netwrix

Netwrix Auditor Administration Guide

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1. Introduction

Looking for online version? Check out Netwrix Auditor help center.

This guide is intended for Netwrix Auditor global administrators and configurators, provides step-by-step instructions on how to start monitoring your environments, create monitoring plans, configure Audit Database settings and email notifications. It also provides information on fine-tuning the product, additional configuration, etc.

This guide is intended for developers and Managed Service Providers. It provides instructions on how to use Netwrix Auditor Configuration API for managing Netwrix Auditor configuration objects.

NOTE: It assumed that document readers have prior experience with RESTful architecture and solid understanding of HTTP protocol. Technology and tools overview is outside the scope of the current guide.

The product functionality described in this guide applies to Netwrix Auditor Standard Edition. Note that Free Community Edition provides limited functionality. See <u>Product Editions</u> for more information.

1.1. Netwrix Auditor Features and Benefits

Netwrix Auditor is a visibility platform for user behavior analysis and risk mitigation that enables control over changes, configurations and access in hybrid IT environments to protect data regardless of its location. The platform provides security analytics to detect anomalies in user behavior and investigate threat patterns before a data breach occurs.

Netwrix Auditor includes applications for Active Directory, Active Directory Federation Services, Azure AD, Exchange, Office 365, Windows file servers, EMC storage devices, NetApp filer appliances, Nutanix Files, network devices, SharePoint, Oracle Database, SQL Server, VMware, Windows Server, and User Activity. Empowered with a RESTful API, the platform delivers visibility and control across all of your on-premises or cloud-based IT systems in a unified way.

Major benefits:

- Detect insider threats—on premises and in the cloud
- · Pass compliance audits with less effort and expense
- Increase productivity of IT security and operations teams

To learn how Netwrix Auditor can help your achieve your specific business objectives, refer to <u>Netwrix</u> <u>Auditor Best Practices Guide</u>.

The table below provides an overview of each Netwrix Auditor application:

A. 1'. 4'.	
Application	Features
Netwrix Auditor for Active Directory	Netwrix Auditor for Active Directory detects and reports on all changes made to the managed Active Directory domain, including AD objects, Group Policy configuration, directory partitions, and more. It makes daily snapshots of the managed domain structure that can be used to assess its state at present or at any moment in the past. The product provides logon activity summary, reports on interactive and non- interactive logons including failed logon attempts.
	Also, Netwrix Auditor for Active Directory helps address specific tasks—detect and manage inactive users and expiring passwords. In addition, Netwrix Auditor for Active Directory provides a stand-alone Active Directory Object Restore tool that allows reverting unwanted changes to AD objects down to their attribute level.
Netwrix Auditor for Azure AD	Netwrix Auditor for Azure AD detects and reports on all changes made to Azure AD configuration and permissions, including Azure AD objects, user accounts, passwords, group membership, and more. The products also reports on successful and failed logon attempts.
Netwrix Auditor for Exchange	Netwrix Auditor for Exchange detects and reports on all changes made to Microsoft Exchange configuration and permissions. In addition, it tracks mailbox access events in the managed Exchange organization, and notifies the users whose mailboxes have been accessed by non- owners.
Netwrix Auditor for Exchange Online	Netwrix Auditor for Exchange Online detects and reports on all changes made to Microsoft Exchange Online.
	The product provides auditing of configuration and permissions changes. In addition, it tracks mailbox access events in the managed Exchange Online organization, and notifies the users whose mailboxes have been accessed by non-owners.
Netwrix Auditor for SharePoint Online	Netwrix Auditor for SharePoint Online detects and reports on all changes made to SharePoint Online.
	The product reports on read access and changes made to SharePoint Online sites, including modifications of content, security settings, and sharing permissions. In addition to SharePoint Online, OneDrive for Business changes are reported too.
Netwrix Auditor for Windows File Servers	Netwrix Auditor for Windows File Servers detects and reports on all changes made to Windows-based file servers, including modifications of files, folders, shares and permissions, as well as failed and successful access attempts.

Application	Features
Netwrix Auditor for EMC	Netwrix Auditor for EMC detects and reports on all changes made to EMC VNX/VNXe and Isilon storages, including modifications of files, folders, shares and permissions, as well as failed and successful access attempts.
Netwrix Auditor for NetApp	Netwrix Auditor for NetApp detects and reports on all changes made to NetApp Filer appliances both in cluster- and 7-modes, including modifications of files, folders, shares and permissions, as well as failed and successful access attempts.
Netwrix Auditor for Nutanix Files	Netwrix Auditor for Nutanix Files detects and reports on changes made to SMB shared folders, subfolders and files stored on the Nutanix File Server, including failed and successful attempts.
Netwrix Auditor for Oracle Database	Netwrix Auditor for Oracle Database detects and reports on all changes made to your Oracle Database instance configuration, privileges and security settings, including database objects and directories, user accounts, audit policies, sensitive data, and triggers. The product also reports on failed and successful access attempts.
Netwrix Auditor for SharePoint	Netwrix Auditor for SharePoint detects and reports on read access and changes made to SharePoint farms, servers and sites, including modifications of content, security settings and permissions.
Netwrix Auditor for SQL Server	Netwrix Auditor for SQL Server detects and reports on all changes to SQL Server configuration, database content, and logon activity.
Netwrix Auditor for VMware	Netwrix Auditor for VMware detects and reports on all changes made to ESX servers, folders, clusters, resource pools, virtual machines and their virtual hardware configuration.
Netwrix Auditor for Windows Server	Netwrix Auditor for Windows Server detects and reports on all changes made to Windows-based server configuration, including hardware devices, drivers, software, services, applications, networking settings, registry settings, DNS, and more. It also provides automatic consolidation and archiving of event logs data. With a stand-alone Event Log Manager tool, Netwrix Auditor collects Windows event logs from multiple computers across the network, stores them centrally in a compressed format, and enables convenient analysis of event log data.
Netwrix Auditor for User Activity	Netwrix Auditor for User Sessions detects and reports on all user actions during a session with the ability to monitor specific users, applications and computers. The product can be configured to capture a video of users' activity on the audited computers.

1.2. How It Works

Netwrix Auditor provides comprehensive auditing of applications, platforms and storage systems. Netwrix Auditor architecture and components interactions are shown in the figure below.



- Netwrix Auditor Server the central component that handles the collection, transfer and processing of audit data from the various data sources (audited systems). Data from the sources not yet supported out of the box is collected using RESTful Integration API.
- Netwrix Auditor Client a component that provides a friendly interface to authorized personnel who can use this console UI to manage Netwrix Auditor settings, examine alerts, reports and search results. Other users can obtain audit data by email or with 3rd party tools for example, reports can be provided to the management team via the intranet portal.
- Data sources entities that represent the types of audited systems supported by Netwrix Auditor (for example, Active Directory, Exchange Online, NetApp storage system, and so on), or the areas you are interested in (Group Policy, User Activity, and others).
- Long-Term Archive a file-based repository storage keeps the audit data collected from all your data sources or imported using Integration API in a compressed format for a long period of time. Default retention period is 120 months.
- Audit databases these are Microsoft SQL Server databases used as operational storage. This type
 of data storage allows you to browse recent data, run search queries, generate reports and alerts.
 Typically, data collected from the certain data source (for example, Exchange Server) is stored to the
 dedicated Audit database and the long-term archive. So, you can configure as many databases as the
 data sources you want to process. Default retention period for data stored in the Audit database is
 180 days.

1.2.1. Workflow Stages

General workflow stages are as follows:

- 1. Authorized administrators prepare IT infrastructure and data sources they are going to audit, as recommended in Netwrix Auditor documentation and industry best practices; they use Netwrix Auditor client (management UI) to set up automated data processing.
- 2. Netwrix Auditor collects audit data from the specified data source (application, server, storage system, and so on).

To provide a coherent picture of changes that occurred in the audited systems, Netwrix Auditor can consolidate data from multiple independent sources (event logs, configuration snapshots, change history records, etc.). This capability is implemented with Netwrix Auditor Server and Integration API.

NOTE: For details on custom data source processing workflow, refer to the <u>Integration API</u> documentation.

- 3. Audit data is stored to the Audit databases and the repository (Long-Term Archive) and preserved there according to the corresponding retention settings.
- 4. Netwrix Auditor analyzes the incoming audit data and alerts appropriate staff about critical changes, according to the built-in alerts you choose to use and any custom alerts you have created. Authorized users use the Netwrix Auditor Client to view pre-built dashboards, run predefined reports, conduct investigations, and create custom reports based on their searches. Other users obtain the data they need via email or third-party tools.
- 5. To enable historical data analysis, Netwrix Auditor can extract data from the repository and import it to the Audit database, where it becomes available for search queries and report generation.

2. Launch Netwrix Auditor

To start using Netwrix Auditor

• Navigate to **Start** → **Netwrix Auditor** → **Netwrix Auditor**. You will see the **Welcome** page:



3. Role-based access and delegation

Security and awareness of *who* has access to *what* is crucial for every organization. Besides notifying you on *who* changed *what*, *when* and *where*, and *who* has access to *what* in your IT infrastructure, Netwrix pays attention to safety of its own configuration and collected data.

To keep the monitoring process secure, Netwrix suggests configuring role-based access. Delegating control ensures that only appropriate users can modify the product configuration or view audit data, based on your company policies and the user's job responsibilities.



Roles are described briefly in the table below and explained in detail in the next topic.

Role	Access level	Recommended use
Global administrator	Full control. Access to global settings, monitoring plan configuration, collected data, access delegation, etc.	The role should be assigned to a very limited number of employees—typically, only the owner of the Netwrix Auditor Server host in your environment.
		By default, the user who installed Netwrix Auditor is assigned the Global administrator role. All members of the local Administrators group are

Role	Access level	Recommended use
		Global administrators too.
Configurator	Access to monitoring plan configuration within the delegated scope: a monitoring plan or a folder with monitoring plans	The role is appropriate for system administrators, infrastructure engineers, and members of operations team who manage network and services in your organization but should not have access to sensitive data.
Global reviewer	Access to all data collected by Netwrix Auditor and intelligence and visibility features.	The role is appropriate for key employees who need to review audit data collected across various data sources— typically, IT managers, chief information security officer, and so on.
Reviewer	Access to data collected by Netwrix Auditor and intelligence and visibility features within the delegated scope.	The role is appropriate for members of security team and helpdesk personnel who are responsible for mitigating risks in a certain sector of your environment (e.g., domain, file share).
		This role is granted to specialists who use Netwrix Auditor Integration API to retrieve data from the Audit Database.
Contributor	Write access to Netwrix Auditor Server and Audit Database.	This service role is granted to specialists who use Netwrix Auditor Integration API to write data to the Audit Database. This role is also granted to service accounts or any accounts used for interaction with Netwrix Auditor Server (e.g., add- on scripts).

3.1. Compare Roles

Feature	Global administrator	Global reviewer	Reviewer	Configurator	Contributor
Launch Netwrix Auditor client	+	+	+	+	+
Delegate control, grant and revoke permissions	+	-	-	_	-
View global settings	+	Some	Some	Some	Some

Feature	Global administrator	Global reviewer	Reviewer	Configurator	Contributor
Modify global settings (including default Audit Database, licenses, retention settings, etc.)	+	-	-	-	_
	Мо	nitoring plan	configuration		
List folders	+	+	+	+	+
Add, remove, rename folders	+	-	_	Some Only under assigned folders provided that directly assigned roles do not conflict.	-
List monitoring plans, review status	+	+	+	+	+
Add, remove, rename monitoring plans	+	-	_	Some Only under assigned folders provided that directly assigned roles do not conflict.	-
Modify monitoring plan settings	+	Some Add and remove Activity Summary recipients	Some Add and remove Activity Summary recipients within the	Some Restricted to the delegated scope (folder or monitoring plan)	_

3. Role-based access and delegation

Feature	Global administrator	Global reviewer	Reviewer	Configurator	Contributor
			delegated scope		
List data sources and items in monitoring plan	+	+	+	+	+
Add, modify, remove data sources, enable or disable auditing	+	-	_	Some Restricted to the delegated scope (folder or monitoring plan)	_
Add, modify, remove items in monitoring plan	+	-	_	Some Restricted to the delegated scope (folder or monitoring plan)	-
Manage state-in-time data, upload snapshots to the Audit Database	+	+	_	-	-
		Intellige	ence		
List reports	+	+	+	+	+
Generate reports	+	+	Some Restricted to the delegated scope (folder or monitoring plan)	_	_
List report subscriptions	+	+	+	+	+
Create, modify, remove	+	+	_	-	-

3. Role-based access and delegation

Feature	Global administrator	Global reviewer	Reviewer	Configurator	Contributor
subscriptions					
See search results	+	+	Some Restricted to the delegated scope (folder or monitoring plan)	_	-
List, create, modify, delete custom reports	+	+	+	+	- (only can <i>list</i>)
List alerts	+	+	+	+	+
Create, modify, delete alerts	+	+	_	_	-
Import investigation data from the Long- Term Archive	+	_	_	_	-
View investigation data	+	+	-	-	-
View Behavior Anomalies list	+	+	-	-	-
Review user profile	+	+	-	-	-
Update anomaly status	+	+	-	-	-
Ris	k Assessment O	verview dash	board and drill-de	own reports	

View Risk	+	+	Some	-	-
Assessment			Restricted to		
Overview results			delegated		
(dashboard, drill-			scope (folder		
down reports)			or monitoring		
			plan)		
Modify risk level	+	+	-	-	-

Feature	Global administrator	Global reviewer	Reviewer	Configurator	Contributor
thresholds					
Customize risk indicators	+	+	-	-	-
	Netv	vrix Auditor I	ntegration API		
Write Activity Records	+	_	-	-	+
Retrieve Activity Records	+	+	+ Restricted to the delegated scope (folder or monitoring plan)	_	_

3.2. Assign Roles

3.2.1. Understanding scopes

Netwrix Auditor allows assigning roles on the product as a whole, or within a specific *scope*. A scope can be limited to a single monitoring plan or to the contents of a folder. This helps to ensure that only authorized personnel has access to the relevant data. For example, database administrators (DBAs) should not access Active Directory management data, and domain administrators do not need permissions to view database schema changes or update data collection settings, and so on.

Scopes for different Netwrix Auditor roles are as follows:

Scope	Roles
Global (All monitoring plans)	Global administrator
	Global reviewer
	Contributor
Folder level	Configurator
	Reviewer
Plan level	Configurator
	Reviewer

To delegate control to some scope, review, or revoke assigned roles

- 1. On the main Netwrix Auditor page, navigate to the Monitoring Plans section.
- 2. Browse your monitoring plans tree and select the scope you want to delegate to a user (e.g., All monitoring plans root folder, a folder, or a monitoring plan).
- 3. Click Delegate.
- 4. Review roles that are already defined for this scope.
- 5. Do one of the following:

То	Do	
Assign a role	1.	Select Add User.
	2.	In the dialog that opens, specify a user and a role.
Revoke a role assignment	•	Click $^{ imes}$ next to the user.

6. Click Save or Save&Close.

3.2.2. Browser role on Report Server

Along with adding a new Global administrator, Global reviewer or Reviewer role, Netwrix Auditor will automatically assign this user the **Browser** role on the Report Server (SSRS).

The **Browser** role is required to generate reports. It is granted on all reports — or within a delegated scope.

If for some reason Netwrix Auditor is unable to grant the **Browser** role, configure it manually. See <u>Configure SSRS Account</u> for more information.

3.2.3. Default role assignments

By default, several accounts and local groups are assigned the following roles:

Account or group name	Role	Details
Local Administrators	Global administrator	
Local service accounts	Global administrator	Global administrator
		NOTE: Netwrix Auditor uses system accounts for data processing and interaction between product components.

3. Role-based access and delegation

Account or group name	Role	Details
Netwrix Auditor Administrators	Global administrator	
Netwrix Auditor Client Users	Global reviewer	

3.2.3.1. Delegating control via Windows group membership

During the Netwrix Auditor Server installation, **Netwrix Auditor Administrators** and **Netwrix Auditor Client Users** groups are created automatically. To delegate control via group membership, you need to add users to these groups on the computer where Netwrix Auditor Server resides.

NOTE: Users will be granted roles with extended permissions. You may need to limit their scope to a specific monitoring plan.

To add an account to a group

- 1. On the computer where Netwrix Auditor Server is installed, start the **Local Users and Computers** snap-in.
- 2. Navigate to the **Groups** node and locate the **Netwrix Auditor Administrators** or **Netwrix Auditor Client Users** group.
- 3. In the group properties, click Add.
- 4. Specify users you want to be included in this group.

lusrmgr - [Local Users and Grou	ps (Local)\Groups]	:	×
File Action View Help			
🗢 🄿 🙍 📷 🙆 🔹 👔			
Local Users and Groups (Local)	Name	Description	^
Users Groups	 RDS Management Servers RDS Remote Access Servers Remote Desktop Users Remote Management Users Replicator Storage Replica Administrators System Managed Accounts Group Users HelpLibraryUpdaters 	Servers in this group can perform routine administrati Servers in this group enable users of RemoteApp progr Members in this group are granted the right to logon r Members of this group can access WMI resources over Supports file replication in a domain Members of this group have complete and unrestricte Members of this group are managed by the system. Users are prevented from making accidental or intenti	
	Netwrix Auditor Administrators	Members of this group are allowed to set up and modi Members of this group are allowed to access the audit	*

3.3. Provide Access to a Limited Set of Data

By default, only users designated in Netwrix Auditor are allowed to view its configuration and collected data. This policy ensures that only authorized and trustworthy users access sensitive data and make changes.

However, in some cases, organizations need to provide certain employees with access to a limited set of audit data. For example, an auditor might need to review particular access reports once or twice a year. You can provide these users (recipients) with means to review the data they need without actually running Netwrix Auditor. This ensures that dedicated specialists have access to the data while preventing data breaches and ensuring that sensitive data is not being distributed across the whole company.

Netwrix recommends granting limited access permissions to employees who need to:

- Review audit data periodically in accordance with company policy
- Review audit data accumulated over time
- Be notified only in case of a rare incident

To grant limited access to audit data, you can:

Do	Recommended use
Schedule email report subscriptions	This is helpful when you want to share information with a group of employees, external consultants, auditors, and so on. Reports are sent according to a specified schedule and recipients can review them, but they do not have any other means to access audit data. Basically, this option is enough for employees who are interested in a high-level summary— for example, an auditor who performs monthly access rights attestation on critical folders or a senior manager.



Publish reports to This scenario works great for a helpdesk with several departments. Assume, each



Configure alerts This is helpful for rare occasions when you have to notify some senior specialists about critical system state that has to be addressed immediately, e.g., CISO must mitigate risks in the event of massive deletions in the sensitive data storage.

4. Monitoring Plans

To start auditing your environment and analyzing user behavior with Netwrix Auditor, create a monitoring plan.

A monitoring plan defines data collection, notification, and storage settings.

To start collecting data, and add items to its scope.

So, to collect data from your environment, you need to do the following:

- 1. Create a monitoring plan with a wizard. See Create a New Plan for more information.
- 2. Fine-tune data source settings, if necessary: use the data source properties to modify data collection settings, customize the monitoring scope, and so on. See <u>Manage Data Sources</u> for more information.
- 3. Add items to be monitored. An item is a specific object you want to audit, e.g., a VMware server or a SharePoint farm. As soon as the item is added, to the monitoring plan, Netwrix Auditor starts collecting data from it. See Add Items for Monitoring for more information.

To view and modify your plans, in the main Netwrix Auditor window click the **Monitoring Plans** tile, then expand the **All Monitoring Plans** tree.

То	Do
See how data collection goes on	Click on a plan name. You will see all data sources included in the plan and data collection status for each data source.
Start data collection manually	 Select a plan and click Edit. In the monitoring plan window, click Update in the right pane. Data collection will be started (status for the data sources will be displayed as <i>Working</i>). Do the same if you need to generate Activity Summary with the latest changes. See Launch Data Collection Manually and Update Status for details.
View collected data	 Select a plan and click Edit. In the right pane, go to the Intelligence section (in the bottom) and click Search. The search page will appear, displaying the collected data filtered out accordingly (i.e. provided by this monitoring plan).
Modify plan settings, add or delete data sources, add or delete items	 Select a plan and click Edit. On the page that opens, review your plan settings. Then follow the instructions described in these sections: Manage Data Sources

То	Do
	Add Items for Monitoring
	Fine-Tune Your Plan and Edit Settings
Assign roles	Click Delegate to review current delegations and assign roles. You can delegate control over a monitoring plan to another administrator, or grant read access—Reviewer role—to the data collected by this plan.
	To simplify delegation, you can further organize the monitoring plans into folders.
	See <u>Role-based access and delegation</u> for more information.

4.1. Using historical data

For many data sources, you can instruct Netwrix Auditor to collect state-in-time data along with event data. For that, Netwrix Auditor uses state-in-time snapshots of the relevant system (for example, see <u>Data</u> <u>Collection from VMware Servers</u>).

To keep users up-to-date on actual system state, Netwrix Auditor updates the latest snapshot on the regular basis. Thus, only the latest snapshot is available for ongoing reporting in Netwrix Auditor.

However, you may need to generate reports based on the historical data. For that, you must import the historical snapshots to the database.

NOTE: To import snapshots, you must be assigned the *Global administrator* or the *Global reviewer* role. See <u>Assign Roles</u> for more information.

To import historical snapshots:

- 1. Select the monitoring plan you need.
- 2. Select the required data source and click Edit data source on the right to open its properties.
- 3. Click General on the left.
- 4. In the Manage historical snapshots section, click Manage.

4. Monitoring Plans



5. In the **Manage Snapshots** window, select the snapshots that you want to import — use the arrows to move the selected snapshots to the **Snapshots available for reporting** list. When finished, click **OK**.

4.2. Create a New Plan

To create monitoring plans, user account must be assigned the *Global administrator* in Netwrix Auditor. Users with the *Configurator* role can create plans only within a delegated folder. See <u>Role-based access and</u> <u>delegation</u> for more information.

To start creating a plan, do any of the following:

- On the main Netwrix Auditor page, in the **Quick Start** section, click the tile with a data source of your choice, e.g., Active Directory. If you need a data source that is not listed on the main page, click **All data sources**.
- On the main Netwrix Auditor page, in the **Configuration** section, click the **Monitoring Plans** tile. On the **Monitoring Plans** page, select **Add Plan**.

Then follow the steps of the Monitoring Plan Wizard:

- Choose a data source for monitoring
- Specify an account for collecting data
- Specify default SQL Server instance and configure the Audit Database to store your data

- Configure notification settings
- Specify the recipients who will receive daily activity summaries
- Specify a plan name

4.2.1. Settings for Data Collection

At this step of the wizard, specify the account that Netwrix Auditor will use to access the data source, and general settings for data collection.

Jser name:	Administrator	
assword:	Enter password	
 Specify data collection settings Enable network traffic compression Adjust audit settings automatically Note: Netwrix Auditor will continually enforce the relevant audit policies in your environment. Learn more 		
Collect data for state-in-time reports		
Collect data for		
Collect data for		

Option	Description
Specify the account for collecting data	Provide a user name and a password for the account that Netwrix Auditor will use to collect data. By default, the user name is prepopulated with your account name.
	Make sure the account has sufficient permissions to collect data. For a full list of the rights and permissions, and instructions on how to configure them, refer to <u>Data Collecting Account</u> . Netwrix recommends creating a special service account with extended permissions.

Option	Description
	NOTE: If you want to audit network devices or Azure AD/Office 365 infrastructure, you can use any account here.
	When you configure a monitoring plan for the first time, the account you specify for data collection will be set as default.
Enable network traffic compression	If selected, this option instructs Netwrix Auditor to deploy a special utility that will run on the audited computers and do the following:
	collect and pre-filter audit data
	compress data and forward it to Netwrix Auditor Server
	This approach helps to optimize load balance and reduce network traffic. So, using this option can be recommended especially for distributed networks with remote locations that have limited bandwidth. See <u>Network Traffic</u> <u>Compression</u> for more information.
Adjust audit settings automatically	Netwrix Auditor can configure audit settings in your environment automatically. Select Adjust audit settings automatically . In this case, Netwrix Auditor will continually check and enforce the relevant audit policies. For some data sources (currently, Active Directory and Logon Activity) you will be offered to launch a special utility that will detect current audit settings, check them against requirements and then adjust them automatically. See <u>Audit Configuration Assistant</u> for details.
	You may also want to apply audit settings via GPO (for example, for Windows Servers).
	NOTE: Netwrix Auditor has certain limitations when configuring audit settings for NetApp and EMC. See <u>File Servers</u> for more information.
	For a full list of audit settings and instructions on how to configure them manually, refer to <u>Configure IT Infrastructure for Auditing and Monitoring</u> .
Launch Audit Configuration AssistantConfiguration Assistant	Click to launch a specially intended utility that will assess your environment readiness for monitoring and adjust audit settings, if necessary. The tool will be launched in a new window. See <u>Audit Configuration Assistant</u> for details.
Collect data for state-in- time reports	State-in-time reports are based on the daily configuration snapshots of your audited systems; they help you to analyze particular aspects of the environment. State-in-time configuration snapshots are also used for IT risks assessment metrics and reports.
	This data collection option is available if you are creating a monitoring plan for any of the following data sources:

4. Monitoring Plans

Option	Description
	Active Directory
	File Servers
	Windows Server
	Group Policy
	SharePoint
	SharePoint Online
	Exchange Online
	SQL Server
	• VMware
	To read more, refer to <u>State–in–Time Reports</u> and <u>IT Risk Assessment</u> <u>Overview</u> .

4.2.2. Default SQL Server Instance

To provide searching, alerting and reporting capabilities, Netwrix Auditor needs an SQL Server where audit data will be stored in the databases. To store data from the data sources included in the monitoring plan, the wizard creates an Audit Database for each plan. At this step, you should specify the default SQL Server instance that will host Netwrix Auditor databases. To read more, refer to <u>SQL Server and Audit Database</u>.

- **NOTE:** Alternatively, you can instruct Netwrix Auditor not to store data to the databases but only to the repository (Long-Term Archive) in this scenario, you will only be able to receive activity summaries. Reporting and alerting capabilities will not be provided.
- **NOTE:** Netwrix Auditor skips this step if you have already configured Audit Database settings for other monitoring plans.

Select one of the following options:

- Disable security intelligence and make data available only in activity summaries select this
 option if you do not want audit data to be written to the Audit Database. In this case, data will be
 available only in Activity Summary emails. Alerts, reports and search capabilities will not be
 supported.
 - **NOTE:** If you later clear this option to start saving data to the database, consider that already collected audit data will not be imported in that database.
- Install a new instance of Microsoft SQL Server Express automatically this option is available at the first run of the wizard. It allows you to deploy SQL Server 2016 SP2 Express with Advanced

Services on the local machine. This SQL Server will be used as default host for Netwrix Auditor databases.

- **NOTE:** It is strongly recommended that you plan for your databases first, as described in <u>Database</u> <u>Sizing</u> section. Remember that database size in SQL Server Express edition may be insufficient for your audited infrastructure.
- Use an existing SQL Server instance select this option to use an existing SQL Server instance.
 - **NOTE:** Local SQL Server instance is detected automatically, and input fields are pre-populated with its settings.

Complete the following fields:

Option	Description	
SQL Server instance	Specify the name of the SQL Server instance to store audit data.	
	NOTE: If you have more than one Netwrix Auditor Server running in your network, make sure to configure them to use different SQL Server instances. The same SQL Server instance cannot be used to store audit data collected by several Netwrix Auditor Servers.	
Authentication	Select the authentication type you want to use to connect to the SQL Server instance:	
	Windows authentication	
	SQL Server authentication	
User name	Specify the account to be used to connect to the SQL Server instance.	
	NOTE: This account must be granted the database owner (db _ owner) role and the dbcreator server role. See <u>Configure</u> <u>Audit Database Account</u> for more information.	
Password	Enter a password.	

IMPORTANT! If you want to use Group Managed Service Account (gMSA) to access the SQL Server instance hosting the database, consider that in this case Netwrix Auditor will not be able to generate SSRS-based reports (due to <u>Microsoft limitations</u>).

4.2.3. Database Settings

At this step, you need to specify a database where Netwrix Auditor will store data collected from the data sources included in this monitoring plan.

NOTE: It is strongly recommended to target each monitoring plan at a separate database.

You can use default settings for your SQL Server instance or modify them (e.g., use a different authentication method or user). You can also change these settings later. See <u>Audit Database</u> for more information.

Audit Database			
Specify the database to store your data and configure settings.			
Disable security intelligence and make data available only in activity summaries			
Database:	Netwrix_Auditor_Monitoring_Exchange		
Use default SQL Server settings			
Specify custom connection parameters			
Authentication:	Windows authentication		
User name:	corp\administrator		
Password:	•••••		
	Back Next Cancel		

Configure the following:

Setting	Description
Disable security intelligence	Only select this option if you do not want your data to be stored in the database. In this case, you will only be able to receive activity summaries. Reporting and alerting capabilities will not be provided.
	To store data to the database, leave this check box cleared.

Setting	Description
Database	Default database name is <i>Netwrix_Auditor_<monitoring_< i=""> plan_name>.</monitoring_<></i>
	It is recommended that you enter a meaningful name for the database here. It may include the data source type (e.g. <i>Exchange_Audit_Data</i> or <i>OracleSrv02_Audit_</i> <i>Data</i>), or so.
	If you decided to use the existing SQL Server instance instead of dedicated, you may want to use <i>Netwrix_</i> <i>Auditor</i> prefix to distinguish Netwrix Auditor databases from others.
Use default SQL Server settings	Select this option if you want Netwrix Auditor to connect to the SQL Server instance using the default settings you specified <u>Default SQL Server Instance</u> .
Specify custom connection parameters	Select this option to use custom credentials when connecting to SQL Server. Specify authentication method and the account that Netwrix Auditor will use.
	Make sure this account has sufficient rights to connect to SQL Server and work with the databases. See <u>Configure Audit Database Account</u> for details.

Netwrix Auditor will connect to the default SQL Server instance and create a database with the specified name on it.

NOTE: Global settings that apply to all databases with audit data (including retention period and SSRS server used for reporting) are available on the **Audit Database** page of Netwrix Auditor settings. See <u>Audit Database</u> for details.

4.2.4. SMTP Server Settings

When you create the first monitoring plan, you are prompted to specify the email settings that will be used for activity and health summaries, reports and alerts delivery. For the monitoring plans that follow, Netwrix Auditor will automatically detect SMTP settings; however, for your first plan you should provide them manually. See <u>this section</u> for details.

NOTE: You can skip this step if you do not want to receive email notifications, or configure SMTP settings later, as described in the related section.

4.2.5. Email Notification Recipients

Specify who will receive daily emails: <u>Activity Summary Email</u> on changes in the monitored infrastructure, and <u>Health Summary Email</u> on Netwrix Auditor operations and health.

Click Add Recipient and provide email address.

NOTE: It is recommended to click **Send Test Email**. The system will send a test message to the specified email address and inform you if any problems are detected.

4.2.6. Monitoring Plan Summary

At this step of the wizard, to provide a meaningful name and optional description for your monitoring plan.

To start collecting data, you should specify the objects (items) that belong to the target data source and should be processed according to the settings of this monitoring plan. For example, for Exchange data source the item will be your Exchange server, for Windows Server data source - computer, IP range or AD container, and so on. To add items right after finishing the monitoring plan wizard, select the **Add item now** checkbox. See Add Items for Monitoring for details.

NOTE: A monitoring plan cannot collect data until at least one item is specified.

Some data sources require additional system components and updates to be installed on your computer. In this case, Netwrix Auditor will inform you and prompt you to check data source prerequisites instead of adding an item.

NOTE: Netwrix Auditor for Oracle Database incompatible with Oracle Data Access Components for .Net Framework 4.0 and above. Check that the .Net Framework 3.5 feature is enabled prior to downloading prerequisites.

Once you complete the wizard, you can:

- Add items to your plan
- Add more data sources
- Customize data source's scope and settings (e.g., enable read access auditing)
- Fine-tune or modify plan settings
- Delegate control of the plan configuration or collected data to other users.

4.3. Manage Data Sources

You can fine-tune data collection for each data source. Settings that you configure for the data source will be applied to all items belonging to that data source. Using data source settings, you can, for example:

- Enable state-in-time data collection (currently supported for several data sources)
- Depending on the data source, customize the monitoring scope (e.g., enable read access auditing, monitoring of failed attempts)
- **NOTE:** To add, modify and remove data sources, enable or disable monitoring, you must be assigned the Global administrator role in the product or the Configurator role on the plan. See <u>Role-based access</u> <u>and delegation</u> for more information.

To modify data source settings:

- 1. Select the monitoring plan you need and click **Edit**.
- 2. Within the monitoring plan window, highlight the data source (the first one is the row right under the blue table header) and click **Edit data source** on the right:

2	Netwrix Auditor - NA		- D ×
Monitoring plan SQL Home > Monitoring Plans > Monitor	pring plan SQL		
Data source	Status	Last activity time	Monitoring plan
✓ SQL Server	O Enabled	8/29/2019 4:07:14 PM	Ø Edit settings
srv011 (SQL Server instance)	✓ Ready		A Delegate
+ Add item			▷ Update
			Data source
			+ Add data source
			🖉 Edit data source
			× Remove data source
			ltem
			+ Add item
			🖉 Edit Item
			× Remove Item
			Intelligence
			Search
			View reports
			netwrix

- 3. Modify data source settings as you need.
- 4. When finished, click **Save**.

Review the following for additional information:

- <u>Active Directory</u>
- <u>Azure AD</u>
- <u>Exchange</u>
- Exchange Online

4. Monitoring Plans

- File Servers
- Group Policy
- Logon Activity
- Oracle Database
- <u>SharePoint</u>
- SharePoint Online
- <u>SQL Server</u>
- User Activity
- Windows Server
- <u>VMware</u>
- Netwrix API

Also, you can add a data source to the monitoring plan, or remove a data source that is no longer needed.

To add a data source to existing plan

- 1. Select the monitoring plan you need and click Edit.
- 2. In the right pane, select Add data source.
- 3. Specify a data source.
- 4. Configure settings specific to your data source.
- 5. When finished, click the **Add** button to save the settings.

4.3.1. Active Directory

Complete the following fields:

Option	Description
General	
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Monitor Active Directory partitions	Select which of your Active Directory environment partitions you want to audit.
Option

Description

By default, Netwrix Auditor only tracks changes to the Domain partition and the Configuration partition of the audited domain. If you also want to audit changes to the Schema partition, or to disable auditing of changes to the Configuration partition, select one of the following:

- Domain—Stores users, computers, groups and other objects. Updates to this partition are replicated only to domain controllers within the domain.
- Configuration Stores configuration objects for the entire forest. Updates to this partition are replicated to all domain controllers in the forest. Configuration objects store the information on sites, services, directory partitions, etc.
- Schema Stores class and attribute definitions for all existing and possible Active Directory objects. Updates to this partition are replicated to all domain controllers in the forest.
- **NOTE:** You cannot disable auditing the Domain partition for changes.

Detect additional details	

Option

Specify data collection method

Configure audit settings

Description

Specify additional information to include in reports and activity summaries. Select **Group membership** if you want to include Group membership of the account under which the change was made.

You can enable network traffic compression. lf enabled, a Compression Service will be automatically launched on the audited computer, collecting and prefiltering data. This significantly improves data transfer and minimizes the impact the on target computer performance.

You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.

NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.

Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive

Option	Description
	audit data and instructions on how to configure them, refer to <u>Netwrix Auditor</u> <u>Installation and Configuration</u> <u>Guide</u> .
Collect data for state-in-time reports	Configure Netwrix Auditor to store daily snapshots of your Active Directory domain configuration required for further state-in-time reports generation. See <u>State-in-</u> <u>Time Reports</u> for more information.
	The product updates the latest snapshot on the regular basis to keep users up-to- date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor.
	If you want to generate reports based on different snapshots, you must import snapshots to the Audit Database.
	For that, in the Manage historical snapshots section, click Manage and select the snapshots that you want to import.
	NOTE: To import snapshots, you must be assigned the Global administrator or the Global reviewer role
	Move the selected snapshots to the Snapshots

Option

Description

for reporting list using the arrow button. When finished, click **OK**.

See also Using historical data.

Netwrix Auditor - STATIONNASRV		-		×
← Active Directory Home → Monitoring Plans → AD Monitoring →	Active Directory			
Home > Monitoring Plans > AD Monitoring > General Users Objects	 Active Directory Monitor Active Directory partitions Domain (OUs, users, servers, sites, etc.) Configuration (OUs, users, servers, sites, etc.) Schema (classes and attributes) Detect additional details Group membership Specify data collection method Enable network traffic compression Configure audit settings Adjust audit settings automatically Netwrix Auditor will continually enforce the relevant audit policies in your environment. Learn more Launch Audit Configuration Assistant Collect data for state-in-time reports On Manage 			~
Save & Close Save Discard		ne	eturi	×

Users

Specify monitoring restrictions

Specify user accounts to exclude from data collection (and, therefore, search results, reports and Activity Summaries). To add a user to the exclusion list, click Add, then provide the user name in the *domain\user* format.

Consider the following:

 Use NetBIOS format for domain name: *mydomain*

Option	Description
	 Some audit data (events) may contain <i>System</i> as the user (initiator) account name. To exclude such data, specify "<i>System</i>" when adding a user name here.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: Exclude Objects from Monitoring Scope
Okiasta	

Objects

Specify monitoring restrictions

Specify restrictions for the objects to monitor in your Active Directory. Use them to create the lists of specific objects to include and / or exclude from the monitoring scope (and, therefore, search results, reports and Activity Summaries). The following options are available:

- Monitor all objects
- Include these objects

Option

Description

• Exclude these objects

To create a list of inclusions / exclusions, click **Add** and enter object path using one of the following formats:

 Canonical name, for example: mydomain.local/Compu ters/filesrv01

OR

- Object path as shown in the "What" column of reports and search results, for example: \local\mydomain\Comp uters\filesrv01
- NOTE: You can use a wildcard (*) to replace any number of characters in the path. See the examples below for more information.

🧏 Netwrix Auditor - STAT	FIONNASRV			- 0	×
← Active Di	-	AD Monitoring >	Active Directory		
General Users Objects			Specify monitoring restrictions O Monitor all objects O Include these objects: Path enterprise.local/OU/* X	Add	
			✓ Exclude these objects:	Add	_
			enterprise.local/OU/BO*		
Save & Close	Save	Discard		netwr	ix

Examples

The following examples explain how the exclusion rules work. Same logic applies to the inclusion rules.

- 1. *dc11.local/OU* will exclude the OU itself. However, objects within this OU will not be excluded.
- 2. *dc11.local/OU/** will exclude objects within the OU. However, the OU itself will not be excluded.
- 3. *dc11.local/OU** will exclude the OU itself, all objects within it, and also all objects whose path begins with *dc11.local/OU* (like *dc11.local/OU_HQ*).

So, with the settings as in the screenshot above, the program will monitor all objects within the *OU*, except for the objects whose path begins with *enterprise.local/OU/BO*. The OU itself, however, will not be monitored, meaning that, for example, its renaming will not be reported.

TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: Exclude Objects from Monitoring Scope

4.3.2. Azure AD

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Monitor Azure AD logon activity	Specify what types of logon events you want to monitor:Failed logons

Successful logons

Review your data source settings and click **Add** to go back to your plan. The newly created data source will appear in the **Data source** list. As a next step, click **Add item** to specify an object for monitoring. See <u>Add</u> <u>Items for Monitoring</u> for more information.

4.3.3. Active Directory Federation Server (AD FS)

Option	Description
Monitor this data source and collect activity data	
Schedule AD FS logons collection	Specify period for AD FS logons collection.
Specify data collection method	You can enable network traffic compression. If enabled, a Compression Service will be automatically launched on the audited computer, collecting and pre-filtering data. This significantly improves data transfer and minimizes the impact on the target computer performance.
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.
	NOTE: If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive audit data and instructions on how to configure them, refer to <u>Configure IT Infrastructure for Auditing and</u> <u>Monitoring</u> .

4.3.4. Exchange

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Detect additional details	Specify additional information to include in reports and activity summaries. Select Group membership if you want to include Group membership of the account under which the change was made.
Specify data collection method	You can enable network traffic compression. If enabled, a Compression Service will be automatically launched on the audited computer, collecting and prefiltering data. This significantly improves data transfer and minimizes the impact on the target computer performance.
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.
	NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive audit data and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> .
Collect data on non-owner access to mailboxes	Enable monitoring of unauthorized access to mailboxes within your Exchange organization. Configure the following:
	• Enable automatic audit configuration — This method is recommended for evaluation purposes in test environments. For a full list of audit settings required for Netwrix Auditor to collect comprehensive audit data and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> . If you select to automatically configure

Option	Description
	audit in the target environment, your current audit settings will be checked on each data collection and adjusted if necessary.
	If you want to configure audit manually, refer to <u>Netwrix</u> <u>Auditor Installation and Configuration Guide</u> for a full list of audit settings, and instructions on how to configure them.
	 Notify users if someone gained access to their mailboxes—Select this checkbox if you want to notify users on non-owner access to their mailboxes.
	• Notify only specific users—Select this checkbox and click Add Recipient to specify the list of users who will receive notifications on non-owner access to their mailboxes. Users not included in this list will not be notified.

4.3.5. Exchange Online

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.
	NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive audit data and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> .
Collect data for state-in-time reports	Configure Netwrix Auditor to store daily snapshots of your Exchange Online configuration required for further state-in-time reports

Option	Description
	generation. See <u>State-in-Time Reports</u> for more information.
	The product updates the latest snapshot on the regular basis to keep users up-to-date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor.
	NOTE: Import historical snapshots to Audit Database is not available for Exchange Online.
Collect data on non-owner access to mailboxes	Enable monitoring of unauthorized access to mailboxes within your Exchange Online organization. Configure the following:
	 Notify users if someone gained access to their mailboxes—Select this checkbox if you want to notify users on non-owner access to their mailboxes.
	 Notify only specific users—Select this checkbox and click Add Recipient to specify the list of users who will receive notifications on non-owner access to their mailboxes. Users not included in this list will not be notified.

4.3.6. Group Policy

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Prerequisites	Netwrix Auditor will automatically look up additional system components and prompt you to install those that are missing. In case all required components have been already installed, this section will be omitted. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information on software requirements.
Detect additional details	Specify additional information to include in reports and activity summaries. Select Group membership if you want to include Group membership of the account under which the change was made.

Option	Description
Specify data collection method	You can enable network traffic compression. If enabled, a Compression Service will be automatically launched on the audited computer, collecting and prefiltering data. This significantly improves data transfer and minimizes the impact on the target computer performance.
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.
	NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive audit data and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> .

4.3.7. File Servers

Option	Description			
		General		
Monitor this data source and collect activity data		Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.		
Specify actions for monitoring	Specify actions you want to track and auditing mode. Review the following for additional information:			
		Changes		
	Successful	Use this option to track changes to your data. Helps find out who made changes to your files, including their creation and deletion.		
	Failed	Use this option to detect suspicious activity on your		

Option	Description	
	Successful	file server. Helps identify potential intruders who tried to modify or delete files, etc., but failed to do it. Read access Use this option to supervise access to files containing confidential data intended for privileged users. Helps
		identify who accessed important files besides your trusted users.
		NOTE: Enabling this option on public shares will result in high number of events generated on your file server and the amount of data written to the AuditArchive.
	Failed	Use this option to track suspicious activity. Helps find out who was trying to access your private data without proper justification.
		NOTE: Enabling this option on public shares will result in high number of events generated on your file server and the amount of data written to the AuditArchive.
	server t changes track th auditing	reported by Netwrix Auditor vary depending on the file type and the audited object (file, folder, or share). The s include creation, modification, deletion, moving, etc. To be copy action, enable successful read access and change g. See <u>Audited Object Types, Actions and Attributes</u> for formation.
Specify data collection method	Service will be collecting and p	e network traffic compression. If enabled, a Compression e automatically launched on the audited computer, prefiltering data. This significantly improves data transfer the impact on the target computer performance.
		ect data from 32-bit operating systems, network traffic ession must be disabled .
		ect data from Windows Failover Cluster, network traffic ession must be enabled .
	See <u>File</u>	<u>Servers</u> for more information.
Configure audit settings	-	audit settings automatically. Your current audit settings on each data collection and adjusted if necessary.

Option	Description						
	NOTE: This method environment audit settin performed.	s. If any	/ conflict	s are de	etected v	vith you	r current
	Do not select the manually. For a comprehensive audi refer to <u>Netwrix Aud</u>	full list it data a	of auc nd instru	lit setti Ictions o	ngs req n how to	uired to configu	o collect
	Some settings cannot the following limitati		-		-		iditor has
	File Server	SACL Check	SACL Adjust		Policy Adjust	Log Check	Log Adjust
	Windows	+	+	+	+	+	+
	EMC Celerra\VNX\Unity	+	+	+	_	+	_
	EMC Isilon	n/a	n/a	+	_	n/a	n/a
	NetApp Data ONTAP 7 and 8 in 7-mode	+	+	+	+	+	+
	NetApp Clustered	+	+	+	+	+	
	Data ONTAP 8 and ONTAP 9						

occriptio

When auditing file servers, changes to effective access permissions can be tracked in addition to audit permissions. By default, **Combination of file and share permissions** is tracked. File permissions define who has access to local files and folders. Share permissions provide or deny access to the same resources over the network. The combination of both determines the final access permissions for a shared folder—the more restrictive permissions are applied. Upon selecting **Combination of file**

Netwrix Auditor Intelligence Guide for more information.

Option	Description
	and share permissions only the resultant set will be written to the Audit Database. Select File permissions option too if you want to see difference between permissions applied locally and the effective file and share permissions set. To disable auditing of effective access, unselect all checkboxes under Include details on effective permissions .
	In the Manage historical snapshots section, you can click Manage and select the snapshots that you want to import to the Audit Database to generate a report on the data source's state at the specific moment in the past.
	NOTE: You must be assigned the Global administrator or the Global reviewer role to import snapshots.
	Move the selected snapshots to the Snapshots available for reporting list using the arrow button.
	NOTE: The product updates the latest snapshot on the regular basis to keep users up to date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor. If you want to generate reports based on different snapshots, you must import snapshots to the Audit Database.
	Users
Specify monitoring restrictions	Select the users to be excluded from search results, reports and Activity Summaries. To add users to the list, click Add and provide user name in the domain\user format: <i>mydomain\user1</i> .
	Use NetBIOS domain name format.
	• To exclude events containing " <i>System</i> " instead of initiator's account name in the " <i>Who</i> " column, enter " <i>System</i> " value to the list.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: Exclude Objects from Monitoring Scope

Review your data source settings and click **Add** to go back to your plan. The newly created data source will appear in the **Data source** list. As a next step, click **Add item** to specify an object for monitoring.

Windows File Server	AD Container
	<u>Computer</u>
	IP Range
	Windows File Share
Dell EMC storage	EMC Isilon
	EMC VNX/VNXe/Celerra/Unity
NetApp storage	NetApp
Nutanix File Server	Nutanix SMB Shares

By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). If you want to monitor user-defined hidden shares, select the related option in the monitored item settings.

Administrative hidden shares like default system root or Windows directory (*ADMIN*\$), default drive shares (*D*\$, *E*\$), etc. will not be monitored. See <u>Add Items for Monitoring</u> for more information.

IMPORTANT! Before adding your monitored items, examine the considerations, limitations and recommendations provided in the following sections:

- Actions, Object Types and Attributes Monitored on File Servers
- Monitoring Windows file servers
- DFS-related constraints
- Monitoring Nutanix Files

Netwrix Auditor supports auditing of DFS and clustered file servers if **Object Access Auditing** is enabled on DFS file shares or on every cluster node.

When adding a cluster file server for auditing, it is recommended to specify a server name of the **Role** server or a UNC path of the shared folder located on the **Role** server.

- When adding a DFS file share for auditing, specify a Windows file share item and provide the UNC path of the whole namespace or UNC path of the DFS link (folder). For example:
 - "\\domain\dfsnamespace\" (domain-based namespace) or "\\server\dfsnamespace\" (in case of stand-alone namespace);
 - "*domain\dfsnamespace\link*" (domain-based namespace) or "*server\dfsnamespace\link*" (in case of stand-alone namespace).

For recommendations on configuring DFS replication, refer to this Knowledge Base article.

Auditing of files and folders placed directly into the DFS namespace root is not supported, as such configuration is not recommended by Microsoft — see <u>Placing files directly in the namespace share</u> of the Microsoft article for details. Make sure the UNC path of a shared folder is placed under the DFS folders.

NOTE: If your Netwrix Auditor version is earlier than 9.9, consider that DFS namespace processing logic differs from the current (implemented in line with Microsoft recommendations).

4.3.8. Logon Activity

Complete the following fields:

Option	Description		
General			
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.		
Fine-tune logon activity monitoring	Specify interval for Netwrix Auditor to collect data on logon activity and add successful non-interactive logons to your auditing scope, if necessary.		
Specify data collection method	You can enable network traffic compression. If enabled, a Compression Service will be automatically launched on the audited computer, collecting and prefiltering data. This significantly improves data transfer and minimizes the impact on the target computer performance.		
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.		
	NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.		
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive audit data and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> .		
	Users		
Specify monitoring restrictions	Select the users to be excluded from search results, reports and		

Activity Summaries. To add users to the list, click Add. Then, provide

Option	Description
	the user name in the domain\user format. For example: <i>mydomain\user1</i> . Consider the following:
	Use NetBIOS domain name format.
	• You can provide the " <i>System</i> " value to exclude events containing the " <i>System</i> " instead of an account name in the " <i>Who</i> " column.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>

4.3.9. Network Devices

Complete the following fields:

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.

4.3.10. Oracle Database

Option	Description			
	General			
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.			
Monitor Oracle Database logon activity	Specify what types of logon events you want to monitor:Failed logons			

Option	Description
	Successful logons
	• Logoffs
	Users
Specify users to track their activity	Use controls in this section to populate the corresponding lists -click Add and specify user name and type (OS or database user).
	• Include—Add users to be included in the auditing scope.
	• Exclude —Add users to be excluded from the auditing scope by specifying their names and type (OS or database user).
	NOTE: User names are case-sensitive.
	Database Objects
Data objects to monitor	Create rules for objects and actions that you want to audit:
	1. Click Add Rule.
	2. Specify a name of the Oracle database Object or Schema.
	3. Select the necessary actions (successful or failed changes, successful or failed reads).
	4. Click Add.
	NOTE: Schema and object names are case sensitive.

4.3.11. SharePoint

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Detect additional details	Specify additional information to include in reports and activity summaries. Select Group membership if you want to include Group membership of the account under which the change was made.

Option	Description
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.
	NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect comprehensive audit data and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> .
Collect data for state-in-time reports	Configure Netwrix Auditor to store daily snapshots of your system configuration required for further state-in-time reports generation. See <u>Netwrix Auditor Intelligence Guide</u> for more information.
	In the Manage historical snapshots section, you can click Manage and select the snapshots that you want to import to the Audit Database to generate a report on the data source's state at the specific moment in the past.
	NOTE: You must be assigned the Global administrator or the Global reviewer role to import snapshots.
	Move the selected snapshots to the Snapshots available for reporting list using the arrow button.
	NOTE: The product updates the latest snapshot on the regular basis to keep users up to date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor. If you want to generate reports based on different snapshots, you must import snapshots to the Audit Database.

4.3.12. SharePoint Online

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Audit SharePoint Online configuration and content changes	Configuration and content changes are always audited.
Audit SharePoint Online read access	Configure Netwrix Auditor to monitor SharePoint Online read access.
Collect data for state-in-time reports	Configure Netwrix Auditor to store daily snapshots of your SharePoint Online configuration required for further state-in-time reports generation. See <u>State-in-Time Reports</u> for more information.
	The product updates the latest snapshot on the regular basis to keep users up-to-date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor.
	If you want to generate reports based on different snapshots, you must import snapshots to the Audit Database.
	For that, in the Manage historical snapshots section, click Manage and select the snapshots that you want to import.
	NOTE: To import snapshots, you must be assigned the Global administrator or the Global reviewer role.
	Move the selected snapshots to the Snapshots available for reporting list using the arrow button. When finished, click OK .

4.3.13. SQL Server

Option	Description
	General
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.

Ontion	Description
Option	Description
Audit SQL Server configuration changes	SQL Server configuration changes are always audited.
Monitor SQL Server logon activity	Specify what types of logon events you want to monitor: successful or failed, performed through Windows and SQL authentication.
	Failed SQL and Windows logons
	Successful SQL logons
	Successful Windows logons
	Users
Specify users to track their activity	Specify restriction filters to narrow your SQL Server monitoring scope (search results, reports and Activity Summaries). You can create either inclusion or exclusion lists. For example, include information on actions performed by administrative accounts or exclude activity initiated by ordinary applications. All filters are applied using AND logic. Complete the following fields:
	• User – provide the user name as shown in the " <i>Who</i> " column of reports and Activity Summaries. Example: <i>mydomain\user1</i> .
	TIP: You can provide the " <i>System</i> " value for events containing the " <i>System</i> " instead of an account name in the " <i>Who</i> " column.
	• Workstation where activity was initiated – provide the workstation name as shown in the " <i>Workstation</i> " column of reports and Activity Summaries. Example: <i>StationWin2016</i> .
	• Application that initiated the activity – provide the application name as shown next to " <i>Application name</i> " in details of reports and Activity Summaries.
	NOTE: You can use a wildcard (*) to replace any number of characters in filters.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>

Option	Description
	Data
Monitor changes to data in the database tables	Enable monitoring of changes to data stored in the database tables hosted on the SQL Server.
Changes (per transaction) to collect and report:	Specify how many changes per a database transaction you want to be collected. For example, you can limit this number to 10 changes per transaction, or collect all changes.
	NOTE: It is recommended to adjust this setting carefully, as collecting large number of changes from a highly-transactional server may affect its performance.
Monitoring rules	Create rules for the data to be audited and therefore to receive change reports on the selected data only. Set the number of data changes per SQL transaction to be included in reports. In this case Netwrix Auditor-specific data will be written to the audited tables. Click Add Rule to create columns auditing rules and configure the following:
	• Type —Select rule type: inclusive or exclusive.
	• Server—Specify a name of the SQL Server instance where the database resides.
	• Database—Specify database name.
	• Table—Specify table name.
	Column—Specify column name.
	NOTE: The following column types are currently not supported: text, ntext, image, binary, varbinary, timestamp, sql_variant.

NOTE: Wildcard (*) is supported.

Review your data source settings and click **Add** to go back to your plan. The newly created data source will appear in the **Data source** list. As a next step, click **Add item** to specify an object for monitoring. See <u>Add</u> <u>Items for Monitoring</u> for more information.

4.3.14. User Activity

Option	Description
Ge	neral
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Notify users about activity monitoring	You can enable the message that will be displayed when a user logs in and specify the message text.
Record video of user activity within sessions	 If disabled, only user session events will be collected (regardless of whether the user is idle or not).
	 If enabled, the product will both collect user session events and record video of user activity.
	By default, this option is disabled.
Video F	Recording

NOTE: For these settings to become effective, enable video recording on the **General** tab.

Adjust video quality	Optimize video file by adjusting the following:
	File size and video quality
	Save video in grayscale
	CPU load and Video smoothness.
Adjust video duration	Limit video file length by adjusting the following:
	 Recording lasts for <> minutes—Video recording will be stopped after the selected time period.
	 User has been idle for <> minutes— Video recording will be stopped if a user is considered inactive during the selected time period.
	NOTE: If the Record video of user activity within sessions option is enabled, the User Sessions report shows active time calculated without including user idle period. Mind that a

Option	Description
	computer is considered to be idle by Windows if there has not been user interaction via the mouse or keyboard for a given time and if the hard drives and processors have been idle more than 90% of that time.
	 Free disk space is less than <> MB— Video recording will be stopped when upon reaching selected disk space limit.
	 Consider user activity — Select one of the following:
	 Stop if user has been idle for <> minutes. Select if you want video recording for a user to be stopped after the specified time period.
	 Continue video recording regardless of the user idle state. When selected, Netwrix Auditor continues video recording for idle users.
Set a retention period to clear stale videos	When the selected retention period is over, Netwrix Auditor deletes your video recordings.
	Users
Specify users to track their activity	Select the users whose activity should be recorded. You can select All users or create a list of Specific users or user groups . Certain users can also be added to Exceptions list.
Арр	lications
Specify applications you want to track	Select Windows applications that you want to monitor. Available options:
	 All applications — all applications running on the target computer will be monitored.
	 Specific applications — only the applications you specify in the inclusion list will be monitored.
	In both cases, you can specify application to

Option		Description			
		exclude from monitoring Exceptions option.	g — for that	, select th	Ie
		For more information, se <u>applications</u> .	e <u>How to ir</u>	nclude/ex	<u>clude</u>
 Netwrix Auditor - STATIONNASRV User Activity 				- 0	×
Home > Monitoring Plans > Monitoring plan fo General Video Recording Users	Specify applications you want to	o track			
Applications Monitored Computers	 Specific applications: Title * - Word 	Description *	×	Add	
	* - Notepad	•	×		
	✓ Exceptions:				
	Title Whatsnew.txt - Notepad	Description	~	Add	
Save & Close Save Discard				netwrix	

Monitored Computers

For a newly created monitoring plan for User Activity, the list of monitored computers is empty. Add items to your monitoring plan and wait until Netwrix Auditor retrieves all computers within these items. See <u>Add Items for Monitoring</u> for more information. The list contains computer name, its current status and last activity time.

Review your data source settings and click **Add** to go back to your plan. The newly created data source will appear in the **Data source** list. As a next step, click **Add item** to specify an object for monitoring. See <u>Add</u> Items for Monitoring for more information.

4.3.14.1. How to include/exclude applications

To create a list of application to include in / exclude from monitoring, you will need to provide:

1. **Title** — application title as shown on top of the application window, for example, **MonthlyReport.docx** - **Word**.

TIP: Title can also be found in the "*What*" column of related Netwrix Auditor reports and search results, for example, in the **User Sessions** report.

2. Description — as shown in the Description column on the Details tab of Windows Task Manager.

PID					
PID 1	Status	User name	e CPU	Memory (p	Description
ce 2184	Running	SYSTEM	00	6,876 K	TeamViewer 14
7404	Running	SYSTEM	00	720 K	TeamViewer 14
17076	Running	SYSTEM	00	728 K	TeamViewer 14
12304	Running	SYSTEM	00	1,072 K	Sink to receive asynchronous
2868	Running	SYSTEM	00	7,764 K	Virtual Machine Managemen
	17076 12304	7404 Running 17076 Running 12304 Running	7404 Running SYSTEM 17076 Running SYSTEM 12304 Running SYSTEM	7404 Running SYSTEM 00 17076 Running SYSTEM 00 12304 Running SYSTEM 00	7404 Running SYSTEM 00 720 K 17076 Running SYSTEM 00 728 K 12304 Running SYSTEM 00 1,072 K

TIP: Using **Description** can help to filter out several components of a single application — for example, all executables having *TeamViewer 14* description belong to the same app (see the screenshot above).

To create a list of inclusions / exclusions for applications:

- 1. Click Add on the right of the list.
- 2. Enter application title and description you have identified.

Provide an applica title bar.	tion descriptio	n and an ap	plication title	as it appears on tl
Title:	*			
Description:	*			
NOTE: Wildcards (;?) are suppor	ted.		

Wildcards (*?) are supported and applied as follows:

- * Notepad (the "Title" filter) will exclude all Notepad windows.
- colo?r * (the "Title" filter) will exclude all application window titles containing "color" or "colour".

NOTE: Same logic applies to the inclusion rules.

Example

To exclude the **Notepad** application window with "*Document1*" open, add the following filter values:

• In the **Title** filter enter "*Document1.txt - Notepad*":



• In the **Description** filter, enter the corresponding value, here it will be "*Notepad*".

👰 Task M	lanager									
File Optio										
Processes	Performance	App hist	ory S	Startup	Users	Details	Servi	ces		
Name	^	PID	Statu	15	1	User name	2	CPU	Memory (p	Description
notepad	l.exe	39512	Runn	ning		administ	rator	00	9,336 K	Notepad

4.3.15. VMware

For this data source, specify the options you need:

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Monitor VMware configuration changes	Configuration changes are always monitored for VMware data source. See <u>this section</u> for details.
Monitor VMware logon activity	Specify what types of logon events you want to monitor for VMware infrastructure.
Collect data for state-in-time reports	Configure Netwrix Auditor to store daily snapshots of your VMware system configuration required for further state-in-time reports generation.See <u>Netwrix Auditor Intelligence Guide</u> for more information.
	The product updates the latest snapshot on the regular basis to keep users up-to-date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor.
	If you want to generate reports based on different snapshots, you must import snapshots to the Audit Database.
	NOTE: To import snapshots, you must be assigned the Global

Option	Description
	administrator or the Global reviewer role .
	Do the following:
	1. In the Manage historical snapshots section, click Manage.
	2. Select the snapshots that you want to import.
	 Move the selected snapshots to the Snapshots available for reporting list using the arrow button.
	4. When finished, click OK .

4.3.16. Windows Server

Option	Description
	General
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
Monitor changes to system components	Select the system components that you want to audit for changes. Review the following for additional information:
	 General computer settings — Enables auditing of general computer settings. For example, computer name or workgroup changes.
	 Hardware — Enables auditing of hardware devices configuration. For example, your network adapter configuration changes.
	 Add/Remove programs—Enables auditing of installed and removed programs. For example, Microsoft Office package has been removed from the audited Windows Server.
	 Services—Enables auditing of started/stopped services. For example, the Windows Firewall service stopped.
	Audit policies — Enables auditing of local advanced audit

Ontion	Description
Option	Description
	policies configuration. For example, the Audit User Account Management advanced audit policy is set to " <i>Failure</i> ".
	 DHCP configuration—Enables auditing of DHCP configuration changes.
	 Scheduled tasks—Enables auditing of enabled / disabled / modified scheduled tasks. For example, the GoogleUpdateTaskMachineUA scheduled task trigger changes.
	 Local users and groups—Enables auditing of local users and groups. For example, an unknown user was added to the Administrators group.
	 DNS configuration — Enables auditing of your DNS configuration changes. For example, your DNS security parameters' changes.
	 DNS resource records—Enables auditing of all types of DNS resource records. For example, A-type resource records (Address record) changes.
	• File shares —Enables auditing of created / removed / modified file shares and their properties. For example, a new file share was created on the audited Windows Server.
	 Removable media — Enables auditing of USB thumb drives insertion.
Specify data collection method	You can enable network traffic compression. If enabled, a Compression Service will be automatically launched on the audited computer, collecting and prefiltering data. This significantly improves data transfer and minimizes the impact on the target computer performance.
Configure audit settings	You can adjust audit settings automatically. Your current audit settings will be checked on each data collection and adjusted if necessary.
	NOTE: This method is recommended for evaluation purposes in test environments. If any conflicts are detected with your current audit settings, automatic audit configuration will not be performed.
	Do not select the checkbox if you want to configure audit settings manually. For a full list of audit settings required to collect

Option	Description
	comprehensive audit data and instructions on how to configure them, refer to Netwrix Auditor Installation and Configuration Guide.
Collect data for state-in-time reports	Configure Netwrix Auditor to store daily snapshots of your system configuration required for further state-in-time reports generation. See <u>Netwrix Auditor Intelligence Guide</u> for more information.
	In the Manage historical snapshots section, you can click Manage and select the snapshots that you want to import to the Audit Database to generate a report on the data source's state at the specific moment in the past.
	NOTE: You must be assigned the Global administrator or the Global reviewer role to import snapshots.
	Move the selected snapshots to the Snapshots available for reporting list using the arrow button.
	NOTE: The product updates the latest snapshot on the regular basis to keep users up to date on actual system state. Only the latest snapshot is available for reporting in Netwrix Auditor. If you want to generate reports based on different snapshots, you must import snapshots to the Audit Database.
	Activity
Specify monitoring restrictions	Specify restriction filters to narrow your Windows Server monitoring scope (search results, reports and Activity Summaries). For example, you can exclude system activity on a particular objects on all computers. All filters are applied using AND logic. Click Add and complete the following fields:
	• User who initiated the change: – provide the name of the user whose changes you want to ignore as shown in the " <i>Who</i> " column of reports and Activity Summaries. Example: <i>mydomain\user1</i> .
	TIP: You can provide the " <i>System</i> " value to exclude events containing the " <i>System</i> " instead of an account name in the " <i>Who</i> " column.
	• Windows Server which setting was changed: – provide the name of the server in your IT infrastructure whose changes you want to ignore as shown in the " <i>What</i> " column of reports and

Option	Description
	Activity Summaries. Example: <i>winsrv2016-01.mydomain.local</i> .
	• Setting changed: – provide the name for unwanted settings as shown in the " <i>What</i> " column in reports and Activity Summaries. Example: System Properties*.
	NOTE: You can use a wildcard (*) to replace any number of characters in filters.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>

4.3.17. Netwrix API

Netwrix API is a special data source for the data received through Netwrix Auditor Integration API. By default, all imported data is written to a special **Netwrix_Auditor_API** database and recognized as the **Netwrix API** data source. This data is not associated with any monitoring plan.

If you want to associate data from your custom data source or SIEM solution with a certain plan, add a **Netwrix API** data source to your plan and mark the plan name in activity records before import. In this case, data will be written to the database linked to your monitoring plan. This can be helpful:

- If you need to restrict access to imported data. In this case only the users who are granted permissions to see the plan data will get access to imported activity records.
- If you want to simplify your search. In this case, you will be able to specify filters, such as **Monitoring plan** and **Data source**, and find the imported activity records faster.
- If you want to use Netwrix Auditor as intermediate solution in your monitoring routine. In this case, you will be able to export previously imported data.
- **NOTE:** The account used to import activity records must be assigned a special Contributor role. See <u>Role-based access and delegation</u> for more information.

Option	Description
Monitor this data source and collect activity data	Enable monitoring of the selected data source and configure Netwrix Auditor to collect and store audit data.
	NOTE: If monitoring is disabled, you will not be able to import activity records to database linked to your monitoring plan.

To further diversify your data, add **Integration** items to your **Netwrix API** data source. See <u>Integration</u> for more information.

NOTE: Make sure Integration API is enabled. To check it, navigate to **Settings** \rightarrow **Integrations** tab. See <u>Integrations</u> for more information.

Make sure to provide a monitoring plan name in activity records before importing data. See <u>Netwrix Auditor Integration API Guide</u> for detailed instructions on API commands and Activity Record structure.

4.4. Add Items for Monitoring

Once you completed monitoring plan wizard and specified data sources, add items for monitoring. You can add as many items for a data source as you want. In this case, all items will share settings you specified for this data source.

Each data source has a dedicated item type. Netwrix Auditor automatically suggests item types associated with your data source.

Data Source	Item
Active Directory	Domain
Group Policy	
Exchange	
Logon Activity	
Active Directory Federation Services	Federation Server
Azure AD	Office 365 Tenant
Exchange Online	
SharePoint Online	
File Servers	AD Container
(including Windows file	Computer

Data Source	ltem
server, EMC, NetApp, Nutanix File server)	EMC Isilon
	EMC VNX/VNXe/Celerra/Unity
	IP Range
	NetApp
	Windows File Share
	Nutanix SMB Shares
	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). If you want to monitor user-defined hidden shares, select the related option in the monitored item settings.
	Remember that administrative hidden shares like default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$), etc. will not be monitored. See the topics on the monitored items for details.
Network Devices	Syslog Device
	<u>Cisco Meraki</u>
Oracle Database	Oracle Database Instance
SharePoint	SharePoint Farm
SQL Server	SQL Server Instance
VMware	VMware ESX/ESXi/vCenter
Windows Server	<u>Computer</u>
User Activity	AD Container
	IP Range
Netwrix API	Integration

NOTE: To add, modify and remove items, you must be assigned the Global administrator role in the product or the Configurator role on the plan. See <u>Role-based access and delegation</u> for more information.

To add a new item to a data source

- 1. Navigate to your plan settings.
- 2. Click **Add item** under the data source.

3. Provide the object name and configure item settings.

You can fine-tune data collection for each item individually. To do it, select an item within your monitoring plan and click **Edit item**. For each item, you can:

- Specify a custom account for data collection
- Customize settings specific your item (e.g., specify SharePoint site collections)

4.4.1. AD Container

Option	Description
	General
Specify AD container	Specify a whole AD domain, OU or container. Click Browse to select from the list of containers in your network. You can also:
	 Select a particular computer type to be audited within the chosen AD container: Domain controllers, Servers (excluding domain controllers), or Workstations.
	 Click Exclude to specify AD domains, OUs, and containers you do not want to audit. In the Exclude Containers dialog, click Add and specify an object.
	NOTE: The list of containers does not include child domains of trusted domains. Use other options (Computer, IP range to specify the target computers.
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.
	Starting with version 9.96, you can use group Managed Service Accounts (gMSA) as data collecting accounts.
	NOTE: For more information on gMSA, refer to <u>Using Group</u> <u>Managed Service</u> <u>Account</u> (gMSA) and <u>Microsoft</u> <u>documentation</u> .
	These group Managed Service Accounts should meet the related requirements.
	NOTE: If using a group Managed Service Account, you can specify

Option	Description
	only the account name in the <i>domain\account\$</i> format. Password field can be empty.
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.
	Containers and Computers
Monitor hidden shares	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). Select Monitor user-defined hidden shares if necessary.
	IMPORTANT! Even when this option is selected, the product will not collect data from administrative hidden shares such as: default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$, etc.), shares used by printers to enable remote administration (PRINT\$), etc.
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.
	Depending on the type of the object you want to exclude, select one of the following:
	 Add AD Container – browse for a container to be excluded from being audited. You can select a whole AD domain, OU or container.
	• Add Computer – Provide the name of the computer you want to exclude as shown in the " <i>Where</i> " column of reports and Activity Summaries. For example, <i>backupsrv01.mydomain.local</i> .
	NOTE: Wildcards (*) are not supported.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>
4.4.2. Computer

Complete the following fields:

Option	Description	
General		
Specify a computer	Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click Browse to select a computer from the list of computers in your network.	
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.	
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.	
	Scope	
Monitor hidden shares	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). Select Monitor user-defined hidden shares if necessary.	
	IMPORTANT! Even when this option is selected, the product will not collect data from administrative hidden shares such as: default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$, etc.), shares used by printers to enable remote administration (PRINT\$), etc.	
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.	
	Refer to <u>Configure Scope</u> for detailed instructions on how to narrow your monitoring scope.	

4.4.2.1. Configure Scope

By default, both user activity and state-in-time data will be collected for the monitored item. However, you can narrow your monitoring scope by specifying certain locations, user accounts or actions to exclude .

Netwrix Auditor - STATIONNASRV			_	- 🗆	×
← Add Item (Computer) Home → Monitoring Plans → HQ File Servers M	onitoring > Add Item (Computer)				
General Scope	Monitor hidden shares Monitor user-defined hidden shares Note: Administrative shares (like Admin\$) will n Specify monitoring restrictions By default, both user activity and state-in-time of Exclude data matching these criteria: Path \\filesrv02.hq.local\ArchivedReports		5. Actions	*×	
Add Discard				neturi	x

Click Add Exclusion, then in the Specify Filters dialog do the following:

- 1. Provide the path to the file share where you are going to exclude some audit data. Use the path format as it appears in the "*What*" column of reports and Activity Summaries for example, *\\corpsrv\shared*.
 - **NOTE:** You can use a wildcard (*) only if you need to exclude **user activity** on this file share. For other data types (*state-in-time* or *all data*) wildcards are not supported. This refers to the specified shared folder, its subfolders and files.
- 2. Select what type of data you want to exclude:

specified file share from being audited. The product will not collect any user activity or state- access to a cert.	Option	Description	Example
on this share. The share	All Data	 specified file share from being audited. The product will not collect any user activity or state- in-time data. NOTE: In this case,Netwrix Auditor does not adjust audit settings automatically for the selected 	A Security Officer wants to monitor a file share but s/he does not have access to a certain folder on this share. Thus, s/he configures the product not to monitor this folder at all.

Option	Description	Example
State-in-Time	Select to configure Netwrix Auditor to exclude data for the state-in-time reports from the monitoring scope.	A Security Officer wants to monitor a file share, but it contains a folder with a huge amount of objects, so s/he does not want Netwrix Auditor to collect state-in-time data for this folder.
User Activity	Select to exclude actions performed by specific users on the selected file share. See the procedure below for details. NOTE: In this case, the product still collects stat-in- time data for this share.	A Security Officer wants to monitor a file share that contains a public folder for which s/he does not want to collect <i>Read</i> operations.

To exclude specific user activity:

- 1. Specify what user accounts should be excluded:
 - All Users select to exclude the activity of any user on the file share you specified.
 - **These users** select to exclude specific users' activity. Provide user names as shown in the "*Who*" column in reports and Activity Summaries, e.g., *MyDomain\user1*. To enter multiple accounts, use comma as a separator.
- 2. Specify what actions should be excluded:
 - All actions exclude all actions of the selected users
 - **These actions:** use the drop-down list to select the actions to exclude, e.g. *Added* and *Moved*.

\\filesrv02.hq.local\ Format: As shown in "What" field	
Format: As shown in "What" field	
	of reports and activity summaries.
Data type to exclude:	
User Activity	_
User activity data will be exclude	ed from data collection for the specified share.
Frank Andrew Strengthen F	
Format: As shown in "Who" f	ield of reports and activity summaries. Use
comma as a separator.	
Actions to exclude:	
 All actions 	
These actions:	
<u> </u>	

After configuring all filters, click **Add** to save them and return to the item settings.

4.4.3. Domain

Option	Description
Specify Active Directory domain	Specify the audited domain name in the FQDN format. For example, "company.local".
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.
	Starting with Netwrix Auditor version 9.96, you can use group Managed Service Accounts (gMSA) as data collecting accounts.

0	pti	on	

Description

NOTE: If using a Managed Service Account, you can specify only the account name in the *domain\account\$* format. Password field can be empty.

A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix</u> Auditor Installation and Configuration Guide for more information.

4.4.4. Federation Server

NOTE: If you are going to audit an entire AD FS farm, consider adding all AD FS server one by one as items to your monitoring plan. Otherwise, your audit scope may contain warnings, errors or incomplete data.

Complete the following fields:

Option	Description
Specify AD FS federation server	Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click Browse to select a computer from the list of computers in your network.
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> Guide for more information.

4.4.5. EMC Isilon

Option	Description
	General
Specify EMC Isilon storage array	Provide the IP address or the host name of the name server used to connect to your access zone. For example, account.corp.lab

Ontion	Description	
Option	Description	
Access Zone	Enter the name of access zone partition within your EMC Isilon cluster. For example, zone_account	
OneFS web administration interface URL	Enter EMC Isilon web administration URL (e.g., <i>https://isiloncluster.corp.lab:8080</i>). This URL is used to get configuration details about your Isilon cluster via OneFS API.	
File Share UNC path to audit logs	Path to the file share located on a EMC Isilon with event log files (e.g., \\srv\netwrix_audit\$\logs\).	
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.	
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.	
	Scope	
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.	
	Refer to <u>Configure the Scope</u> for detailed instructions on how to narrow your monitoring scope.	
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>	

4.4.5.1. Configure the Scope

You can configure Netwrix Auditor to audit all file shares except for ones added as exclusions. For that, under **Specify monitoring restrictions**, select **All file shares in the array**. You can also create lists of specific file shares to include and/or exclude from being audited. Review the following for additional information:

- To add inclusion
- To add exclusion

To add inclusion

- 1. Under Specify monitoring restrictions, select Specific file shares.
- 2. Click Add Inclusion.
- 3. Provide UNC path to a shared resource. For example: *NewStation\Shared*.

NOTE: Do not specify a default file share mapped to a local drive (e.g., \\Server\e\$).

To add exclusion

Click Add Exclusion, then in the Specify Filters dialog do the following:

- 1. Provide the path to the file share where you are going to exclude some audit data. Use the path format as it appears in the "*What*" column of reports and Activity Summaries for example, *\\corpsrv\shared*.
 - **NOTE:** You can use a wildcard (*) only if you need to exclude **user activity** on this file share. For other data types (*state-in-time* or *all data*) wildcards are not supported. This refers to the specified shared folder, its subfolders and files.
- 2. Select what type of data you want to exclude:

Option	Description	Example
All Data	Select if you want to completely exclude the specified file share from being audited.	A Security Officer wants to monitor a file share
	The product will not collect any user activity or state- in-time data.	but s/he does not have access to a certain folder on this share. Thus, s/he
	NOTE: In this case,Netwrix Auditor does not adjust audit settings automatically for the selected folders.	configures the product not to monitor this folder at all.
State-in-Time	Select to configure Netwrix Auditor to exclude data for the state-in-time reports from the monitoring scope.	A Security Officer wants to monitor a file share, but it contains a folder with a huge amount of objects, so s/he does not want Netwrix Auditor to collect state-in-time data for this folder.

Option	Description	Example
User Activity	Select to exclude actions performed by specific users on the selected file share. See the procedure below for details. NOTE: In this case, the product still collects stat-in-	A Security Officer wants to monitor a file share that contains a public folder for which s/he does not want to collect
	time data for this share.	<i>Read</i> operations.

To exclude specific user activity:

- 1. Specify what user accounts should be excluded:
 - All Users select to exclude the activity of any user on the file share you specified.
 - **These users** select to exclude specific users' activity. Provide user names as shown in the "*Who*" column in reports and Activity Summaries, e.g., *MyDomain\user1*. To enter multiple accounts, use comma as a separator.
- 2. Specify what actions should be excluded:
 - All actions exclude all actions of the selected users
 - **These actions:** use the drop-down list to select the actions to exclude, e.g. *Added* and *Moved*.

11	h: iilesrv02.hq.local\
	mat: As shown in "What" field of reports and activity summaries.
Jai	a type to exclude:
	User Activity User activity data will be excluded from data collection for the specified share.
Use	r whose activity to exclude:
•	All users
0	These users:
	Format: As shown in "Who" field of reports and activity summaries. Use
	comma as a separator.
Acti	ions to exclude:
•	All actions
0	These actions:
	· ·

After configuring all filters, click **Add** to save them and return to the item settings.

4.4.6. EMC VNX/VNXe/Celerra/Unity

Option	Description
	General
Specify EMC VNX/VNXe, Celerra or Unity storage array	Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click Browse to select a computer from the list of computers in your network.
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.

Option	Description
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.
	Scope
Monitor hidden shares	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). Select Monitor user-defined hidden shares if necessary.
	IMPORTANT! Even when this option is selected, the product will not collect data from administrative hidden shares such as: default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$, etc.), shares used by printers to enable remote administration (PRINT\$), etc.
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.
	Refer to <u>Fine-tune Monitoring Scope</u> for detailed instructions on how to narrow your monitoring scope.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>

4.4.6.1. Fine-tune Monitoring Scope

To audit all file shares, under **Specify monitoring restrictions**, select **Monitor all file shares in the array**.

Netwrix Auditor - STAT	IONNASRV							-		×
← 172.27.6.3	33 (EMC \	/NX/VNXe))							
Home > Moni	itoring Plans 🔸	Monitoring plan 3	3 → 172.27	7.6.33 (EMC VNX/VNXe)						
General Scope	uuning rians 🦻		Monii M M Note: . Speci M M M M M M M M M M M M M	itor hidden shares Ionitor user-defined hid Administrative shares (l ify monitoring restric Ionitor all file shares in Ionitor specific file shar Shared folder	den shares ike Admin\$) will not be mo tions the array es: und state-in-time data will	onitored. Learn more be collected for the monitore	d shares.			
			Add	Path Exclusion	Data type	Users	Actions			
Save & Close	Save	Discard						n	etwri	x

You can also create lists of specific file shares to include and/or exclude from being audited.

4.4.6.1.1. Include a File Share

- 1. Under Specify monitoring restrictions, select Specific file shares.
- 2. Click Add Inclusion.
- 3. Provide UNC path to a shared resource. For example: *NewStation\Shared*.

NOTE: Do not specify a default file share mapped to a local drive (e.g., \\Server\e\$).

4.4.6.1.2. Exclude Specific Data

Click Add Exclusion, then in the Specify Filters dialog do the following:

- 1. Provide the path to the file share where you are going to exclude some audit data. Use the path format as it appears in the "*What*" column of reports and Activity Summaries for example, *\\corpsrv\shared*.
 - **NOTE:** You can use a wildcard (*) only if you need to exclude **user activity** on this file share. For other data types (*state-in-time* or *all data*) wildcards are not supported. This refers to the specified shared folder, its subfolders and files.

2. Select what type of data you want to exclude:

Option	Description	Example
All Data	Select if you want to completely exclude the specified file share from being audited.	A Security Officer wants to monitor a file share
	The product will not collect any user activity or state- in-time data.	but s/he does not have access to a certain folder on this share. Thus, s/he
	NOTE: In this case,Netwrix Auditor does not adjust audit settings automatically for the selected folders.	configures the product not to monitor this folder at all.
State-in-Time	Select to configure Netwrix Auditor to exclude data for the state-in-time reports from the monitoring scope.	A Security Officer wants to monitor a file share, but it contains a folder with a huge amount of objects, so s/he does not want Netwrix Auditor to collect state-in-time data for this folder.
User Activity	Select to exclude actions performed by specific users on the selected file share. See the procedure below for details. NOTE: In this case, the product still collects stat-in- time data for this share.	A Security Officer wants to monitor a file share that contains a public folder for which s/he does not want to collect <i>Read</i> operations.

To exclude specific user activity:

- 1. Specify what user accounts should be excluded:
 - All Users select to exclude the activity of any user on the file share you specified.
 - **These users** select to exclude specific users' activity. Provide user names as shown in the "*Who*" column in reports and Activity Summaries, e.g., *MyDomain\user1*. To enter multiple accounts, use comma as a separator.
- 2. Specify what actions should be excluded:
 - All actions exclude all actions of the selected users
 - **These actions:** use the drop-down list to select the actions to exclude, e.g. *Added* and *Moved*.

1111	
//1	ïlesrv02.hq.local\
For	mat: As shown in "What" field of reports and activity summaries.
Dat	a type to exclude:
	User Activity
	User activity data will be excluded from data collection for the specified share.
Ŭ	These users:
	Format: As shown in "Who" field of reports and activity summaries. Use comma as a separator.
_	ons to exclude:
_	All actions
_	

After configuring all filters, click **Add** to save them and return to the item settings.

4.4.7. Cisco Meraki

Complete the following fields:

Option	Description
User name	Provide the name of the service account configured to access Cisco Meraki Dashboard. For more information on how to configure the account, refer to <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> .
Password	Provide the password for this account.

NOTE: Accounts with milti-factor authentication are not supported. Netwrix recommends creating a special cloud account to access your data securely.

4.4.8. Syslog Device

Complete the following fields:

Option	Description
	General
Specify syslog host or network source	 Select one of the following: Host or network source name —
	Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click Browse to select a computer from the list of computers in your network.
	 IP Range — Specify an IP range for the audited computers. To exclude computers from within the specified range, click Exclude. Enter the IP subrange you want to exclude, and click Add.
Specify port and protocol for incoming connections	Use Port and Protocol to provide the port required for incoming connections (default is UDP port 514).

Devices

Configure monitoring rules for required network devices:

- Cisco (ASA, IOS, Meraki)
- Fortinet (FortiGate FortiOS)
- Juniper (Junos OS)
- Palo Alto (PAN-OS)
- Sonic Wall (NS, SMA, WAF)
- HPE (ArubaOS)

4.4.9. IP Range

Complete the following fields:

Option

Description

General

Option	Description
Specify IP range	Specify an IP range for the audited computers.
	To exclude computers from within the specified range, click Exclude . Enter the IP subrange you want to exclude, and click Add .
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.
	Scope
Monitor hidden shares	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). Select Monitor user-defined hidden shares if necessary.
	IMPORTANT! Even when this option is selected, the product will not collect data from administrative hidden shares such as: default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$, etc.), shares used by printers to enable remote administration (PRINT\$), etc.

4.4.10. NetApp

Option	Description
	General
Specify NetApp file server	Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click Browse to select a computer from the list of computers in your network.
File share UNC path to audit logs	 Select one of the following: Detect automatically—If selected, a shared resource will be detected automatically.

Option	Description
	 Use this path—UNC path to the file share located on a NetApp Filer with event log files (e.g., \\CORP\ETC\$\log\).
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.
	ONTAPI
Specify protocol for accessing ONTAPI	 Select one of the following: Detect automatically—If selected, a connection protocol will be detected automatically. HTTP
	 HTTPS NOTE: Refer to <u>Netwrix Auditor Installation and Configuration Guide</u> for detailed instructions on how to enable HTTP or HTTPS admin access.
Specify management interface	Select management interface to connect to ONTAPI. If you want to use custom management interface for ONTAPI, select Custom and provide a server name by entering its FQDN, NETBIOS or IP address.
Specify account for connecting to ONTAPI	Select an account to connect to NetApp and collect data through ONTAPI. If you want to use a specific account (other than the one you specified on the General tab), select Custom and enter credentials. The credentials are case sensitive.
	Take into consideration that even if a custom account is specified, the account selected on the General tab must be a member of the Builtin\Administrators group and have sufficient permissions to access audit logs shared folder and audited shares.
	NOTE: See <u>Netwrix Auditor Installation and Configuration Guide</u> for more information on required rights and permissions.

Option	Description
	Scope
Monitor hidden shares	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). Select Monitor user-defined hidden shares if necessary.
	IMPORTANT! Even when this option is selected, the product will not collect data from administrative hidden shares such as: default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$, etc.), shares used by printers to enable remote administration (PRINT\$), etc.
	NOTE: Monitoring of non-default hidden shares is not supported for NetApp servers in 7-mode.
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.
	Refer to <u>Configure Scope</u> for detailed instructions on how to narrow your monitoring scope.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>

4.4.10.1. Configure Scope

You can configure Netwrix Auditor to audit all file shares except for ones added as exclusions. For that, under **Specify monitoring restrictions**, select **All file shares in the array**. You can also create lists of specific file shares to include and/or exclude from being audited. Review the following for additional information:

- To add inclusion
- To add exclusion

To add inclusion

- 1. Under Specify monitoring restrictions, select Specific file shares.
- 2. Click Add Inclusion.

3. Provide UNC path to a shared resource. For example: *NewStation\Shared*.

NOTE: Do not specify a default file share mapped to a local drive (e.g., \\Server\e\$).

To add exclusion

Click Add Exclusion, then in the Specify Filters dialog do the following:

- 1. Provide the path to the file share where you are going to exclude some audit data. Use the path format as it appears in the "*What*" column of reports and Activity Summaries for example, *\\corpsrv\shared*.
 - **NOTE:** You can use a wildcard (*) only if you need to exclude **user activity** on this file share. For other data types (*state-in-time* or *all data*) wildcards are not supported. This refers to the specified shared folder, its subfolders and files.
- 2. Select what type of data you want to exclude:

Option	Description	Example	
All Data	Select if you want to completely exclude the specified file share from being audited.	A Security Officer wants to monitor a file share	
	The product will not collect any user activity or state- in-time data.	but s/he does not have access to a certain folder on this share. Thus, s/he	
	NOTE: In this case,Netwrix Auditor does not adjust audit settings automatically for the selected folders.	configures the product not to monitor this folder at all.	
State-in-Time	Select to configure Netwrix Auditor to exclude data for the state-in-time reports from the monitoring scope.	A Security Officer wants to monitor a file share, but it contains a folder with a huge amount of objects, so s/he does not want Netwrix Auditor to collect state-in-time data for this folder.	
User Activity	Select to exclude actions performed by specific users on the selected file share. See the procedure below for details. NOTE: In this case, the product still collects stat-in- time data for this share.	A Security Officer wants to monitor a file share that contains a public folder for which s/he does not want to collect <i>Read</i> operations.	

To exclude specific user activity:

- 1. Specify what user accounts should be excluded:
 - All Users select to exclude the activity of any user on the file share you specified.
 - **These users** select to exclude specific users' activity. Provide user names as shown in the "*Who*" column in reports and Activity Summaries, e.g., *MyDomain\user1*. To enter multiple accounts, use comma as a separator.
- 2. Specify what actions should be excluded:
 - All actions exclude all actions of the selected users
 - **These actions:** use the drop-down list to select the actions to exclude, e.g. *Added* and *Moved*.

pe	ecify Filters cify filters to narrow the monitoring scope. They will be applied using AND c. Wildcard (*) is supported in paths only if excluding User Activity data.
Path	n:
\\fi	ilesrv02.hq.local\
orr	nat: As shown in "What" field of reports and activity summaries.
Data	a type to exclude:
	User Activity User activity data will be excluded from data collection for the specified share.
Jse	r whose activity to exclude:
•	All users
0	These users:
	Format: As shown in "Who" field of reports and activity summaries. Use comma as a separator.
4cti	ons to exclude:
◉	All actions
0	These actions:
-	▼
-	~
-	·
-	Add Cancel

After configuring all filters, click **Add** to save them and return to the item settings.

4.4.11. Nutanix SMB Shares

Option	Description		
	General		
Specify Nutanix File Server	Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click Browse to select a computer from the list of computers in your network.		
	NOTE: If you need to audit a 3-node cluster, it is recommended to use FQDN or NETBIOS name.		
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials.		
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration Guide</u> for more information.		
Specify listening port for incoming connections	Provide the name of the TCP port to listen to notifications on the operations with Nutanix file shares. Default is 9898 .		
	For details on how to open the port, refer to <u>Open 9898 and 9699 Ports</u> <u>for Inbound Connections</u> .		
	Nutanix File Server REST API		
Specify account for connecting to Nutanix File Server REST API	Specify the account that will be used to connect to Nutanix REST API. This account should have sufficient privileges on the Nutanix File Server. For details, refer to <u>Create User Account to Access Nutanix REST API</u> .		
	Scope		
Monitor hidden shares	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). Select Monitor user-defined hidden shares if necessary.		
	IMPORTANT! Even when this option is selected, the product will not collect data from administrative hidden shares such as: default system root or Windows directory (ADMIN\$), default drive shares		

Option	Description
	(D\$, E\$, etc.), shares used by printers to enable remote administration (PRINT\$), etc.
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.
	Refer to <u>Configure Scope</u> for detailed instructions on how to configure your monitoring scope.
	NOTE: Currently, auditing is available for SMB shares only. Auditing of NFS shares is not supported due to known limitations.

4.4.11.1. Configure Scope

You can configure Netwrix Auditor to audit all file shares except for ones added as exclusions. For that, under **Specify monitoring restrictions**, select **All file shares in the array**. You can also create lists of specific file shares to include and/or exclude from being audited. Review the following for additional information:

- To add inclusion
- To add exclusion

To add inclusion

- 1. Under Specify monitoring restrictions, select Specific file shares.
- 2. Click Add Inclusion.
- 3. Provide UNC path to a shared resource. For example: NewStation\Shared.

NOTE: Do not specify a default file share mapped to a local drive (e.g., \\Server\e\$).

To add exclusion

Click Add Exclusion, then in the Specify Filters dialog do the following:

- 1. Provide the path to the file share where you are going to exclude some audit data. Use the path format as it appears in the "*What*" column of reports and Activity Summaries for example, *\\corpsrv\shared*.
 - **NOTE:** You can use a wildcard (*) only if you need to exclude **user activity** on this file share. For other data types (*state-in-time* or *all data*) wildcards are not supported. This refers to the specified shared folder, its subfolders and files.

2. Select what type of data you want to exclude:

Option	Description	Example	
All Data	Select if you want to completely exclude the specified file share from being audited.	A Security Officer wants to monitor a file share	
	The product will not collect any user activity or state- in-time data.	but s/he does not have access to a certain folder on this share. Thus, s/he	
	NOTE: In this case,Netwrix Auditor does not adjust audit settings automatically for the selected folders.	configures the product not to monitor this folder at all.	
State-in-Time	Select to configure Netwrix Auditor to exclude data for the state-in-time reports from the monitoring scope.	A Security Officer wants to monitor a file share, but it contains a folder with a huge amount of objects, so s/he does not want Netwrix Auditor to collect state-in-time data for this folder.	
User Activity	Select to exclude actions performed by specific users on the selected file share. See the procedure below for details. NOTE: In this case, the product still collects stat-in- time data for this share.	A Security Officer wants to monitor a file share that contains a public folder for which s/he does not want to collect <i>Read</i> operations.	

To exclude specific user activity:

- 1. Specify what user accounts should be excluded:
 - All Users select to exclude the activity of any user on the file share you specified.
 - **These users** select to exclude specific users' activity. Provide user names as shown in the "*Who*" column in reports and Activity Summaries, e.g., *MyDomain\user1*. To enter multiple accounts, use comma as a separator.
- 2. Specify what actions should be excluded:
 - All actions exclude all actions of the selected users
 - **These actions:** use the drop-down list to select the actions to exclude, e.g. *Added* and *Moved*.

	h:
\\f	ïlesrv02.hq.local\
For	mat: As shown in "What" field of reports and activity summaries.
Dat	a type to exclude:
	User Activity
	User activity data will be excluded from data collection for the specified share.
	Format: As shown in "Who" field of reports and activity summaries. Use
	Frances, An observe in Mathew Statel of any sub- and a stick, successing the
	comma as a separator.
Acti	ions to exclude:
•	All actions
Ο	These actions:
	· · · · · · · · · · · · · · · · · · ·

After configuring all filters, click **Add** to save them and return to the item settings.

4.4.12. Office 365 Tenant

Types of data that can be collected by Netwrix Auditor from the Office 365 organization depend on the authentication option you choose, as explained in the table below.

IMPORTANT! This item-level option may influence data collection. In particular, if you decide to switch from basic to modern authentication, consider that state-in-time data for Exchange Online will be no longer collected— even if the related global setting **Collect data for state-in-time reports** is still enabled for the monitoring plan.

Option	Azure AD audit	Exchange Online audit	SharePoint Online audit
Modern	Activity data	Activity data	Activity data

Option	Azure AD audit	Exchange Online audit	SharePoint Online audit
authentication			State-in- time data
Basic authentication	Activity data	Activity data	Activity data
		State-in-time data	State-in- time data

To configure Office 365 tenant as a monitored item:

1. On the **General** page of the item properties, specify **Tenant name**:

- If you are going to use **Basic authentication**, you can proceed to the next step **Tenant name** will be filled in automatically after it.
- If you are going to use **Modern authentication**, paste the name you obtained at <u>Step 4: Obtain</u> <u>Tenant name</u> when preparing your Azure AD app.

2. Select authentication method that will be used when accessing Office 365 services:

- With **Basic authentication** selected, Office 365 organization will be accessed on behalf of the user you specify.
 - a. Enter **User name** and **password**; use any of the following formats: *user@domain.com* or *user@domain.onmicrosoft.com*.
 - b. The **Tenant name** field then will be filled in automatically.
 - **NOTE:** Make sure this user account has sufficient access rights. See <u>Accessing Azure AD using basic</u> <u>authentication</u>
- With **Modern authentication** selected, Office 365 organization will be accessed using the Azure AD app you prepared (see <u>Configuring Azure AD app</u>). Enter:
 - Application ID you prepared at Step 1. Create and register a new app in Azure AD
 - Application secret you prepared at Step 3: Configure client secret
- 3. Click the **Add** button.

Netwrix Auditor - STATIONWIN16		- 🗆 X
Add Item (Office 365 te Home > Monitoring Plans > Monitor	enant) ing plan Azure AD > Add item (Office 365 tenant)	
General	Specify Office 365 organization settings Tenant name: corp.onmicrosoft.com Select authentication type for accessing Office 365 services These settings may influence data collection. More info	
Add Discard		netwrix

- **TIP:** You can use a single account to collect audit data for different Office 365 services (Azure AD, Exchange Online, SharePoint Online); however, Netwrix recommends that you specify individual credentials for each of them.
- **NOTE:** If you plan to collect and report on the audit data for Exchange Online non-owner mailbox access, consider that the value shown in the "*Who*" field in reports and search results will be displayed in UPN format (unlike the earlier Netwrix Auditor versions). This refers to the following scenarios:
 - a. All new installations
 - b. Upgrade from the previous versions if:
 - Modern authentication is selected in the item settings after the upgrade -OR-
 - Modern authentication has ever been selected in the item settings and reverted back to Basic later

4.4.13. Oracle Database Instance

Option	Description
Connection type	Select how the product connects to Oracle Database:

Option	Description	
	• Oracle Database instance – select if you want to connect to a database by instance name.	
	 Oracle Wallet – select if you want to use Oracle Wallet – password-protected container used to store authentication and signing credentials, including private keys, certificates, and trusted certificates needed by SSL. 	
Instance name	Provide connection details in the following format: <i>host:port/service_</i> <i>name.</i> Make sure audit settings are configured for your Oracle Database instance.	
Wallet alias	Provide the alias you set while creating wallet. For example, " <i>MyOracle</i> ".	
	NOTE: Alias name in Netwrix Auditor should exactly match the alias in the tnsnames.ora file. See <u>Configure Oracle Instant</u> <u>Client for HTTP Proxy Connections</u> for more information.	
Specify the account for collecting data NOTE: For Oracle Database instance connection	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.	
type only.	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.	

4.4.14. SharePoint Farm

Option Description	
	General
Specify SharePoint farm for monitoring	Enter the SharePoint Central Administration website URL.
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter

Option	Description	
	credentials. The credentials are case sensitive.	
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.	
	Core Service	
Deploy Netwrix Auditor for SharePoint Core Service	Select deployment method for the Core Service. Select one of the following:	
	 Automatically—The installation will run under the account used to collect data on the SharePoint farm wizard completion. 	
	Prior to the Netwrix Auditor for SharePoint Core Service installation, review the following prerequisites and make sure that:	
	 Netwrix Auditor for SharePoint Core Service is going to be installed on the computer that hosts SharePoint Central Administration in the audited SharePoint farm. 	
	• <u>.Net Framework 3.5 SP1</u> is installed on the computer that hosts SharePoint Central Administration in the audited SharePoint farm.	
	 The SharePoint Administration (SPAdminV4) service is started on the target computer. See <u>Netwrix Auditor</u> <u>Installation</u> <u>and</u> <u>Configuration</u> <u>Guide</u> for more information. 	
	• The user that is going to run the Core Service installation:	
	 Is a member of the local Administrators group on SharePoint server, where the Core Service will be deployed. 	
	 Is granted the SharePoint_Shell_Access role on SharePoint SQL Server configuration database. See <u>Netwrix</u> <u>Auditor</u> <u>Installation</u> <u>and</u> <u>Configuration</u> <u>Guide</u> for more information. 	
	Manually—See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.	

Option	Description
option	NOTE: During the Netwrix Auditor for SharePoint Core Service installation / uninstallation your SharePoint sites may be unavailable.
	Changes
Audit SharePoint farm configuration changes	Configuration changes are always audited.
Audit SharePoint permissions	Select change types to be audited with Netwrix Auditor.
and content changes	Netwrix Auditor allows auditing the entire SharePoint farm. Alternatively, you can limit the auditing scope to separate web applications and site collections. To do it, select Specific SharePoint objects and do one of the following:
	 Click Add, provide the URL to web application or site collection and select object type (Web application or Site collection).
	 Click Import, select object type (Web application or Site collection), encoding type, and browse for a file that contains a list of web applications and sites.
	NOTE: Netwrix Auditor ignores changes to system data (e.g., hidden and system lists or items are not audited). Netwrix Auditor also ignores the content changes to sites and objects on the site collections located on Central Administration web application, but the security changes that occurred there are tracked and reported anyway.
	Activity
Specify monitoring restrictions	Specify restriction filters to narrow your SharePoint monitoring scope (search results, reports and Activity Summaries). For example, you can exclude site collections document libraries and lists from being audited as they contain public non sensitive data. All filters are applied using AND logic. Click Add and complete the following fields:
	 User – provide the name of the user as shown in the "Who" column of reports and Activity Summaries. Example: mydomain\user1.
	• Object URL – provide URL of the objects as shown in the " <i>What</i> " column of reports and Activity Summaries. Example: <i>http://sitecollection/list/document.docx</i> .

Option	Description
	• Action Type – select what types of actions performed by selected users under the object you want to monitor. Available values: <i>All, Changes, Reads</i> .
	NOTE: You can use a wildcard (*) to replace any number of characters in filters.
	TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> <u>from Monitoring Scope</u>
	Read Access
Audit SharePoint read access	Configure Netwrix Auditor to track read access to lists and list items within your SharePoint farm except for Central Administration web sites. Select Sites only if you want to enable read access auditing on SharePoint sites only. Enable Sites and subsites to track read access on each subsite. Then, do one of the following:
	• Click Add and provide URL to a SharePoint site.
	• Click Import , select encoding type, and browse for a file that contains a list of sites.
	NOTE: Read access auditing significantly increases the number of events generated on your SharePoint and the amount of data written to the AuditArchive.

4.4.15. SQL Server Instance

Option	Description
Specify SQL Server instance	Specify the name of the SQL Server instance.
Specify the account for collecting dataSelect the account that will be used to collect data fo you want to use a specific account (other than the one during monitoring plan creation), select Custom accou credentials. The credentials are case sensitive.	

Option	Description
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.

4.4.16. VMware ESX/ESXi/vCenter

Option	Description		
General			
Specify VMware ESX, ESXi, or vCenter for monitoring	Specify the ESX or ESXi host URL, or vCenter Server URL.		
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.		
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix Auditor Installation and Configuration</u> <u>Guide</u> for more information.		
	Virtual Machines		
Specify monitoring restrictions	Select the virtual machines to be excluded from search results, reports and Activity Summaries. To add VMs to the list, click Add . Then provide the full path of the machine to exclude. Consider the following:		
	 To exclude a <u>single VM</u>, provide its full path as shown in the "What" column of reports and Activity Summary, for example: Vcenters\VCenterServer021\VMs\vm01. 		
	 To exclude <u>several VMs</u>, you can define a mask using a wildcard, for example: 		
	 \TestVM — exclude VMs with names starting with TestVM (e.g., TestVM01, TestVM_new), located anywhere. 		
	• * <i>TestVM</i> * — exclude VMs with names containing <i>TestVM</i>		

	n	н		n
U	Р	-1	υ	

Description

(e.g., MyTestVM02).

TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: <u>Exclude Objects</u> from Monitoring Scope

4.4.17. Windows File Share

Option Description			
General			
Specify Windows file share	Provide UNC path to a shared resource. See the section below for special considerations.		
	NOTE: Do not specify a default file share mapped to a local drive (e.g., \\Server\e\$).		
Specify the account for collecting data	Select the account that will be used to collect data for this item. If you want to use a specific account (other than the one you specified during monitoring plan creation), select Custom account and enter credentials. The credentials are case sensitive.		
	NOTE: A custom account must be granted the same permissions and access rights as the default account used for data collection. See <u>Netwrix</u> <u>Auditor Installation and Configuration Guide</u> for more information.		
	Scope		
Specify monitoring restrictions	Specify restriction filters to narrow your monitoring scope (search results, reports and Activity Summaries). All filters are applied using AND logic.		
	Refer to <u>Configure Scope</u> for detailed instructions on how to narrow your monitoring scope.		
	By default, Netwrix Auditor will monitor all shares stored in the specified location, except for hidden shares (both default and user-defined). If you want to monitor user-defined hidden shares, select the related option in the monitored item settings.		

Option _____ Description

Remember that administrative hidden shares like default system root or Windows directory (ADMIN\$), default drive shares (D\$, E\$), etc. will not be monitored. See the topics on the monitored items for details.

TIP: In addition to the restrictions for a monitoring plan, you can use the *.txt files to collect more granular audit data. Note that the new monitoring scope restrictions apply together with previous exclusion settings configured in the *.txt files. Review the following for more information: Exclude Objects from Monitoring Scope

4.4.17.1. Configure Scope

You can narrow your monitoring scope by adding exclusions.

Click Add Exclusion, then in the Specify Filters dialog do the following:

- 1. Provide the path to the file share where you are going to exclude some audit data. Use the path format as it appears in the "*What*" column of reports and Activity Summaries for example, *\\corpsrv\shared*.
 - **NOTE:** You can use a wildcard (*) only if you need to exclude **user activity** on this file share. For other data types (*state-in-time* or *all data*) wildcards are not supported. This refers to the specified shared folder, its subfolders and files.
- 2. Select what type of data you want to exclude:

Option	Description	Example
All Data	Select if you want to completely exclude the specified file share from being audited.	A Security Officer wants to monitor a file share
	The product will not collect any user activity or state- in-time data.	but s/he does not have access to a certain folder on this share. Thus, s/he
	NOTE: In this case,Netwrix Auditor does not adjust audit settings automatically for the selected folders.	configures the product not to monitor this folder at all.
State-in-Time	Select to configure Netwrix Auditor to exclude data for the state-in-time reports from the monitoring scope.	A Security Officer wants to monitor a file share, but it contains a folder with a huge amount of objects, so s/he does not

Option	Description	Example
		want Netwrix Auditor to collect state-in-time data for this folder.
User Activity	Select to exclude actions performed by specific users on the selected file share. See the procedure below for details.	A Security Officer wants to monitor a file share that contains a public folder for which s/he
	NOTE: In this case, the product still collects stat-in- time data for this share.	does not want to collect <i>Read</i> operations.

To exclude specific user activity:

- 1. Specify what user accounts should be excluded:
 - All Users select to exclude the activity of any user on the file share you specified.
 - **These users** select to exclude specific users' activity. Provide user names as shown in the "*Who*" column in reports and Activity Summaries, e.g., *MyDomain\user1*. To enter multiple accounts, use comma as a separator.
- 2. Specify what actions should be excluded:
 - All actions exclude all actions of the selected users
 - **These actions:** use the drop-down list to select the actions to exclude, e.g. *Added* and *Moved*.

	h:
W	filesrv02.hq.local\
For	mat: As shown in "What" field of reports and activity summaries.
Dat	ta type to exclude:
	User Activity
	User activity data will be excluded from data collection for the specified share.
	Format: As shown in "Who" field of reports and activity summaries. Use
	comma as a separator.
Act	ions to exclude:
$oldsymbol{0}$	All actions
	These actions:
0	
0	· ·

After configuring all filters, click **Add** to save them and return to the item settings.

4.4.17.2. Working with DFS File Shares

Netwrix Auditor supports auditing of DFS and clustered file servers if **Object Access Auditing** is enabled on DFS file shares or on every cluster node.

- When adding a cluster file server for auditing, it is recommended to specify a server name of the **Role** server or a UNC path of the shared folder located on the **Role** server.
- When adding a DFS file share for auditing, specify a Windows file share item and provide the UNC path of the whole namespace or UNC path of the DFS link (folder). For example:
 - "\\domain\dfsnamespace\" (domain-based namespace) or "\\server\dfsnamespace\" (in case of stand-alone namespace);
 - "*domain\dfsnamespace\link*" (domain-based namespace) or "*server\dfsnamespace\link*" (in case of stand-alone namespace).
- For recommendations on configuring DFS replication, refer to this Knowledge Base article.

4.4.17.3. Working with Mount Points

You can specify a mount point as a monitored item. However, consider the following:

- If a mount point represents a shared folder, then the objects in its root will be initially collected by Netwrix Auditor and appear as processed by *System* account. Wait for the next data collections then all actions for these objects will be monitored in a normal way.
- To monitor the mount points targeted at the subfolder of a file share, provide network path to the target subfolder.

4.4.18. Integration

Integration is a custom item type that helps diversify activity records coming from custom sources and integrations (e.g., Amazon Web Services, Cisco devices) within **Netwrix API** data source. It is optional to add this item to your monitoring plan.

Complete the following fields:

Option	Description
Specify a name for your integration	Specify the add- on name or provide any other name that distinguishes this custom source from any other.
	This name will be listed in the Item filter in the interactive search.

NOTE: Make sure Integration API is enabled. To check it, navigate to **Settings** \rightarrow **Integrations** tab. See <u>Integrations</u> for more information.

Make sure to provide a monitoring plan name and item name in activity records before importing data. See <u>Netwrix Auditor Integration API Guide</u> for detailed instructions on API commands and Activity Record structure.

4.5. Fine-Tune Your Plan and Edit Settings

At any time, you can review your plan settings and fine-tune Audit Database, notification and data collection settings.

NOTE: To modify most plan settings, you must be assigned the Global administrator role in the product or the Configurator role on the plan. The Global reviewer or this plan's Reviewer can modify Activity Summary recipients. See <u>Role-based access and delegation</u> for more information.

To edit your plan settings

- 1. Select a plan in the All Monitoring Plans list and click Edit.
- 2. In the right pane, select Edit settings.
3. In the **Plan Settings** page, review the tabs and modify settings.

Option	Description		
	General		
Name	Update a plan name or its description.		
Description			
	Data Collection		
Specify the account for collecting data	Specify a new user name and a password for the account that Netwrix Auditor will use to collect data.		
User namePassword	Make sure the account has sufficient permissions to collect data. For a full list of the rights and permissions, and instructions on how to configure them, refer to <u>Netwrix</u> <u>Auditor</u> <u>Installation</u> <u>and</u> <u>Configuration Guide</u> .		
	Audit Database		
Disable security intelligence and make data available only in activity summaries	Keep this checkbox cleared if you want Netwrix Auditor to write data to the Audit Database.		
Use default SQL Server settings	Select this checkbox to write data to a SQL Server instance with connection parameters as shown in Settings \rightarrow Audit Database . See <u>Audit Database</u> for more information.		
Specify custom connection parameters	Specify this option to use non-default settings (e.g., use a different authentication method or user).		
	NOTE: Make sure to store data on the same SQL Server instance. Otherwise some data may become unavailable for search and reporting.		
	Notifications		
Specify Activity Summary delivery schedule	Configure how often you want to receive an Activity Summary. By default, it is delivered once a day, at 3 AM. You can specify custom delivery time and frequency (e.g., every 6 hours starting 12 AM—at 12 AM, 6 AM, 12 PM, 6 PM).		
Customize notifications	nize notifications By default, Activity Summary lists changes and activity in ema body. For most data sources, if an Activity Summaries contains more than 1,000 activity records, these records are sent as a CSN		

Option	Description
	attachment, bigger attachments are compressed in ZIP files.
	 Attach Activity Summary as a CSV file—You can configure Netwrix Auditor to always send emails with attachments instead of listing activity and changes in email body.
	• Compress attachment before sending —You can configure Netwrix Auditor to always compress attachments in a ZIP file, irrespective of its size and number of activity records.
Specify the recipients who will receive daily activity summaries	Modify a list of users who will receive daily activity summaries. Click Add Recipient and provide email address.
	NOTE: It is recommended to click Send Test Email . The system will send a test message to the specified email address and inform you if any problems are detected.

4.6. Launch Data Collection Manually and Update Status

If you do not want to wait until a scheduled data collection, you can launch it manually.

NOTE: Not applicable to Netwrix Auditor for User Activity. For this data source, the product sends real-time data about sessions and activity.

Along with data collection, the following actions will be performed:

- An Activity Summary email will be generated and sent to the specified recipients. It will list all changes that occurred since the last scheduled or on-demand Activity Summary delivery.
- Changes that occurred between data collections will be written to the Long-Term Archive and the Audit Database, and become available in the Netwrix Auditor client.
- A state-in-time data will be updated.

To launch data collection manually

- 1. Navigate to All monitoring plans \rightarrow your monitoring plan, select Edit.
- 2. In the right pane, click **Update**.
- **NOTE:** Depending on the size of the monitored environment and the number of changes, data collection may take a while.

5. Activity Summary Email

Activity Summary email is generated automatically by Netwrix Auditor and lists all changes / recorded user sessions that occurred since the last Activity Summary delivery. By default, for most data sources an Activity Summary is generated daily at 3:00 AM and delivered to the specified recipients. You can also launch data collection and Activity Summary generation manually.

NOTE: Notifications on user activity and event log collection (Event Log Collection Status) are a bit different and do not show changes.

The following Activity Summary example applies to Active Directory. Other Activity Summaries generated and delivered by Netwrix Auditor will vary slightly depending on the data source.

To Administrato	Fri 4/7/2017 3:33 PM Administrator Netwrix Auditor: Active Directory Activity Summary - Active Directory Administrator								
	ty Sum d 1 ved 0	i tor for Active	Directory						
Action	n	Object type	What	Item	Where	Who	When	Workstation	Details
Addec	d	user	\local\corp\Users\Michael MT. Tompson	corp.local	rootdc2.corp.local	CORP\administrator	4/7/2017 5:31:25 AM	Workstation16	none
Modif	fied	group	\local\corp\Users\Domain Admins	corp.local	rootdc2.corp.local	CORP\administrator	4/7/2017 5:31:56 AM	Workstation16	Security Global Group Member Added: "corp.local/Users/Michael MT. Tompson"

The example Activity Summary provides the following information on Active Directory changes:

Column	Description	
Action	Shows the type of action that was performed on the object.	
	• Added	
	Removed	
	Modified	
	Activated (User Activity)	
Object Type	Shows the type of the modified AD object, for example, 'user'.	
What	Shows the path to the modified AD object.	

Column	Description
ltem	Shows the item associated with the selected monitoring plan.
Where	Shows the name of the domain controller where the change was made.
Who	Shows the name of the account under which the change was made.
When	Shows the exact time when the change occurred.
Workstation	Shows the name / IP address of the computer where the user was logged on when the change was made.
Details	Shows the before and after values of the modified AD object.

To initiate an on-demand Activity Summary delivery, navigate to the **Monitoring Plans** section, select a plan, click **Edit**, and then select **Update**. A summary will be delivered to the specified reciptient, listing all activity that occurred since the last data collection.

6. Intelligence

Besides notifying about the changes on a daily basis, Netwrix Auditor brings security intelligence into your IT infrastructure and enables complete visibility.

The technology works as follows: Netwrix Auditor can be configured to write collected audit trails to the SQL-based Audit Database and the file-based Long-Term Archive. Netwrix Auditor uses data stored in the Audit Database to generate reports, trigger alerts, and run data searches.



The product provides a variety of predefined reports for each data source that help you keep track of all changes in your IT infrastructure and validate compliance with various standards and regulations (FISMA, HIPAA, PCI, SOX, etc.). Friendly, interactive search interface allows users to run custom search queries, while alerts keep them notified on critical changes.

To review intelligence data, you must be assigned the Global administrator or Global reviewer role in the product, or the Reviewer role on the monitoring plan. See <u>Role-based_access_and_delegation</u> for more information.

6. Intelligence

🦻 N	letwrix Auditor						- 0
(- Search	& who		□∕\ ₩НАТ	() WHEN		Tools
2	Who Enterprise\administra	tor 🗙 🕓 When	Last 7 days 🗙				
			Open in new window	SEARCH		Advanced mode	
Wł	ho	Object type	Action	What		Where	When
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	ITERPRISE\Administrator stribution Universal Group Member:	group - Added: "enterprise.loc	Modified al/Users/Jason Smith"	\local\enterprise\Users\Hel	pDesk	stationexchange.enterprise.local	4/14/2017 11:17:44 AM
	ITERPRISE\Administrator nore Naming Policy changed to "Tru	group ie"	Modified	\local\enterprise\Users\Hel	pDesk	stationexchange.enterprise.local	4/14/2017 11:17:42 AM
EN	ITERPRISE\administrator	Database	Added	Databases\Netwrix_Auditor	_Monitoring_T	stationsql\sqlexpress2016	4/14/2017 11:09:26 AM
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	ITERPRISE\Administrator oxy Addresses changed to "SMTP:rn	user d@enterprise.local"	Modified	\local\enterprise\Users\Pet	er Cook	stationexchange.enterprise.local	4/14/2017 10:35:17 AM
EN	ITERPRISE\Administrator	user	Added	\local\enterprise\Users\Pet	er Cook	stationexchange.enterprise.local	4/14/2017 10:35:17 AM
							neturix

NOTE: To employ reports, alerts, and interactive search capabilities, you must configure Audit Database settings for each monitoring plan. Also, make sure all databases that store audit data reside on the same default SQL Server instance. Otherwise, this data will not be available in the search results and reports.

Review the following for additional information:

- Investigations
- Netwrix Auditor Intelligence Guide

7. Settings

In the **Settings** section, you can configure product settings, such as default SQL Server instance for Audit Database, the Long-Term Archive location and retention period, etc. You can also review information about the product version and your licenses. See the following sections:

- General
- Audit Database
- Long-Term Archive
- Investigations
- Notifications
- Integrations
- Licenses
- About Netwrix Auditor

To modify Netwrix Auditor settings, you must be assigned the *Global administrator* role. See <u>Role-based</u> <u>access and delegation</u> for more information.

7.1. General

On the **General** tab you can configure global Netwrix Auditor settings, e.g., self-audit, tags, accounts and passwords.

Review the following for additional information:

Option	Description
Self-audit	Select to enable data collection for product self-auditing. Self-audit allows tracking every change to monitoring plan, data source, and audit scope and details about it (before-after values) so that you know that scope of data to be audited is complete and changed only in line with workflows adopted by our organization.
	Review the following for additional information:
	<u>Netwrix Auditor Self-Audit</u>
Netwrix Auditor usage	It is optional on your part to help Netwrix improve the quality reliability and

Netwrix Auditor usageIt is optional on your part to help Netwrix improve the quality, reliability, andstatisticsperformance of Netwrix products and services. If selected, Netwrix collectsstatistical information on how the Licensee uses the product in accordance

	-	
Option		Description
		with applicable law. Visit <u>Netwrix Corporation Software License Agreement</u> for more information about the program.
		You can review a sample piece of data if you are interested in data acquired by Netwrix.
Tags		Netwrix Auditor allows you to apply tags when creating an alert. With alerts, you can distinguish one alert from another, create groups of similar alerts, etc.
		The Tags page contains a complete list of alerts that were ever created in the product.
		Currently, you cannot assign or create tags on this page. To apply tags to an alert, navigate to alert settings and locate the Apply tags section on the General tab.
Account passwords	and	Netwrix Auditor allows you to assign different accounts for monitoring plans. Click Manage to review the full list of accounts and associated auditing scope. You can also change accounts' password if necessary.

7.2. Audit Database

If you want to generate reports and run interactive search queries, you should configure Netwrix Auditor to store collected data to the SQL Server database (Audit Database). By default, each Monitoring Plan will use a dedicated database to store data. So, there are two types of database settings:

- Global settings that apply to all Audit Databases:
 - Default SQL Server instance hosting all databases
 - SQL Server Reporting Services (SSRS) settings
 - Retention settings

Usually, initial global settings are configured when you create a first monitoring plan. They become the defaults and appear on the **Settings** \rightarrow **Audit Database** tab. If you have not specified the default settings before, click **Configure**.

• Specific settings for each dedicated database. You can configure specific database storage settings for each monitoring plan individually. For that, use a Monitoring Plan wizard or navigate to the monitoring plan's settings. Fine-Tune Your Plan and Edit Settings for details.

To review and update global Audit Database settings, navigate to Settings \rightarrow Audit Database.

Use **Configure** and **Modify** buttons to edit the settings.

7. Settings

Netwrix Auditor - STATIONSQL2016		- 🗆 X
← Settings Home → Settings		
Audit Database Long-Term Archive	Audit Database Configure default Audit Database that stores security intelligence	: data.
Investigations Notifications	Default SQL Server settings	
Integrations	SQL Server instance: Authentication:	STATIONSQL2016\SQLEXPRESS2016 Windows authentication
Tags Licenses	Authentication: User name:	enterprise\administrator
About Netwrix Auditor	Modify	
	Database retention	
	Clear stale data when a database retention period is exceeded:	On
	Store audit data in the database for:	180 days
	Modify	
	SQL Server Reporting Services settings	
	Report Server URL:	http://STATIONSQL2016/ReportServer_SQLEXPRESS2016
	Report Manager URL:	http://STATIONSQL2016/Reports_SQLEXPRESS2016
	User name:	enterprise\administrator
	Modify	
		netwrix

Specify the following database storage settings:

Option	Description
Default SQL Server settings	Specify SQL Server instance name and connection settings. See <u>To configure</u> <u>default SQL Server settings</u> for more information.
Database retention	Configure retention if you want audit data to be deleted automatically from your Audit Database after a certain period of time.
	These settings cannot be modified for a certain plan. See <u>To configure database</u> <u>retention</u> for more information.
SQL Server Reporting Services settings	Define the Report Server URL and account used to upload data to Report Server. These settings cannot be modified for a certain plan. See <u>To configure</u> <u>SSRS settings</u> for more information.

To configure default SQL Server settings

On the Settings \rightarrow Audit Database tab, review settings and click Modify under the Default SQL Server settings section.

Option	Description
SQL Server instance	Specify the name of the SQL Server instance to store audit data.
	NOTE: If you have more than one Netwrix Auditor Server running in your network, make sure to configure them to use different SQL Server instances. The same SQL Server instance cannot be used to store audit data collected by several Netwrix Auditor Servers.
Authentication	Select the authentication type you want to use to connect to the SQL Server instance:
	Windows authentication
	SQL Server authentication
User name	Specify the account to be used to connect to the SQL Server instance.
	NOTE: This account must be granted the database owner (db_owner) role and the dbcreator server role. See <u>Configure Audit Database</u> <u>Account</u> for more information.
Password	Enter a password.

IMPORTANT! If you want to use Group Managed Service Account (gMSA) to access the SQL Server instance hosting the database, consider that in this case Netwrix Auditor will not be able to generate SSRS-based reports (due to <u>Microsoft limitations</u>).

To configure database retention

On the Settings \rightarrow Audit Database tab, review settings and click Modify under the Database retention section.

NOTE: These settings are global, that is, they will be applied to all audit databases.

Option	Description
Clear stale data when a database retention period is exceeded	Use this option if you want audit data to be deleted automatically from the corresponding database after a certain period of time.
Store audit data in database for	Specify the retention period for storing audit data in the database. Default retention period is 180 days . When the retention period is over, data will be deleted automatically.

To configure SSRS settings

On the **Settings** \rightarrow **Audit Database** tab, review settings and click **Modify** under the **SQL Server Reporting Services settings** section.

Option	Description
Report Server URL	Specify the Report Server URL. Make sure that the resource is reachable.
Report Manager URL	Specify the Report Manager URL. Make sure that the resource is reachable.
User name	Specify the account to connect to SSRS. Use the following format: domain\username or hostname\username
	NOTE: Workgroup format (.\ <i>username</i>) is not supported. Use <i>hostname</i> \ <i>username</i> instead.
	Make sure this account is granted the Content Manager role on the Report Server.
Password	Enter a password.

7.3. Long-Term Archive

The Long-Term Archive is configured by default, irrespective of your subscription plan and settings you specified when configuring a monitoring plan. To review and update your Long-Term Archive settings, navigate to Settings \rightarrow Long-Term Archive and click Modify.

Option

Description

Long-Term Archive settings

7. Settings

Option		Description
	Write audit data to:	m Archive Settings Netwrix Auditor\Data
	Keep audit data for:	120 months
		the LocalSystem account to write audit data to the Long-Term Archive. chive stored on the file share, a computer account is used or you can ntials.
	Use custom crede	entials (for the file share-based Long-Term Archive only) enterprise\administrator
	Password: Note: Make sure	••••••••
	See Netwrix knowledg	pe base to learn how to move the Long-Term Archive to a new location.
Write audit data to		Specify the path to a local or shared folder where your audit data will be stored. By default, it is set to "C:\ProgramData\Netwrix Auditor\Data".
		By default, the LocalSystem account is used to write data to the local-based Long-Term Archive and computer account is used for the file share-based storage.
		Subscriptions created in the Netwrix Auditor client are uploaded to file servers under the Long-Term Archive service account as well.
		NOTE: It is not recommended to store your Long-Term Archive on a system disk. If you want to move the Long-Term Archive to another location, refer to the following Netwrix Knowledge base article: <u>How to move Long-Term Archive to</u>
		<u>a new location</u> . Additional procedures are required if you upgraded Netwrix Auditor from 8.0. See the article for details.

Keep audit data for (in months)Specify how long data will be stored. By default, it is set to 120
months.

Data will be deleted automatically when its retention period is over. If the retention period is set to 0, data will be automatically stored

Option	Description		
	for the last 4 data collections for most of the data sources (event if the retention period is set to 0 data on SQL Server, file servers and Windows Server changes will be stored for the last 2 data collections, and 7 data collections for user activity).		
Use custom credentials (for the file share-based Long-Term Archive only)	Select the checkbox and provide user name and password for the Long-Term Archive service account.		
/	NOTE: You can specify a custom account only for the Long-Term Archive stored on a file share.		
	The custom Long-Term Archive service account can be granted the following rights and permissions:		
	 Advanced permissions on the folder where the Long-Term Archive is stored: 		
	List folder / read data		
	Read attributes		
	Read extended attributes		
	Create files / write data		
	Create folders / append data		
	Write attributes		
	Write extended attributes		
	Delete subfolders and files		
	Read permissions		
	• On the file shares where report subscriptions are saved:		
	Change share permission		
	Create files / write data folder permission		
	NOTE: Subscriptions created in the Netwrix Auditor client are uploaded to file servers under the Long-Term Archive service account as well.		

Session recording settings

```
7. Settings
```

Option		Description	
	Default session recor Configure custon Store session rec \\filesrv03\sessi	ons ssion recording on the file share, you can use computer account, or	
	Note: Make sure	this account has write permissions on the specified folder. OK Cancel	
Configure custor session recordings		Default location for storing session recordings is "\\< <i>NetwrixAuditorServerName</i> >\ <i>Netwrix_UAVR\$</i> " extra files on Netwrix Auditor server may product on it, so consider using this option to specify and where session recordings will be stored.	. However, storing ce additional load
Enter UNC path to shared folder:		Specify UNC path to the shared folder where use recordings will be stored. You can use server nan for example: \\172.28.6.33\NA_UserSessions	

NOTE: Using a local folder for that purpose is not recommended, as storing extra files on Netwrix Auditor server will produce additional load on it.

Make sure the specified shared folder has enough capacity to store the video files.

Retention period for the video files can be adjusted in the related monitoring plan settings (targeted at User Activity data source); default retention is **7 days.** See <u>User Activity</u> for details.

NOTE: After you specify and save settings for session recordings, it is recommended that you leave them unchanged. Otherwise — if you change the storage location while using Netwrix Auditor for User Activity — please be aware of possible data loss, as Netwrix Auditor will not automatically

Option	Description
	move session recordings to a new location.
User name / Password	Provide user name and password for the account that will be used to store session recordings to the specified shared folder.
	Make sure the account has at least Write permission for that folder.

NOTE: Netwrix Auditor informs you if you are running out of space on a system disk where the Long-Term Archive is stored by default. You will see events in the **Netwrix Auditor System Health** log once the free disk space starts approaching minimum level. When the free disk space is less than 3 GB, the Netwrix services responsible for audit data collection will be stopped.

7.4. Investigations

By default, the Audit Database stores data up to 180 days. Once the retention period is over, the data is deleted from the Audit Database and becomes unavailable for reporting and search.

Depending on your company requirements you may need to investigate past incidents and browse old data stored in the Long-Term Archive. Netwrix Auditor allows importing data from the Long-Term Archive to a special "investigation" database. Having imported data there, you can run searches and generate reports with your past data.



To import audit data with the Archive Data Investigation wizard

- **NOTE:** You must be assigned the Global administrator role to import investigation data. To view investigation data, you must be assigned the Global administrator or Global reviewer role.
 - 1. Navigate to Settings \rightarrow Investigations.
 - 2. Complete your SQL Server settings.

Option	Description			
SQL Server Instance	Specify the name of the SQL Server instance to import your audit data to.			
	NOTE: If you want to run searches and generate reports, select the same SQL Server instance as the one specified on Settings → Audit Database page. See <u>Audit Database</u> for more information.			
Database	Select import database name. By default, data is imported to a specially created the Netwrix_ImportDB database but you can select any other.			
	NOTE: Do not select databases that already contain data. Selecting such databases leads to data overwrites and loss.			
Authentication	Select the authentication type you want to use to connect to the SQL Server instance:			
	Windows authentication			
	SQL Server authentication			
User name	Specify the account to be used to connect to the SQL Server instance.			
	NOTE: This account must be granted the database owner (db_owner) role and the dbcreator server role. See <u>Netwrix</u> <u>Auditor Installation and Configuration Guide</u> for more information.			
Password	Enter a password.			
Clear imported data	Select to delete all previously imported data.			
	NOTE: To prevent SQL Server from overfilling, it is recommended to clear imported data once it is longer needed.			

3. Review your **New investigation** configuration. Click **Configure** to specify the import scope.

Option	Description		
From To	Specify the time range for which you want to import past audit data.		
Data sources	Select data sources whose audit data you want to import to the Audit Database.		
Monitoring plans	Select monitoring plans whose audit data you want to import to the Audit Database. Netwrix Auditor lists monitoring plans that are currently available in the product configuration.		
	NOTE: Select All to import audit data for all monitoring plans, including those that were removed from the product (or removed and then recreated with the same name—Netwrix Auditor treats them as different monitoring plans).		
	For example, you had a monitoring plan corp.local used for auditing Active Directory. You removed this monitoring plan, but its audit data was preserved in the Long-Term Archive. Then, you created a new monitoring plan for auditing Exchange and named it corp.local again. Its data is also stored in the Long-Term Archive. Netwrix Auditor treats both corp.local monitoring plans—the removed and the current— as different.		
	If you select corp.local in the monitoring plans list, only Exchange data will be imported to Audit Database (as it corresponds to the current monitoring plan configuration). To import Active Directory data from the removed monitoring plan, select All monitoring plans.		

4. Click Run.

7.5. Notifications

Basically, the SMTP settings are configured when you create the first monitoring plan in the **New monitoring plan** wizard.

You can update notification settings at any time in the **Settings** \rightarrow **Notifications**. Review the following for additional information:

- <u>To modify SMTP Settings</u>
- To send summary emails and notifications about critical events

To modify SMTP Settings

Navigate to **Default SMTP settings** to review settings used to deliver email notifications, reports, etc., and click **Modify** to adjust them if necessary.

Option	Description			
SMTP server	Enter your SMTP server address. It can be your company's Exchange server or any public mail server (e.g., Gmail, Yahoo).			
Port number	Specify your SMTP server port number.			
Sender address	Enter the address that will appear in the From field.			
	NOTE: It is recommended to click Send Test Email . The system will send a test message to the specified email address and inform you if any problems are detected.			
SMTP authentication	Select this checkbox 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.			
Use Secure Sockets Layer encrypted connection (SSL)	Select this checkbox if your SMTP server requires SSL to be enabled.			
Use implicit SSL authentication	Select this checkbox if the implicit SSL mode is used, which means that an SSL connection is established before any meaningful data is sent.			
Enforce certificate validation to ensure security	Select this checkbox if you want to verify security certificate on every email transmission.			
	NOTE: The option is not available for auditing User Activity as well Netwrix Auditor tools.			

NOTE: You can configure Activity Summary frequency, format and delivery time for each monitoring plan individually. See <u>Fine-Tune Your Plan and Edit Settings</u> for more information.

After that, you can specify the recipient who will receive product activity and health summary emails.

To send summary emails and notifications about critical events

- 1. Navigate to the **Summary email recipient** and click **Modify**.
- 2. Specify recipient address:
 - To send to a single recipient, enter personal mailbox address.
 - To send to multiple recipients, make sure they are added to a distribution group, and enter the group address. Entering multiple individual addresses is not supported.

To learn more about product health, you can also navigate to the **Health status** tile in the main window. It will take you to the **Health Status** dashboard that contains information on the product activity and system health state. See <u>Review Health Status Dashboard</u> for more information.

7.6. Integrations

Netwrix Auditor Integration API—endless integration, auditing and reporting capabilities.

The Netwrix Auditor Integration API provides access to audit data collected by Netwrix Auditor through REST API endpoints. According to the RESTful model, each operation is associated with a URL. Integration API provides the following capabilities:

- **Data in:** Solidify security and meet regulatory compliance standards by enabling visibility into what is going on in any third-party application.
- **Data out**: Further automate your business processes, IT security and operations workflows by enriching third-party solutions with actionable audit data.

Netwrix Auditor Integration API is enabled by default and communicates through port 9699. Navigate to **Settings** \rightarrow **Integrations** to adjust port settings and review information about possible integrations.

Netwrix recommends adding a special data source to your monitoring plan—Netwrix API. See <u>Netwrix API</u> for more information.

NOTE: In Netwrix Auditor 9.0, Netwrix has updated API schemas. Make sure to check and update your custom scripts and add-ons.

To learn more about Integration API capabilities, refer to Netwrix Auditor Integration API Guide.

7.7. Licenses

The **Licenses** tab allows you to review the status of your current licenses, update them and add new licenses. To learn about Netwrix Auditor licenses, refer to the following Netwrix Knowledge Base article: <u>Netwrix Auditor Licensing FAQs</u>.

To update or add a license

- 1. Click Update.
- 2. In the dialog that opens, do one of the following:
 - Select Load from file, click Browse and point to a license file received from your sales representative.
 - Select Enter manually and type in your company name, license count and license codes.

7.7.1. Notes for Managed Service Providers

Being a Managed Service Provider (MSP) you are supplied with a special MSP license that allows you to deploy Netwrix Auditor on several servers with the same license key. In this case the license count is based on total number of users across all managed client environments. To ensure that licenses are calculated correctly (per heartbeat) by Netwrix, perform the following steps:

- 1. Create organizational units within audited domains and add there service accounts you want to exclude from license count.
- 2. On the computer where Netwrix Auditor Server resides, navigate to *Netwrix Auditor installation folder**Netwrix Auditor**Administrative Console* and locate **MSP.xml**.
- 3. In MSP.xml, provide the following:
 - **CustomInstanceIdentificator**—Is used to identify a server where Netwrix Auditor Server is installed. It can be any custom name, for example a server name, code name or any other name you use to distinguish one server from another (e.g., ABCServer).

Netwrix recommends you to assign a unique identifier for each client. This information is stored in the Netwrix Partner Portal and helps you identify each instance when you invoice customers for Netwrix services.

- **NOTE:** Netwrix gathers the following information about MSP licenses: identifier, license key and license count.
- ServiceAccount Path—Is a path to OU that contains service accounts. You can add several OUs to MSP.xml, one per line.

For example:

```
<?xml version="1.0" encoding="utf-8" ?>
<MSPSettings>
<CustomInstanceIdentificator>CompanyABCServer</CustomInstanceIdentificator>
<ServiceAccounts>
<ServiceAccount Path="domain.com/Users/Service Accounts" />
<ServiceAccount Path="domain2.com/Users/Service Accounts" />
</ServiceAccounts>
</MSPSettings>
```

NOTE: MSP.xml file must be formatted in accordance with XML standard. If company name (used as identifier) or service account path includes & (ampersand), " (double quotes) or ' (single quotes), < (less than), > (greater than) symbols, they must be replaced with corresponding HTML entities.

Netwrix recommends avoiding special characters since some web browsers (e.g., Internet Explorer 8) have troubles processing them.

Symbol	XML entity
&	&
e.g., Ally & Sons	e.g., Ally & Sons
п	"
e.g., Domain1\Users\"Stars"	e.g., Domain1\Users\ " Stars "
1	'
e.g., Domain1\Users\O'Hara	e.g., Domain1\Users\O ' Hara
<	<
e.g., Company<1	e.g., Company < 1
>	>
e.g., ID>500	e.g., ID > 500

 Navigate to Netwrix Auditor installation folder\Netwrix Auditor\Administrative Console and start Netwrix.NAC.MSPTool.exe. The tool transfers information on service accounts to Netwrix Auditor. Netwrix Auditor uses this information to exclude service accounts from license count so that only heartbeat users will be calculated.

NOTE: You must run Netwrix.NAC.MSPTool.exe every time you update MSP.xml.

7.8. About Netwrix Auditor

The About Netwrix Auditor tab contains complete information on the product:

Option	Description
Netwrix Auditor	Review current version of Netwrix Auditor.
Check for updates	Select to check for available updates now.
Check for updates automatically and show notifications about new product versions	Netwrix Auditor periodically checks for updates so you don't have to. When an update is available, a user is immediately noticed.
Getting Help	Click the link to visit Netwrix Auditor Help Center and access configuration guidelines and step-by-step instructions online.

This section describes how you can monitor Netwrix Auditor operations, health and resource usage. For that, the following means are provided:

- Review Health Status Dashboard
- Netwrix Auditor Self-Audit
- Netwrix Auditor Health Summary Email
- Netwrix Auditor System Health Log

8.1. Netwrix Auditor Self-Audit

Built-in Netwrix Auditor self-audit allows you to track changes to the product configuration, including monitoring plans, data sources, audit scope and details about it (before-after values). This helps you to ensure that monitoring scope is complete and changed only in line with the workflows adopted by our organization.

The corresponding option is available on the **General** tab of Netwrix Auditor **Settings**. By default, it is enabled (**Collect data for self-audit** check box is selected).

Netwrix Auditor - WORKSTATION16				
← Settings				
General	General			
Audit Database	Specify Netwrix Auditor general settings.			
Long-Term Archive	specity Netwink Additor general settings.			
Investigations	Self-audit			
Notifications	Collect data for self-audit			

Review the following for additional information:

- To search for self-audit results
- To review Netwrix Auditor Self-Audit report

To search for self-audit results

All Netwrix Auditor self-audit Activity Records can be found quickly using AuditIntelligence Search.

- 1. In Netwrix Auditor, navigate to **Search**.
- 2. Set the "Data source" filter to "Self-audit".
- 3. Click Search to review results:

2	Netwrix Auditor - WORKSTATIC	DN16						– 🗆 X
÷	- Search		송 Wh	o ♂ Action 🗠	What 🕔 Whe	en 🗄 Where		Tools
	Filter		Operator		Value			
	Data source		▼ Equals	•	Self-audit			¥ ×
	+ Add							
			C op	en in new window	ARCH	Simple mode		
V	Vho	Object type	Action	What	Where	When	Details	
C	CORP\Administrator	Local logon	Successful Log	WORKSTATION16	WORKSTATION16	11/6/2019 1:36:51 AM		Full screen
							Activity record details	
0	CORP\Administrator	Local logon	Logoff	WORKSTATION16	WORKSTATION16	11/5/2019 4:20:39 AM	Data source: Self-audit	
							Workstation: WORKSTATION16	
0	CORP\Administrator	Alert	Modified	Access to Sensitive Data in Oracle D	WORKSTATION16	11/5/2019 4:19:57 AM	User account details	
N	/lode changed from "Enabled" 1	to "Disabled"					User account details	

NOTE: Having reviewed your results, apply filters to narrow your data. See <u>Apply Filters</u> for more information.

After browsing your data, navigate to **Tools** to use the search results as intended. See <u>Make</u> <u>Search Results Actionable</u> for more information.

To review Netwrix Auditor Self-Audit report

Also, there is a new *Netwrix Auditor Self-Audit* report available under **Organization Level Reports** in the predefined set of reports. This report shows detailed information on changes to Netwrix Auditor monitoring plans, data sources and audited items.

- 1. In Netwrix Auditor, navigate to **Reports** \rightarrow **Organization Level Reports**.
- 2. Select the Netwrix Auditor Self-Audit report and click View.

8.2. Netwrix Auditor System Health Log

When an error occurs, a system administrator or support engineer must determine what caused this error and prevent it from recurring. For your convenience, Netwrix Auditor records important events in the proprietary **Netwrix Auditor System Health** event log.

You can review events directly in the product:

• When issues encountered during data collection, click **Details...** in the **Status** column and select **View Health Log**.

OR

• In the main screen, in the **Configuration** section click the **Health status** tile, then in the **Health log** dashboard widget click **Open health log**. See <u>Health Log</u> for more information.

NOTE: You can also inspect the log in the **Event Viewer**.

There are three types of events that can be logged:

Event Type	Description
Information	An event that describes the successful operation beginning or completion. For example, the product successfully completed data collection for a monitoring plan.
Warning	An event that is not necessarily significant, but may indicate a possible future problem. For example, the product failed to process a domain controller.
Error	An event that indicates a significant problem such as loss of data or loss of functionality. For example, the product failed to retrieve settings for your data source.

Review the following:

Inspect Events in Health Log

If you want to monitor Netwrix Auditor health status in more depth, you can do the following:

- Create a monitoring plan for this log using Netwrix Auditor Event Log Manager too to collect activity data. See <u>Create Monitoring Plan for Netwrix Auditor System Health Log</u> for more information.
- Configure alerts triggered by specific events in the product's health log. See <u>Create Alerts on Netwrix</u> Auditor Server Health Status for more information.

8.2.1. Inspect Events in Health Log

To inspect events in Netwrix Auditor health log

- 1. On the main Netwrix Auditor page, select the **Health status** tile, then in the **Health log** dashboard widget click **Open health log**.
- 2. Select an entry to review it in details. You can also copy event details. Select the event in the list and click **Copy details** at the bottom of the window.

For your convenience, Netwrix Auditor provides you with filters so that you can narrow down the number of events on the screen and focus on those that matter most. For example, warnings on failed data collection or events of an important monitoring plan.

To filter events

- 1. Select **Filters** in the upper part of the **Netwrix Auditor Health Log** window.
- 2. Complete the following fields:

Option	Description
Logged	Specify event logging time period (date range, yesterday, etc.).
Event level	Select level of the events that you want to be displayed.
Event source	Select services and applications whose events you want to view.
Monitoring plan	Select to display events from one or several monitoring plans.
ltem name	Select to display events from the certain item(s) you need.
Event ID	Enter event ID number or range of event IDs separated by commas. For example, 1, 3, 5-99.

NOTE: You can also exclude unwanted event IDs from being displayed. Type the minus sign before selected event ID. For example, -76.

Apply Filters			
Logged:	Last 30 days		•
	From: 3/26/2018	To: 4/24/2018	
Event level:	Critical	Error	
	Warning	Information	
Event source:	All event sources		•
Monitoring plan:	Active Directory audit		•
Item name:	enterprise.local		•
Event ID:			
	Enter ID numbers or ID range To exclude criteria, type a mir	es separated by commas. nus sign first. For example: 1, 3, 5-99, -7	76.
Clear All		ок	Cancel

The applied filters will be listed on the top of the screen under the window title.

8.3. Review Health Status Dashboard

New Health Status dashboard facilitates Netwrix Auditor maintenance and troubleshooting tasks, providing IT specialists with at-a-glance view on the most critical factors: data collection performance, product health and storage capacity. The dashboard comprises a set of widgets that display the status of these aspects using aggregated statistics and charts. Nearly each widget allows you to drill down to the detailed information on the aspect you are interested in.

To view the dashboard, on the main Netwrix Auditor page, click the **Health status** tile located in the **Configuration** section.

The dashboard includes the following widgets:

- The Activity records by date chart—Shows the number of activity records produced by your data sources, collected and saved by Netwrix Auditor during the last 7 days. See <u>Activity Records Statistics</u> for details.
- The **Monitoring overview** widget—Shows aggregated statistics on the statuses of all monitoring plans configured in Netwrix Auditor at the moment. See <u>Monitoring Overview</u> for details.
- The **Health log** chart—Shows the statistics on the events written in the Netwrix Auditor health log in the last 24 hours. Click the link in this widget to view the log. See <u>Health Log</u> for details.
- The **Database statistics** widget—Helps you to estimate database capacity on the default SQL Server instance that hosts the product databases. See <u>Database Statistics</u> for details.
- The Long-Term Archive widget—Helps you to estimate the capacity of the Long-Term Archive filebased storage. To modify its settings, including location and retention, click the link in this widget. See Long-Term Archive Capacity for details.
- The **Working Folder** widget—Helps you to estimate the capacity of the Netwrix Auditor working folder used to keep operational information (configuration files of the product components, log files, and other data) on the Netwrix Auditor Server. See <u>Netwrix Auditor Working Folder</u> for details.

Activity records by date Last activity record: 10/16/2019 8:33 PM	Ð	Monitoring overview	G	Health log Daily summary	Ŕ
120 0 10/0/2019 10/12/2019 10/14/2019 10/16/2019			ady attention e action	(342) 14	7 information 8 warning 7 error
View details		View details		Open health log	
Database statistics SQL Server instance: DEV021-2012R2	Ð	Long-Term Archive	Ð	Working folder	Ŕ
USED SPACE		USED SPACE	FREE SPACE	USED SPACE	FREE SPACE
1.2 GB		157.8 MB	55.5 GB	19.2 GB	55.5 GB
+ 0% day over day		- 2% day over day		+ 0% day over day	
View details		Open settings			

You can also instruct Netwrix Auditor to forward similar statistics as a health summary email to personnel in charge. For that, click **Notification settings**, then follow the steps described in the <u>Notifications</u> section. See also <u>Netwrix Auditor Health Summary Email</u>.

8.3.1. Activity Records Statistics

Aggregated statistics on the activity records is provided in the **Activity records by date** widget. The chart shows the number of activity records produced by your data sources, collected and saved by Netwrix Auditor during the last 7 days. This data can help you to assess the activity records generation intensity in your IT infrastructure, and product load.

After you click View details, the Activity Records Statistics window will be displayed.

Netwrix Auditor - STATIONSQL	2016			- 0	>
- Activity Record Home > Health Statu	rds Statistics s > Activity Records Statistics				
				Last 7 days	
Ionitoring plan	Data source	Last activity time	Records collected	Uploaded to database	
ctive Directory audit	Active Directory	4/25/2018 4:48 PM	244	244	
QL Server audit	SQL Server	4/25/2018 3:00 AM	48	48	
/indows Server audit	Windows Server	4/25/2018 5:00 PM	38	38	
				netwrb	x

By default, statistics on activity records processing is grouped by **Monitoring plan** and presented for the **Last 7 days**. To modify the timeframe, use the drop-down list in the upper right corner.

Other fields provide the following information: data source that produces activity records, with date and time of the last collected record, and the overall number of records collected and uploaded to the corresponding Audit database during the specified timeframe.

NOTE: If the data sources processed by a monitoring plan did not produce any activity records during the specified timeframe, this monitoring plan will not appear in the list.

8.3.2. Monitoring Overview

Aggregated statistics on the monitoring plans is provided in the **Monitoring overview** widget. It displays current statuses of all monitoring plans:

- **Ready (green indicator)**—The monitoring plans (one or several) successfully processed the data sources with all their items and are ready for the next run.
- Pay attention (yellow indicator)—The monitoring plans (one or several) require your attention, as some items were not processed completely but only partially. This status applies to the monitoring plans targeted at Logon Activity and Windows File Server. See the table below for details.
- Take action (red indicator)—Any data source or item in the monitoring plan (one or several) was processed with errors.

After you click **View details**, the **Monitoring Overview** window will be displayed.

Netwrix Auditor - STATIONSQL2016				- 0	×
Monitoring Overview Home > Health Status > Monitoring Overview		Enter your search			Q
∑ Filters Not set					
Monitoring plan \ Data source \ Item	Status		Last activity time		
Active Directory audit					
Active Directory	 Enabled 		4/23/2018 4:52:44 PM		
enterprise.local (Domain)	 Ready 				
🖌 💼 SQL Server audit					
✓ SQL Server	O Enabled		4/23/2018 5:00:08 PM		
StationSQL2016\SQLExpress2016 (SQL Server instance)	 Ready 				
StationWin12R2\SQLExpress2012 (SQL Server instance)	! Take action	Details			
🖌 🔚 Windows Server audit					
✓ Windows Server	O Enabled		4/23/2018 5:01:38 PM		
enterprise.local/Computers (AD container)	 Ready 				
				netwr	ix

It provides the hierarchical list of monitoring plans, processed data sources and corresponding items with their current status and date/time of the last data processing session. For data sources and items their current status is depicted as follows:

Entity	Status	Description
Data source Disabled Empty Enabled Not avail	Disabled	A data source can be disabled manually via its settings (by switching Monitor this data source and collect activity data to OFF), or automatically, if the license is not valid any more (for example, the count of licensed objects was exceeded, or the trial period has expired).
	Empty	No items have been added to this data source yet.
	Enabled	Monitor this data source and collect activity data is set to ON in the data source settings.
	Not available	The monitoring plan is corrupted and cannot process its data sources, so it is recommended to remove it and create anew.
	Not responding	Data collector for this data source is not

Entity	Status	Description
		responding. The underlying items will not be displayed for such data source.
	Working	The data source is being processed at the moment.
	(not displayed)	The data source status is unknown.
ltem	Pay attention	The item was processed with some issues (non- critical). This status applies to the monitoring plans targeted at Logon Activity and Windows File Server. It means that data collection from at least one entity completed with errors.
		For example, a MyFileServer item included in the File Server monitoring plan contains all CIFS shares hosted on the MyFileServer computer.
		If any of these shares was processed with errors while others were processed successfully, the processing of the whole MyFileServer item will be considered partially completed, and the monitoring plan will have a yellow indicator, requiring your attention.
		Click the Details link to examine the product log.
	Ready	The item was processed successfully and is ready for the next run of data collection.
	Take action	Critical error(s) occurred while processing this item.
		Click the Details link to examine the product log.
	Working	The item is being processed at the moment.

You can use the **Search** field, or apply a filter to display the information you need. For example, in the **Apply Filters** dialog you can select the **Show only plans with issues** to display only the monitoring plans that require attention and corrective actions.

This information will help you to troubleshoot the product operation, detect and eliminate the root cause of the monitoring errors, providing for auditing continuity and compliance.

8.3.3. Health Log

Daily summary of the Netwrix Auditor health log is displayed in the **Health log** widget. The chart shows how many events with different severity levels were written to the product health log in the last 24 hours. To open the health log, click the corresponding link.

See Inspect Events in Health Log for more information.

8.3.4. Database Statistics

Databases may tend to run out of free space due to poor capacity provisioning or to retention settings not configured properly. Use the **Database statistics** widget to examine database size and adjust retention accordingly. The widget displays the name of default SQL Server instance hosting all Netwrix Auditor databases, the overall database capacity at the moment and its change over the last day (24 hours).

NOTE: Transaction logs size is not included in the calculations.

After you click **View details**, the following information will be displayed for the specified SQL Server instance:

Database name Netwrix_Self_Audit Netwrix_OverviewReportsDB Netwrix_Auditor_VMware Netwrix_Auditor_SharePoint_Online Netwrix_Auditor_SharePoint Netwrix_Auditor_Monitoring_plan_WS Netwrix_Auditor_Monitoring_plan_UAVR	State OK OK OK OK OK OK OK OK OK OK OK	Size 108.0 MB 8.0 MB 103.2 MB 102.8 MB 103.2 MB 103.2 MB	Activity records 4502 15 199 52
Netwrix_OverviewReportsDB Netwrix_Auditor_VMware Netwrix_Auditor_SharePoint_Online Netwrix_Auditor_SharePoint Netwrix_Auditor_Monitoring_plan_WS	ок ок ок	8.0 MB 103.2 MB 102.8 MB	15 199
Netwrix_Auditor_VMware Netwrix_Auditor_SharePoint_Online Netwrix_Auditor_SharePoint Netwrix_Auditor_Monitoring_plan_WS	ок ок ок	103.2 MB 102.8 MB	199
Netwrix_Auditor_SharePoint_Online Netwrix_Auditor_SharePoint Netwrix_Auditor_Monitoring_plan_WS	ок ок	102.8 MB	199
Netwrix_Auditor_SharePoint Netwrix_Auditor_Monitoring_plan_WS	ок		
Netwrix_Auditor_Monitoring_plan_WS		103.2 MB	52
	ОК		
Netwrix Auditor Monitoring plan LIAVR		108.0 MB	356
netinity_addtor_intointoinitg_plan_oAvit	ОК	108.0 MB	2008
Netwrix_Auditor_Monitoring_plan_SQL	ОК	108.0 MB	229
Netwrix_Auditor_Monitoring_plan_NLA	ОК	108.0 MB	400
Netwrix_Auditor_Monitoring_plan_FS	ОК	108.0 MB	41
Netwrix_Auditor_Monitoring_plan_ADFS	ОК	108.0 MB	89
Netwrix_Auditor_Monitoring_plan_AD	ОК	308.0 MB	5
Netwrix_Auditor_EventLog	ок	8.0 MB	
Netwrix_Auditor_API	ок	8.0 MB	0
Netwrix_AlertsDB	ок	72.0 MB	

The **Database name** column contains the list of Netwrix Auditor databases hosted by the specified instance of the SQL Server:

- Special databases are created automatically on the default SQL Server instance to store:
 - alerts—*Netwrix_AlertsDB* database
 - activity records collected using Integration API—*Netwrix_Auditor_API* database
 - internal event records—*Netwrix_Auditor_EventLog* database
 - data collected by Netwrix Auditor self-audit—*Netwrix_Self_Audit* database
 - data needed for overview reports generation—*Netwrix_OverviewReportsDB*
- To store data from the data sources included in the monitoring plan, dedicated Audit databases are created and named by user (default name format is *Netwrix_Auditor_<monitoring_plan_name>*)

The following capacity metrics are displayed for each database:

- State—database state summary
- Size—current database size (logs are not included)
- Activity records—number of the activity records stored in the database at the moment

After you expand the database node, the detailed database properties will be shown:

SQL Server instance: Server 1-2012R2, Microsoft SQL Serv	er 2017 (RTM) - 14.0.1000.169 (X64)		
Database name	State	Size	Activity records
Netwrix_Self_Audit	ОК	108.0 MB	4502
Size limit: Unlimited State description: OK Monitoring plans:			
Netwrix_OverviewReportsDB	ОК	8.0 MB	
Netwrix_Auditor_VMware	ОК	103.2 MB	15
Netwrix_Auditor_SharePoint_Online	ОК	102.8 MB	199
Netwrix_Auditor_SharePoint	ОК	103.2 MB	52
Netwrix_Auditor_Monitoring_plan_WS	ОК	108.0 MB	356
Netwrix_Auditor_Monitoring_plan_UAVR	ОК	108.0 MB	2008
Netwrix_Auditor_Monitoring_plan_SQL	ОК	108.0 MB	229
Netwrix_Auditor_Monitoring_plan_NLA	ОК	108.0 MB	400
Netwrix_Auditor_Monitoring_plan_FS	ОК	108.0 MB	41
Netwrix_Auditor_Monitoring_plan_ADFS	ОК	108.0 MB	89
Netwrix_Auditor_Monitoring_plan_AD	ОК	308.0 MB	5

These properties are as follows:

Property	Possible Values	Description
Size limit	<size_limit></size_limit>	For SQL Server Express Edition–shows database size limitations

Property	Possible Values	Description
	Unlimited	
	ОК	Database is operating properly.
State description	Capacity error	Database is running low on disk space. -OR-
		Size limit for SQL Server Express Edition will be reached soon (threshold is 500 MB, i.e. 5% of 10 GB limit remaining).
	Failed to store data	Failed to store data to the database due to some issues.
	Unavailable	Failed to connect to the database.
	Upgrade in progress	Database is being upgraded.
Monitoring plans	<monitoring_plan></monitoring_plan>	All monitoring plans for which this database is a target.
		NOTE: Usually it is recommended to configure a dedicated database for each plan.

You can use the **Search** field, or apply a filter to display the information you need. For example, in the **Apply Filters** dialog you can select the **Show only plans with issues** to display only the monitoring plans that require attention and corrective actions.

This information will help you to troubleshoot the product operation, detect and eliminate the root cause of the monitoring errors, providing for auditing continuity and compliance.

8.3.5. Long-Term Archive Capacity

Long-Term Archive is a file-based storage where Netwrix Auditor saves the collected activity records. By default, it is located on the system drive at *%PROGRAMDATA%**Netwrix Auditor**Data* and keeps data for 120 months. You may want to modify these settings, for example, move the storage from the system drive to another location. The **Long-Term Archive** widget will help you to monitor the Long-Term Archive capacity. The widget displays the current size and daily increase of the Long-Term Archive, and the remaining free space on the target drive.

To open the Long-Term Archive settings, click the corresponding link. Then you will be able to adjust the settings as necessary.

See <u>Long-Term Archive</u> for more information.

8.3.6. Netwrix Auditor Working Folder

The working folder is a file-based storage that keeps operational information (configuration files of the product components, log files, and other data). Netwrix Auditor also caches some audit data in this folder for a short period (up to 30 days) prior to storing it to the Long-Term Archive or Audit database. By default, the working folder is located on the system drive at %*PROGRAMDATA*%*Netwrix Auditor*.

In busy environments and during activity peaks, working folder size may grow significantly. To track the working folder capacity, use the **Working Folder** widget.

NOTE: If you need to change the working folder location, follow the instructions provided in <u>this</u> <u>Knowledge Base article</u>.

8.4. Netwrix Auditor Health Summary Email

Netwrix Auditor Health Summary email includes all statistics on the product operations and health for the last 24 hours; it also notifies you about license status. By default, this email is generated daily at 7:00 AM and delivered to the recipient specified in the <u>Notifications</u> settings. Email content is very similar to data presented in the <u>Health Status</u> dashboard.

For greater usability, to depict overall product health state, the email includes a color indicator in the topmost section: green means Netwrix Auditor had no issues while auditing your IT infrastructure, and red means there were some problems that require your attention.

The email looks like shown below:

Netwrix Auditor Health Summary Generated on 4/20/2018 7:00 AM UTC+03:00 to notify you about audit status for the last 24 hours.		
Current State		
This is a trial version expiring in 11 days		
Several items need your attention.		
1 monitoring plan needs your attention		
6 errors reported in Netwrix Auditor health log		
See the sections below for details.		
Activity Records Statistics on activity records produced by your data sources, collected and saved by Netwrix Auditor in the last 24 hours.	-	
Last activity record collected on 4/18/2018 2:23:49 PM		
Collected: 2186		
Uploaded to database: 2186		
Monitoring Overview Latest status of the monitoring plans processing your data sources.		
1 Monitoring plan • Ready		
0 Monitoring plans • Pay attention		
1 Monitoring plan • Take action		
Monitoring plans with issues		
Monitoring plan\Data source\Item Status Last activity time		
File Server Monitoring		
File Servers 4/20/2018 6:53:03 AM StationWin10.enterprise.local (Computer) ! Take action		
Health Log Events written in the last 24 hours:		
56 Information		
2 Warning		
• 6 Error		
Capacity		
Examine database statistics and storage capacity.		
Netwrix Databases (SQL Server Instance: STATIONSQL\SQLEXPRESS2016)		
USED SPACE: 218.6 MB + 0% day over day		
Long-Term Archive (Path: C:\ProgramData\Netwrix Auditor\Data\)		
USED SPACE: 10.7 MB + 25% day over day		
FREE SPACE: 37.9 GB		
Working Folder		
USED SPACE 3.8 GB + 2% day over day		
FREE SPACE 37.9 GB		

NOTE: The **Monitoring Overview** section of the email provides detail information only for the monitoring plans with issues. Successfully completed monitoring plans are not included.

8.5. Troubleshooting

This section provides instructions on how to troubleshoot issues that you may encounter while using Netwrix Auditor.

Issue	Reason and solution
I cannot connect/logon to Netwrix Auditor.	 You may have insufficient permissions. Contact your Netwrix Auditor Global administrator to make sure that your account is delegated control of the product.
lssue	Reason and solution
--	---
	 You are trying to connect to a remote Netwrix Auditor Server specified by its IP address while the NTLM authentication is disabled. Try specifying a server by its name (e.g., EnterpriseWKS).
I do not receive any results while searching audit	1. No changes were detected.
data or generating reports, or I am sure that some data is missing.	2. You do not have sufficient permissions to review intelligence data. Contact your Global administrator.
	 Review your filter settings and make sure that your filters are properly configured. Try modifying your search.
	4. You are looking for changes that occurred more than 180 days ago. These changes are no longer available for reporting and running searches. Ask your Netwrix Auditor Global administrator to import audit data for a required date range from the Long-Term Archive.
	5. Data collection for this monitoring plan might not have been launched two times yet or there was no data collection after this change; therefore, audit data has not been written to the Audit Database yet.
	 Some settings in Netwrix Auditor are configured incorrectly. Contact your Netwrix Auditor administrator to make sure that:
	 The monitoring plan you want to audit is properly configured, and the monitoring is enabled for each data source individually.
	 Audit Database settings are properly configured for each data source individually and Disable security intelligence and make data available only in activity summaries is cleared.

Issue	Reason and solution
	NOTE: Netwrix recommends to store all audit data on the same default SQL Server instance.
"No plans found" text in the Monitoring plan field.	Contact your Netwrix Auditor Global administrator or Configurator to make sure that the monitoring plans exist and are properly configured.
I see a blank window instead of a report.	Contact your Netwrix Auditor Global administrator to make sure that you are granted sufficient permissions on the Report Server.
	To view reports in a web browser
	 Open a web browser and type the Report Manager URL (found under Settings→ Audit Database). In the page that opens, navigate to the report you want to generate and click the report name. You can modify the report filters and click View Report to apply them.
I configured report subscription to be uploaded to a file server, but cannot find it / cannot access it.	Subscriptions can be uploaded either to a file share (e.g., \\ <i>filestorage\reports</i>) or to a folder on the computer where Netwrix Auditor Server is installed. To access these reports, you must be granted the Read permission.
When trying to collect event data from Active Directory domain, an error message like this appears in Netwrix Health Log:	This may happen due to Secondary Logon Service disabled state. To collect event data from the domain, this service must be up and running.
Monitoring Plan: <monitoring_plan_name> The following error has occurred while processing '<item_name>': Error collecting the security log of the domain <domain_name>. Failed to process the domain controller <domain_controller_name> due to the following error: The service cannot be started, either because it is disabled or because it has no enabled devices associated with it.</domain_controller_name></domain_name></item_name></monitoring_plan_name>	Open its properties and start the service.

This chapter provides instructions on how to fine-tune Netwrix Auditor using the additional configuration options. Review the following for additional information:

- Exclude Objects From Auditing Scope
- Fine-tune Netwrix Auditor Using Registry Keys
- <u>Automate Sign-in to Netwrix Auditor Client</u>
- <u>Customize Branding</u>

9.1. Exclude Objects from Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the monitoring scope. This can be helpful if you want to reduce time required for the data collection, reduce the disk space, required to store the collected data and customize your reports and data searches.

To exclude data from the monitoring scope, perform the following procedures:

- Exclude Data from Active Directory Monitoring Scope
- Exclude Data from Azure AD Monitoring Scope
- Exclude Data from Exchange Monitoring Scope
- <u>Exclude Data from Exchange Online Monitoring Scope</u>
- <u>Fine-tune File Servers Monitoring Scope</u>
- Exclude Oracle Database Users from Monitoring Scope
- <u>Exclude Data from SharePoint Monitoring Scope</u>
- <u>Exclude Data from SharePoint Online Monitoring Scope</u>
- Exclude Data from SQL Server Monitoring Scope
- Exclude Data from VMware Monitoring Scope
- <u>Exclude Data from Windows Server Monitoring Scope</u>
- <u>Exclude Data from Event Log Monitoring Scope</u>
- Exclude Data from Group Policy Monitoring Scope
- Exclude Data from Inactive Users Monitoring Scope
- Exclude Data from Logon Activity Monitoring Scope
- <u>Exclude Data from Password Expiration Monitoring Scope</u>

9.1.1. Exclude Data from Active Directory Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Active Directory monitoring scope. Starting with version 9.96, you can apply restrictions to monitoring scope via the UI — see <u>Objects</u> for more information.

To exclude data from the Active Directory monitoring scope

- 1. Navigate to the *%Netwrix Auditor installation folder*%*Active Directory Auditing* folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported. For example, you can use * for a class name to specify an attribute for all classes.

File	Description	Syntax
addprops.txt	Contains a list of properties that should be included for	Object type:property:
	newly created AD objects.	For example, to show a group description on this group's creation, add
	When a new object is added, Netwrix Auditor does not show any data in the Details column in the Activity Summary emails. If you want to see the information on certain attributes of a newly created object, specify these attributes in this file.	the following line: group:description:
allowedpathlist.txt	Contains a list of AD paths to be included in Activity	Path
Summaries, reports, and search results.	Summaries, reports, and	NOTE: The path must be provided in the same format as it is displayed in the What column.
		For example, if you only want to monitor specific OU(s)
		in the AD domain, but not the entire domain. You can put a wildcard (*) in the <u>omitpathlist.txt</u> file to exclude all paths, and then specify the OU(s) you want to monitor in the

• Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
		allowedpathlist.txt file.
		NOTE: Adding the widlcard (*) to omitpathlist.txt will not allow Netwrix Auditor to run AD state- in-time data collection.
omitallowedpathlist.txt	Contains a list of AD paths to be excluded from Activity Summaries, reports, and search results. This file can be used if you want to exclude certain paths inside those specified in the <u>allowedpathlist.txt</u> file.	 Path NOTE: The path must be provided in the same format as it is displayed in the What column. For example, you can put a wildcard (*) in the <u>omitpathlist.txt</u> file to exclude all paths, then specify the OU(s) you want to monitor in the <u>allowedpathlist.txt</u> file, and then specify the paths you want to exclude from within them in the omitallowedpathlist.txt file. NOTE: Adding the widlcard (*) to omitpathlist.txt will not allow Netwrix Auditor to run AD state-in-time data collection.
omitobjlist.txt	Contains a list of object types	Object type
	to be excluded from Activity Summaries, reports, and search results.	For example, to omit changes to the printQueue object, add the following line:printQueue.
omitpathlist.txt	Contains a list of AD paths to	Path
	be excluded from Activity Summaries, reports, and search results.	NOTE: The path must be provided in the same format as it is displayed in the What column.
		For example, to exclude changes to the Service Desk OU, add the following line: *\Service Desk*.
omitproplist.txt	Contains a list of object types	object_type.property_name
	and properties to be excluded from Activity Summaries,	NOTE: If there is no separator (.)

File	Description	Syntax
	reports, and search results.	between an object type and a property, the whole entry is treated as an object type.
		For example to exclude the adminCount property from reports, add the following line: *.adminCount.
omitreporterrors.txt	Contains a list of errors to be	Error message text
	excluded from Netwrix Health Log. Thus, these errors will not appear in the Activity Summary emails.	For example, if you have advanced audit settings applied to your domain controllers policy, the following error will be returned in the Activity Summary emails:
		Auditing of Directory Service Access is not enabled for this DC. Adjust the audit policy settings using the Active Directory Audit Configuration Wizard or see the product documentation for more information.
		Add the text of this error message to this file to stop getting it in the Activity Summary emails.
omitsnapshotpathlist.txt	Contains a list of AD paths to be excluded from AD	Path
	snapshots.	NOTE: The path must be provided in the same format as it is displayed in the What column.
		For example, to exclude data on the Disabled Accounts OU from the Snapshot report, add the following line: *\Disabled Accounts*.
omitstorelist.txt	Contains a list of object types and properties to be excluded from AD snapshots.	object_type.property_name
		NOTE: If there is no separator (.) between an object type and a property, the whole entry is treated as an object type.

File	Description	Syntax
		For example to exclude data on the AD adminDescription property, add the following line: *.adminDescription.
omituserlist.txt	Contains a list of users you	domain\username
want to exclude from search results, reports and Activity Summaries.	<pre>For example, *\administrator.</pre>	
propnames.txt	Contains a list of human- readable names for object	classname.attrname= intelligiblename
	types and properties to be displayed in Activity	For example, if you want the
Summaries, reports, and	adminDescription property to be displayed in the reports as Admin	
	search results.	Screen Description, add the following
		line:*.adminDesciption=Admin Screen Description

9.1.2. Exclude Data from Azure AD Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Azure AD monitoring scope or modify the way it will be displayed.

To exclude data from the Azure AD monitoring scope

- 1. Navigate to the %*Netwrix Auditor installation folder*%\Azure AD Auditing folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omituserlist.txt	Contains a list of users you want to exclude from Azure AD search results, reports and Activity Summaries.	user@tenant.com
adomiteventuserlist.txt	Contains a list of users whose user names you want to exclude from Azure AD search results, reports and	user@tenant.com

File	Description	Syntax
	Activity Summaries. The rest of change details (action, object type, etc.) will be reported, but the Who value will be "system".	
exomiteventuserlist.txt	Contains a list of Exchange whose user names you want to exclude from Azure AD search results, reports and Activity Summaries. The rest of change details (action, object type, etc.) will be reported, but the Who value will be "system".	user@tenant.com
	NOTE: This list omits changes made by users through Exchange admin center.	
maapioperationtypes.txt	Contains an overall list of object types that will be displayed in	operation = object type
	search results, reports, and Activity Summaries for each particular operation.	For example: add owner to group = Group
	By default, the list contains mapping for the most frequent operations (e.g., add user, update policy, remove member). The rest will be reported with "Azure AD object" object type.	
omitproplist.txt	Contains a list of object classes and attributes to be excluded from Azure AD search results, reports and Activity Summaries.	classname.attrname
		NOTE: If there is no full stop, the entire line is considered a class name.
propnames.txt	Contains a list of human-readable	object=friendlyname
	names for object types and attributes to be displayed in search	object.property=friendlyname
	results, reports, and Activity	For example:
	Summaries.	*.PasswordChanged = Password Changed
proptypes.txt	Defines how values will be displayed in the Details columns in Azure AD	For example:

File	Description	Syntax
	search results, reports, and Activity Summaries.	*.Role.DisplayName = MultiValued

9.1.3. Exclude Data from Exchange Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Exchange monitoring scope. In addition, you can exclude data from non-owner access auditing.

- To exclude data from Exchange monitoring scope
- To exclude users or mailboxes from the Mailbox Access monitoring scope

To exclude data from Exchange monitoring scope

- 1. Navigate to the %*Netwrix Auditor installation folder*%*Active Directory Auditing* folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported. For example, you can use * for a class name to specify an attribute for all classes.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
aal_omitlist.txt	aal_omitlist.txt For Exchange 2010 and	cmdlet.attrname
	above, the file contains a list	For example:
	of changes performed by cmdlets. To exclude a	Set-User
	change from reports,	Set-ContactSet-Group
	specify name of a cmdlet and the attribute that is changed by the selected cmdlet.	#Update-AddressList
		Add- ADPermissionRemove- ADPermission
		#RBAC:
		*-MailboxAuditLogSearch
		*-AdminAuditLogSearch
aal_propnames.txt	For Exchange 2010 and above, the file contains a list of human-readable names	classname.attrname= intelligiblename
of changed attributes to be displayed in change reports.	For example:	
	*- OutlookAnywhere.SSLOffloading= Allow secure channel (SSL)	

File	Description	Syntax
	To exclude a change from the reports, specify name of a cmdlet and the attribute that is changed by the selected cmdlet.	offloading
omitobjlist_ecr.txt	Contains a list of human-	Classname
	readable names of object classes to be excluded from	For example:
	change reports.	exchangeAdminService
		msExchMessageDeliveryConfig
		Exchange_DSAccessDC
omitpathlist_ecr.txt	Contains a list of AD paths	Path
	to be excluded from change	For example:
	reports.	*\Microsoft Exchange System Objects\SystemMailbox*
omitproplist_ecr.txt	Contains a list of object types and properties to be excluded from change reports.	object_type.property_name
		NOTE: If there is no separator (.) between an object type and a property, the whole entry is treated as an object type.
		For example:
		msExchSystemMailbox.*
		*.msExchEdgeSyncCredential
		*.msExchMailboxMoveTargetMDBLink
		*.adminDescription
omitreporterrors_ecr.txt	Contains a list of errors to	Error message text
	be excluded from Activity Summaries.	For example, to omit the error "The HTTP service used by Public Folders is not available, possible causes are that Public stores are not mounted and the Information Store service is not running. ID no: c1030af3", add *c1030af3* to the file.
omitservers.txt	Specify Exchange servers that you want to exclude	Syntax: host name or FQDN of Exchange server

File	Description	Syntax
	from data collection and reporting.	Each entry must be a separate line. Wildcards (*) can be used to replace any number of characters. Use them to exclude multiple servers.
		Examples:
		exchangesrv01
		exch*.mydomain .local
omitstorelist_ecr.txt	tstorelist_ecr.txt Contains a list of classes and attributes names to be	object_type.property_name
	excluded from Exchange	NOTE: If there is no separator (.) between an object type and a property, the whole entry is treated as an object type.
		For example:
		Exchange_ Server.AdministrativeGroup
		Exchange_ Server.AdministrativeNote
		Exchange_Server.CreationTime
rea clas Exc	Contains a list of human- readable names for object classes and attributes of Exchange 2007 to be displayed in change reports.	classname.attrname= intelligiblename
		For example:
		msExchMDBAvailabilityGroup= Database Availability Group

To exclude users or mailboxes from the Mailbox Access monitoring scope

Netwrix Auditor allows specifying users and mailboxes that you do not want to monitor for non-owner mailbox access events. To do this, edit the **mailboxestoexclude.txt**, **userstoexclude.txt**, and **agentomitusers.txt** files.

- 1. Navigate to the *%Netwrix Auditor installation folder*%*Non-owner Mailbox Access Reporter for Exchange* folder.
- 2. Edit **mailboxestoexclude.txt**, **userstoexclude.txt**, or **agentomitusers.txt** files, based on the following guidelines:
 - Each entry must be a separate line.
 - Wildcards (* and ?) are supported.

- Lines that start with the # sign are treated as comments and are ignored.
- **NOTE:** You can also limit your reports by specific mailboxes. Edit the **mailboxestoinclude.txt** file to specify mailboxes.

File	Description	Syntax
mailboxestoexclude.txt	This file contains a list of mailboxes and folders that must be excluded	Each entry must be a separate line. Wildcards (*) can be used to replace any number of characters.
	from data collection.	 To exclude the certain user's mailbox, enter username@domainname, e.g.john.smith@acme.com
		 To exclude the certian folder, enter username@domainname/foldername, e.g. john.smith@acme.com/Drafts
		 Use *to exclude multiple mailboxes or folders, e.g. */foldername will exclude the specified folder when processing all mailboxes.
		Examples:
		admin@corp.com
		*/Drafts - exclude Drafts folder (for all mailboxes)
		/Testfolder/ - exclude subfolders of <i>Testfolder</i> (for all mailboxes)
mailboxestoinclude.txt	This file contains a list of mailboxes that must be	Specify email address to be included in the list as username@domainname.
	included when collecting data.	Example:analyst@enterprise.com
	NOTE: For the mailboxes added to this list, the reports will contain only non- owner access events.	
userstoexclude.txt	This file contains a list of users who must be excluded from reports if they perform non-owner	DOMAIN\username

File	Description	Syntax
	access attempt for mailboxes (audit data on these users will still be stored in the state-in-time snapshots).	
	NOTE: If a user is removed from this list, the information on this user's actions can be viewed with the Report Viewer.	
agentomitusers.txt	This file contains a list of users who must be excluded from reports and snapshots.	DOMAIN\username
	NOTE: If a user is removed from this list, audit data on this user will only be available after the next data collection. Writing new users to this file affects reports and snapshots only if Network traffic compression is enabled.	

9.1.4. Exclude Data from Exchange Online Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Exchange Online monitoring scope.

To exclude data from Exchange Online monitoring scope

- 1. Navigate to the *%Netwrix Auditor installation folder*%*Exchange Online Auditing* folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported. You can use * for cmdlets and their parameters.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omitlist.txt	The file contains a list of	cmdlet
	changes performed by	For example:
	cmdlets. To exclude a change from reports,	Enable-OrganizationCustomization
	search results and Activity	New-AdminAuditLogSearch
	Summaries, specify name of a cmdlet and the	New-MailboxAuditLogSearch
	attribute that is changed	cmdlet.param
	by the selected cmdlet.	For example:
		*.Identity
		*.DomainController
		*.Organization
		*.IgnoreDefaultScope
		*.Force
		*.Confirm
		*.Password
		*-ManagementRoleEntry.Parameters
		Remove-PublicFolder.Recurse
omitpathlist.txt	Contains a list of paths to	path
	be excluded from reports,	For example:
	search results and Activity Summaries.	SystemMailbox{*}
		<pre>DiscoverySearchMailbox{*}</pre>
		FederatedEmail.*
		NOTE: You can use a wildcard (*) to replace any number of characters in the path.

File	Description	Syntax
	names to be excluded from reports, search results and Activity Summaries.	For example: Enterprise\analyst email address For example:
		analyst@Enterprise.onmicrosoft.com
propnames.txt	Contains a list of human- readable names for object	<pre>cmdletobject=friendlyname cmdlet.param=friendlyname</pre>
	classes and their and their properties to be displayed in search results, reports	For example:
		RoleGroupMember = Role Group
	and Activity Summaries.	UMHuntGroup = Unified Messaging Hunt Group

9.1.5. Fine-tune File Servers Monitoring Scope

You can specify data that you want to include into / exclude from the Windows File Server, NetApp Filer, and EMC Storage monitoring scope. For that, you can configure monitoring scope in Netwrix Auditor client UI, as explained in the related section:

- Windows File Share
- <u>NetApp</u>
- EMC Isilon
- EMC VNX/VNXe/Celerra/Unity
- <u>Nutanix SMB Shares</u>

Besides, you can configure exclusions for file servers audit using the special txt files (omit lists), as explained below.

NOTE: Monitoring scope restrictions set up in the UI will apply together with the exclusion settings configured in the *.txt files.

To exclude data from file server monitoring scope

- 1. Navigate to the %Netwrix Auditor installation folder%\File Server Auditing folder.
- 2. Edit the *.txt files, based on the following guidelines:

- Each entry must be a separate line.
- Wildcards (*, ?) are supported. For example, you can use * for a class name to specify an attribute for all classes.
- Lines that start with the # sign are treated as comments and are ignored.
- A backslash (\) must be put in front of (*), (?) and (,) if they are a part of an entry value.

File	Description	Syntax
omitcollectlist.txt	Contains a list of objects to be excluded from being monitored.	<pre>monitoring plan name, server name, resource path NOTE: Wildcards are not supported for the Server Name field. To disable filtering for this field, specify an empty string. For example: *,,*\\System Volume Information*</pre>
omiterrors.txt	Contains a list of errors and warnings to be omitted from logging to the Netwrix Auditor System Health event log.	<pre>monitoring plan name,server name,error text For example: *,productionserver1.corp.local, *Access is denied*</pre>
omitreportlist.txt	Contains a list of objects to be excluded from reports and Activity Summary emails. In this case audit data is still being collected.	<pre>monitoring plan name, action, who, object type, resource path, property name NOTE: Wildcards are not supported for the action and property name fields. To disable filtering for these fields, specify an empty string. For example: *,,CORP\\jsmith,*,*,</pre>

File	Description	Syntax
omitstorelist.txt	Contains a list of objects to be excluded from being stored to the AuditArchiv e and showing up in reports. In this case audit data is still being collected.	<pre>monitoring plan name, action, who , object type, resource path, property name NOTE: Wildcards are not supported for the Change Type and Property Name fields. To disable filtering for these fields, specify an empty string. For example: *,,*,*,\\\\productionserver1.corp.local\\build s*, Attributes</pre>
omitstoreprocesslist.t xt	Contains a list of processes to be excluded from being stored to the AuditArchiv e and showing up in reports.	<pre>monitoring plan name, resource path, executable path NOTE: Only local applications can be excluded. For example: *,*,*notepad.exe</pre>

9.1.6. Exclude Oracle Database Users from Monitoring Scope

You can fine-tune Netwrix Auditor by specifying users that you want to exclude from the Oracle Database monitoring scope.

To exclude data from the Oracle Database monitoring scope

- 1. In Netwrix Auditor, navigate to your Oracle Database monitoring plan and click Edit.
- 2. In the right pane, select **Edit data source**.
- 3. Navigate to Users tab and click Add next to Exclude.

- 4. In the **Add User** dialog, type name of the user you want to exclude and select its type (OS user or Database user).
- 5. Click Add to exclude selected user from being monitored.

9.1.7. Exclude Data from SharePoint Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the SharePoint monitoring scope.

To exclude data from SharePoint monitoring scope

- 1. Navigate to the *%ProgramData%\Netwrix Auditor\Netwrix Auditor for SharePoint\Configuration* folder and locate your monitoring plan.
 - **NOTE:** If you have several monitoring plans for monitoring SharePoint farms, configure omitlists for each monitoring plan separately.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported, except for omiteventloglist.txt.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omiteventloglist.txt	Contains a list of event IDs to be excluded from the Netwrix Auditor	event ID
		For example:
	System Health event log.	1001
		NOTE: Only add known error or warning events, otherwise you may lose important data.
omitscreadaccesslist.txt	Contains a list of site collections for which the product will not monitor read access attempts.	http(s)://URL
		NOTE: Enter the root web site URLs.
		If you have alternate access mapping configured in your SharePoint farm, and one web application has different URLs for different zones, you can use any of these URLs to specify a child site collection.
		Few evenerales

For example:

File	Description	Syntax
		http://sharepointsrv:3333/
omitscstorelist.txt	Contains a list of site collections to be excluded	http(s)://URL
	from audit data collection.	NOTE: Enter the root web site URLs.
		If you have alternate access mapping configured in your SharePoint farm, and one web application has different URLs for different zones, you can use any of these URLs to specify a child site collection.
		For example:
		https://siteColl*
omitsitscstorelist.txt	Lists site collections to	http(s)://URL
	exclude from being monitored and reported	NOTE: Enter root web site URLs.
	in state-in-time report.	If you have alternate access mapping configured in your SharePoint farm, and one web application has different URLs for different zones, you can use any of these URLs to specify a child site collection.
		You can use a wildcard (*) to replace any number of characters.
		Examples:
		http://siteCollection1:3333/
		https://siteColl*
omitsitstorelist.txt	Contains SharePoint lists and list items that you	URI Reference
	want to exclude from being audited.	NOTE: URI Reference does not include site collection URL. For example, to exclude the list item with URL <i>http://sitecollection/list/document.docx</i> , specify only " <i>list/document.docx</i> " instead of full URL.
		Wildcard (*) is supported to replace any number of characters.

File	Description	Syntax
		Examples:
		*list/document.docx
		/_catalogs/
		*/_vti_inf.html
		/Style Library
		/SitePages
omituserviewstorelist.txt	Contains a list of user or	Login name
	service accounts to be excluded from read	For example:
	access monitoring.	SHAREPOINT\System
omitviewstorelist.txt	Contains lists and list items to be excluded from being monitored for read access.	URI Reference
		NOTE: Only specify URI reference to a list or list item without https:\\ <sitecollection_ name>part.</sitecollection_
		For example:
		*list/document.docx
omitwastorelist.txt	Contains a list of web applications to be	http(s)://URL
	excluded from audit data collection.	NOTE: Enter the root web site URLs. If you have alternate access mapping configured in your SharePoint farm, and one web application has different URLs for different zones, you can use any of these URLs.
		For example:
		http://webApplication1:3333/
		- <u>+</u> + - ·

9.1.8. Exclude Data from SharePoint Online Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the SharePoint Online monitoring scope.

To exclude data from SharePoint Online monitoring scope

1. Navigate to the *%ProgramData%\Netwrix Auditor\Netwrix Auditor for SharePoint Online\Configuration* folder and locate your monitoring plan.

NOTE: If you have several monitoring plans for monitoring SharePoint Online, configure omitlists for each monitoring plan separately.

- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported, except for **omiteventloglist.txt**.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Descriptio n	Syntax
omitstorelist.txt	Contains	https://URL
	a list URLs of	For example:
ShareF nt Onli object be exclud from audit o	SharePoi nt Online objects to be excluded	https://Corp.sharepoint.com/*
omiteventloglist.txt	Contains a list of event IDs to be excluded from the Netwrix Auditor System Health event log.	 event ID For example: 1001 NOTE: Only add known error or warning events, otherwise you may lose important data.
omitreadstorelist.txt	Contains	https://URL
	SharePoi nt Online	For example:
		https://Corp.sharepoint.com/*
		*list/document.docx

File	Descriptio n	Syntax
	documen ts, etc., to be excluded from being monitore d for read access.	
omituserreadstorelist .txt	Contains a list of user accounts to be excluded from read access monitorin g.	<pre>Provide user name in the UPN format. For example: account@example.*.com</pre>
OmitSitScStoreList.tx t	Contains a list of SharePoi nt Online site collection s to be excluded from state-in- time data collection.	Enter root web site URLs. For example: https://URL
OmitSitStoreList.txt	Contains SharePoi nt Online lists and list items to be excluded from	Enter URI (Unique resource identifier, or endpoint) reference. Note that URI Reference does not include site collection URL. For example, to exclude a list item with the <pre>https://sitecollection.sharepoint.com/list/docume nt.docx, URL, you should specify the corresponding endpoint (URI), i.e. list/document.docx.</pre>

File Descriptio Syntax n state-in-time data collection.

9.1.9. Exclude Data from SQL Server Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the SQL Server monitoring scope.

To exclude data from the SQL Server monitoring scope

- 1. Navigate to the %Netwrix Auditor install folder%\SQL Server Auditing folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omitarlist.txt	Lists activity records you want to exclude from showing up in reports, search, and activity summaries. NOTE: This .txt file has no effect on SQL logons monitoring. To exclude SQL logons from being monitored, use the <i>omitlogonlist.txt</i>	<pre>Monitoring plan name, SQL Server instance,object type, account,workstation,application name NOTE: Wildcard (*) is supported and can replace any number of characters. For the account, workstation, application name fields, you can specify a mixed expression that contains both a value and a wildcard (e.g., Admin*). For example: SQLPlan,Ent-SQL,Table,guest,WksSQL,MyInternalApp</pre>
omitlogonlist.tx t	Contains a list of logons to be excluded from being monitored.	monitoring plan name,SQL Server instance,logon type,account,workstation,application name

File	Description	Syntax
	Description	NOTE: For the account, workstation, application name fields, you can specify a mixed expression that contains both a value and a wildcard (e.g., Admin*).
		The following logon types are supported:
		 NtLogon —Successful logon attempt made through Windows authentication.
		 SqlLogon — Successful logon attempt made through SQL Server authentication.
		 NtFailedLogon — Failed logon attempt made through Windows authentication.
		• SqlFailedLogon — Failed logon attempt made through SQL Server authentication.
		For example:
		DB_M0,Ent- SQL,SQLFailedLogon,guest,WksSQL,MyInternalA pp
omitobjlist.txt	Contains a list of object	object_type_name
	types to be excluded from Activity	For example:
	Summaries and reports.	Database
r		Column
	NOTE: This .txt file has no effect on SQL logons monitoring. Use the omitlogonlist.tx t to exclude SQL logons from being monitored.	
omitpathlist.txt	Contains a list of resource paths to the objects to be excluded from Activity Summaries and	<pre>Server_instance:resource_path where resource_path is shown in the What column in the reports. For example, to exclude information about databases</pre>

File	Description	Syntax
	reports. In this case data is still being collected and saved to the AuditArchive.	whose names start with "tmp" on the SQL Server instance "PROD.SQL2012": PROD.SQL2012:Databases\tmp*.
omitproplist.txt	Contains a list of attributes to be excluded from being monitored and stored to the AuditArchive.	<pre>object_type_name.property_name.attribute_ name where: object_type_name—Can be found in the found in the Object Type column in change reports. property_name — Can be found in the Details column (property name is bold). attribute_name — Can be found in the Details column (attribute name is not bold). If an object does not have an attribute name, use the * character. For example to exclude information about the Size attribute of the Database File property in all databases: Database.Database File.Size.</pre>
omitstorelist.txt	Contains a list of objects you want to exclude from being stored to the AuditArchive. NOTE: This .txt file has no effect on SQL logons auditing. Use the omitlogonlist.tx t to exclude SQL logons from being audited.	<pre>server_instance.resource_path where resource_path is shown in the What column in the reports.</pre>
propnames.txt	Contains a list of human-readable names for object types	<pre>object_type_name.property_name=friendlyname For example: *.Date modified=Modification Time</pre>



and properties to be displayed in the change reports.

9.1.10. Exclude Data from VMware Monitoring Scope

You can fine-tune Netwrix Auditor by specifying various data types that you want to exclude/include from/in the VMware reports.

To exclude data from VMware monitoring scope

- 1. Navigate to the %*Netwrix Auditor installation folder%\VMware Auditing* folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported. For example, you can use * for a class name to specify an attribute for all classes.

•	Lines that start with the	e # sign are treate	ed as comments and	d are ignored.

File	Description	Syntax
omitproplist.txt	Contains a list of object types and properties to be	object_type.property_name
	excluded from change reports.	NOTE: If there is no separator (.) between an object type and aproperty, the whole entry is treated as an object type.
		For example, to exclude the config.flags.monitorType property from reports, add the following line: *.config.flags.monitorType.
types and prope excluded from th	Contains a list of object types and properties to be	<pre>object_type.property_name=property_ value:object_type.hidden_property</pre>
	excluded from the reports when the property is set to certain value.	For example, to exclude the config.cpuAllocation.shares.level property when it equals to "Low", add the following line: *.config.cpuAllocation.shares .level=low:
		*.config.cpuAllocation.shares.shares

File	Description	Syntax
proplist.txt	Ext Contains a list of human- readable names for object types and properties to be displayed in the reports.	<pre>inner_type:object_ type.property=intelligiblename NOTE: Inner_type is optional. For example, if you want the configStatus</pre>
		<pre>property to be displayed in the reports as Configuration Status, add the following line: *.configStatus=Configuration Status.</pre>
omitstorelist.txt	Contains a list of objects to be excluded from being	Monitoring plan name, who, where, object type, what, property name, property value
	saved to data storage and showing up in reports.	For example, to exclude internal logons:
	NOTE: Audit data will still	*,*,*,Logon,*,UserAgent,VMware vim- java*
	be collected.	NOTE: The following characters must be preceded with a backslash (\) if they are a part of an entry value:
		*
		/
		\setminus
		?
		NOTE: Characters may be also specified with hex value using <i>\xnnnn</i> template.
		TIP: The spaces are trimmed. If they are required, use hex notation. For example: Word\x0020 where \x0020 (with space at the end) means blank character.

9.1.11. Exclude Data from Windows Server Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Windows Server monitoring scope.

To exclude data from the Windows Server monitoring scope

- 1. Navigate to the *%Netwrix Auditor installation folder*%\Windows Server Auditing folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - Wildcards (* and ?) are supported. A backslash (\) must be put in front of (*), (?), (,), and (\) if they are a part of an entry value.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omitcollectlist.txt	and their properties to be	monitoring plan name,server name,class name,property name,property value
	excluded from being monitored.	NOTE: class name is a mandatory parameter, it cannot be replaced with a wildcard.
	NOTE: If you want to restart monitoring these objects,	property name and property value are optional, but cannot be replaced with wildcards either.
	remove them from	For example:
	the omitcollectlist.txt and run data collection at least twice.	<pre>#*,server,MicrosoftDNS_Server</pre>
		#*,*,StdServerRegProv
omiterrors.txt Contains a list of errors/warnings to be	monitoring plan name,server name,error text	
	omitted from logging to	For example:
the Netwrix Audi System Health ev	the Netwrix Auditor System Health event log.	*,productionserver1.corp.local,*Access is denied*
omitreportlist.txt	be excluded from reports and Activity Summary	<pre>monitoring plan name,who,where,object type,what,property name</pre>
		For example:
emails. In this cas data is still being o	data is still being collected.	*,CORP\\jsmith,*,*,*,*
omitsitcollectlist	Contains a list of objects to be excluded from State-in- time reports.	<pre>monitoring planname,server name,class name,property name,property value</pre>
	·	NOTE: class name is a mandatory parameter, it cannot be replaced with a wildcard. property name and property value

File	Description	Syntax
		are optional, but cannot be replaced with wildcards either.
		For example:
		*,server,MicrosoftDNS_Server
		,,StdServerRegProv
omitstorelist.txt	Contains a list of objects to be excluded from being stored to the AuditArchive and showing up in reports. In this case audit data is still being collected.	<pre>monitoring plan name,who,where,object type,what,property name For example: *,*,*,Scheduled task,Scheduled Tasks\\User_Feed_Synchronization*,*</pre>

9.1.12. Exclude Data from Event Log Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Event Log monitoring scope.

To exclude data from the Event Log monitoring scope

- 1. Navigate to the %Netwrix Auditor installation folder%\Event Log Management folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - Wildcards (* and ?) are supported.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
OmitErrorsList.txt	Contains a list of data collection errors and warnings to be excluded from the Netwrix Auditor System Health event log.	Error text
omitServerList.txt	Contains a list of server names or servers IP addresses to be excluded from processing.	ip address or server name For example: 192.168.3.*

9.1.13. Exclude Data from Group Policy Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Group Policy monitoring scope. To do it, edit the **omitobjlist_gp.txt**, **omitproplist_gp.txt** and **omituserlist_gp.txt** files.

To exclude data from the Group Policy monitoring scope

- 1. Navigate to the %Netwrix Auditor installation folder%\Active Directory Auditing folder.
- 2. Edit **omitobjlist_gp.txt**, **omitproplist_gp.txt** and **omituserlist_gp.txt** files, based on the following guidelines:
 - Each entry must be a separate line.
 - A wildcard (*) is supported and can be used to replace any number of characters.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omitobjlist_gp.txt	omitobjlist_gp.txt The file contains a list of the Group Policy Object (GPO) names to be excluded from change reports.	<object name=""></object>
		For example, to exclude changes to the Default Domain Policy GPO, add the following line: Default Domain Policy.
omitproplist_gp.txt The file contains a list of the	The file contains a list of the	<settingname></settingname>
	Group Policy Object settings to be excluded from change reports.	For example, to exclude data on changes made to the Maximum password length setting, add the following line: Maximum password length.
omituserlist_gp	The file contains a list of user names to be excluded from change reports.	<domain\user> For example, to exclude changes made by the user "usertest" in the domain "domaintest", add the following line: domaintest\usertest.</domain\user>

9.1.14. Exclude Data from Inactive Users Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Inactive User monitoring scope.

To exclude data from the Inactive Users monitoring scope

- 1. Navigate to the %ProgramData%\Netwrix Auditor\Inactive Users Tracker folder.
- 2. Edit the *.txt files, based on the following guidelines:
 - Each entry must be a separate line.
 - Wildcards (* and ?) are supported.
 - Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
filter.txt	Contains a list of accounts to be excluded from processing.	Username
omitdclist.txt	Contains a list of domain controllers to be excluded from processing.	Full DNS name or NetBIOS name NOTE: IP addresses are not supported.
	Netwrix Auditor skips all automated deactivation actions for inactive accounts (disable, move, delete) even if one domain controller is unavailable during scheduled task execution. Add the unavailable domain controllers to this file to ensure Netwrix Auditor functions properly.	
omitoulist.txt	Contains a list of organizational units to be excluded from processing.	Path For example: *OU=C,OU=B,OU=A*

9.1.15. Exclude Data from Logon Activity Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from the Logon Activity monitoring scope.

To exclude data from the Logon Activity monitoring scope

- 1. Navigate to %*ProgramData*%*Netwrix Auditor**NLA**Settings*\ folder and locate your monitoring plan.
 - **NOTE:** If you have several monitoring plans for monitoring Logon Activity, configure omitlist for each monitoring plan separately.

- 2. Edit the **Settings.cfg** file based on the following guidelines:
 - Each entry must be a separate line.
 - Wildcards (* and ?) are supported. A backslash (\) must be put in front of (*) and (?) if they are a part of an entry value.
 - Lines that start with <!-- are treated as comments and are ignored.

Configuration String	Description	Syntax
<n n="DCOmitList"></n 	Contains a list of DCs to be excluded from being monitored.	DC_name For example: <v v="*ROOTDC1*"></v>
<n n="Hubs"></n>	Determines whether to enable network traffic compression for a Domain Controller or not. NOTE: If configured, overrides the Enable network traffic compressio n option in monitoring plan configuratio n.	<pre><n n="localhost"> <v v="DomainControllerNameInFQDNFormat1"></v> <v v="DomainControllerNameInFQDNFormat2"></v> </n> </pre>
<n n="UserOmitList"> </n 	Contains a list of users to be excluded from being monitored. Allows specifying a user by name.	User name For example: <v v="*NT AUTHORITY*"></v>
	Contains a list of users to be excluded from	User SID For example:

Configuration String	Description	Syntax
	being monitored. Allows specifying a user by security identifier (SID).	-877415012-318292XXXX-XXX*"/>

NOTE: The file must be formatted in accordance with XML standard. The following symbols must be replaced with corresponding XML entities: **&** (ampersand), " (double quotes), ' (single quotes), < (less than), and > (greater than) symbols.

Symbol	XML entity
&	&
e.g., Ally & Sons	e.g., Ally & Sons
п	"
e.g., Domain1\Users\"Stars"	e.g., Domain1\Users\ " Stars "
1	'
e.g., Domain1\Users\O'Hara	e.g., Domain1\Users\O ' Hara
<	<
e.g., CompanyDC<100	e.g., CompanyDC < 100
>	>
e.g., ID>500	e.g., ID > 500

9.1.16. Exclude Data from Password Expiration Monitoring Scope

You can fine-tune Netwrix Auditor by specifying data that you want to exclude from monitoring and alerting on password expiration.

To exclude data from the Password Expiration Alerting monitoring scope

- 1. Navigate to the *%Netwrix Auditor install folder*%*Password Expiration Alerting* folder.
- 2. Edit the **omitoulist.txt** file, based on the following guidelines:

- Each entry must be a separate line.
- A wildcard (*) is supported.
- Lines that start with the # sign are treated as comments and are ignored.

File	Description	Syntax
omitoulist.txt	Contains a list of	Path
	organizational units to be excluded from processing.	For example:
		OU=C,OU=B,OU=A

9.2. Fine-tune Netwrix Auditor with Registry Keys

You can fine-tune Netwrix Auditor using the registry keys as described below. This functionality is currently available for the following data sources:

- <u>Registry Keys for Monitoring Active Directory</u>
- <u>Registry Keys for Monitoring Exchange</u>
- Registry Keys for Monitoring Event Log
- <u>Registry Keys for Monitoring Group Policy</u>
- <u>Registry Keys for Monitoring Password Expiration</u>
- Registry Keys for Monitoring Inactive Users
- <u>Registry Keys for Monitoring Logon Activity</u>

9.2.1. Registry Keys for Monitoring Active Directory

Review the basic registry keys that you may need to configure for monitoring Active Directory with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type *"regedit"*.

Registry key (REG_DWORD type)	Description / Value	
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\AD Change Reporter		
CleanAutoBackupLogs	 Defines the retention period for the security log backups: 0—Backups are never deleted from Domain controllers [X]— Backups are deleted after [X] hours 	
IgnoreAuditCheckResultError	Defines whether audit check errors should be displayed in the Activity Summary footer:	

Registry key (REG_DWORD type)	Description / Value
	• 0—Display errors
	• 1—Do not display errors
IgnoreRootDCErrors	Defines whether to display audit check errors for the root domain (when data is collected from a child domain) in the Activity Summary footer:
	• 0—Display errors
	• 1—Do not display errors
LogonResolveOptions	Defines what will be shown in the Workstation field:
	• 2—MAC address
	• 4—FQDN or IP address (set by default)
	• 6—Both
MonitorModifiedAndRevertedBack	Defines whether the Activity Summary must display the attributes whose values were modified and then restored between data collections:
	• 0—These attributes are not displayed
	 1—These attributes are displayed as "modified and reverted back"
ShortEmailSubjects	Defines whether to contract the email subjects:
	• 0—No
	• 1—Yes
ProcessBackupLogs	Defines whether to process security log backups:
	• 0—No
	• 1—Yes
	NOTE: Even if this key is set to "0", the security log backups wil not be deleted regardless of the value of the CleanAutoBackupLogs key.

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\AD Change Reporter\<monitoring plan name>

CollectLogsMaxThreads

Defines the number of Domain Controllers to simultaneously start log collection on.

Registry key (REG_DWORD type) Description / Value

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\Management Console\Database settings

SqlOperationTimeout	Defines the timeout for executing SQL queries such as data selection, insertion or deletion (in seconds).
timeout	Defines the Audit Database connection timeout (in seconds).

9.2.2. Registry Keys for Monitoring Exchange

Review the basic registry keys that you may need to configure for monitoring Exchange with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type *"regedit"*.

Registry key (REG_DWORD type)	Description / Value
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\AD Change Reporter	
CleanAutoBackupLogs	 Defines the retention period for the security log backups: 0—Backups are never deleted from Domain controllers [X]— Backups are deleted after [X] hours
IgnoreAuditCheckResultError	Defines whether audit check errors should be displayed in the Activity Summary footer:
	• 0—Display errors
	• 1—Do not display errors
IgnoreRootDCErrors	Defines whether to display audit check errors for the root domain (when data is collected from a child domain) in the Activity Summary footer:
	• 0—Display errors
	• 1—Do not display errors
LogonResolveOptions	 Defines what will be shown in the Workstation field: 2—MAC address 4—FQDN or IP address (set by default) 6—Both
ShortEmailSubjects	Defines whether to contract the email subjects (e.g., Netwrix Auditor: Activity Summary):
Registry key (REG_DWORD type)	Description / Value
-------------------------------	---
	• 0—No
	• 1—Yes
ProcessBackupLogs	Defines whether to process security log backups:
	• 0—No
	• 1—Yes
	NOTE: Even if this key is set to "0", the security log backups wil not be deleted regardless of the value of the CleanAutoBackupLogs key.
ShowReportFooter	Defines whether to display the footer in the Activity Summary email:
	• 0—No
	• 1—Yes
ShowReportGeneratorServer	Defines whether to display the report generation server in the Activity Summary footer:
	• 0—No
	• 1—Yes
ShowSummaryInFooter	Defines whether to display the summary in the Activity Summary footer:
	• 0—No
	• 1—Yes
ShowSummaryInHeader	Defines whether to display the summary in the Activity Summary header:
	• 0—No
	• 1—Yes

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\AD Change Reporter\<monitoring plan name>

CollectLogsMaxThreads	Defines the number of Domain Controllers to simultaneously
	start log collection on.

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\Management Console\Database settings

Registry key (REG_DWORD type)	Description / Value
overwrite_datasource	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 monitoring plan:
	• 0—No
	• 1—Yes
SqlOperationTimeout	Defines the timeout for executing SQL queries such as data selection, insertion or deletion (in seconds).
timeout	Defines the Audit Database connection timeout (in seconds).

9.2.3. Registry Keys for Monitoring Event Log

Review the basic registry keys that you may need to configure for monitoring event logs with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type *"regedit"*.

Registry key (REG_DWORD type)	Description / Value		
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432NODE\Netwrix Auditor\Event Log Manager\ <monitoring name="" plan="">\Database Settings</monitoring>			
ConnectionTimeout	Defines SQL database connection timeout (in seconds).		
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432NODE\Netwrix Auditor\Event Log Manager\ <monitoring name="" plan="">\ElmDbOptions</monitoring>			
BatchTimeOut	Defines batch writing timeout (in seconds).		
DeadLockErrorCount	Defines the number of write attempts to a SQL database.		
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432NODE\Netwrix Auditor\Event Log Manager			
CleanAutoBackupLogs	Defines the retention period for the security log backups:		
	O—Backups are never deleted from Domain controllers		
	• [X]— Backups are deleted after [X] hours		
ProcessBackupLogs	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

Registry key (REG_DWORD type)	Description / Value
	not be deleted regardless of the value of the CleanAutoBackupLogs key.
WriteAgentsToApplicationLog	Defines whether to write the events produced by the Netwrix Auditor Event Log Compression Service to the Application Log of a monitored machine:
	• 0—Disabled
	• 1—Enabled
WriteToApplicationLog	Defines whether to write events produced by Netwrix Auditor to the Application Log of the machine where the product is installed:
	• 0—No
	• 1—Yes

9.2.4. Registry Keys for Monitoring Group Policy

Review the basic registry keys that you may need to configure for monitoring Group Policy with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type *"regedit"*.

Registry key (REG_DWORD type)	Description / Value	
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\AD Change Reporter		
CleanAutoBackupLogs	 Defines the retention period for the security log backups: 0—Backups are never deleted from Domain controllers [X]— Backups are deleted after [X] hours 	
GPOBackup	 Defines whether to backup GPOs during data collection: 0—No 1—Yes 	
GPOBackupDays	 Defines the backup frequency: 0—Backup always X—Once in X days NOTE: GPOBackup must be set to "1".	
IgnoreAuditCheckResultError	Defines whether audit check errors should be displayed in the Activity Summary footer:	

Registry key (REG_DWORD type)	Description / Value
	• 0—Display errors
	• 1—Do not display errors
IgnoreRootDCErrors	Defines whether to display audit check errors for the root domain (when data is collected from a child domain) in the Activity Summary footer:
	• 0—Display errors
	• 1—Do not display errors
LogonResolveOptions	Defines what will be shown in the Workstation field:
	• 2—MAC address
	• 4—FQDN or IP address (set by default)
	• 6—Both
ShortEmailSubjects	Defines whether to contract the email subjects (e.g., Netwrix Group Policy Change Reporter: Summary Report – GPCR Report):
	• 0—No
	• 1—Yes
ProcessBackupLogs	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.
ShowReportFooter	Defines whether to display the footer in the Activity Summary email:
	• 0—No
	• 1—Yes
ShowReportGeneratorServer	Defines whether to display the report generation server in the Activity Summary footer:
	• 0—No
	• 1—Yes

Registry key (REG_DWORD type)	Description / Value		
ShowSummaryInFooter	Defines whether to display the summary in the Activity Summary footer:		
	• 0—No		
	• 1—Yes		
ShowSummaryInHeader	Defines whether to display the summary in the Activity Summary header:		
	• 0—No		
	• 1—Yes		
HKEY_LOCAL_MACHINE\SOFTWA Reporter\ <monitoring nar<="" plan="" td=""><td>ARE\WOW6432Node\Netwrix Auditor\AD Change ne></td></monitoring>	ARE\WOW6432Node\Netwrix Auditor\AD Change ne>		
CollectLogsMaxThreads	Threads Defines the number of Domain Controllers to simultaneously start log collection on.		
HKEY_ LOCAL_ MACHINE\SOF Reporter\ <monitoring nar<="" plan="" td=""><td>TWARE\WOW6432Node\Netwrix Auditor\ AD Change me>\Database settings</td></monitoring>	TWARE\WOW6432Node\Netwrix Auditor\ AD Change me>\Database settings		
SessionImportDays	Defines the frequency of a full snapshot upload:		
• X—Once in X days			
HKEY_LOCAL_MACHINE\SOFTWA Console\Database settings	ARE\WOW6432Node\Netwrix Auditor\Management		
overwrite_datasource	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 monitoring plan:		
	• 0—No		
	• 1—Yes		
SqlOperationTimeout	Defines the timeout for executing SQL queries such as data selection, insertion or deletion (in seconds).		
imeout Defines the Audit Database connection timeout (in seconds).			

9.2.5. Registry Keys for Monitoring Password Expiration

Review the basic registry keys that you may need to configure for monitoring expiring passwords within your Active Directory domain with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type "*regedit*".

Registry key (REG_DWORD type) Description / Value

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\Password Expiration Notifier

HideEmailAdditionalInfo	Defines whether to show or hide the header and footer in emails
	sent to users and their managers (emails sent to administrators
	always have default header and footer):

- 0—Show
- Any other number—Hide

9.2.6. Registry Keys for Monitoring Inactive Users

Review the basic registry keys that you may need to configure for monitoring inactive users within your Active Directory domain with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type "*regedit*".

Registry key (REG_DWORD type)	Description / Value	
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Netwrix Auditor\Inactive Users Tracker		
HideEmailAdditionalInfo	Defines whether to show or hide the header and footer in emails sent to managers (emails sent to administrators always have default header and footer):	
	• 0—Show	
	Any other number—Hide	
RandomPasswordLength	Defines the length of a random password to be set for inactive user.	
WriteEventLog	Defines whether to write events to the Application Log:	
	• 0—No	
	• 1—Yes	

9.2.7. Registry Keys for Monitoring Logon Activity

Review the basic registry keys that you may need to configure for monitoring Logon Activity with Netwrix Auditor. Navigate to **Start** \rightarrow **Run** and type "*regedit*".

Registry key (REG_DWORD type) Description / Value

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432NODE\Netwrix Auditor\Logon Activity Auditing

ProcessBackupLogs

Defines whether to process security log backups:

- 0—No
- 1—Yes

9.3. Automate Sign-in to Netwrix Auditor Client

When you launch Netwrix Auditor client installed on the same machine as Netwrix Auditor server, connection to that server is established automatically using your current account. However, if you want to connect to Netwrix Auditor Server installed on another computer, you will be prompted to specify connection parameters: server name and user credentials.

To automate the sign-in process, users who need to frequently connect to different Netwrix Auditor Servers (for example, Managed Service Providers) may configure the product shortcut: when you click the shortcut, Netwrix Auditor client will display the sign-in window with pre-populated server name and user name. You will only have to enter password.

To create a shortcut for automated sign-in:

- 1. Navigate to the Netwrix Auditor client installation directory and locate the **AuditIntelligence.exe** file (default location is *C:\Program Files (x86)\Netwrix Auditor\Audit Intelligence\AuditIntelligence.exe*).
- 2. Create a shortcut for this executable file.
- 3. Right-click the created shortcut and select Properties.
- 4. In the **Target** field, a path to the executable file will be shown. Add the following parameters to the end:

```
/s:server name /u:user name /specify creds
```

where:

- server name—your Netwrix Auditor Server name or IP address.
- user name— Netwrix Auditor user who will log in.

Example:

```
"C:\Program Files (x86)\Netwrix Auditor\Audit Intelligence\Audit
Intelligence.exe" /s:host.corp.local /u:corp\analyst /specify creds
```

5. Click Apply.

You can create as many shortcuts with different parameters as needed.

9.4. Customize Branding

Netwrix Auditor allows customizing look and feel of your reports, search subscriptions and exported search results—you can skip Netwrix logo, add your company logo and title. Nonetheless, users are not empowered to customize layout or color scheme.

Review the following for additional information:

- <u>Customize Branding in AuditIntelligence Outputs</u>
- <u>Customize Branding in Reports</u>

9.4.1. Customize Branding in AuditIntelligence Outputs

You can customize branding for the following AuditIntelligence outputs:

- Search results delivered as pdf file in the search subscription email;
- Search results exported to pdf file;
- Risk Assessment dashboard exported to pdf file;
- Risk Assessment dashboard delivered in the subscription email;
- Overview dashboard exported to pdf file;
- Overview dashboard delivered in the subscription email.

Rebranding limitations and requirements to logo file

- 1. Make sure you have full Netwrix Auditor installation: Netwrix Auditor Server and Client to enable rebranding.
- Since Netwrix applies company's logo as is, keep in mind reasonable limitations of your logo dimensions. You can find examples of appropriate logo files in the rebranding archive (file Logo.png). Re-size your logo and verify that subscriptions emails and pdf files look fine after rebranding.
- 3. Only PNG images can be used as logo files.
- 4. Endure that image file is located in the default directory or custom folder. Consider the following:
 - For subscription emails, just put the logo file to %ALLUSERSPROFILE%\Netwrix Auditor\Branding\ and run the script to update email look and feel.
 - For exported pdf files, make sure that the logo file is located in the default directory for each user that is going to work with exported search results, Risk Assessment and Overview dashboards. Otherwise, specify custom path to logo file. Default path to logo for exported files is *%LOCALAPPDATA%\Netwrix Auditor\Audit Intelligence\Resources*.

To customize branding

 On the computer where the Netwrix Auditor Server is installed, navigate to %ALLUSERSPROFILE%\Netwrix Auditor\ and locate the Rebranding.zip package.

- 2. Unzip the package to any folder on the computer where Netwrix Auditor Server is installed.
- 3. Run SearchRebranding.ps1 considering the following:
 - Use default paths to logo files—Run the script and type your company name as the <code>report_title</code>.
 - Use custom paths to logo files—run the script as follows:

```
SearchRebranding.ps1 - subscriptions_logo_path <custom_path> - export_
logo_path <custom_path>
```

- 4. Generate any test subscription email or export a dashboard to pdf file to verify that rebranding applied.
 - **NOTE:** To restore original look and feel, run the script and replace"*True*" with "*False*" in the "*enabled*" section.

9.4.2. Customize Branding in Reports

By default, Netwrix Auditor reports look as follows:

🦻 Netwrix Auditor		Friday, September 23	Friday, September 23, 2016 9:18 AM		
All Logon Activity Shows interactive and non-interactive logons, including failed logon attempts. Use this report to analyze user activity and validate compliance.					
			Value		
	Action	Logon Type	What	Who	When
•	Failed Logon	Non-Interactive	N/A	Enterprise\Administrator	3/16/2016 12:00:10 AM
	Where:	enterprisedc.e	nterprise.local		
	Workstation:	stationwin12r2	2.enterprise.local		
	Cause: The clock skew is too great: the workstation's clock too far out of sync with the DC's. This entry represents 2 matching events occurring within 10 seconds.				
_	This entry rep	resents 2 matching	events occurring within 1	u seconas.	
•	Failed Logon	Non-Interactive	N/A	Enterprise\Administrator	3/16/2016 12:00:10 AM
	Where:	enterprisedc.e	nterprise.local		
	Workstation: stationwin12r2.enterprise.local				
		2		too far out of sync with the DC's.	
_	This entry rep	resents 2 matching	events occurring within 1	0 seconds.	
ſ	etwrix	K All Log	on Activity		1 of 1

Report branding is customized on Netwrix Auditor Server side that means that all clients connected to this server will have the same look and feel for reports.

To customize branding

- 1. On the computer where Netwrix Auditor Server resides, navigate to C:\Program Data\Netwrix Auditor\Rebranding.
- 2. Right-click the Rebranding.ps1 script and select Edit. Windows PowerShell ISE will start.

3. Review the script and provide parameters.

Parameter	Description	
UseIntegratedSecurity	Defines whether to use Windows Authentication when connecting to SQL Server instance. Enabled by default.	
UserName	Defines a username used to connect to SQL Server instance in case of SQL Server Authentication. Leave blank if you use Windows Authentication.	
Password	Defines a password used to connect to SQL Server instance in case of SQL Server Authentication. Leave blank if you use Windows Authentication.	
SQLServerInstance	Defines a SQL Server instance where your Audit Database resides. By default, local unnamed instance is selected.	
DBName	By default, the database responsible for Netwrix Auditor look and feel is Netwrix_CommonDB . If you renamed this database, provide a new name.	
HeaderImageFullPath	Defines a full path to the png image with the new report header (product logo). Supported size: 21x21px (WxH).	
FooterImageFullPath	Defines a full path to the png image with the new report footer (logo). Supported size: 105x22px (WxH).	
HeaderText	Defines text in the report header. Max length: 21 characters.	
FooterURL	Defines URL that opens on clicking the report logo in the footer.	

4. Click (Run Script). The user who runs the script is granted the db_owner role on the Netwrix_ CommonDB database.

After running the script, start the Netwrix Auditor client and generate a report. The branding will be updated.

9. Additional Configuration

My Co	mpany		Friday, September 23	, 2016 9:18 AM
All Log	gon Ac	tivity		
	tive and non-ir nd validate con		ding failed logon attempts. Use this re	port to analyze
🕀 Filter		Value		
Action	Logon Type	What	Who	When
Failed Logon	Non-Interactive	N/A	Enterprise\Administrator	3/16/2016 12:00:10 AM
Where:	enterprisedc.e	nterprise.local		
Workstation:	stationwin12r2	.enterprise.local		
	-	t: the workstation's clock too f		
This entry rep	resents 2 matching	events occurring within 10 sec	conds.	
Failed Logon	Non-Interactive	N/A	Enterprise\Administrator	3/16/2016 12:00:10 AM
Where:	enterprisedc.e	nterprise.local		
Workstation:	stationwin12r2	enterprise.local		
	-	t: the workstation's clock too f		
This entry rep	resents 2 matching	events occurring within 10 sec	conds.	
	_			
	All Log	on Activity		1 of 1

To restore original look and feel

- 1. On the computer where Netwrix Auditor Server resides, navigate to the script location.
- 2. Right-click a script and select Edit. Windows PowerShell ISE will start.
- 3. Run the script as it is. The user who runs the script must be granted the **db_owner** role on the **Common_DB** database in a local unnamed SQL Server configured as default for Netwrix Auditor.

10. Address Specific Tasks with Netwrix Auditor Tools

10. Address Specific Tasks with Netwrix Auditor Tools

10.1. Audit Configuration Assistant

Netwrix Auditor **Audit Configuration Assistant** utility helps you to assess your environment readiness to being monitored with Netwrix Auditor and automatically adjust the audit settings with the requirements.

It checks current settings of your Active Directory and Group Policies against those required for monitoring of selected data sources: Group Policy settings, auditing entries for directory partitions, and admin audit log settings of Exchange server. Assessment results are reported on the screen and can be downloaded as a PDF file.

You can instruct the utility to automatically apply the required settings.

NOTE: For that, you should ensure that the account you plan to use for accessing the target domain has the necessary rights.

Audit Configuration Assistant is a part of Netwrix Auditor product setup. It is installed together with Netwrix Auditor client and can be launched from the Start menu \rightarrow Netwrix Auditor \rightarrow Netwrix Auditor Audit Configuration Assistant. Alternatively, you can launch this utility from the monitoring plan wizard for Active Directory data source. See the Launch Audit Configuration Assistant section for details.

NOTE: Currently, the utility supports Active Directory and Logon Activity data sources.

10.1.1. Prerequisites

When working with the utility, you will need to provide an account with the rights required to access the AD audit entries and other settings. Thus, the account should be a member of the following groups:

- Domain Admins to access audit policies and audit entries on the domain controllers
- Enterprise Admins to configure audit entries for AD partitions
- Organization Management or Records Management (in Exchange organization) to configure admin audit log settings

You can create a dedicated account for the assessment purposes, include it in these groups for the assessment period, and after finishing, remove it from these privileged groups.

10.1.2. Usage

To assess and adjust the audit settings with Audit Configuration Assistant, take the following steps:

- 1. Launch Audit Configuration Assistant
- 2. <u>Start Assessment</u>
- 3. View Results
- 4. <u>Complete the process</u>

10.1.3. Launch Audit Configuration Assistant

Audit Configuration Assistant is a part of Netwrix Auditor product setup. It is installed together with Netwrix Auditor client and can be launched from the **Start** menu.

Select Netwrix Auditor →Netwrix Auditor Audit Configuration Assistant.

- If the utility is installed on the same machine as Netwrix Auditor server, you will be taken to the **Welcome** step.
- If the utility is installed on the remote machine together with Netwrix Auditor client, the initial window will allow you to enter the settings to connect to Netwrix Auditor Server. Specify the following:

Setting	Description
Host	Enter the name or IP address of Netwrix Auditor Server to connect to.
Use specified credentials	If not selected, then your current Windows credentials will be used to access Netwrix Auditor Server.
	Select this option if you want to use other credentials
User	Enter user account in the <i>domain\name</i> format.
Password	Enter account password.

After you click **Connect**, the connection with Netwrix Auditor Server will be established, and you will be taken to the **Welcome** step.

Alternatively, you can launch this utility by clicking the corresponding link:

- From the first step of the Monitoring Plan wizard for Active Directory data source.
- From the <u>Active Directory data source properties</u> within the plan.
- From the Logon Activity data source properties.

See next:

Start Assessment

10.1.4. Start Assessment

At this step, do the following:

1. Specify the monitoring scope —select what you plan to monitor with Netwrix Auditor. You can select both **Active Directory** and **Logon Activity**, or any of them.

Netwrix Auditor Audit Configuration Assistant	-		×
Assess your environment readiness for being monitored with Netwrix Auditor			
Specify your monitoring scope:			
Active Directory			
Logon Activity			
Active Directory domain:			
enterprise.local			
User name:			
enterprise\administrator			
Password:			
•••••			
Make sure the account is included in the following groups:			
 Domain Admins - to configure audit policies and audit entries Enterprise Admins - to configure audit entries for Active Directory partitions 			
- Organization Management or Records Management (in Exchange organization) - to configure admin audit log settings			
Start assessment			
Netwrix Corporation www.netwrix.com +1-949-407-5125 Toll-free: 888-638-974	9	netu	rix

- 2. If you launched **Audit Configuration Assistant** from the **Start** menu (not from the monitoring plan settings), enter the name of Active Directory domain you want to assess.
- 3. Enter credentials that will be used to access the audit setting of that domain. This account must be included in the following groups:
 - Domain Admins to access audit policies and audit entries on the domain controllers
 - Enterprise Admins to configure audit entries for AD partitions
 - Organization Management or Records Management (in Exchange organization) to configure admin audit log settings
- 4. Click Start assessment.

See next:

View Results

10.1.5. View Results

At this step, you will be presented the results of the environment readiness assessment, including:

- the list of current and required settings for each entity
- the list of issues (if any) that occurred during the assessment

Netwrix Auditor Audit Configuration Assist	ant		- 0
Assessment results			
Current settings and required setting	ngs		
🖉 Default Domain Controllers	Policy (Group Policy)		
Category	Subcategory	Current settings	Required settings
Logon/Logoff	Audit Special Logon	Not Defined	Success and Failure
Logon/Logoff	Audit Special Logoff	Not Defined	Success
Object Access	Audit File System	Not Defined	Success and Failure
Event Log	Retention method for security log	Not Defined	Override events by days
Event Log	Maximum security log size	Not Defined	4194304 KB
Required settings will be applie Domain Controllers Irvine dc1.rf.local	d to following Organizational Units:		
dc2.rf.local dc3.rf.local			
Back Apply re	quired settings		Export to PDF
	Netwrix Co	rporation www.netwrix.com +	- 1-949-407-5125 Toll-free: 888-638-9749

- 1. Examine the report.
- 2. If some issues occurred due to the lack of access rights during the assessment, you can click **Back** and modify the settings provided at the previous step.
- 3. If you need to save this report (for example, to get your manager's approval), click Export to PDF.
- 4. When ready, you can automatically adjust audit settings with the requirements for that, click **Apply** required settings.

See next:

Complete the process

10.1.6. Complete the process

After you click **Apply required settings**, the utility will proceed with modifying your current audit settings. Operation progress will be reported in the bottom of the window.

- 1. Wait for the process to complete.
- 2. Finally, review the results. Successfully applied settings will be reported with a green tick; those that did not manage to apply with the yellow warning sign and explanatory text.
- 3. You can click **Start over** to get to the <u>Start Assessment</u>, fix the issues and perform the procedure again, or click **Finish**.

10.2. Manage Users with Netwrix Auditor Inactive User Tracker

Netwrix Auditor Inactive User Tracker standalone tool discovers inactive user and computer accounts. It performs the following tasks:

- Checks the managed domain or specific organizational units by inquiring all domain controllers, and sends reports to managers and system administrators listing all accounts that have been inactive for the specified number of days.
- Automatically deactivates inactive accounts by settings a random password, disabling, deleting or moving them to a specified organizational unit.

Review the following for additional information:

- To create monitoring plan to audit inactive users
- To review report on inactive users

To create monitoring plan to audit inactive users

- 1. Navigate to Start \rightarrow Netwrix Auditor \rightarrow Netwrix Auditor Inactive Users Tracker.
- 2. On the main page, you will be prompted to select a monitoring plan. Click **Add** to add a new monitoring plan.
- 3. Configure basic parameters as follows:

Option	Description
Enable inactive user tracking	Select the checkbox to discover inactive users in your Active Directory domain.
Audited domain	Specify domain name in the FQDN format.

Option	Description
Send report to administrators	Enable this option and specify one or several email addresses for administrators to receive daily reports with a list of inactive users . Use semicolon to separate several addresses.

4. Navigate to the **General** tab and complete the following fields:

Option	Description			
Specify account which will be used to collect data:	Enter the account which will be used for data collection.			
User namePassword	For a full list of the rights and permissions this account, and instructions on how to configure them, refer to <u>Netwrix</u> <u>Auditor</u> <u>Installation</u> <u>and</u> <u>Configuration Guide</u> .			
Consider user inactive after	Specify account inactivity period, after which a user is considered to be inactive.			
Customize the report template	Click Edit to edit the notification template, for example, modify the text of the message. You can use HTML tags when editing a template.			
Attach report as a CSV files	Select this option to receive reports attached to emails as CSV files.			

5. Navigate to the **Actions** tab and complete the following fields:

Option	Description		
Notify manager after	Specify account inactivity period, after which the account owner's manager must be notified.		
Set random password after	Specify account inactivity period, after which a random password will be set for this account.		
Disable accounts after	Specify account inactivity period, after which the account will be disabled.		
Move to a specific OU after	 Specify account inactivity period, after which the account will be moved to a specified organizational unit. 		
	OU name—Specify OU name or select an		

Option	Description
	AD container using button.
Delete accounts after	Specify account inactivity period, after which the account will be removed.
Delete account with all its subnodes	Select this checkbox to delete an account that is a container for objects.
Notify managers only once	If this checkbox is selected, managers receive one notification on account inactivity and one on every action on accounts.
	Managers will receive a notification in the day when the account inactivity time will be the same as specified in the inactivity period settings.
	By default, managers receive notifications every day after the time interval of inactivity specified in the Notify managers after entry field.

6. Navigate to the **Advanced** tab and complete the following fields:

Option	Description
Filter by account name	Specify one or several user account names (e.g., *John*). Use semicolon to separate several names. Only user accounts that contain selected name will be notified and included in the administrators and managers reports.
Filter by organizational unit	To audit inactive users that belong to certain organizational units within your Active Directory domain, select this option and click Select OUs . In the dialog that opens, specify the OUs that you want to audit. Only users belonging to these OUs will be notified and included in the administrators and managers reports.
Process user accounts	Select this checkbox to audit user accounts.
Process computer accounts	Select this checkbox to audit computer accounts.

7. Navigate to the **Notifications** tab and complete the following fields:

Option	Description
SMTP server	Enter your SMTP server address. It can be your company's Exchange server or any public mail server (e.g., Gmail, Yahoo).
Port number	Specify your SMTP server port number.
Sender address	Enter the address that will appear in the From field.
	NOTE: It is recommended to click Verify . The system will send a test message to the specified email address and inform you if any problems are detected.
SMTP authentication	Select this checkbox 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.
Use Secure Sockets Layer encrypted connection (SSL)	Select this checkbox if your SMTP server requires SSL to be enabled.
Use implicit SSL connection mode	Select this checkbox if the implicit SSL mode is used, which means that an SSL connection is established before any meaningful data is sent.

8. If you want to save your current configuration, click **Save**.

To review report on inactive users

1. Click Generate next to Generate report on inactive users to view report immediately.

→ ② ② C:\Program	nData\Netwri: 🔎 - 🖒 🤞	🗿 Netwrix Auditor fo	or Active ×		- □ × ☆ ☆ \$	
Netwrix Auditor for Active Directory						
Inactive Users	in Active Direct	ory Report				
Account Name	Account Type	E-Mail	Inactivity Time	Account Age	Performed Action	
FILESERVER2\$ WORKSTATION1\$ FILESERVER1\$ ROOTDC1\$ bdavis jsmith tjohnson	Computer Computer Computer User User User	None None None None None None	290 day(s) 290 day(s) 543 day(s) 595 day(s) never logged in never logged in never logged in	1256 day(s) 655 day(s) 1285 day(s) 1285 day(s) 615 day(s) 615 day(s) 615 day(s)	None None None None None None	
tmoore	User	None	never logged in	615 day(s)	None	

www.netwrix.com

10.3. Alert on Passwords with Netwrix Auditor Password Expiration Notifier

Netwrix Auditor Password Expiration Notifier standalone tool checks which domain accounts or passwords are about to expire in the specified number of days and sends notifications to users. It also generates summary reports that can be delivered to system administrators and/or users' managers. Besides, Netwrix Auditor Password Expiration Notifier allows checking the effects of a password policy change before applying it to the managed domain.

Review the following for additional information:

- To configure password expiration alerting
- To review Password Expiration Report

To configure password expiration alerting

- 1. Navigate to Start → Netwrix Auditor → Netwrix Auditor Password Expiration Notifier.
- 2. On the main page, you will be prompted to select a monitoring plan. Click **Add** to add a new monitoring plan.
- 3. Configure basic parameters as follows:

Option	Description
Enable password expiration alerting	Select the checkbox to discover expiring passwords in your Active Directory domain.
Audited domain	Specify domain name in the FQDN format.
Send report to administrators	Enable this option and specify one or several email addresses for administrators to receive daily reports with a list of users whose accounts/passwords are going to expire in the specified number of days. Use semicolon to separate several addresses.

4. Navigate to the **General** tab and complete the following fields:

Option	Description
Specify account which will be used to collect data:	Enter the account which will be used for data collection.
User name	For a full list of the rights and permissions this
Password	account, and instructions on how to configure them, refer to Netwrix Auditor Installation and

Option	Description
	Configuration Guide.
Filter users by organizational unit	To audit users for expiring accounts/passwords that belong to certain organizational units within your Active Directory domain, select this option and click Select OUs . In the dialog that opens, specify the OUs that you want to audit. Only users belonging to these OUs will be notified and included in the administrators and managers reports.
Filter users by group	To audit users for expiring accounts/passwords that belong to certain groups within your Active Directory domain, select this option and click Select Groups . In the dialog that opens, specify the groups that you want to audit. Only users belonging to these groups will be notified and included in the administrators and managers reports.
Filter by account name	Specify one or several user account names (e.g., *John*). Use semicolon to separate several names. Only user accounts that contain selected name will be notified and included in the administrators and managers reports.

5. Navigate to the **Actions** tab and complete the following fields:

Option	Description
Send report to the users' managers	Enable this option to deliver reports to the user's managers.
	To review and edit the user's managers
	1. Start Active Directory Users and Computers.
	 Navigate to each group where the user belongs to, right-click it and select Properties.
	 In the <group> Properties dialog, select the Managed By tab and review a manager. Update it if necessary.</group>
	To edit a report template, click Customize . You can use HTML tags when editing a template.

Option	Description
List users whose accounts or passwords expire in <> days or less	Specify the expiration period for accounts and/or passwords to be included in the administrators and managers reports.
Only report on users with expiring accounts	Select this option to deliver reports on users with expiring accounts only and ignore users whose passwords will be valid for a rather long time.
Notify users	Select this option to notify users that their passwords and/or accounts are about to expire.
Every day if password expires in <> days or less	Select this option for users to be notified daily that their passwords are going to expire, and specify the number of days before the expiration date.
	To edit a report template, click Customize . You can use HTML tags when editing a template. In order to send a test email, click Test and select an account. Make sure this account has a password that expires within the period you specifed next to this option.
First/Second/Last time when password expires in <> days	Select this option for users to be notified three times, and specify the number of days before the expiration date for each of three notifications.
	To edit a report template, click Customize . You can use HTML tags when editing a template. In order to send a test email, click Test and select an account. Make sure this account has a password that expires within the period you specifed next to this option.
Notify users by email every day if their accounts expire in <> days	Select this option for users to be notified daily that their account is going to expire, and specify the number of days before the expiration date.
Notify users by text messages	Select this option for users to receive text messages if their passwords are about to expire. To edit SMS Notifications template, click Customize .
	 Every day if password expires in <> days or less—Select this option for users to be notified daily that their passwords are going to expire, and specify the number of days before the expiration date.

Option	Description
	 First/Second/Last time when password expires in <> days — Select this option for users to be notified three times, and specify the number of days before the expiration date for each of three notifications.
	• Provider name —Specify provider name.
	 Property name — Specify the name of the Active Directory User Property where the recipient's phone number is stored. Pager is the default property.
	NOTE: If the Pager property of an AD User contains a full email address, Provider Name will be ignored.
	In order to send a test email, click Test and select an account. Make sure this account has a password that expires within the period you specifed next to this option.

Option	Description
SMTP server	Enter your SMTP server address. It can be your company's Exchange server or any public mail server (e.g., Gmail, Yahoo).
Port number	Specify your SMTP server port number.
Sender address	Enter the address that will appear in the From field.
	NOTE: It is recommended to click Verify . The system will send a test message to the specified email address and inform you if any problems are detected.
SMTP authentication	Select this checkbox 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.
Use Secure Sockets Layer	Select this checkbox if your SMTP server requires SSL to be

6. Navigate to the **Notifications** tab and complete the following fields:

10. Address Specific Tasks with Netwrix Auditor Tools

Option	Description
encrypted connection (SSL)	enabled.
Use implicit SSL connection mode	Select this checkbox if the implicit SSL mode is used, which means that an SSL connection is established before any meaningful data is sent.
Display the following From address in email notifications	Enter the address that will appear in the " <i>From</i> " field in email notifications.
	NOTE: This option does not affect notifications sent to users' managers and administrators. Before configuring the " <i>From</i> " field for user email notifications, make sure that your Exchange supports this option.

7. Navigate to the **Advanced** tab and complete the following fields:

Option	Description
Modify scheduled task start time	The default start time of the scheduled task is 3.00 AM every day. Click Modify to configure custom schedule.
Customize the report template	Click Customize to edit the notification template, for example, modify the text of the message. You can use HTML tags when editing a template.
Attach reports as a CSV files	Select this option to receive reports attached to emails as CSV files.
lgnore users who must change password at next logon	Select this option to exclude users who must change password at next logon from reports.
Ignore users with the " <i>Password never</i> expires" option enabled	Select this option to exclude users with the " <i>Password never expires</i> " option enabled from reports.
lgnore users who do not have email accounts	Select this option to exclude users who do not have email accounts from reports.
lgnore users whose passwords have already expired	Select this option to exclude users whose passwords have already expired from reports.
Include data on expiring accounts	Select this option to include data on expiring domain accounts further to expiring passwords information.

Option	Description
Only report on users with fine-grained	Select this option to include in reports only users
password policies applied	who have fine-grained policies applied.

8. If you want to save your current configuration, click Save.

To review Password Expiration Report

Click **Generate** next to **Generate report on users with expired account or passwords** to view report on users passwords immediately. In the **Maximum Password Age Setting** dialog that opens, select domain policy settings or specify the maximum password age in days.

(→) [] C:\Program[Data\Netwrix , 🄎 – 🕈 🦉 Netwrix Auditor for Active 🗙	× A ★ Ø
Netwrix Auditor for Active Directory		
Password Expira		
Passwords and accounts of the foll	lowing users are about to expire:	
User name	Email	Expires in
bdavis	manager@cemolab.local;	0 day(s): password

10.4. Monitor events with Netwrix Auditor Event Log Manager

Netwrix Auditor Event Log Manager standalone tool consolidates and archives event log data, and allows setting up alerts on critical events including unauthorized access to mailbox in your Exchange organization and events generated by Netwrix Auditor.

Review the following for additional information:

- <u>Create Monitoring Plans for Event Logs</u>
- <u>Configure Audit Archiving Filters for Event Log</u>
- Create Alerts for Event Log
- <u>Create Monitoring Plan for Netwrix Auditor System Health Log</u>
- <u>Create Alerts for Non-Owner Mailbox Access Events</u>
- <u>Review Past Event Log Entries</u>
- Import Audit Data with the Database Importer

10.4.1. Create Monitoring Plans for Event Logs

Review the following for additional information:

- To configure monitoring plan for event logs
- To review the Event Log Collection Status email

To configure monitoring plan for event logs

- 1. Navigate to Start \rightarrow Netwrix Auditor \rightarrow Netwrix AuditorEvent Log Manager.
- 2. On the main page, you will be prompted to select a monitoring plan. Click Add to add new plan.

Configure basic parameters as follows:

- Enable event log collection—Select the checkbox to start monitoring event logs.
- Monitoring plan—Enter a name for a new list of monitored computers.
- Notification recipients—Specify one or several email addresses for users to receive daily Event Log collection status notifications. Use semicolon to separate several addresses.
- Monitored computers—Select items that you want to audit. You can add several items to your monitoring plan. Click Add and complete the following:

Option	Description
Computer name	Allows specifying a single computer by entering its FQDN, NETBIOS or IP address. You can click Browse to select a computer from the list of computers in your network.
Active Directory container	Allows specifying a whole AD container. Click Browse to select from the list of containers in your network. You can also:
	 Select a particular computer type to be monitored within the chosen AD container: Domain controllers, Servers (excluding domain controllers), or Workstations.
	• Click Exclude to specify domains, OUs, and containers you do not want to audit.
	NOTE: The list of containers does not include child domains of trusted domains. Use other options (Computer name, IP address range, or Import computer names from

Option	Description
	a file) to specify the target computers.
IP address range / Computers within an IP range	Allows specifying an IP range for the audited computers.
	To exclude computers from within the specified range, click Exclude . Enter the IP range you want to exclude, and click Add .

- **NOTE:** You can specify multiple computer names by importing a list from a .txt file (one computer name/IP address per line is accepted). Click **Import** and select a .txt file. You can choose whether to import the list once, or to update it on every data collection.
- 3. Navigate to the **General** tab and configure the following:

Option	Description	
User name Password	Enter the account that will be used by Netwrix Auditor Event Log Manager for data collection. For a full list of the rights and permissions required for the account, and instructions on how to configure them, refer to <u>Netwrix Auditor Installation and Configuration Guide</u> .	
Audit archiving filters	Define what events will be saved to the Long-Term Archive or the Audit Database. Refer to <u>Configure Audit Archiving Filters for Event</u> Log for detailed instructions on how to configure audit archiving filters.	
Alerts	Configure alerts that will be triggered by specific events. Refer to <u>Create Alerts for Event Log</u> for detailed instructions on how to configure Netwrix Auditor Event Log Manager alerts.	

4. Navigate to the **Notifications** tab and complete the following fields:

Option	Description	
SMTP server	Enter your SMTP server address. It can be your company's Exchange server or any public mail server (e.g., Gmail, Yahoo).	
Port number	Specify your SMTP server port number.	
Sender address	Enter the address that will appear in the From field.	
	NOTE: It is recommended to click Verify . The system will send a test message to the specified email address and inform you	

Option	Description		
	if any problems are detected.		
SMTP authentication	Select this checkbox 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.		
Use Secure Sockets Layer encrypted connection (SSL)	Select this checkbox if your SMTP server requires SSL to be enabled.		
Use implicit SSL connection mode	Select this checkbox if the implicit SSL mode is used, which means that an SSL connection is established before any meaningful data is sent.		

5. Navigate to the **Audit Database** tab to configure Audit Database and review SQL Server settings. Netwrix Auditor Event Log Manager synchronizes Audit Database and reports settings with the default Audit Database configuration from Netwrix Auditor Server. If this option is disabled, contact your Netwrix Auditor Global administrator and make sure that these settings are properly configured in Netwrix Auditor Server. Refer to <u>Audit Database</u> for detailed instructions on how to configure the Audit Database settings.

Complete the following fields:

Option	Description	
Write data to Audit Database and enable reports	Select if you want to generate reports. Even if you do not select this checkbox now, you will still be able to configure these settings later, but already collected audit data will not be imported in the Audit Database.	
Write event descriptions to Audit Database	Select if you want to see the exact error or warning text.	
Store events for days	Specify the Audit Database retention period.	
	NOTE: This setting affects all monitoring plans. The minimum value specified across the plans will be applied. When configuring, mind that your data will be deleted automatically when its retention period is over.	

NOTE: You cannot edit SQL Server settings for **Netwrix Auditor Event Log Manager**.

6. Navigate to the **Advanced** tab and configure the following:

Option	Description
Enable network traffic compression	If enabled, a Compression Service will be automatically launched on the audited computer, collecting and prefiltering data. This significantly improves data transfer and minimizes the impact on the target computer performance.
Specify notification delivery time	Modify the Event Log collection status email delivery schedule.

To review the Event Log Collection Status email

The **Event Log Collection Status** email shows whether data collection for your monitoring plan completed successfully or with warnings and errors.



10.4.2. Configure Audit Archiving Filters for Event Log

Audit archiving filters define what events will be saved to the Long-Term Archive or the Audit Database, and provide more granular reporting. For example, if you are going to audit Internet Information Services (IIS) or track health status of the product, enable the **Internet Information Services Events** or **Netwrix Auditor System Health** filter respectively. You can also skip certain events with exclusive filters (e.g., computer logons). You can enable or disable, and modify existing filters, and create new filters. To do it, click **Configure** next to **Audit archiving filters**.

The product allows creating inclusive and exclusive audit archiving filters.

To configure audit archiving filters, perform the following:

- To create or modify an audit archiving filter, see To create or edit an audit archiving filter.
- To collect events required to generate a specific report, you must select a filter which name coincides with this report's name. Click **Enable** and select **Filters for Reports**. All filters required to store events for all available reports will be selected automatically.

To create or edit an audit archiving filter

- 1. On the Audit archiving filters page, click Add or select a filter and click Edit.
- 2. Complete the fields. Review the following for additional information:

Option	Description		
	The Event tab		
Name	Specify the filter name.		
Description	Enter the description for this filter (optional).		
Event Log	Select an event log from the drop-down list. You will be alerted on events from this event log. You can also input a different event log.		
	To find out a log's name, navigate to Start \rightarrow Windows Administrative Tools (Windows Server 2016 and higher) or Administrative Tools (Windows 2012) \rightarrow Event Viewer \rightarrow Applications and Services Logs \rightarrow Microsoft \rightarrow Windows and expand the required <log_name> node, right-click the file under it and select Properties. Find the event log's name in the Full Name field.</log_name>		
	Netwrix Auditor Event Log Manager does not collect the Analytic and Debug logs, so you cannot configure alerts for these logs.		
	NOTE: You can use a wildcard (*). For inclusive filters: all Windows logs except for the ones mentioned above will be saved. For exclusive: all Windows logs events will be excluded.		
Write to/Don't write to	Select the location to write/not to write events to, depending on the filter type (inclusive or exclusive).		
	NOTE: It is recommended to write events both to the Long-Term Archive and to the Audit Database, because if your database is corrupted, you will be able to import the necessary data from the Long-Term Archive using the DB Importer tool. See <u>Import_Audit_Data_with_the_Database_Importer_</u> for more information.		

Option	Description
	The Event Fields tab
Event ID	Enter the identifier of a specific event that you want to be save. You can add several IDs separated by comma.
Event Level	Select the event types that you want to be save. If the Event Level check box is cleared, all event types will be saved.
	NOTE: If you want to select the inclusive Success Audit/Failure Audit filters, note that on these platforms these events belong to the "Information" level, so they will not be collected if you select the Information checkbox in the Exclusive Filters .
Computer	Specify a computer (as it is displayed in the Computer field in the event properties). Only events from this computer will be saved.
	NOTE: If you want to specify several computers, you can define a case-sensitive mask for this parameter. Below is an example of a mask:
	• * - any machine
	 computer – a machine named 'computer'
	 computer - machines with names like 'xXxcomputerxXx' or 'newcomputer'
	 computer? – machines with names like 'computer1' or 'computerV'
	• co?puter - machines with names like 'computer' or 'coXputer'
	• ????? – any machine with a 5-character name
	• ???* - any machine with a 3-character name or longer
User	Enter a user's name. Only events created by this user will be saved.
	NOTE: If you need to specify several users, you can define a mask for this parameter in the same way as described above.
Source	Specify this parameter if you want to save events from a specific source. Input the event source as it is displayed in the Source field in the event properties.
	NOTE: If you need to specify several sources, you can define a mask for this parameter in the same way as described above.

Option	Description		
Category	Specify this parameter if you want to save a specific events category.		
The Insertion Strings tab			
Consider the following event Insertion Strings	Specify this parameter if you want to store events containing a specific string in the EventData. You can use a wildcard (*). Click Add and specify Insertion String .		

10.4.3. Create Monitoring Plan for Netwrix Auditor System Health Log

If you want to generate reports on health state and to be alerted on important Netwrix Auditor health events, you need to create a dedicated monitoring plan for this log with **Netwrix Auditor Event Log Manager** standalone tool.

NOTE: You can also review and filter Netwrix Auditor health events right in the product. See <u>Netwrix</u> Auditor System Health Log for more information.

To configure the Netwrix Auditor System Health log monitoring

- **NOTE:** The procedure below describes the basic steps, required for creation of the monitoring plan that will be used to collect data on Netwrix Auditor health status events. See <u>Create Monitoring Plans for</u> <u>Event Logs</u> for more information.
 - 1. Start Netwrix Auditor Event Log Manager and create the new monitoring plan.
 - 2. Make sure that the **Enable event log collection** checkbox is selected. Specify the name for the new monitoring plan, for example, "*Netwrix Auditor Health Status*".
 - 3. Navigate to the **Monitored computers** list and add a server where the Netwrix Auditor Server resides.
 - **NOTE:** Navigate to the **Audit Database** tab and select **Write event descriptions to Audit Database** if you want to see the exact error or warning text. Make sure that **Audit Database** settings are configured properly. See <u>Audit Database</u> for more information.
 - 4. Click **Configure** next to **Audit archiving filters** and select the **Netwrix Auditor System Health Log** filter in the **Inclusive Filters** list.

10.4.4. Create Alerts for Event Log

Alerts are configurable notifications triggered by certain events and sent to the specified recipients. You can enable or disable, and modify existing alerts, and create new alerts. To do it, click **Configure** next to **Alerts**.

To create new alert

- 1. In the Alerts window, click Add to start new alert.
- 2. On the **Alert Properties** step, specify the alert name and enter alert description (optional). Specify the number alerts per email. Grouped alerts for different computers will be delivered in separate email messages. This value is set to 1 by default, which means that each alert will be delivered as a separate email message.
- 3. On the **Notifications** step, configure email notifications and customize the notification template, if needed. Click **Edit** next to **Customize notifications template**. Edit the template by deleting or inserting information fields.

NOTE: The **%ManagedObjectName%** variable will be replaced with your monitoring plan name.

4. On the **Event filters** step, specify an event that will trigger the alert.

Complete the **Event Filters** wizard. Complete the following fields:

• In the **Event** tab:

Option	Description
Name	Specify the filter name.
Description	Enter the description for this filter (optional).
Event Log	Select an event log from the drop-down list. You will be alerted on events from this event log. You can also input a different event log.
	To find out a log's name, navigate to Start \rightarrow Windows Administrative Tools (Windows Server 2016 and higher) or Administrative Tools (Windows 2012) \rightarrow Event Viewer \rightarrow Applications and Services Logs \rightarrow Microsoft \rightarrow Windows and expand the required Log_Name node, right-click the file under it and select Properties . Find the event log's name in the Full Name field.
	Netwrix Auditor does not collect the Analytic and Debug logs, so you cannot configure alerts for these logs.
	NOTE: You can use a wildcard (*). In this case you will be alerted on events from all Windows logs except for the ones mentioned above.

• In the **Event Fields** tab:

Option	Description
Event ID	Enter the identifier of a specific event that you want to be alerted on. You can add several IDs separated by comma.
Event Level	Select the event types that you want to be alerted on. If the Event Level checkbox is cleared, you will be alerted on all event types of the specified log.
Computer	Specify a computer. You will only be alerted on events from this computer.
	NOTE: If you want to specify several computers, you can define a mask for this parameter. Below is an example of a mask:
	• * - any machine
	 computer – a machine named 'computer'
	 computer - machines with names like 'xXxcomputerxXx' or 'newcomputer'
	 computer? – machines with names like 'computer1' or 'computerV'
	 co?puter - machines with names like 'computer' or 'coXputer'
	• ????? – any machine with a 5-character name
	• ???* - any machine with a 3-character name or longer
User	Enter a user's name. You will be alerted only on the events generated under this account.
	NOTE: If you need to specify several users, you can define a mask for this parameter in the same way as described above.
Source	Specify this parameter if you want to be alerted on the events from a specific source.
	NOTE: If you need to specify several users, you can define a mask for this parameter in the same way as described above.
Category	Specify this parameter if you want to be alerted on a specific event category.

10. Address Specific Tasks with Netwrix Auditor Tools

Event Filters			×
Event Event Fie	lds Insertion Strings		
Specify event para	ameters for this filter:		
Event ID:	45722		
Event Level:	Information	Success Audit	
	✓ Warning	Failure Audit	
	Error	Critical Error	
	Verbose		
Computer:	*workstation16.corp.lo	cal	
User:	*		
Source:	*		
✓ Category:	0		
		OK Ca	ancel

• In the Insertion Strings tab:

Option	Description
Consider the following event Insertion Strings	Specify this parameter if you want to receive alerts on events containing a specific string in the EventData. You can use a wildcard (*). Click Add and specify Insertion String .

5. Click **OK** to save the changes and close the **Event Filters** dialog.

10.4.5. Create Alerts on Netwrix Auditor Server Health Status

You can configure alerts to be triggered by important events in the Netwrix Auditor System Health log.

To create alerts to be notified on Netwrix Auditor Health Status

NOTE: The procedure below describes the basic steps, required for creation of the monitoring plan that will be used to collect data on Netwrix Auditor health status events. See <u>Create Monitoring Plans for</u> <u>Event Logs</u> for more information.
- 1. Start Netwrix Auditor Event Log Manager and create the new monitoring plan.
- 2. Make sure that the **Enable event log collection** checkbox is selected. Specify the name for the new plan, for example, "*Netwrix Auditor Health Status*".
- 3. Navigate to the **Monitored computers** list and add a server where the Netwrix Auditor Server resides.
- 4. On the **General** tab, click **Configure** next to **Alerts**. Make sure the predefined alerts are disabled. Click **Add** to create anew alert.
- 5. In the **Alert Properties** wizard, specify the alert name and enter alert description (optional). Specify the number alerts per email. Grouped alerts for different computers will be delivered in separate email messages. This value is set to 1 by default, which means that each alert will be delivered as a separate email message.

NOTE: Specify alert recipient if you want the alert to be delivered to a non-default email.

- 6. Navigate to **Event Filters** and click **Add** to specify an event that will trigger the alert.
- 7. Complete the Event Filter dialog.
 - In the Event tab, specify the filter name and description. In the Event Log field select the Netwrix Auditor log.
 - In the **Event Fields** tab, select event levels that will trigger the alert.

Click OK to save the changes and close the Event Filters dialog.

8. In the **Netwrix Auditor Event Log Manager** wizard, navigate to **Notifications** section and specify the email address where notifications will be delivered.

NOTE: It is recommended to click **Verify**. The system will send a test message to the specified email address and inform you if any problems are detected.

- 9. In the Audit Archiving filters, select the Netwrix Auditor System Health as the inclusive filter.
- 10. Click **Save** to save your changes. If an event occurs that triggers an alert, an email notification will be sent immediately to the specified recipients.

Thu 3/2/201					
Administrator@corp.local					
Alert NA System Health on Netwrix Auditor Health Status					
Administrator					
Netwrix Audito	r for Windows Server				
Alert					
NA System Hea	lth				
Log name	Netwrix Auditor				
EventSource	Event Log Audit Service				
Date and Time	3/2/2017 3:11:17 AM				
Event ID	2003				
Task Category	1				
Level	Warning				
User	N/A				
Computer	Workstation16.corp.local				
Description	Monitoring plan: ELM The following error has occurred: Unable to store events to Audit Database due to the following error: A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: SQL Network Interfaces, error: 26 - Error Locating Server/Instance Specified)				
Parameters:	ELM				
	Unable to store events to Audit Database due to the following error: A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: SQL Network Interfaces, error: 26 - Error Locating Server/Instance Specified)				
	%String3%				

10.4.6. Create Alerts for Non-Owner Mailbox Access Events

If you have a monitoring plan configured to audit Exchange, you can configure alerts to be triggered by non-owner mailbox access events (e.g., opening a message folder, opening/modifying/deleting a message) using the event log alerts. To enable monitoring of non-owner mailbox access events, you need to create a monitoring plan for auditing event logs.

Review the following for additional information:

- To create alerts for non-owner mailbox access events
- To review event description

To create alerts for non-owner mailbox access events

- **NOTE:** The procedure below describes the basic steps, required for creation of a monitoring plan that will be used to collect data on non-owner mailbox access events. See <u>Create Monitoring Plans for Event</u> Logs for more information.
 - 1. Create a monitoring plan in Netwrix Auditor Event Log Manager.
 - 2. Make sure that the **Enable event log collection** checkbox is selected. Specify the name for the new plan, for example, "*Non-owner mailbox access auditing*".
 - 3. Navigate to the **Monitored computers** list and add a server where your Exchange organization resides.
 - 4. On the **General** tab, click **Configure** next to **Alerts**. Make sure the predefined alerts are disabled. Click **Add** to create an alert for non-owner mailbox access event.
 - 5. In the **Alert Properties** wizard, specify the alert name and enter alert description (optional). Specify the number alerts per email. Grouped alerts for different computers will be delivered in separate email messages. This value is set to 1 by default, which means that each alert will be delivered as a separate email message.

NOTE: Specify alert recipient if you want the alert to be delivered to a non-default email.

- 6. Navigate to **Event Filters** and click **Add** to specify an event that will trigger the alert.
- 7. Complete the Event Filter dialog.
 - In the **Event** tab, specify the filter name and description. In the **Event Log** field enter "*Netwrix* Non-Owner Mailbox Access Agent".
 - In the Event Fields tab, complete the following fields:
 - Event ID—Enter the identifier of a specific event that you want to be alerted on. You can
 add several IDs separated by comma. Review the event IDs available in the Netwrix NonOwner Mailbox Access Agent event log:

ID	Description	Access Type (as displayed in XML view of event details)
1	A folder was opened	actFolderOpen
2	A message was opened	actMessageOpened
3	A message was sent	actMessageSubmit
4	A message was changed and saved	actChangedMessageSaved
5	A message was deleted	actMessageDeleted

ID	Description	Access Type (as displayed in XML view of event details)
6	A folder was deleted	actFolderDeleted
7	The entire contents of a folder was deleted	actAllFolderContentsDeleted
8	A message was created and saved	actMessageCreatedAndSaved
9	A message was moved or/and copied	actMessageMoveCopy
10	A folder was moved or/and copied	actFolderMoveCopy
14	A folder was created	actFolderCreated

See <u>To review event description</u> for more information.

- Source—Enter "Netwrix Non-Owner Mailbox Access Agent".
- In the Insertion Strings tab, select Consider the following event Insertion Strings to receive alerts on events containing a specific string in the EventData. Click Add and specify Insertion String.

Click **OK** to save the changes and close the **Event Filters** dialog.

8. In the **Netwrix Auditor Event Log Manager** wizard, navigate to **Notifications** section and specify the email address where notifications will be delivered.

NOTE: It is recommended to click **Verify**. The system will send a test message to the specified email address and inform you if any problems are detected.

- 9. Click **Edit** next to **Audit Archiving Filters** step, in the **Inclusive Filters** section clear the filters you do not need, click **Add** and specify the following information:
 - The filter name and description (e.g., Non-owner mailbox access event)
 - In Event Log, enter "Netwrix Non-Owner Mailbox Access Agent".
 - In Write to, select Long-Term Archive. The events will be saved into the local repository.
- 10. Click **Save** to save your changes. If an event occurs that triggers an alert, an email notification will be sent immediately to the specified recipients.

To review event description

Review the example of the MessageOpened event in the XML view:



Depending on the event, the strings in the description may vary. The first eight strings are common for all events:

String	Description
String1	The event type: info or warning
String2	The event date and time in the following format: YYYY_MM_DD_hh_mm_ss_000
String3	The name of the user accessing mailbox
String4	The SID of the user accessing mailbox
String5	The GUID of the mailbox being accessed
String6	Shows whether the user accessing mailbox is the owner: it is always <i>false</i>
String7	The IP of the computer accessing the mailbox
String8	The access type

The following strings depend on the non-owner access type, represented by different Event IDs:

Event ID	Access type (String 8)	Strings	Description
1	actFolderOpen	String9	The internal folder URL

Event ID	Access type (String 8)	Strings	Description
2	actMessageOpened	String9	The internal message URL
		String10	The message subject
		String11	The message type: IPM.Note— Email, IPM.Contact – contact, etc.
3	actMessageSubmit	String9	The internal message URL
		String10	The message subject
		String11	Email addresses of the message recipients, separated by a semicolon
		String12	The message type: IPM.Note— Email, IPM.Contact – contact, etc.
4	actChangedMessageSaved	String9	The internal message URL
		String10	The message subject
		String11	The message type: IPM.Note – Email, IPM.Contact – contact, etc.
5	actMessageDeleted	String9	The internal message URL
		String10	The message subject
		String11	The message type: IPM.Note— Email, IPM.Contact – contact, etc.
6	actFolderDeleted	String9	The internal folder URL
7	actAllFolderContentsDeleted	String9	The internal folder URL
8	actMessageCreatedAndSaved	String9	The internal message URL
9	actMessageMoveCopy	String9	The message being moved/copied— the final part of the message URL, e.g., /Inbox/testMessage.EML
		String10	The action – copy or move
		String11	The folder URL the message is copied/moved from

Event ID	Access type (String 8)	Strings	Description
		String12	The destination folder URL
		String13	The message type: IPM.Note— Email, IPM.Contact – contact, etc.
10	actFolderMoveCopy	Strings 9 -13	The string descriptions for the folder are similar to those for messages.
14	actFolderCreated	String9	The new folder URL

NOTE: With different Exchange versions and/or different email clients, the same non-owner action (e.g., copying a message) may generate different events: e.g., **actMessageMoveCopy** with one server/client or **actMessageCreatedAndSaved** with another.

You can add the required strings contained in % symbols for your own custom alert separated by a
<ta>tag in Event Parameters:<ta>Event parameter descriptions can also be added.

In the example below, the following information has been added:

- The description for String 3—User accessing mailbox
- String 8 with the description
- String 9 with the description

Edit Notific	cation Template	×
Format:	HTML	
Subject:	%AlertName%	
Body:	 	
	Insert a Fields	

10.4.7. Review Past Event Log Entries

Netwrix Auditor Event Log Manager collects event log entries and stores them to the Audit Archive. To review past events, do the following:

- 1. On the main Netwrix Auditor Event Log Manager page, click View next to View collected events.
- 2. In the Netwrix Auditor Event Viewer window, complete the following to narrow results:

Option	Description
Monitoring plan	Select the monitoring plan that audits desired event log entries.
Computer	If you have several items in the monitoring plan, adjust a computer.
Event log	Select event log that contains desired entries.
From To	Specify the time range for which you want to retrieve past audit data.

10.4.8. Import Audit Data with the Database Importer

- 1. On the main Netwrix Auditor Event Log Manager page, click Import Data.
- 2. Select a monitoring plan and the time range for which you want to import data.
- 3. Click Import.

10.5. Roll Back Changes with Netwrix Auditor Object Restore for Active Directory

With Netwrix Auditor you can quickly restore deleted and modified objects using the **Netwrix Auditor Object Restore for Active Directory** tool shipped with the product. This tool enables AD object restore without rebooting a domain controller and affecting the rest of the AD structure, and goes beyond the standard tombstone capabilities. Perform the following procedures:

- Modify Schema Container Settings
- Roll Back Unwanted Changes

10.5.1. Modify Schema Container Settings

By default, when a user or computer account is deleted from Active Directory, its password is discarded as well as a domain membership. When you restore deleted accounts with the **Netwrix Auditor Object**

Restore for Active Directory tool, it rolls back a membership in domain and sets random passwords which then have to be changed manually. If you want to be able to restore AD objects with their passwords preserved, you must modify the Schema container settings so that account passwords are retained when accounts are being deleted.

To modify schema container settings

- **NOTE:** To perform this procedure, you will need the <u>ADSI Edit</u> utility. In Windows Server 2008 and above, this component is installed together with the AD DS role, or it can be downloaded and installed along with Remote Server Administration Tools.
 - 1. Navigate to Start \rightarrow Windows Administrative Tools (Windows Server 2016 and higher) or Administrative Tools (Windows 2012) \rightarrow ADSI Edit.
 - Right-click the ADSI Edit node and select Connect To. In the Connection Settings dialog, enable Select a well-known Naming Context and select Schema from the drop-down list.
 - 3. Expand the Schema your_Root_Domain_name node. Right-click the CN=Unicode-Pwd attribute and select Properties.



4. Double-click the searchFlags attribute and set its value to	4.	Double-click the	searchFlags	attribute and	set its value to	"8".
---	----	------------------	-------------	---------------	------------------	------

	CN=L	Jnicode-P	wd Prop	oerties	L	?	x
Attribute Editor	Security						
Attributes:							
Attribute		Value					~
rangeUpper replPropertyN replUpToDat	MetaData	<not set=""> AttID Ver <not set=""></not></not>	Loc.USN		Org.D	SA	
		eger Attri	bute Ed	itor			2
Value:							
Value: 8 Clear				ОК		Can	icel
ଥ Clear		FALSE	_	OK		Can	icel
8		FALSE <not set=""></not>	_	ОК		Can	
8 Clear systemOnly	III		-	ОК	,	Can	
8 Clear systemOnly url			-	ОК -	· ·		

Now you will be able to restore deleted accounts with their passwords preserved.

10.5.2. Roll Back Unwanted Changes

- 1. Navigate to Start \rightarrow Netwrix Auditor \rightarrow Netwrix Auditor Object Restore for Active Directory.
- 2. On the **Select Rollback Period** step, specify the period of time when the changes that you want to revert occurred. You can either select a period between a specified date and the present date, or between two specified dates.
- 3. On the **Select Rollback Source** step, specify the rollback source. The following restore options are available:
 - **State-in-time snapshots**—This option allows restoring objects from configuration snapshots made by Netwrix Auditor. This option is more preferable since it allows to restore AD objects with all their attributes.

Complete the following fields:

Option	Description
Audited domain	Select a domain where changes that you want to rollback occurred.

Dption	Description
Select a state- in- time snapshot	Select if you want to revert to a specific snapshot. Otherwise, the program will automatically search for the most recent snapshot that will cover the selected time period.

- Active Directory tombstones—This option is recommended when no snapshot is available. This is a last resort measure as the tombstone holds only the basic object attributes.
- 4. On the **Analyzing Changes** step, the product analyzes the changes made during the specified time period. When reverting to a snapshot, the tool reviews the changes that occurred between the specified snapshots. When restoring from a tombstone, the tool reviews all AD objects put in the tombstone during the specified period of time.
- 5. On the **Rollback Results** step, the analysis results are displayed. Select a change to see its rollback details in the bottom of the window. Select an attribute and click **Details** to see what changes will be applied if this attribute is selected for rollback. Check the changes you want to roll back to their previous state.
- 6. Wait until the tool has finished restoring the selected objects. On the last step, review the results and click **Finish** to exit the wizard.

10.6. Netwrix Account Lockout Examiner

10.6.1. Overview

Netwrix Account Lockout Examiner helps IT administrators to discover why an Active Directory account keeps locking out, so they can quickly identify the lockout reason and restore normal operations.

You can investigate lockouts originating from the following sources:

- Applications running on workstations
- Microsoft Exchange ActiveSync devices
- Microsoft Outlook Web Access (including mobile devices)
- Mistyped credentials (interactive logons with incorrect password)
- Terminal Server Sessions
- Windows Credential Manager
- Windows Task Scheduler
- Windows Services

10.6.2. Upgrade recommendations

Since the functionality of older and newer versions does not match one-to-one (see <u>Feature comparison of</u> <u>Netwrix Account Lockout Examiner 4.1 and 5.x</u>), there is no upgrade path for **Netwrix Account Lockout Examiner 4.1**.

Though its users can continue working with that older version, we recommend to use the latest Netwrix Account Lockout Examiner to benefit from the variety of its new features and enhanced usability.

NOTE: We welcome any feedback and ideas you might have, so you can check in on <u>Netwrix page at</u> <u>Spiceworks</u> or submit direct feedback via this link.

10.6.3. Planning and preparation

Before you start using Netwrix Account Lockout Examiner, check the prerequisites and set up your environment, as described in this section.

10.6.3.1. System requirements

Make sure that the machine where you plan install the solution meets the system requirements listed below.

Hardware:

Specification	Requirement
CPU	min 1.5 GHz
Memory	1 GB RAM
Disk space	20 MB

Software:

Specification	Requirement
OS	Both 32-bit and 64-bit of the following operating systems are supported:
	Windows Server 2019
	Windows Server 2016
	• Windows Server 2012 R2
	Windows Server 2012
	Windows 10
	Windows 8.1

10.6.3.2. Accounts and rights

1. The computer where **Account Lockout Examiner** will run must be a member of the domain where lockouts happen.

- 2. The account used to run the application must be a member of the following groups:
 - a. Domain Admins group (to retrieve the necessary data from domain controllers.)
 - b. Local **Administrators** group on the workstation where lockouts happen (to access the Security event log.)
- **NOTE:** In the environments with root/child domains, the account used to run Account Lockout Examiner should be a member of the local **Administrators** group on the workstations in both root and child domains.

10.6.3.3. Licensing

Account Lockout Examiner is shipped with a free pre-configured license that will be valid until a newer version becomes available. You will be notified on the new version release by the corresponding message displayed in the product. Then you will need to download that new version.

10.6.3.4. Target infrastructure

For the solution to connect to and retrieve the necessary information from the Windows machines that may become the potential lockout reasons, your infrastructure should meet the requirements listed below.

10.6.3.4.1. Target systems and platforms

The following Windows machines are supported as examination targets:

- Windows Server 2019
- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012
- Windows 10
- Windows 8.1

The solution can work with the following Exchange Server versions to retrieve information needed for lockout reason detection:

- Exchange Server 2019
- Exchange Server 2016
- Exchange Server 2013

10.6.3.4.2. Inbound firewall rules

Make sure the following **Inbound** firewall rules are enabled on the Domain Controllers and domain computers:

- File and Printer Sharing (Echo Request ICMPv4-In)
- Remote Event Log Management (RPC)
- Remote Service Management (NP-In)
- Remote Scheduled Tasks Management (RPC)
- Remote Volume Management (RPC EPMAP)
- Windows Management Instrumentation (WMI-In)

10.6.3.4.3. Ports

The following **TCP** ports should be open on the Domain Controllers and domain computers:

- Port 135 for communication using RPC
- Dynamic ports **1024-65535** for internal communication

10.6.3.4.4. Recommended network security settings

Security researches revealed that NTLM and NTLMv2 authentication is vulnerable to a variety of malicious attacks, including SMB replay, man-in-the-middle attacks, and brute force attacks.

To make Windows operating system use more secure protocols (e.g. Kerberos version 5), the outgoing NTLM authentication traffic should be disabled for the machine where Netwrix Account Lockout Examiner will run. (See also this Microsoft article.)

For that, you need to set the **Network Security: Restrict NTLM: Outgoing NTLM traffic to remote servers** policy setting to **Deny All**. This can be done locally on the machine hosting Netwrix Account Lockout Examiner, or via Group Policy.

To disable outgoing NTLM authentication traffic locally:

- 1. Run secpol.msc.
- 2. Browse to Security Settings\Local Policies\Security Options.
- 3. Set the Network Security: Restrict NTLM: Outgoing NTLM traffic to remote servers setting to Deny All.

To disable outgoing NTLM authentication traffic via Group Policy:

- 1. Open gpmc.msc.
- 2. Find the Group Policy Object (GPO) that is applied to the machine where Netwrix Account Lockout Examiner runs.
- 3. Edit this GPO. Browse to Computer Configuration\Windows Settings\Security Settings\Local Policies\Security Options.
- 4. Set the Network Security: Restrict NTLM: Outgoing NTLM traffic to remote servers setting to Deny All.
- 5. On the machine hosting Netwrix Account Lockout Examiner run the following command via the command prompt: gpupdate /force

10.6.3.4.5. Required audit settings

You can configure either **Advanced audit policies** or **Basic audit policies** for the target machines. See Scenario A or Scenario B, respectively.

Scenario A: Advanced audit policies

Enable the following **Advanced audit policies** for the target machines:

Audit entry	Event ID	Success/Failure		
Account Logon				
Audit Credential Validation	4776	Failure		
Audit Kerberos Authentication Service	4771	Failure		
Audit Other Account Logon Events	4776	Failure		
Account Management				
Audit User Account Management	4740	Success		
Logon/Logoff				
Audit Logon	4625	Failure		
Audit Account Lockout	4625	Failure		

Scenario B: Basic audit policies

Enable the following **basic audit policies** for the target machines:

Audit entry	Event ID	Success/Failure
Audit logon events	4625	Failure
Audit account logon events	4776, 4771	Failure
Audit account management	4740	Success

10.6.4. Examining lockouts

To start using **Netwrix Account Lockout Examiner**, download it from Netwrix web site. Once the download completes, run the executable from your browser menu or from your **Downloads** folder.

To find out why an Active Directory account was locked out, perform the following steps:

- 1. Set up the auditing as described in Planning and preparation section.
- 2. Download the application onto a computer within the domain where lockouts happen.
- 3. Run the application. When prompted, accept the end-user license agreement.
- 4. If you wish, select to participate in Netwrix Customer Experience Improvement program. You can later change your preference using the product settings (see the next section for details).

Netwrix Account Lockout Examiner	Settings (0
Netwrix Customer Experience Program		
Help us improve the product and provide a better user experience		
Netwrix Customer Experience Program		
reporting features in the Software that will gather user activity data and activity in connection with the Software and other statistical information and its functions, and aggregate usage data for the purposes of general regarding use of the Software (collectively, "Usage Data"). Netwrix will us the features and functionality Licensee's users find useful for purposes and for its other internal business purposes. Netwrix will use such Usag EULA, available at <u>https://www.netwrix.com/eula.html</u> , and otherwise in the extent any Personal Information is collected in this process, Netwrix Information in accordance with our Privacy Policy, available at <u>http://ww</u>	on about Licensee's use of the Software ating statistical metrics and analytics use Usage Data to better understand of improving its products and services, ge Data as contemplated under our n accordance with applicable law. To x will only use such Personal	
By clicking the "I accept" button below, you acknowledge Netwrix's coll contemplated herein and agree to such collection and use of Usage Da collection and use of Usage Data, you can opt-out of the Netwrix Custo the "Skip" button below or by changing Licensee's preferences in the Skip	ata. If you do not agree to such omer Experience Program by clicking	
Skip I accept		

- 5. In the main window, supply the name of the account that was locked out.
- 6. Specify examiner credentials the user account that will be used to run the examination, access domain controllers, and so on. The account must be a member of the **Domain Admins** group.
- 7. Click Examine.

Net	twrix Account Lockout Examiner	🐼 Settings	_ ∂⊦
Lock	ked account name:		
со	pr\rrobins		
Spe	cify examiner credentials 🕕		
\odot	Use current account		
0	Use the following account:		
	Name:		
	domain\name OR name@domain		
	Password:		
Exai	mine audit trails for the last 2 days		
	Examine		
	© Netwrix Corporation www.netwrix.com	n +1-949-407-5125 Toll-Free: 888-638-9749	netw

Once the examination completes, you will be presented with a list of reasons why the account you supplied is being locked out.

10.6.4.1. Modifying product settings

After you click **Settings** in the main window, you can apply the following options:

Option	Description	Default		
	Examining			
Skip unresolved IP addresses	For safety reasons, Netwrix Account Lockout Examiner by default does not connect to the unknown and potentially dangerous IP addresses. See <u>this</u> <u>Knowledge Base article</u> for more information.	Enabled		
Examine all domain controllers	Select this option if you want to examine all domain controllers to detect potential lockout reason.	Disabled		
Usage statistics				
Take part in Netwrix Customer	Select this option to participate in the program. See <u>this Knowledge Base</u> <u>article</u> for more information on the program.			

Opti	on Descr	iption	Default
	erience rovement gram		
			_ ×
<i>←</i>	Settings		Help
	Examining		
	Skip unresolved IP a	ddresses	
	Examine all domain	controllers	
	Usage statistics		
		Customer Experience Impovement Program	
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10.6.4.2. Troubleshooting

Log files of Netwrix Account Lockout Examiner can be found in the *%ProgramData%**Netwrix Account Lockout Examiner**Logs* folder.

you may receive the " <i>Could not query</i> Netwrix Account Lockout is included in the local	Symptom	Cause	Solution
member of the local Administrators group on the workstations in both root and child domains. Administrative rights are required to access the Security Event logs on	you may receive the "Could not query	Netwrix Account Lockout Examiner is not a member of the local Administrators group on the workstations in both root and child domains. Administrative rights are required to access the	Make sure this account is included in the local Administrators group.

ymptom	Cause	Solution
	these workstations.	
Issues encountered during examination section is shown in the examination results.	Most probably this means that Netwrix Account Lockout Examiner cannot reach some of the data sources it needs.	 Check that you have configured the audit settings in the target domain as described in <u>Required audit</u> <u>settings</u> section.
		 Check that network connectivity between the Account Lockout Examiner machine and the domain controllers in your domain works properly.
On Netwrix Account Lockout Examiner		_ ×
The 'DOMAIN\jeff' user account is not locked. Some of the with an invalid password: on Workstation1 (IPs: 192.168.0.34, fdae:1665:8a78::850 Task Scheduler: \Microsoft\Windows\Feedback\Siuf\	6)	using this account
\Microsoft\Windows\File Classification	on Infrastructure\Property Definition Sync	
 Issues encountered during examination Retrieving 'Workstation1' Windows services: failure. I Audit policies are not configured correctly on 'Works' 'Logon/Logoff' is set to 'Failure'. 		oolicy under
View details Start over		

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NOTE: We welcome any feedback and ideas you might have. Please take a minute to check in on <u>Netwrix</u> <u>page at Spiceworks</u> or submit direct feedback via <u>this link</u>.

10.6.5. Feature comparison of Netwrix Account Lockout Examiner 4.1 and 5.x

Netwrix Account Lockout Examiner 5.1 and later is not an evolutionary update, but rather a total revamp of version 4.1. Hence, the functionality of the older and newer versions does not match one-to-one. Feature comparison is provided in the table below.

Feature	Version 4.1	Version 5.x			
Network/domain configuration					
Support for multi-domain (Root-Child) configurations	No	Yes			
Lockout sources					
Applications running on workstations	No	Yes			
Microsoft Exchange ActiveSync devices	No	Yes			
Microsoft Outlook Web Access (incl. mobile devices)	No	Yes			
Mistyped credentials (interactive logons with incorrect password)	Yes	Yes			
Terminal Server Sessions	Yes	Yes			
Windows Credential Manager	No	Yes			
Windows Task Scheduler	Yes	Yes			
Windows Services	Yes	Yes			
User experience					
Easy to install	-	Yes			
Ease of troubleshooting	-	Yes			
Workflow					
Ability to unlock account & reset password	Yes	No			
Web-based helpdesk portal	Yes (paid version only)	No			
Email alerts	Yes	No – check <u>Netwrix</u>			

Feature	Version 4.1	Version 5.x
		<u>Auditor</u> for monitoring and alerting capabilities
Online monitor on critical account status	Yes	No – check <u>Netwrix</u> <u>Auditor</u> for monitoring and alerting capabilities

Users of Account Lockout Examiner 4.1 can continue using that older version, as there is no upgrade path, just a new installation of the latest version.

We welcome any feedback and ideas you might have. You can check in on <u>Netwrix page at Spiceworks</u> or submit direct feedback via <u>this link</u>.

11. Appendix

This section contains information out of the scope of Netwrix Auditor administration, but is beneficial to Administrators to leverage full scope of the product capabilities. Review the following for additional information:

Network Traffic Compression

11.1. Network Traffic Compression

To reduce network traffic in distributed deployments, multi-site networks and other environments with remote locations that have limited bandwidth, it is recommended to use network traffic compression. For that purpose, special Netwrix utilities should be installed in the audited environment. These utilities will run on the target computers (depending on your monitoring plan), collect, pre-filter data and send it to Netwrix Auditor Server in a highly compressed format.

With network traffic compression, data from the target machines is collected simultaneously, providing for network load balance and minimizing data collection time. (Unlike that, without network traffic compression the target machines will be processed sequentially, i.e. one at a time.) So, network traffic compression helps to increase scalability and optimize network traffic.

Its key capabilities are as follows:

- Allows Netwrix Auditor to collect detailed metrics for the servers, log files, hardware and individual processes
- Collects audit data with no recognizable load on the server
- Communicates with Netwrix Auditor Server at predefined intervals, relaying data back to a central repository for storage

Network traffic compression is available for the following data sources:

- Active Directory
- Exchange
- File Servers
- EMC
- NetApp
- Windows Server
- Event Logs
- Group Policy
- Logon Activity

11. Appendix

- SharePoint
- User Activity

To learn how to enable this feature, refer to the <u>Settings for Data Collection</u>section.

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