computers. For more details, refer to Chapter 5. Configuring Rights and Permissions of [Netwrix Auditor Installation and Configuration Guide](#).

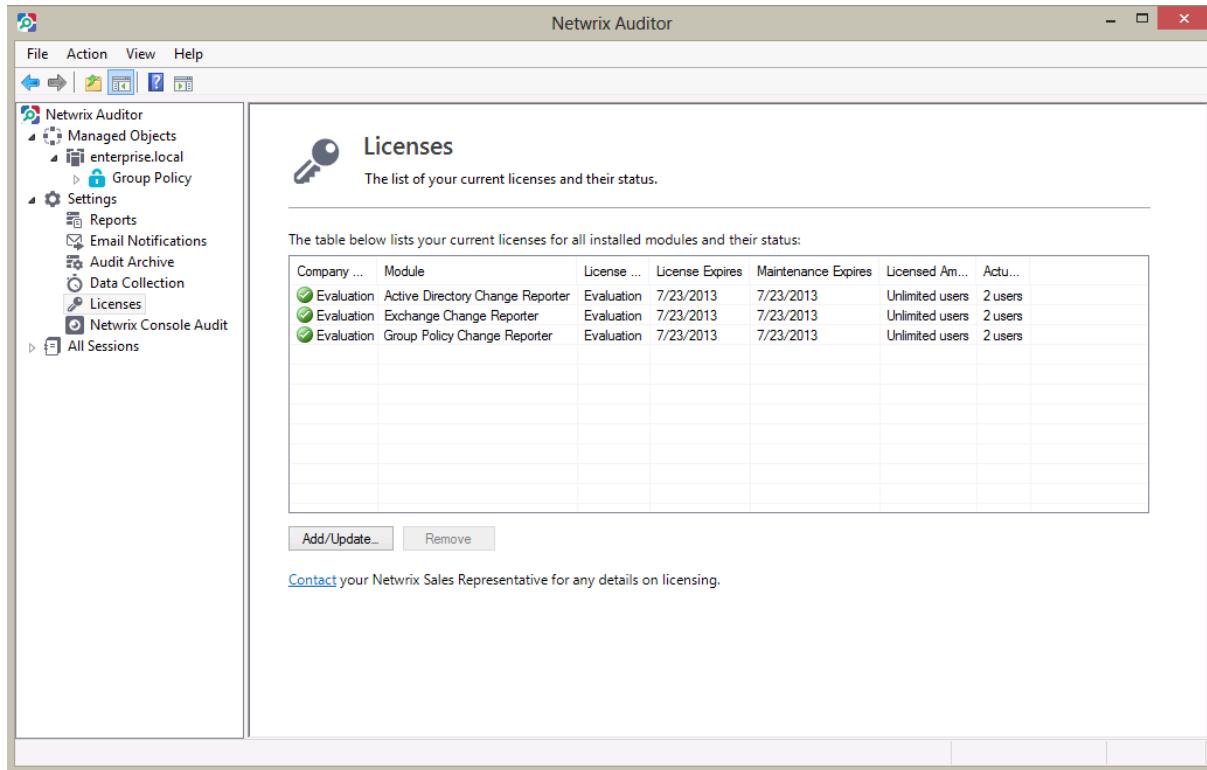
7.5. Configuring License Settings

The **Licenses** option allows viewing your current licenses for the audited systems, updating them, and adding new licenses. To configure your licenses, perform the following procedure:

Procedure 27. To configure licenses

1. In the Netwrix Auditor console, expand the **Settings** node and select the **Licenses** option. Alternatively, you can click **Licenses** in the Settings page. The following page will be displayed showing the list of your current licenses:

Figure 64: Settings: License



2. Perform one of the following operations if necessary:

- To add/update your licenses, click the **Add/Update** button. In the dialog that opens, specify your company name, your license count and the license codes (separated by commas or semi-colons).

Note: You can only install multiple licenses at the same time if they have the same license count. Otherwise, install them separately.

- To remove a license, select it from the list and click the **Remove** button. Then click **Yes** in the confirmation dialog.

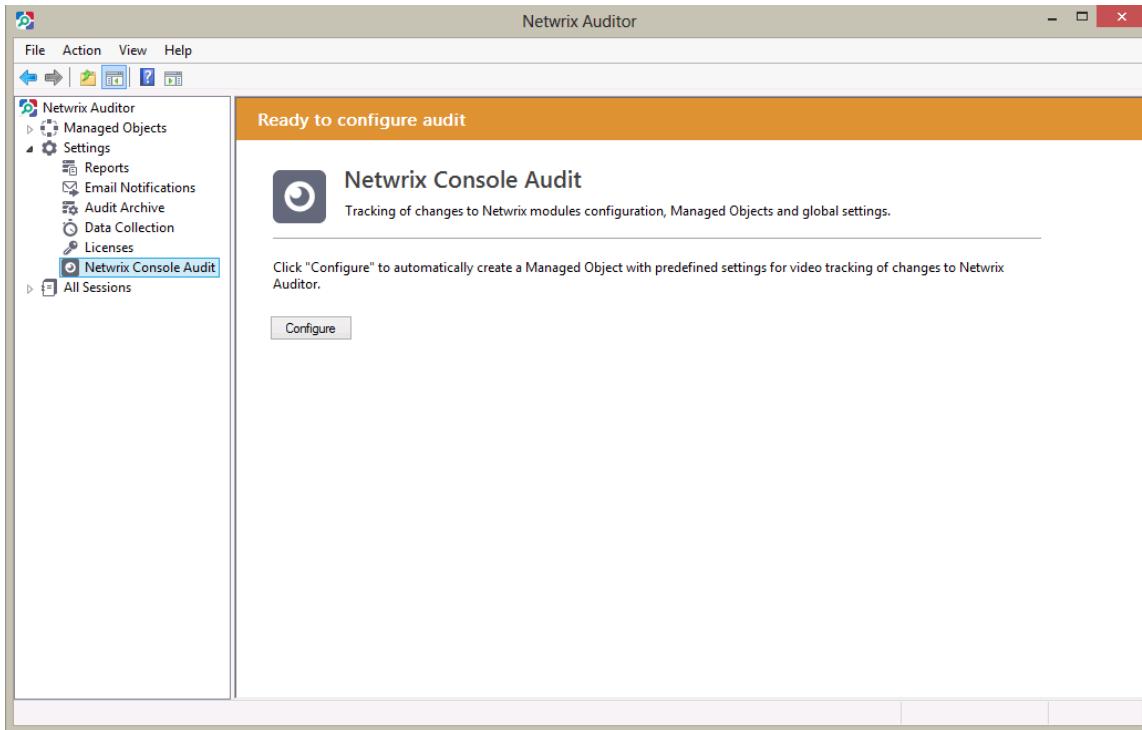
7.6. Configuring Netwrix Console Audit

The **Netwrix Console Audit** option allows auditing changes made via the Netwrix Auditor console. This option is available if you have enabled User Session Activity auditing with Netwrix Auditor. Netwrix Auditor allows capturing video of any activity on the monitored computers and embedding metadata (such as the information on which applications and windows were opened) into video files, which can be used for data search and positioning inside video recordings. By configuring User Session Activity auditing to monitor the Netwrix Auditor console you can keep record of any actions performed using the Netwrix Auditor console and track changes to audit settings, Managed Objects and global settings.

Procedure 28. To enable Netwrix Console Audit

- In the Netwrix Auditor console, expand the **Settings** node and select the **Netwrix Console Audit** option. Alternatively, you can click **Netwrix Console Audit** in the Settings page. The following page will be displayed:

Figure 65: Settings: Netwrix Console Audit



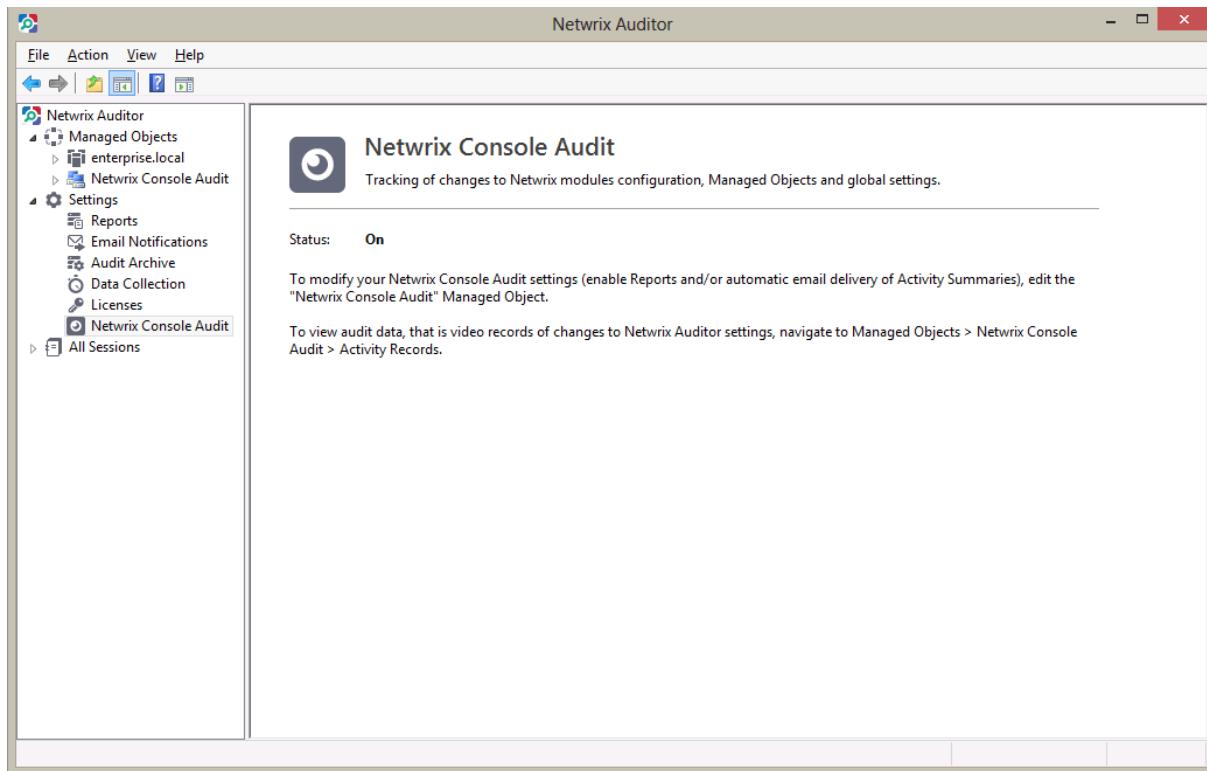
- Click **Configure** to enable Netwrix Console Audit. A Managed Object will be created automatically with the following default settings:

Table 9: Managed Object Default Settings

Parameter	Status
Enabled module	User Activity Video Reporter
Monitored computers	localhost
Video recording filters by user	All users
Video recording filters by application	Netwrix*
SSRS-based Reports	Not configured
Automatic Activity Summary delivery	Not configured
Video recording quality and duration settings	Default

- Click **OK** when the confirmation message is displayed. The newly created Managed Object will appear under the **Managed Objects** node, and the status of Netwrix Console Audit will change to “On”:

Figure 66: Settings: Enabled Netwrix Console Audit



Once you have enabled the **Netwrix Console Audit** option, you will receive **Activity Summaries** with a list of video recordings and links to video files showing how the changes were made. By default, Activity Summary is generated and sent every hour starting from 7:00 AM:

Figure 67: Activity Summary

If there are problems with how this message is displayed, click here to view it in a web browser.

From: test@enterprise.local
To: test@enterprise.local
Cc:
Subject: NetWrix User Activity Video Reporter: Activity Summary – Netwrix Console Audit

Sent: Tue 7/9/2013 2:01 PM

You are using the trial version of NetWrix User Activity Video Reporter. The evaluation period expires in 20 days. [Click here to request a quote.](#)

This is an automatically generated message sent from **WORKSTATION6** according to the following delivery setting for **Netwrix Console Audit** computer collection: send Activity Summary every 1 hour.

The table below shows user activity records captured since the last Activity Summary delivery. To watch a video, [download and install the codec](#).

Click the "Start time" link to play a video.

Date	Start time	End time	Duration	Computer	User
7/9/2013	5:37 AM	5:39 AM	00:02:00	workstation6.enterprise.local	ENTERPRISE\test
7/9/2013	5:39 AM	5:42 AM	00:02:01	workstation6.enterprise.local	ENTERPRISE\test
7/9/2013	5:44 AM	5:46 AM	00:02:00	workstation6.enterprise.local	ENTERPRISE\test
7/9/2013	5:46 AM	5:48 AM	00:02:00	workstation6.enterprise.local	ENTERPRISE\test
7/9/2013	5:55 AM	5:57 AM	00:02:00	workstation6.enterprise.local	ENTERPRISE\test
7/9/2013	5:58 AM	6:00 AM	00:02:00	workstation6.enterprise.local	ENTERPRISE\test

To modify the Activity Summary delivery interval, start NetWrix Management Console and navigate to Managed Objects -> Netwrix Console Audit -> User Activity Video Reporter. On the right, click the Configure button for Email Notifications and set a new value for the delivery interval.

Please visit [www.netwrix.com](#) for more products and updates.

test@enterprise.local

You can generate a summary of activity records made for your console and Managed Object configuration changes via the Activity Records page by navigating to **Managed Objects → <your Managed_Object_name> → User Session Activity → Activity Records**.

You can modify the Netwrix Console Audit settings (for example, enable SSRS-based Reports, subscribe to a report, and so on) in the same way as for any other Managed Object.

For details on the User Session Activity auditing, refer to the [Netwrix Auditor User Session Activity Administrator's Guide](#).

8. ADDITIONAL CONFIGURATION

This Chapter provides instructions on how to fine-tune Group Policy audit using the additional configuration options. It explains how to:

- [Configuring Integration with User Session Activity](#)
- [Enable integration with third-party SIEM solutions](#), including Microsoft System Center Operations Manager (SCOM)
- [Exclude or include certain data types from/in reports](#)

8.1. Configuring Integration with User Session Activity Audit

By integrating Group Policy audit with User Session Activity audit, you can get a report that shows all changes made to Group Policy with links to the corresponding video files showing how a particular change was made.

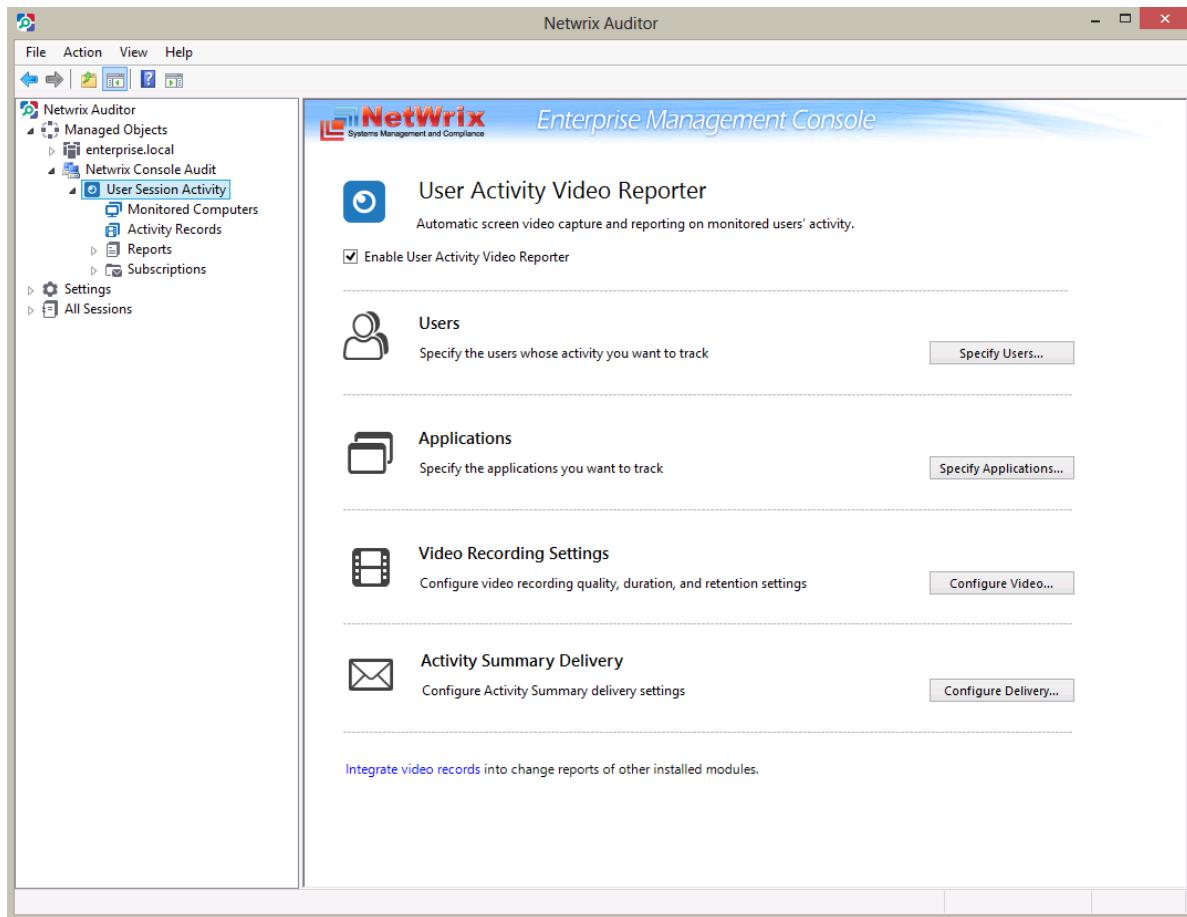
Once the integration has completed, the **Changes with Video** subfolder containing the **All Changes with video report** will be added to the **Reports** folder under the Group Policy node.

Integration can be enabled if the following conditions are met:

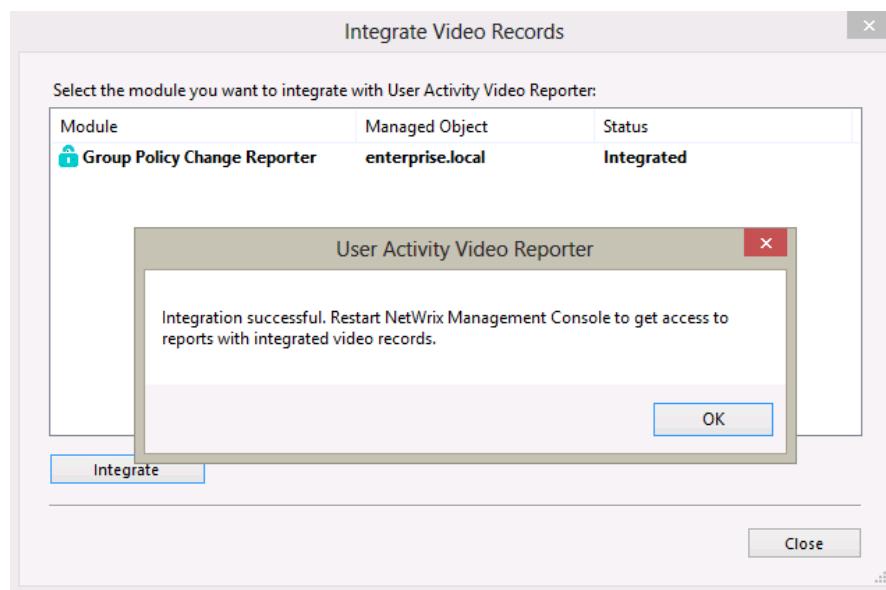
- The User Session Activity audit is enabled and configured for the same Managed Object as Group Policy audit. For details on how to configure the User Session Activity audit, refer to [Netwrix Auditor User Session Activity Administrator's Guide](#).
- SSRS-based Reports are enabled and configured for both Group Policy and User Session Activity audit.
- Netwrix Auditor is configured to write audit data on Group Policy and User Session Activity to databases located on the same SQL Server instance. You can check the SQL Server instance settings for each Managed Object in the **<Managed Object name> → Group Policy/ User Session Activity → Reports → Report Settings** page.
- At least one data collection for Group Policy must run on your Managed Object. For details on how to run data collection, refer to Section [5.2.2. Generating Change Summary on Demand](#).

Procedure 29. To enable integration with User Sessions Activity Audit

1. In the Netwrix Auditor console tree, navigate to **Managed Objects → <Managed_Object_name> → User Session Activity**.
2. Click the **Integrate video records** link at the bottom of the **User Sessions Activity** main page:

Figure 68: User Session Activity Page

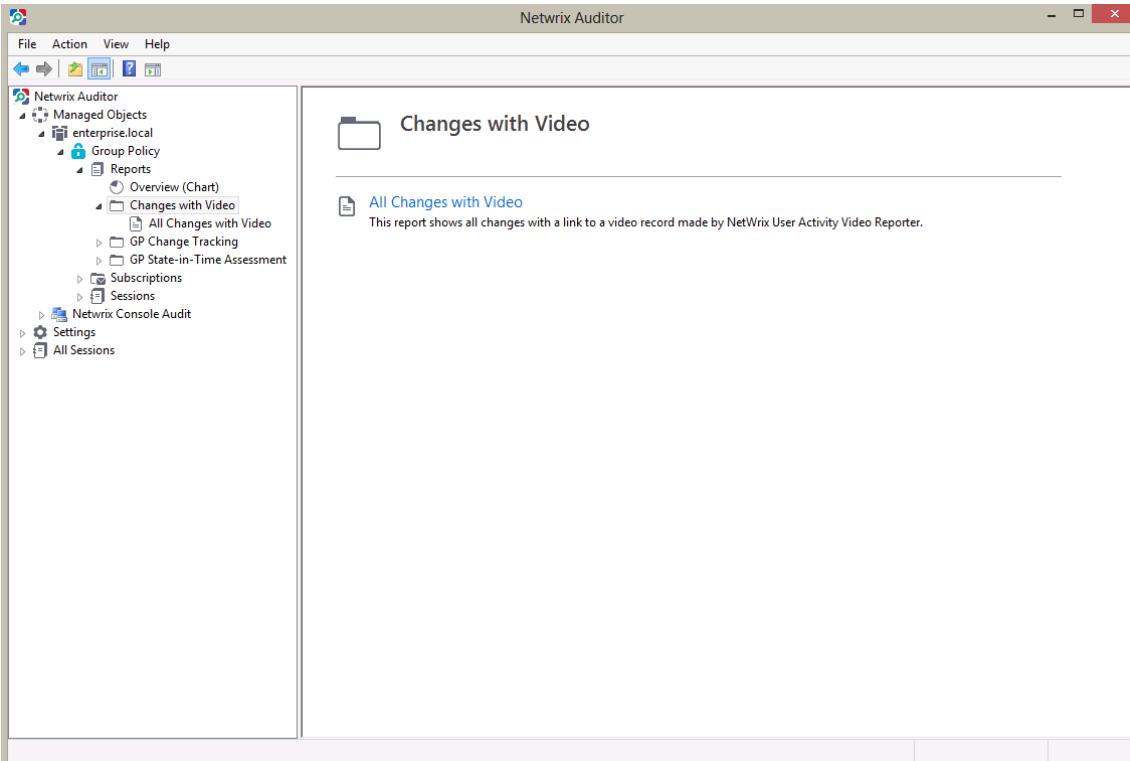
3. In the **Integrate Video Records** dialog, select **Group Policy Change Reporter** from the list and click the **Integrate** button:

Figure 69: Integrate Video Records

4. If the operation is completed successfully, the status of the selected module changes to "Integrated". If it fails, a message is displayed explaining the reason why integration has failed.
5. Restart the Netwrix Auditor console for the changes to take effect.

The report with videos on the changes made to Group Policy is available in the **Changes with Video** folder under the **Reports** node of the relevant Managed Object:

Figure 70: Reports: Changes With Video



This report contains an additional column called “Video” which contains links to the corresponding video files showing *how* each change was made:

Figure 71: Reports: All Changes With Video

The screenshot shows the Netwrix Auditor interface with the 'Reports' section selected. Under 'Changes with Video', the 'All Changes with Video' option is chosen. The main window displays the 'All Changes With Video' report for the date range 7/9/2013 1:00:31 PM to 7/9/2013 1:23:31 PM. The report table shows one entry:

Action	Who Changed	When Changed	Where Changed	Object Type	What Changed	Video
Modified	ENTERPRISE \Administrator	7/9/2013 1:17:55 PM	enterprise dc.enterprise.local	GroupPolicy	Default Domain Policy	

8.2. Enabling Integration with Third-Party SIEM Solutions

If your organization is already using a third-party SIEM solution, Netwrix Auditor can help protect these investments by integrating with major SIEM systems and letting you manage audit data in your usual way, but with improved performance and increased reliability of collected audit data.

Netwrix Auditor can integrate with all major SIEM solutions, including Microsoft SCOM, RSA enVision®, ArcSight® Logger™, Novell® Sentinel™, NetIQ® Security Manager™, IBM Tivoli® Security Information and Event Manager™ and many other.

If integration with SIEM products is enabled, a custom Windows event log is created called Netwrix Change Reporter. This event log will generate events for each detected change (for detailed information on such events and their IDs, refer to the following Netwrix Technical Article: [Integration with Third Party SIEM Systems](#)). You can configure custom processing rules, alerts and reports in your SIEM solution to react to these events.

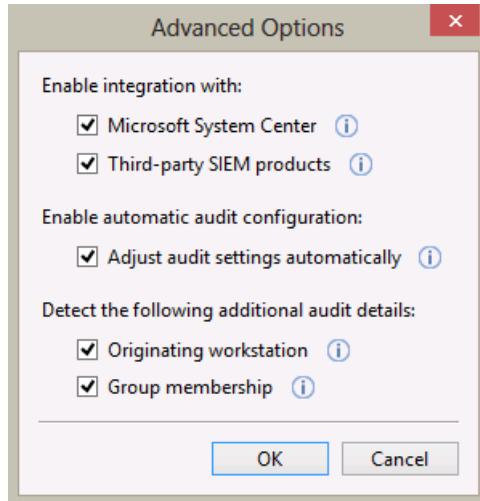
If you are using Microsoft SCOM and want to integrate it with Netwrix Auditor, you need to install [Netwrix Auditor Group Policy SCOM Management Pack](#), which is a solution that captures events written by Netwrix Auditor into the dedicated event log, and then feeds it to Microsoft SCOM that generates corresponding reports and alerts (for a detailed description of alerts triggered by SCOM alerting rules, you can refer to the following Netwrix Technical Article: [Netwrix Auditor SCOM Alerts Specification](#)).

To enable integration with third party SIEM systems, do the following:

Procedure 30. To enable integration with third-party SIEM solutions

1. In the Netwrix Auditor console, navigate to Managed Objects → <Managed_Object_name> → Group Policy.
2. In the right pane, click the Configure button next to Advanced Options. The following dialog will be displayed:

Figure 72: Advanced Options Dialog



3. Select the **Microsoft System Center** option to integrate the product with Microsoft SCOM, or the **Third-party SIEM products** option to integrate the product with a different SIEM solution, and click OK to save the changes.

8.3. Excluding/Including Data Types From/in Reports

You can fine-tune Group Policy audit by specifying various data types that you want to exclude from the product reports. This can be done by editing .txt configuration files located in the product installation folder: the Netwrix AD Change Reporter folder. The table below provides a list of the product configuration files, their description, syntax and examples. One entry per line is accepted.

Table 10: Configuration Files for Group Policy Audit

File Name	Description	Syntax	Example
omitobjlist_gp.txt	Contains a list of the Group Policy Object (GPO) names to be excluded from change reports.	<object name> NOTE: A wildcard (*) can be used to replace any number of characters.	To exclude changes to the Default Domain Policy GPO, add the following line: Default Domain Policy
omitproplist_gp.txt	Contains a list of the Group Policy Object settings to be excluded from change reports.	<settingname> NOTE: A wildcard (*) can be used to replace any number of characters.	To exclude data on changes made to the Maximum password length setting, add the following line: Maximum password length
omituserlist_gp	Contains a list of user names to exclude particular users from change reports.	<domain\user> NOTE: A wildcard (*) can be used to replace any number of characters.	To exclude changes made by the user "usertest" in the domain "domaintest", add the following line: domaintest\usertest

9. RESTORING GROUP POLICY OBJECTS

With Netwrix Auditor, you can restore your Group Policy objects via the backup files saved by the product. The backups are stored in the folder with snapshots and event log information, the default path is: %ProgramData%\Netwrix\Management\Console\Data\AD Changes\<domain_name>.

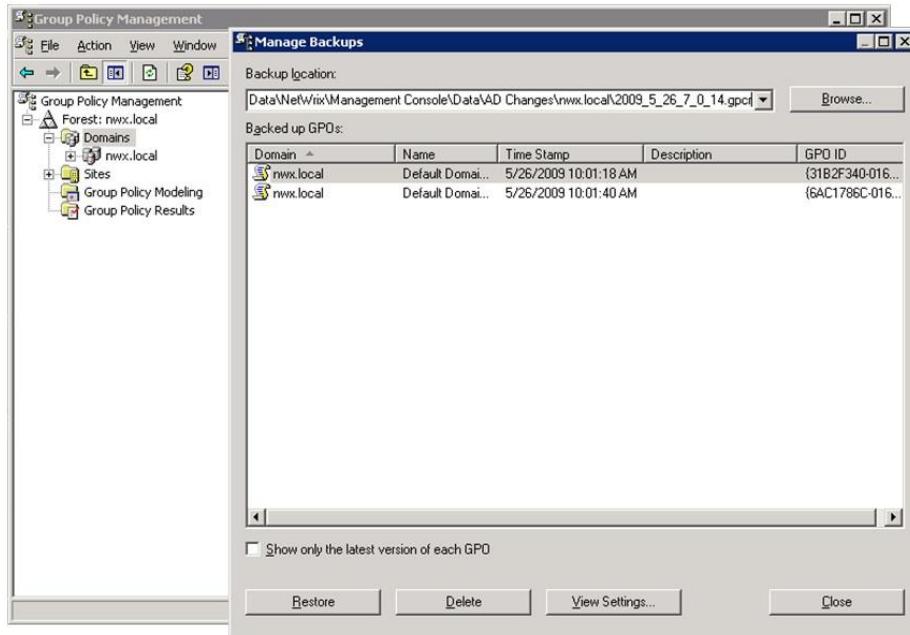
You can use this feature after at least one data collection task has run.

Note: By default, saving of the backup files is disabled. To enable the saving, set the GPOBackup registry key value to 1. For details, refer to [B Appendix: Registry Keys](#) of this guide.

Procedure 31. To restore Group Policy objects

1. Launch the Group Policy Management Console: navigate to **Start → Run**, type in **gpmc.msc** and click **OK**.
2. In the Group Policy Management Console, expand the **Forest: <your_forest_name>** node, right-click **Domains** and select **Manage Backups** from the drop-down menu.
3. In the **Manage Backups** dialog, click **Browse** and select the folder with Group Policy backup files. The folders with backup files are usually named by dates, so you can pick a folder by the required date. You will be presented with a list of Group Policy objects backed up on the selected date:

Figure 73: Group Policy Management Console



4. Select the required object in the **Backed up GPOs** grid and click the **Restore** bottom button.

A APPENDIX: SQL DATABASE RETENTION SCRIPT

```

DECLARE @Retention_Period_Days int
SET @Retention_Period_Days = 90 --Please specify the retention period in days (1 or more).
/*********************************************
DECLARE @DB sysname
SET @DB = DB_NAME()
exec sp_executesql N'
USE [msdb];

IF EXISTS (SELECT job_id FROM msdb.dbo.sysjobs_view WHERE name = N'''Retention Job''')
BEGIN
    declare @j_id uniqueidentifier
    SELECT @j_id=job_id FROM msdb.dbo.sysjobs_view WHERE name = N'''Retention Job'''
    EXEC msdb.dbo.sp_delete_job @job_id=@j_id, @delete_unused_schedule=1
END;

USE [msdb];

BEGIN TRANSACTION
DECLARE @ReturnCode INT
SELECT @ReturnCode = 0

IF NOT EXISTS (SELECT name FROM msdb.dbo.syscategories WHERE name=N'''[Uncategorized (Local)]''' AND category_class=1)
BEGIN
EXEC @ReturnCode = msdb.dbo.sp_add_category @class=N'''JOB'', @type=N'''LOCAL''',
@name=N'''[Uncategorized (Local)]'''
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
END

DECLARE @jobId BINARY(16)
DECLARE @desc nvarchar(100)
SET @desc = N'''A scheduled job that deletes all data that is older than '''+CAST(@Retention As
nvarchar(100))+''' day(s).'''
EXEC @ReturnCode = msdb.dbo.sp_add_job @job_name=N'''Retention Job''',
@enabled=1,
@notify_level_eventlog=0,
@notify_level_email=0,
@notify_level_netsend=0,
@notify_level_page=0,
@delete_level=0,
@description=@desc,
@category_name=N'''[Uncategorized (Local)]''',
@owner_login_name=N'''sa'', @job_id = @jobId OUTPUT
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

DECLARE @sqlcommand nvarchar(max)

SET @sqlcommand = N'''
DECLARE @RetDays int
DECLARE @Date datetime

Set @RetDays = '''+CAST(@Retention As nvarchar(100))+'''
Set @Date = DATEADD(d, -1*@RetDays, GETUTCDATE())

IF EXISTS (select * from [dbo].[DBVersion] where ProductId = 0 AND DBVersion = 4)
BEGIN
    BEGIN TRAN

        IF EXISTS (SELECT * FROM sys.objects WHERE object_id =
OBJECT_ID(N'''[dbo].[GPOPropChanges]''') AND type in (N'''U'''))
            Delete gpc
        From
            GPOPropChanges gpc
            inner join GPOFolderChanges gfc on gpc.GPOFolderId = gfc.GPOFolderChangeId
            inner join Changes c on gfc.ChangeId = c.ChangeId
            inner join Sessions s on c.ProductId = s.ProductId and c.SessionId =
s.SessionId
        Where
            s.Date < @Date
        If (@@ERROR>0) GOTO QuitWithRollback

        IF EXISTS (SELECT * FROM sys.objects WHERE object_id =
OBJECT_ID(N'''[dbo].[GPOFolderChanges]''') AND type in (N'''U'''))
            Delete gfc
        From
'''


```

```

GPOFolderChanges gfc
inner join Changes c on gfc.ChangeId = c.ChangeId
inner join Sessions s on c.ProductId = s.ProductId and c.SessionId =
s.SessionId
Where
    s.Date < @Date
If (@@ERROR>0) GOTO QuitWithRollback

IF EXISTS (SELECT * FROM sys.objects WHERE object_id =
OBJECT_ID(N'['[dbo].[PropChanges]') AND type in (N'U'))
Delete pc
From
    PropChanges pc
inner join Changes c on pc.ChangeId = c.ChangeId
inner join Sessions s on c.ProductId = s.ProductId and c.SessionId =
s.SessionId
Where
    s.Date < @Date
If (@@ERROR>0) GOTO QuitWithRollback

IF EXISTS (SELECT * FROM sys.objects WHERE object_id =
OBJECT_ID(N'['[dbo].[ObjProps]') AND type in (N'U'))
Delete op
From
    ObjProps op
inner join Changes c on op.ChangeId = c.ChangeId
inner join Sessions s on c.ProductId = s.ProductId and c.SessionId =
s.SessionId
Where
    s.Date < @Date
If (@@ERROR>0) GOTO QuitWithRollback

IF EXISTS (SELECT * FROM sys.objects WHERE object_id =
OBJECT_ID(N'['[dbo].[Changes]') AND type in (N'U'))
Delete c
From
    Changes c
inner join Sessions s on c.ProductId = s.ProductId and c.SessionId =
s.SessionId
Where
    s.Date < @Date
If (@@ERROR>0) GOTO QuitWithRollback

IF EXISTS (SELECT * FROM sys.objects WHERE object_id =
OBJECT_ID(N'['[dbo].[Sessions]') AND type in (N'U'))
Delete s
From
    Sessions s
Where
    s.Date < @Date
If (@@ERROR>0) GOTO QuitWithRollback

COMMIT TRANSACTION
GOTO EndSave
QuitWithRollback:
    IF (@@TRANCOUNT > 0) ROLLBACK TRANSACTION
EndSave:
END

IF EXISTS (select * from [dbo].[DBVersion] where ProductId = 0 AND DBVersion >= 5)
BEGIN
    exec sp_netwrix_DatabaseMaintenance @Date, 0
END
    ''
EXEC @ReturnCode = msdb.dbo.sp_add_jobstep @job_id=@jobId, @step_name=N'Retention Step',
    @step_id=1,
    @cmdexec_success_code=0,
    @on_success_action=1,
    @on_success_step_id=0,
    @on_fail_action=2,
    @on_fail_step_id=0,
    @retry_attempts=0,
    @retry_interval=0,
    @os_run_priority=0, @subsystem=N'TSQL',
    @command=@sqlcommand,
    @database_name=@DBName,
    @flags=0
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
EXEC @ReturnCode = msdb.dbo.sp_update_job @job_id = @jobId, @start_step_id = 1

```

```
DECLARE @scheduleId uniqueidentifier
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
EXEC @ReturnCode = msdb.dbo.sp_add_jobschedule @job_id=@jobId, @name=N'Retention Schedule',
    @enabled=1,
    @freq_type=4,
    @freq_interval=1,
    @freq_subday_type=1,
    @freq_subday_interval=0,
    @freq_relative_interval=0,
    @freq_recurrence_factor=0,
    @active_start_date=NULL,
    @active_end_date=99991231,
    @active_start_time=20000,
    @active_end_time=235959
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
EXEC @ReturnCode = msdb.dbo.sp_add_jobserver @job_id = @jobId, @server_name = N'(local)'
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
COMMIT TRANSACTION
GOTO EndSave
QuitWithRollback:
    IF (@@TRANCOUNT > 0) ROLLBACK TRANSACTION
EndSave:
',
N'@DBName sysname, @Retention int', @DBName = @DB, @Retention = @Retention_Period_Days
```

B APPENDIX: REGISTRY KEYS

The table below contains the description of the basic Group Policy audit registry keys that you may need to configure while using the product. To configure/modify a registry key, navigate to **Start → Run**, and type `regedit` to launch Registry Editor.

Table 11: Netwrix Auditor For Group Policy Audit Registry Keys

Registry Key	Type	Description/Value	Created during setup	Preserved during upgrade
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix\AD Change Reporter				
CleanAutoBackupLogs	REG_DWORD	Defines the retention period for the security log backups: 0 - backups are never deleted from DCs [X] - backups are deleted after [X] hours	Yes	Yes
GPOBackup	REG_DWORD	Defines whether to backup GPOs during data collection: 0 - no 1 - yes	Yes	Yes
GPOBackupDays	REG_DWORD	Defines the backup frequency: 0 - backup always X - once in X days Note: GPOBackup must be set to 1	Yes	Yes
IgnoreAuditCheckResultError	REG_DWORD	Defines whether audit check errors should be displayed in the Change Summary footer: 0 - display errors 1 - do not display errors	Yes	Yes
IgnoreRootDCErrors	REG_DWORD	Defines whether to display audit check errors for the root domain (when data is collected from a child domain) in the Change Summary footer: 0 - display errors 1 - do not display errors	Yes	Yes
ShortEmailSubjects	REG_DWORD	Defines whether to contract the email subjects (e.g. Netwrix Group Policy)	No	Yes

Registry Key	Type	Description/Value	Created during setup	Preserved during upgrade
		Change Reporter: Summary Report - GPCR Report): 0 - no 1 - yes		
ProcessBackupLogs	REG_DWORD	Defines whether to process security log backups: 0 - no 1 - yes Note: Even if this key is set to 0, the security log backups will not be deleted regardless of the value of the CleanAutoBackupLogs key.	Yes	Yes
ShowReportFooter	REG_DWORD	Defines whether to display the footer in the Change Summary email: 0 - no 1 - yes	Yes	Yes
ShowReportGeneratorServer	REG_DWORD	Defines whether to display the report generation server in the Change Summary footer: 0 - no 1 - yes	Yes	Yes
ShowSummaryInFooter	REG_DWORD	Defines whether to display the summary in the Change Summary footer: 0 - no 1 - yes	Yes	Yes
ShowSummaryInHeader	REG_DWORD	Defines whether to display the summary in the Change Summary header: 0 - no 1 - yes	Yes	Yes
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix\AD Change Reporter\<Managed Object Name>				
CollectLogsMaxThreads	REG_DWORD	Defines the number of DCs to simultaneously start log collection on	No	Yes
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix\AD Change Reporter\<Managed Object Name>\Database settings				
SessionImportDays	REG_DWORD	Defines the	No	Yes

Registry Key	Type	Description/Value	Created during setup	Preserved during upgrade
		frequency of a full snapshot upload. X - once in X days		
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix\Management Console\Database settings				
overwrite_datasource	REG_DWORD	Defines whether to overwrite the database connection settings (stored in the reports data source) if they differ from the SQL server settings specified when configuring the Managed Object 0 - no 1 - yes	No	No
SqlOperationTimeout	REG_DWORD	Defines the timeout for executing SQL queries such as data selection, insertion or deletion (in seconds)	No	Yes
timeout	REG_DWORD	Defines the SQL database connection timeout (in seconds)	No	Yes

C APPENDIX: RELATED DOCUMENTATION

The table below lists all documents available to support Group Policy audit with Netwrix Auditor 5.0:

Table 12: Product Documentation

Document Name	Overview
Netwrix Auditor: Group Policy Administrator's Guide	The current document. Provides a detailed explanation of the Netwrix Group Policy Change Reporter features and step-by-step instructions on how to configure and use the product.
Netwrix Auditor Installation and Configuration Guide	Provides detailed instructions on how to install Netwrix Auditor and explains how to configure the target AD domain for auditing.
Netwrix Auditor: Active Directory Administrator's Guide	Provides a detailed explanation of the Netwrix Auditor features for Active Directory audit and step-by-step instructions on how to configure and use the product.
Netwrix Auditor: Exchange Servers Administrator's Guide	Provides a detailed explanation of the Netwrix Auditor features for Exchange Servers audit and step-by-step instructions on how to configure and use the product.
Netwrix Auditor Release Notes	Contains a list of the known issues that customers may experience with Auditor 5.0, and suggests workarounds for these issues.
Troubleshooting Incorrect Reporting of the "Who Changed" Parameter	Step-by-step instructions on how to troubleshoot incorrect reporting of the 'who changed' parameter.
Installing Microsoft SQL Server and Configuring the Reporting Services	This technical article provides instructions on how to install Microsoft SQL Server 2005/2008 R2/2012 Express and configure the Reporting Services.
How to Subscribe to SSRS Reports	This technical article explains how to configure a subscription to SSRS reports using the Report Manager.
Integration with Third Party SIEM Systems	This article explains how to enable integration with third-party Security Information and Event Management (SIEM) systems.