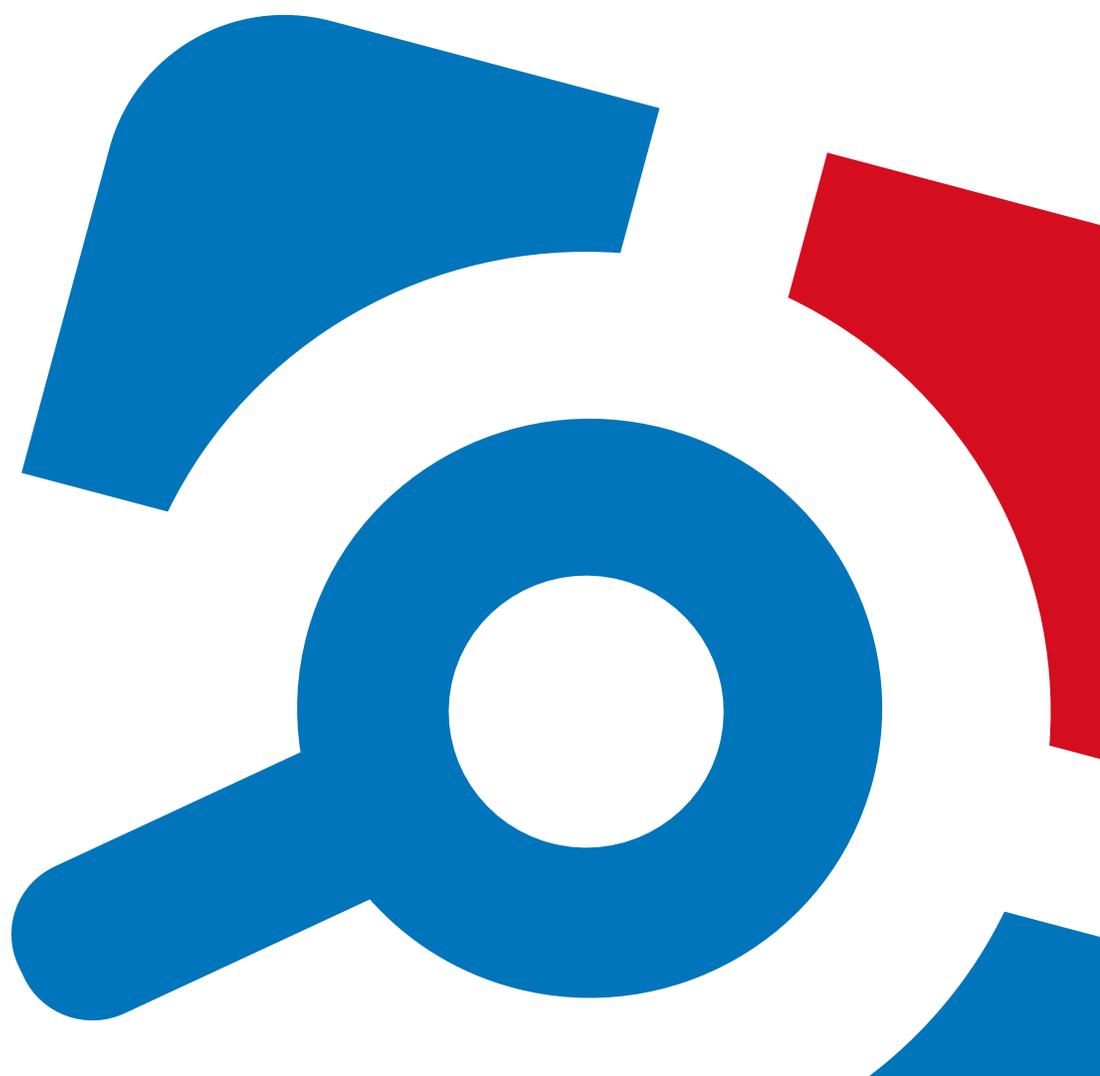


Netwrix Auditor for NetApp Quick-Start Guide

Version: 8.0
4/22/2016



Legal Notice

The information in this publication is furnished for information use only, and does not constitute a commitment from Netwrix Corporation of any features or functions, as this publication may describe features or functionality not applicable to the product release or version you are using. Netwrix makes no representations or warranties about the Software beyond what is provided in the License Agreement. Netwrix Corporation assumes no responsibility or liability for the accuracy of the information presented, which is subject to change without notice. If you believe there is an error in this publication, please report it to us in writing.

Netwrix is a registered trademark of Netwrix Corporation. The Netwrix logo and all other Netwrix product or service names and slogans are registered trademarks or trademarks of Netwrix Corporation. Microsoft, Active Directory, Exchange, Exchange Online, Office 365, SharePoint, SQL Server, Windows, and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks and registered trademarks are property of their respective owners.

Disclaimers

This document may contain information regarding the use and installation of non-Netwrix products. Please note that this information is provided as a courtesy to assist you. While Netwrix tries to ensure that this information accurately reflects the information provided by the supplier, please refer to the materials provided with any non-Netwrix product and contact the supplier for confirmation. Netwrix Corporation assumes no responsibility or liability for incorrect or incomplete information provided about non-Netwrix products.

© 2016 Netwrix Corporation.

All rights reserved.

Table of Contents

1. Introduction	4
1.1. Netwrix Auditor Overview	4
2. System Requirements	6
2.1. Requirements for Audited System	6
2.2. Requirements to Install Netwrix Auditor	6
2.2.1. Hardware Requirements	6
2.2.2. Software Requirements	7
2.2.3. Deployment Options	7
3. Review Components Checklist	8
3.1. Configure Data Processing Account Rights and Permissions	8
4. Install the Product	10
5. Configure NetApp Filer for Auditing	12
5.1. Configure NetApp Clustered Data ONTAP 8 for Auditing	12
5.1.1. Prerequisites	12
5.1.2. Configure ONTAPI Web Access	13
5.1.3. Configure Firewall Policy	14
5.1.4. Configure Event Categories and Log	14
6. Create Managed Object to Audit File Servers	18
7. Make Test Changes	23
8. See How Netwrix Auditor Enables Complete Visibility	24
8.1. Review a Change Summary	25
8.2. Browse Data with AuditIntelligence Search	26
8.3. Review NetApp Overview	28
8.4. Review the All File Servers Activity Report	29
9. Related Documentation	31

1. Introduction

This guide is intended for the first-time users of Netwrix Auditor for NetApp. It can be used for evaluation purposes, therefore, it is recommended to read it sequentially, and follow the instructions in the order they are provided. After reading this guide you will be able to:

- Install and configure Netwrix Auditor
- Create a Managed Object to start auditing NetApp appliances
- Launch data collection
- See how Netwrix Auditor brings real AuditIntelligence into your IT infrastructure and enables its complete visibility

NOTE: This guide only covers the basic configuration and usage options for auditing NetApp appliances with Netwrix Auditor. For advanced installation scenarios and configuration options, as well as for information on various reporting possibilities and other product features, refer to:

- [Netwrix Auditor Installation and Configuration Guide](#)
- [Netwrix Auditor Administrator's Guide](#)
- [Netwrix Auditor User Guide](#)

1.1. Netwrix Auditor Overview

Netwrix Auditor is an IT auditing platform that delivers complete visibility into changes and data access in hybrid cloud IT environments by providing actionable audit data about *who* changed *what*, *when* and *where* each change was made, and *who* has access to *what*. Netwrix Auditor helps organizations prevent security breaches caused by insider attacks, pass compliance audits with far less effort and expense, and keep tabs on what privileged users are doing in the environment.

Netwrix Auditor enables auditing of the broadest variety of IT systems, including Active Directory, Exchange, file servers, SharePoint, SQL Server, VMware and Windows Server. It also supports monitoring of privileged user activity in all other systems, even if they do not produce any logs, by enabling video recording of user screen activity and later search and replay. More than 160,000 IT departments worldwide rely on Netwrix Auditor to secure IT infrastructure, prove compliance and increase operational efficiency. The product has earned over 70 awards from leading industry publications, including SC Magazine, Windows IT Pro, Redmond Magazine and WindowSecurity.com.

Major benefits:

- **Change auditing and alerting:** Netwrix Auditor detects all configuration, content and security changes across your entire IT infrastructure. Reports and real-time alerts include the critical who, what, when and where details, including before and after values, enabling quick and effective

response.

- **AuditIntelligence interactive search:** Netwrix Auditor enables you to easily search through audit data and fine-tune sorting and filtering criteria so you can quickly hone in on exactly the information you need.
- **Configuration assessment:** State-in-time™ reports show configuration settings at any point in time, such as group membership or password policy settings as they were configured a year ago.
- **Access auditing:** Monitoring of and reporting on successful and failed access to systems and data helps keep sensitive data safe.
- **Predefined reports and diagrams:** Netwrix Auditor includes more than 150 predefined reports and diagrams. Reports can be exported to a range of formats, including PDF and XLS, and stakeholders can subscribe to reports to stay informed automatically by email.
- **AuditArchive™:** Netwrix Auditor's scalable two-tiered storage system (file-based + SQL database) holds consolidated audit data for more than 10 years.
- **Unified platform:** Many vendors require multiple standalone tools that are hard to integrate, but Netwrix Auditor is a unified platform that can audit the entire IT infrastructure.

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.

2. System Requirements

This section lists the requirements for the systems that are going to be audited with Netwrix Auditor, and for the computer where the product is going to be installed.

2.1. Requirements for Audited System

The table below provides the requirements for the systems that can be audited with Netwrix Auditor for NetApp:

Audited System	Supported Versions
NetApp	<ul style="list-style-type: none"> • NetApp Data ONTAP 7 (CIFS configuration only) • NetApp Data ONTAP 8 in 7-mode (CIFS configuration only) • NetApp Clustered Data ONTAP 8.2.1 - 8.2.3, 8.3, 8.3.1, 8.3.2 (CIFS configuration only)

2.2. Requirements to Install Netwrix Auditor

This section provides the requirements for the computer where Netwrix Auditor is going to be installed. Refer to the following sections for detailed information:

- [Hardware Requirements](#)
- [Software Requirements](#)
- [Deployment Options](#)

2.2.1. Hardware Requirements

Before installing Netwrix Auditor, make sure that your hardware meets the following requirements:

Hardware Component	Minimum	Recommended
Processor	Intel or AMD 32 bit, 2 GHz	Intel Core 2 Duo 2x 64 bit, 3 GHz Preferably a virtual machine
RAM	2 GB	8 GB

Hardware Component	Minimum	Recommended
Disk space	<ul style="list-style-type: none"> 500 MB physical disk space for the product installation 30 GB for the file-based Long-Term Archive 500 MB for the SQL Server-based Audit Database where audit data is going to be stored <p>NOTE: These are rough estimations, calculated for evaluation of Netwrix Auditor for NetApp. Refer to Netwrix Auditor Installation and Configuration Guide for complete information on the Netwrix Auditor disk space requirements.</p>	
Screen resolution	1280 x 1024	1920 x 1080 and higher

2.2.2. Software Requirements

The table below lists the minimum software requirements for the Netwrix Auditor installation:

Component	Requirements
Operating system	<ul style="list-style-type: none"> Windows Desktop OS (64-bit): Windows 7 SP1, Windows 8/8.1 Windows Server OS (64-bit): Windows Server 2008 R2 SP1, Windows Server 2012/2012 R2
Framework	<ul style="list-style-type: none"> .Net Framework 3.5 SP1

2.2.3. Deployment Options

Netwrix recommends to deploy Netwrix Auditor on any workstation—installation on a domain controller is not recommended.

3. Review Components Checklist

To speed up the evaluation process, Netwrix recommends you to ensure that the following services and components are up and running prior to the Netwrix Auditor installation.

Service or component	Recommendations
Active Directory	Test Active Directory domain connectivity. Make sure your domain controllers are accessible from the computer where you intend to install Netwrix Auditor.
SQL Server 2014 with SSRS (optional step)	<p>Although Netwrix Auditor provides a convenient interface for downloading SQL Server 2014 Express right from Netwrix Auditor Administrator Console, it is recommended to deploy SQL Server instance in advance. Test your SQL Server connectivity.</p> <p>NOTE: Netwrix Auditor provides an option to verify SSRS settings right in the Netwrix Auditor Administrator Console.</p>
Test account	<p>Netwrix recommends you to create a special account with extensive privileges. This account should have sufficient permissions to:</p> <ul style="list-style-type: none"> • Collect audit data. See Configure Data Processing Account Rights and Permissions for more information. • Access data stored in the SQL Server instance: <ul style="list-style-type: none"> • The account must be assigned the Database owner (db_owner) role and the dbcreator server role. • The account must be assigned the Content Manager role on the SSRS Home folder. • Make test changes in your environment.

3.1. Configure Data Processing Account Rights and Permissions

The Data Processing Account is used to collect audit data from the target systems.

In most cases, this account must be a member of the **Domain Admins** group, provided that the workstation with Netwrix Auditor installed and the audited system belong to the same domain.

To ensure successful data collection the Data Processing Account must comply with the following requirements depending on the audited system.

NOTE: The information in this section is outside the quick-start guide scope and is provided for reference only. See [Netwrix Auditor Installation and Configuration Guide](#) for detailed instructions on how to configure your Data Processing Account.

Audited system	Rights and permissions
NetApp Filer	<p><i>On the computer where Netwrix Auditor Administrator Console is installed:</i></p> <ul style="list-style-type: none"> • A member of the local Administrators group • The Log on as a batch job policy must be defined for this account • The Write permission on the folder where the Long-Term Archive is going to be stored (by default <code>C:\ProgramData\Netwrix Auditor\Data</code>) <p><i>On the target server:</i></p> <ul style="list-style-type: none"> • The Read share permission on the audited shared folders • To connect to NetApp Data ONTAP 7 or Data ONTAP 8 in 7-mode, an account must have the following capabilities: <ul style="list-style-type: none"> • login-http-admin • api-vfiler-list-info • api-volume-get-root-name • api-system-cli • api-options-get • cli-cifs • To connect to NetApp Cluetered Data ONTAP 8, an account must be assigned a custom role (e.g., <code>fsa_role</code>) on SVM that has the following capabilities with access query levels: <ul style="list-style-type: none"> • version readonly • volume readonly • vserver audit readonly • vserver audit rotate-log all • vserver cifs share readonly

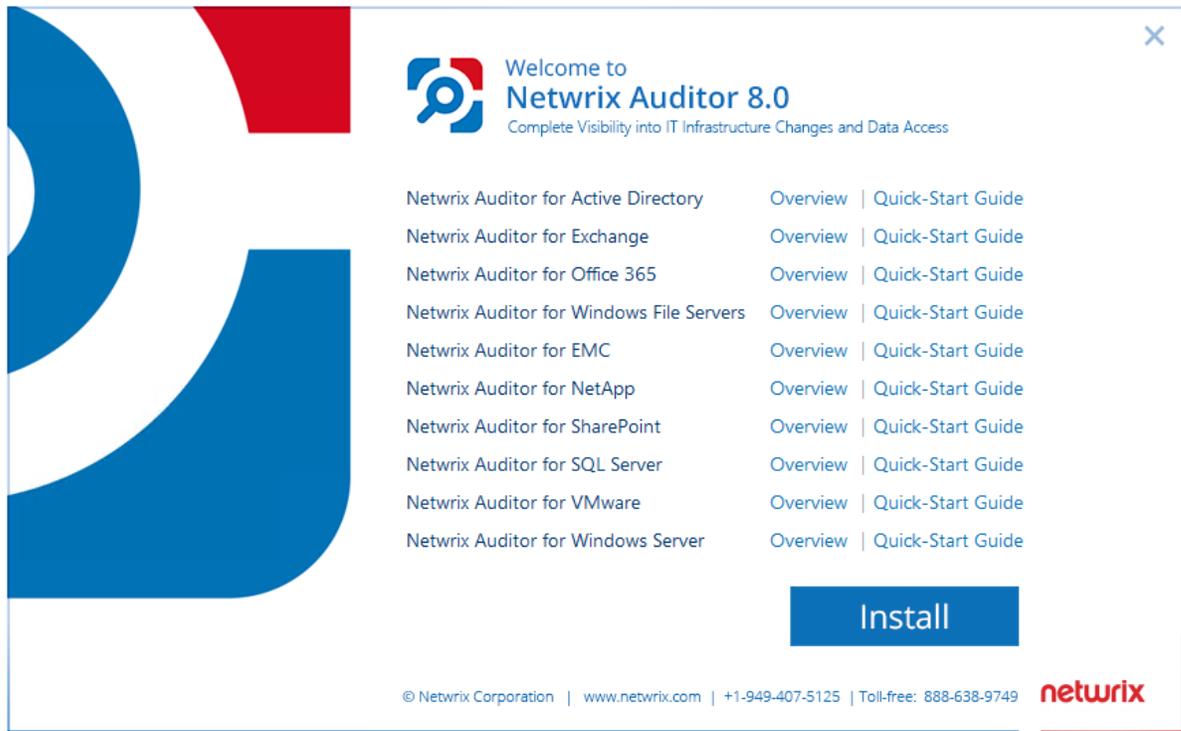
NOTE: You can also assign the builtin `vsadmin` role.

If you want to authenticate with AD user account, you must enable it to access SVM through ONTAPI. The credentials are case sensitive.

4. Install the Product

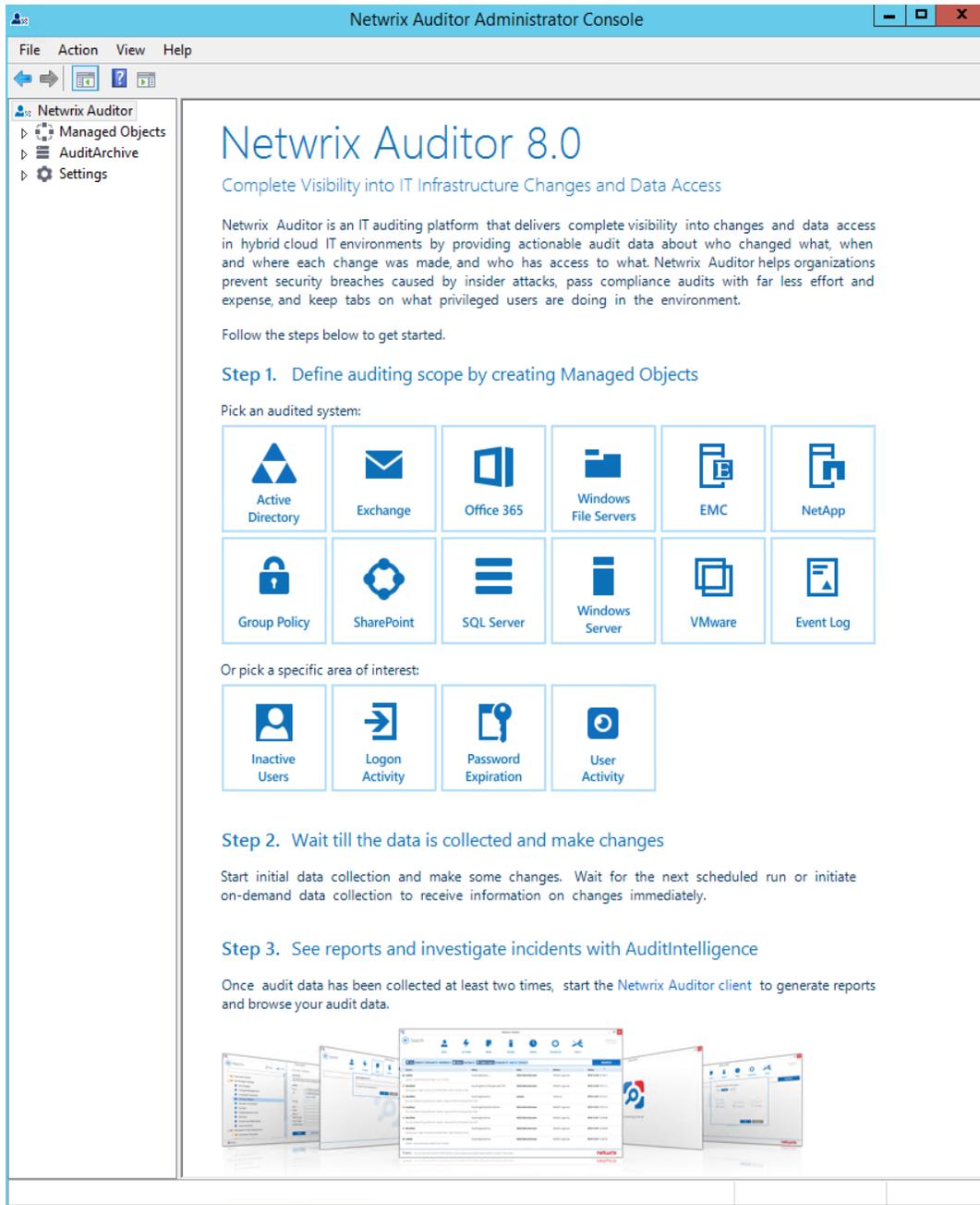
To install Netwrix Auditor

1. [Download](#) Netwrix Auditor 8.0.
2. Unpack the installation package. The following window will be displayed on successful operation completion:



3. Follow the instructions of the setup wizard. When prompted, accept the license agreement.
4. On the **Select Installation Type** step, select **Full installation**.
5. On the **Destination Folder** step, specify the installation folder.
6. Click **Install**.

After a successful installation, Netwrix Auditor shortcuts will be added to the **Start** menu/screen and Netwrix Auditor Administrator Console will open.



5. Configure NetApp Filer for Auditing

You can configure your file shares for auditing in one of the following ways:

- Automatically when creating a Managed Object

NOTE: For NetApp Data ONTAP 7 and 8 in 7-mode, configure audit automatically. For NetApp Clustered Data ONTAP 8 only audit settings for file shares can be configured automatically. See [Configure NetApp Clustered Data ONTAP 8 for Auditing](#) for more information.

- Manually. See [Netwrix Auditor Installation and Configuration Guide](#) for more information.

5.1. Configure NetApp Clustered Data ONTAP 8 for Auditing

To configure Clustered Data ONTAP for auditing, perform the following procedures:

- [Prerequisites](#)
- [Configure ONTAPI Web Access](#)
- [Configure Firewall Policy](#)
- [Configure Event Categories and Log](#)

5.1.1. Prerequisites

Perform the steps below before proceeding with Clustered Data ONTAP configuration:

1. Configure CIFS server and make sure it functions properly.

NOTE: NFS file shares are not supported.

2. Configure System Access Control List (SACL) on your file share.
3. Set the **Security Style** for **Volume** or **Qtree** where the audited file shares are located to the *"ntfs"* or *"mixed"*.
4. Configure audit manually. Review the **Auditing NAS events on SVMs with FlexVol volumes** section in [Clustered Data ONTAP® 8.3 File Access Management Guide for CIFS](#).

NOTE: The current version of Netwrix Auditor do not supports auditing of Infinite Volumes.

5.1.2. Configure ONTAPI Web Access

Netwrix Auditor uses ONTAPI to obtain the current CIFS audit configuration and force the audit data flush from the internal filer format to an MS Event Viewer compatible format. Netwrix Auditor supports both the SSL and non-SSL HTTP access, trying HTTPS first, and falling back to HTTP if it is unavailable.

1. Navigate to your cluster command prompt through the **SSH/Telnet** connection.
2. Log in as a cluster administrator and review your current web access settings. Make sure that External Web Services are allowed. For example:

```
cluster1::> system services web show
      External Web Services: true
              Status: online
      HTTP Protocol Port: 80
      HTTPS Protocol Port: 443
              TLSv1 Enabled: true
              SSLv3 Enabled: true
              SSLv2 Enabled: false
```

3. Enable ONTAPI access on the SVM where CIFS server is set up and configured. The example command output shows correct web access settings where `vs1` is your SVM name.

```
cluster1::> vsserver services web show -vsserver vs1
Vserver      Type      Service      Description      Enabled
-----
vs1          data      ontapi       Remote Administrative API Support      true
```

4. Enable **HTTP/HTTPS** access. For example:

```
cluster1::> vsserver services web modify -vsserver vs1 -name ontapi -enabled true
```

5. Enable only **SSL** access (HTTPS in Netwrix Auditor Administrator Console). For example:

```
cluster1::> vsserver services web modify -vsserver vs1 -name ontapi -enabled true -ssl-only true
```

6. Make sure that the builtin **vsadmin** role or a custom role (e.g., `fsa_role`) assigned to your Data Processing Account can access ONTAPI. For example:

```
cluster2::> vsserver services web access show -vsserver vs2
Vserver      Type      Service Name      Role
-----
vs2          data      ontapi           fsa_role
vs2          data      ontapi            vsadmin
vs2          data      ontapi            vsadmin-protocol
```

```
cluster2::> vserver services web access show -vserver vs2
vs2                data      ontapi      vsadmin-readonly
vs2                data      ontapi      vsadmin-volume
5 entries were displayed.
```

5.1.3. Configure Firewall Policy

Configure firewall to make file shares and Clustered Data ONTAP HTTP/HTTPS ports accessible from the computer where Netwrix Auditor Administrator Console is installed. Your firewall configuration depends on network settings and security policies in your organization. Below is an example of configuration:

1. Navigate to your cluster command prompt through the **SSH/Telnet** connection.
2. Log in as a cluster administrator and review your current firewall configuration. For example:

```
cluster1::> system services firewall show
Node          Enabled      Logging
-----
cluster1-01  true        false
```

3. If firewall disabled, complete the configuration. If not, allow HTTP/HTTPS. For example:

```
cluster1::> system services firewall policy modify -policy pol1 -service
http -action allow -ip-list 192.168.1.0/24
```

```
cluster1::> system services firewall policy modify -policy pol1 -service
https -action allow -ip-list 192.168.1.0/24
```

where `pol1` is your Firewall policy name and `-ip-list 192.168.1.0/24` is your subnet where Netwrix Auditor Administrator Console resides.

5.1.4. Configure Event Categories and Log

Perform the following procedures to configure audit:

- [To configure auditing state, event categories and log format](#)
- [To configure Security log size](#)
- [To configure logs retention period](#)

To configure auditing state, event categories and log format

1. Configure audit settings in the context of Cluster or Storage Virtual Machine. Navigate to command prompt through the **SSH/Telnet** connection.
2. Log in as a cluster administrator and review your audit settings. For example, for ONTAPI 8.3:

```
vs1::> vserver audit show -instance
```

```

Auditing State: true
  Log Destination Path: /logs
  Categories of Events to Audit: file-ops, cifs-logon-logoff
  Log Format: evtx
  Log File Size Limit: 100MB
  Log Rotation Schedule: Month: -
  Log Rotation Schedule: Day of Week: -
  Log Rotation Schedule: Day: -
  Log Rotation Schedule: Hour: -
  Log Rotation Schedule: Minute: -
  Rotation Schedules: -
  Log Files Rotation Limit: 0

```

3. Check the following options:

Option	Setting
Auditing State	true
Categories of Events to Audit	file-ops
	NOTE: Only required if you use ONTAP 8.3. You cannot select event categories if you use Clustered Data ONTAP 8.2.
Log Format	"XML" or "EVTX"

4. Update your audit settings if required. For example:

```
vs1::> vserver audit modify
```

To configure Security log size

1. Navigate to your Storage Virtual Machine command prompt through the **SSH/Telnet** connection.
2. Set the log file size limit. For example:

```
vserver audit modify -rotate-size 300MB
```

300MB is the recommended maximum log size proceeding from performance evaluations.
3. Perform any test actions with a file share to ensure the log is created.

To configure logs retention period

1. On the computer where Netwrix Auditor Administrator Console is installed, open **Registry Editor**: navigate to **Start** → **Run** and type "*regedit*".
2. Navigate to **HKEY_LOCAL_MACHINE** → **SOFTWARE** → **Wow6432Node** → **Netwrix Auditor** → **File**

Server Change Reporter.

3. In the right-pane, right-click and select **New → DWORD (32-bit Value)**.

NOTE: For the backup logs retention functionality to work properly, you need to specify the **CleanAutoBackupLogs** name for the newly created registry value.

4. Double-click **CleanAutoBackupLogs**. The **Edit DWORD Value** dialog will open.
5. This value defines the time period (in hours) after which security event logs archives will be automatically deleted. By default, it is set to "0" (decimal). Modify this value, if necessary, and click **OK** to save the changes.
6. **NOTE:** If the **CleanAutoBackupLogs** registry value is set to "0", you will have to remove the old logs manually, or you may run out of space on your hard drive.

To specify the Security log shared folder

Netwrix Auditor accesses audit logs via a specified file share. This may be either the default administrative share (ETC\$, C\$, etc.), or a custom file share.

NOTE: Perform the procedure below if you are not going to detect file shares automatically via Netwrix Auditor Administrator Console.

1. Navigate to your Storage Virtual Machine command prompt through the **SSH/Telnet** connection.
2. Review the local path to audit logs. For example:

```
vs1::> vserver audit show -instance
```

```

      Auditing State: true
      Log Destination Path: /logs
      Categories of Events to Audit: file-ops, cifs-logon-logoff
      Log Format: evtX
      Log File Size Limit: 100MB
      Log Rotation Schedule: Month: -
      Log Rotation Schedule: Day of Week: -
      Log Rotation Schedule: Day: -
      Log Rotation Schedule: Hour: -
      Log Rotation Schedule: Minute: -
      Rotation Schedules: -
      Log Files Rotation Limit: 0

```

3. Review the list of available file shares on your SVM. For example:

```
vs1::> vserver cifs share show
```

Vserver	Share	Path	Properties	Comment	ACL
vs1	admin\$	/	browsable	-	-
vs1	c\$	/	oplocks	-	BUILTIN\Administrators / Full Control
			browsable		
			changenotify		
vs1	ipc\$	/	browsable	-	-

4. Perform any test actions with a file share to ensure the log is created.

6. Create Managed Object to Audit File Servers

To start auditing your IT Infrastructure with Netwrix Auditor, you must create a Managed Object. A Managed Object is a container within Netwrix Auditor that stores information on the auditing scope, the Data Processing Account used for data collection, Audit Database settings, etc.

To create a Managed Object to audit NetApp appliances

1. On the main Netwrix Auditor Administrator Console page, click the **NetApp** tile to launch the **New Managed Object** wizard.
2. On the **Select Managed Object Type** step, select **Computer Collection** as a Managed Object type.
3. On the **Specify Default Data Processing Account** step, click **Specify Account**.

Enter the default Data Processing Account (in the *DOMAIN\user* format) that will be used by Netwrix Auditor for data collection. For a full list of the rights and permissions required for the Data Processing Account, and instructions on how to configure them, refer to [Netwrix Auditor Installation and Configuration Guide](#).

4. On the **Specify Email Settings** step, specify the email settings that will be used for Change Summaries, reports and real-time alerts delivery. Netwrix Auditor automatically detects SMTP settings or you can provide them manually. Complete the following fields:

Setting	Description
SMTP server	Enter your SMTP server name. It can be your company's Exchange server or any public mail server (e.g., Gmail, Yahoo).
Port	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.

Setting	Description
Password	Enter a password for the SMTP authentication.
Confirm password	Confirm the password.
Use Secure Sockets Layer encrypted connection (SSL)	Select this checkbox if your SMTP server requires SSL to be enabled.
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.

- On the **Specify Computer Collection Name** step, enter the computer collection name.
- On the **Audit Database Settings** step, make sure that the **Make audit data available via summary emails only** checkbox is cleared. By default, the Audit Database is created automatically and is used to store collected audit data.

Select one of the following:

- **Automatically install and configure a new instance of SQL Server Express Edition** to automatically install and configure SQL Server 2014 Express with Advanced Services.
- **Use an existing SQL Server instance with SQL Server Reporting Services** to use an already installed SQL Server instance. Netwrix Auditor detects local SQL Server instance automatically and pre-populates the fields.

Complete the following fields:

Option	Description
SQL Server Settings	
SQL Server instance	Specify the name of the SQL Server instance to store audit data.
Authentication	Select the authentication type you want to use to connect to the SQL Server instance: <ul style="list-style-type: none"> • 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_**

Option	Description
	owner) role and the dbcreator server role. See Netwrix Auditor Installation and Configuration Guide for more information.
Password	Enter a password.
SQL Server Reporting Services Settings	
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 be used to connect to SSRS.
Password	Enter a password.

7. On the **State-in-Time Reports** step, you can enable or disable **State-in-Time Reports**. This feature allows generating reports on your system configuration state at a specific moment of time in addition to change reports. If enabled, snapshots will be created daily and written to the Audit Database. This option is unavailable if the **Audit Database** settings are not configured.
8. On the **Add Items to Computer Collection** step, click **Add** to select items that you want to audit. You can add several items to collection. In the **Computer Collection New Item** dialog that opens, select the item type:
 - **NetApp Filer**—Complete the following:
 1. On the **Specify Items** step, provide a server name by entering its FQDN, NETBIOS or IP address. You can click **Browse** to select a computer from the list of computers in your network. Select **Only these** and click **Add** to select shared folders. Otherwise, all file shares (except hidden) hosted on this server will be audited.
 2. On the **Configure NetApp Filer Auditing** step, complete the following fields:

Option	Description
Use protocol	Select one of the following: <ul style="list-style-type: none"> • Automatically detected — If selected, a connection protocol will be detected automatically. • HTTP

Option	Description
	<ul style="list-style-type: none"> • HTTPS <p>NOTE: Refer to Netwrix Auditor Installation and Configuration Guide for detailed instructions on how to enable HTTP or HTTPS admin access.</p>
Specify account	<p>Select an account to be used to collecting data from NetApp Filer. If you want to use a specific account (other than the one you specified as the default Data Processing Account), select Custom and enter credentials. The credentials are case sensitive.</p> <p>NOTE: See Netwrix Auditor Installation and Configuration Guide for more information on required rights and permissions.</p>
Provide a File Share UNC path to audit logs	<p>Select one of the following:</p> <ul style="list-style-type: none"> • Automatically detected—If selected, a shared resource will be detected automatically. • UNC path—Path to the file share located on a NetApp Filer with event log files (e.g., \\CORP\ETC\$\log\).

- On the **Configure Audit in Target Environment** step, select **Automatically for the selected audited systems** if you want to audit file shares on NetApp Data ONTAP 7 and 8 in 7-mode. For NetApp Data ONTAP 8 in C-mode, only audit settings for file shares can be configured automatically, other settings must be applied manually. Your current audit settings will be periodically checked and adjusted if necessary.

NOTE: 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 [Netwrix Auditor Installation and Configuration Guide](#).

- On the **Configure File Server Auditing Settings** step, enter your email and specify actions you want to track.

Access Type	Description
Successful modifications	Commonly used option to track important data. Helps find out <i>who</i> created, modified, moved, renamed or removed files and <i>when</i> these changes were done.

Access Type	Description
Failed modification attempts	Used to track suspicious activity on your file server. Helps find out <i>who</i> tried to change or delete files, etc., but failed to do it. Investigate incidents with AuditIntelligence and figure out <i>why</i> that user tried to do it.
Successful reads	Used to supervise important files with confidential information for privileged users only. Browse your audit data in the Netwrix Auditor client and discover <i>who</i> accessed important files besides your trusted users. NOTE: Netwrix recommends not to enable this option for frequently used files in public shares as it will lead to logging a great many read events in your Audit Database.
Failed read attempts	Used to track suspicious activity. Helps find out <i>who</i> was trying to read files, but failed to do it. Investigate your incidents with AuditIntelligence and figure out <i>why</i> that user tried to do it. NOTE: Netwrix recommends not to enable this option for frequently used files in public shares as it will lead to logging a great many read events in your Audit Database.

- On the last step, review your Managed Object settings and make sure **Run data collection now** is enabled. Click **Finish** to exit the wizard. The newly created Managed Object will appear under the **Managed Objects** node.

When a new Managed Object is created, Netwrix Auditor starts collecting data from the audited IT infrastructure. The first data collection runs automatically and gathers information on the audited system's current configuration state. Netwrix Auditor uses this information as a benchmark to collect data on changes. After the first data collection has finished, an email notification is sent to your email stating that the analysis has completed.

7. Make Test Changes

Now that the product has collected a snapshot of the audited system's current configuration state, you can make test changes to see how they will be reported by Netwrix Auditor.

For example, make the following test changes:

- Create a new file/folder in your file share
- Modify a file attribute in your file share

NOTE: Before making any test changes to your environment, ensure that you have the sufficient rights, and that the changes conform to your security policy.

8. See How Netwrix Auditor Enables Complete Visibility

After you have made test changes to the audited environment, you can see how Netwrix Auditor brings real AuditIntelligence into your IT infrastructure and enables its complete visibility. This section explains how to review your test changes in the Netwrix Auditor client and Change Summary.

To launch the Netwrix Auditor client

- Navigate to Start → Netwrix Auditor.

The screenshot displays the Netwrix Auditor 8.0 interface within a window titled "Netwrix Auditor - STATIONWIN12R2". The main content area is divided into three sections: "Launch", "Enterprise Overview", and "Saved Searches".

- Launch:** Contains tiles for "Search", "Reports", and "Subscriptions".
 - Search:** A callout bubble explains: "Search your audit data to investigate who changed what, when, and where across the entire IT infrastructure".
 - Reports:** A callout bubble explains: "Review reports to stay compliant with internal and external security standards".
 - Subscriptions:** A callout bubble explains: "Subscribe to reports to keep track of changes on a regular basis".
- Enterprise Overview:** Features a line graph and several system tiles including "Exchange", "Windows File Servers", "EMC", "SQL Server", and "Windows". A callout bubble explains: "See a high-level overview of activity trends by date, user, server, object type or audited system in your IT infrastructure".
- Saved Searches:** Contains a tile for "Active Directory" and a list of saved searches, including "Domain Admins and Administrators groups changes". A callout bubble explains: "Save your favorite searches to access them instantly".

A large "Welcome to the new Netwrix Auditor interface!" dialog box is overlaid on the bottom right, with the text: "To bring AuditIntelligence to your IT infrastructure faster, read these 5 tips". It includes a checkbox for "Do not show this tutorial at startup" and an "Ok" button.

At the bottom of the window, the footer contains: "© Netwrix Corporation | www.netwrix.com | +1-949-407-5125 | Toll-free: 888-638-9749" and the Netwrix logo.

Review the following for additional information:

- [Review a Change Summary](#)
- [Browse Data with AuditIntelligence Search](#)
- [Review NetApp Overview](#)
- [Review the All File Servers Activity Report](#)

In order not to wait for a scheduled data collection and a Change Summary generation, launch data collection manually.

To launch data collection manually

1. In the Netwrix Auditor Administrator Console, navigate to **Managed Objects** → **your_Managed_Object_name**.
2. In the right pane, click **Run**.
3. Check your mailbox for an email notification and make sure that the data collection has completed successfully.

8.1. Review a Change Summary

A Change Summary is email that lists all changes that occurred since the last Change Summary delivery. By default, a Change Summary is generated daily at 3:00 AM and delivered to the specified recipients. You can also launch data collection and a Change Summary generation manually.

After the data collection has completed, check your mailbox for a Change Summary and see how your test changes are reported:

administrator@demolab.local
Netwrix Auditor: File Server Change Summary Annual_Reports
To: Administrator

Netwrix Auditor for File Servers

Change Summary

- Added 1
- Add (Failed Attempt) 0
- Removed 0
- Remove (Failed Attempt) 0
- Modified 2
- Modify (Failed Attempt) 0
- Moved 0
- Move (Failed Attempt) 0
- Renamed 0
- Rename (Failed Attempt) 0
- Read 1
- Read (Failed Attempt) 0

Action	Object Type	What	Where	Who	When	Details
■ Added	File	\Annual_Reports\Work_Items.docx	demolabfs	demolab\administrator	4/24/2015 3:34:21 AM	none
■ Modified	File	\Annual_Reports\Data.txt	demolabfs	demolab\administrator	4/24/2015 3:34:30 AM	Attributes changed to "Read-only"

This message was sent by Netwrix Auditor from demolabfs.local
www.netwrix.com

The example Change Summary provides the following information:

Column	Description
Action	Shows the type of action that was performed on the object.
Object Type	Shows the type of the object.
What	Shows the name of the changed object or its path.
Where	Shows the name of the server where the change occurred.
Who	Shows the name of the account under which the change was made.
When	Shows the exact time when the change occurred.
Details	Shows the before and after values of the modified object, object attributes, etc.

8.2. Browse Data with AuditIntelligence Search

Netrix Auditor delivers complete visibility into your IT infrastructure. Its convenient AuditIntelligence search interface enables you to investigate incidents and browse audit data collected across the entire IT infrastructure. When running a search in Netrix Auditor, you are not limited to a certain audited system, change type, or object name. You can create flexible searches that provide you with precise results on *who* changed *what*, *when* and *where*.

After collecting initial data, making test changes to your environment and running data collection again, you can take advantage of AuditIntelligence search.

To browse your audit data and see you test changes

1. On the main Netrix Auditor page, navigate to **Search**.
2. Add search filters to your search by clicking on a corresponding icon and providing a value. By default, all entries that contain this filter value are shown. For an exact match, use quotation marks.

Filters are used to narrow your search results. To create a unique set of filters, you can:

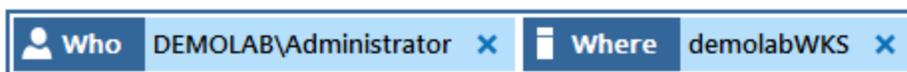
- Add different filters to your search. Search results will be sorted by all selected filters since they work as a logical conjunction (e.g., **Who: Administrator** AND **Action: Added**).
- Specify several values in the same filter to search for any of them (e.g., **Action: Modified** OR **Action: Removed**). To do this, select a filter again and specify a new value.

For example, consider adding these filters:

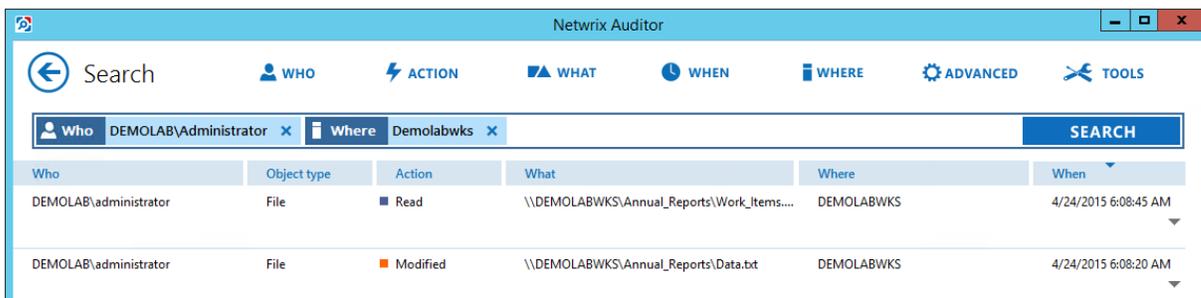
Filter	Value
 WHO	Specify your account name, as you performed test changes.
 WHERE	Specify your file server name.

NOTE: Refer to [Netrix Auditor User Guide](#) for detailed instructions on how to apply filters and change match types.

As a result, you will see the following filters in the **Search** field:



3. Click **Search**.



4. Now, you can narrow your search and modify it right from the search results pane. Double-click any entry that contains excess data, select **Exclude from search** and specify a filter, e.g., **Action: Read** to leave information on modifications and removals only.

Who	Object type	Action	What
DEMOLAB\administrator	File	■ Read	\\DEMO

Exclude from search

Details: No details

[Read more...](#)

Who: DEMOLAB\administrator

Object type: File

Audited system: File Servers

Managed object: DEMOLAB computers

Action: Read

What: \\DEMOLABWKS\Annual_Reports\Wo...

Where: DEMOLABWKS

When: 4/24/2015 6:08:45 AM

Your **Search** field will be updated, the filter will be added. Make sure to click **Search** again to update your search results.

Who	Object type	Action	What	Where	When
DEMOLAB\administrator	File	■ Modified	\\DEMOLABWKS\Annual_Reports\Data.txt	DEMOLABWKS	4/24/2015 6:08:20 AM
DEMOLAB\administrator	File	■ Removed	\\DEMOLABWKS\Annual_Reports\Goals.txt	DEMOLABWKS	4/24/2015 6:08:15 AM

5. Having reviewed your search results, navigate to **Tools**.

- Click **Export data** to save your search results as a *.pdf or *.csv file.
- Click **Save search** to save the selected set of filters. This search will be added to the **Saved Searches** section on the main Netwrix Auditor page, so that you will be able to access it instantly. Refer to [Netwrix Auditor User Guide](#) for detailed instructions on how to create saved searches.

8.3. Review NetApp Overview

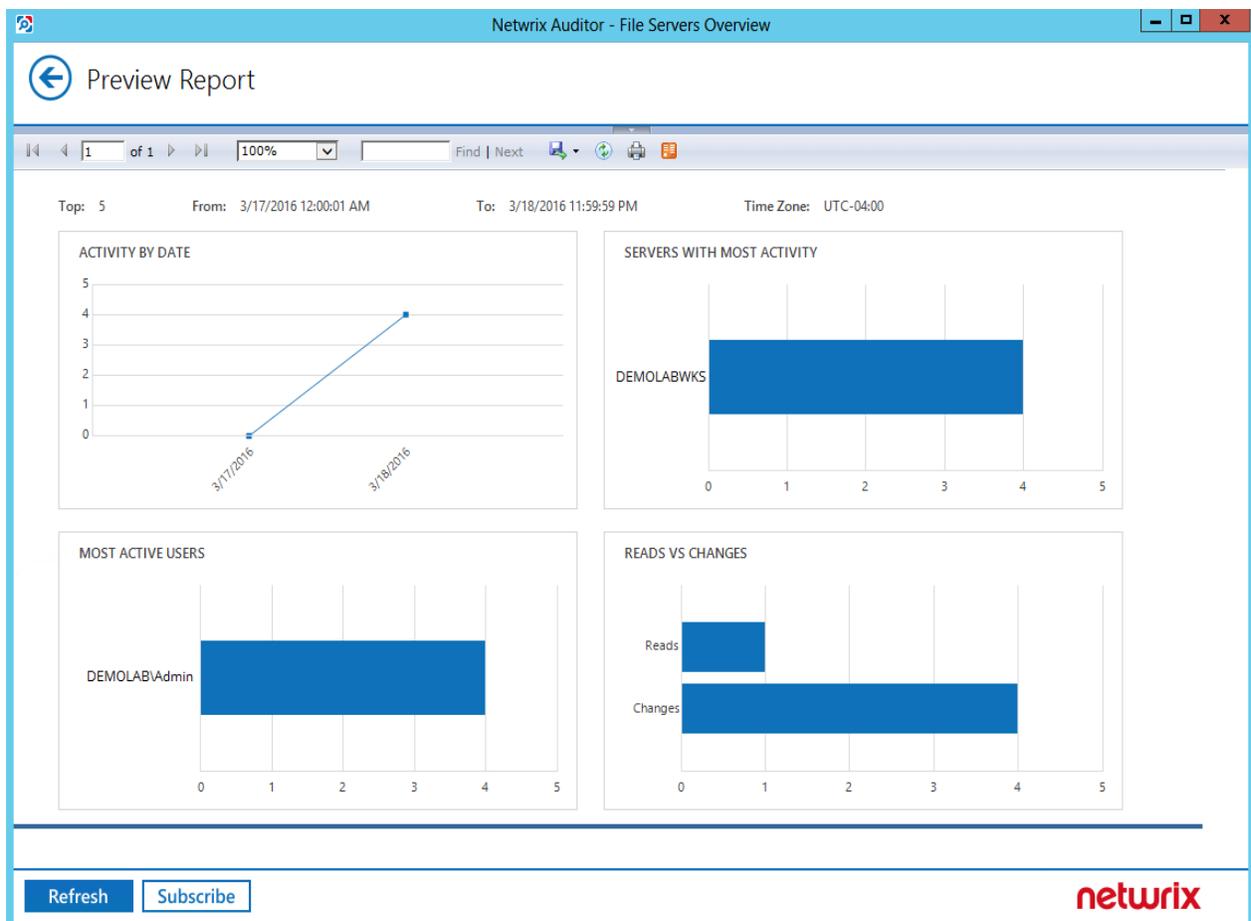
Enterprise Overview provide a high-level overview of activity trends by date, user, server, object type or audited system in your IT infrastructure. The **Enterprise** diagram aggregates data on all Managed Objects

and all audited systems, while system-specific diagrams provide quick access to important statistics within one audited system.

After collecting initial data, making test changes to your environment and running data collection again, you can take advantage of the **NetApp Overview**.

To see how your changes are reported with NetApp Overview

1. On the main Netwrix Auditor page, navigate to the **Enterprise Overview** section.
2. Click the **NetApp** tile to open it.
3. Review your changes.
4. Click on any chart to jump to a table report with the corresponding grouping and filtering of data.



8.4. Review the All File Servers Activity Report

Netwrix Auditor allows generating audit reports based on Microsoft SQL Server Reporting Services (SSRS). The Netwrix Auditor client provides a variety of predefined reports that aggregate data from the entire audited IT infrastructure, an individual system, or a Managed Object.

Change reports can be found under the **Reports** → **File Servers** → **File Servers Activity** and provide a narrower insight into what is going on in the audited infrastructure and help you stay compliant with various standards and regulations (FISMA, HIPAA, PCI, SOX, etc.).

After collecting initial data, making test changes to your environment and running data collection again, you can take advantage of the reports functionality.

To see how your changes are listed in the report

1. In the Netwrix Auditor client, navigate to **Reports** → **File Servers** → **File Servers Activity**.
2. Select the **All File Servers Activity** report.
3. Click **View** to open the report.

Filter		Value		
Action	Object Type	What	Who	When
Removed	File	\\DEMOLABWKS\Annual_Reports\Goals.txt	DEMOLAB\administrator	4/24/2015 6:08:15 AM
Where:		DEMOLABWKS		
Modified	File	\\DEMOLABWKS\Annual_Reports\Data.txt	DEMOLAB\administrator	4/24/2015 6:08:20 AM
Where:		DEMOLABWKS		
Read	File	\\DEMOLABWKS\Annual_Reports\Work_Items.docx	DEMOLAB\administrator	4/24/2015 6:08:45 AM
Where:		DEMOLABWKS		

9. Related Documentation

The table below lists all documents available to support Netwrix Auditor for NetApp:

Document	Description
Netwrix Auditor Installation and Configuration Guide	Provides detailed instructions on how to install Netwrix Auditor, and explains how to configure your environment for auditing.
Netwrix Auditor Administrator's Guide	Provides step-by-step instructions on how to configure and use the product.
Netwrix Auditor User Guide	Provides detailed instructions on how to enable complete visibility with AuditIntelligence.
Netwrix Auditor Integration API Guide	Provides step-by-step instructions on how to leverage Netwrix Auditor audit data with on-premises and cloud auditing solutions using RESTful API.
Netwrix Auditor Release Notes	Lists the known issues that customers may experience with Netwrix Auditor 8.0, and suggests workarounds for these issues.