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1. Introduction

This guide is intended for the first-time users of Netwrix Auditor for EMC. 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 monitoring plan to start auditing EMC appliances
- Launch data collection
- See how Netwrix Auditor enables complete visibility

**NOTE:** This guide only covers the basic configuration and usage options for auditing EMC 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 Online Help Center.

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 you achieve your specific business objectives, refer to Netwrix Auditor Best Practices Guide.

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.
2. Prerequisites and 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.

To learn about Netwrix Auditor licenses, refer to the following Netwrix Knowledge Base article: Netwrix Auditor Licensing FAQs. To learn how to install a license, refer to Licenses.

To learn about ports and protocols required for product operation, refer to Protocols and Ports Required for Netwrix Auditor.

To learn about security roles and permissions required for product operation, refer to Configure Netwrix Auditor Service Accounts.

2.1. Supported Data Sources

The table below lists systems that can be monitored with Netwrix Auditor for EMC:

<table>
<thead>
<tr>
<th>Data source</th>
<th>Supported Versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC</td>
<td>• EMC VNX/VNXe/Celerra families (CIFS configuration only)</td>
</tr>
<tr>
<td></td>
<td>• EMC Isilon 7.2.0.0 – 7.2.0.4, 7.2.1.0 – 7.2.1.2, 8.0.0.0, 8.1.0.0 (CIFS configuration only)</td>
</tr>
</tbody>
</table>

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

2.2.1. Hardware Requirements

This section provides rough estimations of the resources required for Netwrix Auditor PoC or evaluation deployment. Consider that actual hardware requirements will depend on your monitored infrastructure, the number of users in your environment, and activities that occur in the infrastructure per day.

The metrics provided in this section are valid for clean installation on a server without any additional roles or third party applications installed on it. The use of virtual machine is recommended.
Below you can find rough estimations, calculated for evaluation of Netwrix Auditor for EMC. Refer to [Netwrix Online Help Center](#) for complete information on the Netwrix Auditor hardware requirements.

You can deploy Netwrix Auditor on a virtual machine running Microsoft Windows guest OS on the corresponding virtualization platform, in particular:

- VMware vSphere
- Microsoft Hyper-V
- Nutanix AHV

Note that Netwrix Auditor supports only Windows OS versions listed in the [Software Requirements](#) section.

<table>
<thead>
<tr>
<th>Hardware component</th>
<th>Starter, evaluation, or small environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>2 cores</td>
</tr>
<tr>
<td>RAM</td>
<td>4 GB</td>
</tr>
<tr>
<td>Disk space</td>
<td>100 GB—System drive</td>
</tr>
<tr>
<td></td>
<td>100 GB—Data drive (Long-Term Archive and SQL Server)</td>
</tr>
<tr>
<td>Screen resolution</td>
<td>Minimum 1280 x 1024</td>
</tr>
<tr>
<td></td>
<td>Recommended 1920 x 1080 or higher</td>
</tr>
</tbody>
</table>

### 2.2.2. Software Requirements

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>Windows Server OS:</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2019</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2016</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2012 R2</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2012</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2008 R2 SP1</td>
</tr>
<tr>
<td>Windows Desktop OS (64-bit):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Windows 10</td>
</tr>
</tbody>
</table>
## 2. Prerequisites and System Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 8.1</td>
<td>• Windows 8.1</td>
</tr>
<tr>
<td>Windows 7 SP1</td>
<td>• Windows 7 SP1</td>
</tr>
<tr>
<td>.NET Framework</td>
<td>• .NET Framework 4.5 and above.</td>
</tr>
<tr>
<td>Installer</td>
<td>• Windows Installer 3.1 and above</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Service or component</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network and target systems or servers that work as your data sources</td>
<td>Test connectivity to your data source. Make sure you can access it by its NetBIOS and FQDN name from the computer where you intend to install Netwrix Auditor—use the nslookup command-line tool to look up domain names. Domain controllers must be accessible as well.</td>
</tr>
<tr>
<td>SQL Server with Reporting Services (or Advanced Services) 2008 or higher.</td>
<td>Supported SQL Server versions are listed <a href="#">here</a>. Consider maximum database size in different versions. Make your choice based on the size of the environment you are going to monitor, the number of users, and other factors. Remember that maximum database size in Express editions may be insufficient. <strong>NOTE:</strong> Although Netwrix Auditor provides a convenient way to download SQL Server 2014 Express edition right from the product, it is recommended to deploy SQL Server instance in advance. If installed separately, remember to test SQL Server connectivity.</td>
</tr>
<tr>
<td>Test account</td>
<td>Netwrix recommends you to create a special account with extensive privileges. This account should have sufficient permissions to:</td>
</tr>
<tr>
<td></td>
<td>• Collect audit data. See <a href="#">Configure Data Collecting Account</a> for more information.</td>
</tr>
<tr>
<td></td>
<td>• Access data stored in the SQL Server instance:</td>
</tr>
<tr>
<td></td>
<td>• The account must be assigned the Database owner (db_owner) role and the dbcreator server role.</td>
</tr>
<tr>
<td></td>
<td>• The account must be assigned the Content Manager role on the SSRS Home folder.</td>
</tr>
<tr>
<td></td>
<td>• Make test changes in your environment.</td>
</tr>
</tbody>
</table>

3.1. Configure Data Collecting Account

This service account is used to collect audit data from the data source items; it is specified during the monitoring plan creation.
Netwrix recommends creating a special service account for that purpose. Depending on the data source your monitoring plan will process, the account must meet the corresponding requirements.

**NOTE:** The information in this section is outside the quick-start guide scope and is provided for reference only. For detailed instructions on how to configure the data collecting account to access your audited platform or application, see [Netwrix Auditor Online Help Center](#).

<table>
<thead>
<tr>
<th>Data source</th>
<th>Required rights and permissions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC Isilon</td>
<td><a href="#">For EMC Isilon Auditing</a></td>
</tr>
<tr>
<td>EMC VNX/VNXe</td>
<td><a href="#">For EMC VNX/VNXe Auditing</a></td>
</tr>
</tbody>
</table>
4. Configure EMC VNX/VNXe for Monitoring

To collect comprehensive audit data, you must configure your file shares for monitoring. The configuration includes several manual and automatically performed steps:

- Automatically when creating a monitoring plan—Partially. Only audit settings for file shares will be configured.
- Manually.
  - **Configure Security Event Log Maximum Size** to avoid overwriting of the security logs; it is recommended to set security log size to a maximum (4GB).
  - **Configure Audit Object Access Policy**. Set the Audit object access policy set to “Success” and “Failure” in the Group Policy of the OU where your EMC VNX/VNXe/Celerra appliance belongs to.

4.1. Configure EMC VNX/VNXe for Monitoring

To collect comprehensive audit data, you must configure your file shares for monitoring. The configuration includes several manual and automatically performed steps:

- Automatically when creating a monitoring plan—Partially. Only audit settings for file shares will be configured.
- Manually.
  - **Configure Security Event Log Maximum Size** to avoid overwriting of the security logs; it is recommended to set security log size to a maximum (4GB).
  - **Configure Audit Object Access Policy**. Set the Audit object access policy set to “Success” and “Failure” in the Group Policy of the OU where your EMC VNX/VNXe/Celerra appliance belongs to.

4.1.1. Configure Security Event Log Maximum Size

1. On your file server, create a new file system where the security log will be stored.
2. Mount this file system on a mount point, e.g., /events.
3. Make sure that it is accessible via the \<file_server_name>\C$\events UNC path.
4. On the computer where Netwrix Auditor Server is installed, open Registry Editor: navigate to Start → Run and type “regedit”.
5. Navigate to File → Connect Network Registry and specify the file server name.
6. Navigate to HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\EventLog\Security and
set the File value to "C:\events\security.evt".

7. Set the MaxSize value to "4 000 000 000 (decimal)".

8. Restart the corresponding Data Mover for the changes to take effect.

### 4.1.2. Configure Audit Object Access Policy

**NOTE:** Netwrix recommends you to avoid linking a GPO to the top level of the domain due to the potential impact. Instead, create a new organization unit for your file servers within your domain and assign GPO there. For detailed instructions on how to create a new OU, refer to the following Microsoft article: [Create a New Organizational Unit](#).

1. Open the **Group Policy Management** console on any domain controller in the target domain: navigate to **Start** → **Windows Administrative Tools** (Windows Server 2016) or **Administrative Tools** (Windows 2012 R2 and below) → **Group Policy Management**.

2. In the left pane, navigate to **Forest: <forest_name>** → **Domains** → **<domain_name>**, right-click **<OU_name>** and select **Create a GPO in this domain and Link it here**.

3. Enter the name for the new GPO.

4. Right-click the newly created GPO and select **Edit**.

5. In the **Group Policy Management Editor** dialog, expand the **Computer Configuration** node on the left and navigate to **Policies** → **Windows Settings** → **Security Settings** → **Local Policies** → **Audit Policy**.

<table>
<thead>
<tr>
<th>Policy Subnode</th>
<th>Policy Name</th>
<th>Audit Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Policy</td>
<td>Audit object access</td>
<td>&quot;Success&quot; and &quot;Failure&quot;</td>
</tr>
</tbody>
</table>

6. Navigate to **Start** → **Run** and type "cmd". Input the `gpupdate /force` command and press **Enter**. The group policy will be updated.

**NOTE:** You can configure advanced audit policy to narrow the range of events tracked and recorded by the product, thus preventing your AuditArchive and the Security event log from overfilling. See [Netwrix Auditor Installation and Configuration Guide](#) for more information.

### 4.2. Configure EMC Isilon in Normal and Enterprise Modes

You can configure your cluster for monitoring in one of the following ways:

- Using the **configure_ifs.sh** shell script that comes with Netwrix Auditor. See [To configure EMC Isilon cluster in Normal and Enterprise mode via shell script](#) for more information.
Manually. See [Netwrix Auditor Installation and Configuration Guide](#) for detailed instructions on how to configure EMC Isilon for auditing manually.

**To configure EMC Isilon cluster in Normal and Enterprise mode via shell script**

1. On the computer where Netwrix Auditor Server resides, navigate to `C:\Program Files (x86)\Netwrix Auditor\File Server Auditing` and copy the `configure_ifs.sh` shell script to `/ifs/data` catalog on your cluster.

2. Navigate to your cluster command prompt through the SSH connection.

3. Log in to your cluster as a root user.

4. Run the shell script by executing the following command:
   ```
   sh /ifs/data/configure_ifs.sh -z zone1 -a 15
   ```
   where
   
   `zone1` is the name of the audited access zone on your file server.
   
   `15` is a combination of the bitwise flags. The table below shows the example combination of 4 flags:
   
   | successful changes | 1 |
   | failed change attempts | 2 |
   | successful reads | 4 |
   | failed read attempts | 8 |
   | total: | 15 |
5. Install the Product

To install Netwrix Auditor

1. Download Netwrix Auditor 9.9 from Netwrix website.

2. Unpack the installation package. The following window will be displayed on successful operation completion:

   ![Netwrix Auditor Installation Window]

   Welcome to Netwrix Auditor 9.9

   Netwrix Visibility Academy
   Get free resources and best practices for auditing your IT environment.
   Go to Netwrix Visibility Academy

   Documentation
   Visit Online Help Center for the latest guidelines on setup and upgrade.
   Go to Online Help Center

   Install Netwrix Auditor
   Run the setup and start Netwrix Auditor:
   [install]

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. On the Netwrix Customer Experience Program step, you are invited to take part in the Netwrix Customer Experience Program. It is optional on your part to help Netwrix improve the quality, reliability, and performance of Netwrix products and services. If you accept, Netwrix collects statistical information on how the Licensee uses the product in accordance with applicable law. Select Skip if you do not want to participate in the program.

   **NOTE:** You can always opt-out of the Netwrix Customer Experience Program later. See Netwrix Online Helpcenter for instructions on how to cancel participation in the program.

7. Click Install.
After a successful installation, Netwrix Auditor shortcut will be added to the Start menu/screen and the product will start.
6. Monitoring Plans

To start auditing your environment and analyzing user behavior with Netwrix Auditor, create a monitoring plan. All your monitoring plans are listed in the Monitoring Plans section.

A monitoring plan defines your data sources and general data collection, notification, and storage settings. To start collecting data, choose a data source, such as EMC, and add items to its scope. Item is a specific object you want to audit. All data sources and items in your plan share common settings so that you can supervise and manage several data collections as one.

On a high level, you should perform the following steps to start monitoring your environment:

1. Specify a data source and create a monitoring plan with a wizard. See Create a New Plan for more information.
2. Add items for monitoring. Netwrix Auditor does not collect data until you specify an item. See Add Items for Monitoring for more information.

6.1. Create a New Plan

On the main Netwrix Auditor page, click the All data sources tile in the Quick Start section.

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

6.1.1. 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.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specify the account for collecting data</td>
<td>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</td>
</tr>
</tbody>
</table>
### 6. Monitoring Plans

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable network traffic compression</td>
<td>If selected, this option instructs Netwrix Auditor to deploy a special utility that will run on the audited computers and do the following:</td>
</tr>
<tr>
<td></td>
<td>* collect and pre-filter audit data</td>
</tr>
<tr>
<td></td>
<td>* compress data and forward it to Netwrix Auditor Server</td>
</tr>
<tr>
<td></td>
<td>This approach helps to optimize load balance and reduce network traffic. So, using this option can be recommended especially for distributed networks</td>
</tr>
<tr>
<td></td>
<td>with remote locations that have limited bandwidth. See <a href="#">Network Traffic Compression</a> for more information.</td>
</tr>
<tr>
<td>Adjust audit settings automatically</td>
<td>Netwrix Auditor can configure audit settings in your environment automatically. Select <strong>Adjust audit settings automatically</strong>. In this case,</td>
</tr>
<tr>
<td></td>
<td>Netwrix Auditor will continually check and enforce the relevant audit policies. Consider, however, that for some data sources this approach is mostly</td>
</tr>
<tr>
<td></td>
<td>recommended for evaluation purposes in test environments; in the production environment, manual configuration is used more often (for example,</td>
</tr>
<tr>
<td></td>
<td>for Windows File Servers).</td>
</tr>
<tr>
<td></td>
<td>You may also want to apply audit settings via GPO (for example, for Windows Servers).</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> If you plan to monitor EMC Isilon, clear the checkbox. Currently, Netwrix Auditor cannot configure audit on EMC Isilon appliances</td>
</tr>
<tr>
<td></td>
<td>automatically. If you want to audit EMC VNX/VNXe, select <strong>Adjust audit settings automatically</strong>, but only audit settings for file shares</td>
</tr>
<tr>
<td></td>
<td>will configured, the rest of settings must be configured manually.</td>
</tr>
<tr>
<td></td>
<td>For a full list of audit settings and instructions on how to configure them manually, refer to <a href="#">Configure IT Infrastructure for Auditing and Monitoring</a>.</td>
</tr>
</tbody>
</table>

### 6.1.2. 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 [SQL Server and Audit Database](#).

**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:** Make sure the **Disable security intelligence and make data available only in activity summaries** checkbox is cleared.

Select one of the following options:

- **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.

- **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:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL Server instance</td>
<td>Specify the name of the SQL Server instance to store audit data.</td>
</tr>
<tr>
<td>Authentication</td>
<td>Select the authentication type you want to use to connect to the SQL Server instance:</td>
</tr>
<tr>
<td></td>
<td>- Windows authentication</td>
</tr>
<tr>
<td></td>
<td>- SQL Server authentication</td>
</tr>
<tr>
<td>User name</td>
<td>Specify the account to be used to connect to the SQL Server instance.</td>
</tr>
</tbody>
</table>

  **NOTE:** This account must be granted the **database owner (db_owner)** role and the **dbcreator** server role.

| Password            | Enter a password.                                                           |

### 6.1.3. 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.

Make sure the **Disable security intelligence and make data available only in activity summaries** checkbox is cleared and **Use default SQL Server settings** is checked.
### 6. Monitoring Plans

#### 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:** ***********

Configure the following:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disable security intelligence ...</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Database</strong></td>
<td>Default database name is <em>Netwrix_Auditor_&lt;monitoring_plan_name&gt;</em>. It is recommended that you enter a meaningful name for the database here. It may include the data source type (e.g., <em>ExchangeAudit_Data</em> or <em>OracleSrv02Audit_Data</em>), or so. If you decided to use the existing SQL Server instance instead of dedicated, you may want to use <em>Netwrix_Auditor</em> prefix to distinguish Netwrix Auditor databases</td>
</tr>
</tbody>
</table>
6. Monitoring Plans

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use default SQL Server settings</td>
<td>Select this option if you want Netwrix Auditor to connect to the SQL Server instance using the default settings you specified Default SQL Server Instance.</td>
</tr>
<tr>
<td>Specify custom connection parameters</td>
<td>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 Configure Audit Database Account for details.</td>
</tr>
</tbody>
</table>

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 Audit Database for details.

### 6.1.4. 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 this section for details.

### 6.1.5. Email Notification Recipients

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

Click Add Recipient and enter your email.

**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.

### 6.1.6. 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.

### 6.2. Add Items for Monitoring

Once you completed monitoring plan wizard and specified data sources, add items for monitoring.

Each data source has a dedicated item type. Netwrix Auditor automatically suggests item types associated with your data source. For example, select the **EMC VNX/VNXe** item.

#### 6.2.1. EMC VNX/VNXe

Complete the following fields:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>Specify EMC VNX or VNXe storage array</td>
<td>Provide a server name by entering its FQDN, NETBIOS or IPv4 address. You can click <strong>Browse</strong> to select a computer from the list of computers in your network.</td>
</tr>
<tr>
<td>Specify the account for collecting data</td>
<td>Select the account that will be used to collect data for this item.</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td></td>
</tr>
<tr>
<td>Monitor the following shares</td>
<td>If you want to limit your auditing scope by several shares, click <strong>Add</strong> under the <strong>Specific file shares</strong> and select shared folders. Otherwise, all file shares (except hidden) hosted on this server will be audited.</td>
</tr>
</tbody>
</table>
7. Make Test Changes

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

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.

For example, make the following test changes:

- Create a new file/folder in your file share
- Modify a file attribute in your file share
8. See How Netwrix Auditor Enables Complete Visibility

After you have made test changes to your environment, you can see how Netwrix Auditor brings security intelligence into your IT infrastructure and enables complete visibility. Take a closer look at the Intelligence section. It contains everything you need to enable complete visibility in your environment.

This chapter explains how to review your test changes with some of the Intelligence options and Activity Summary. Review the following for additional information:

- Review an Activity Summary
- Review Overview Dashboard
- Review the All Changes Report
- Browse Data with Intelligence Search

In order not to wait for a scheduled Activity Summary generation, force data collection and email delivery.

To launch data collection manually

1. Navigate to Monitoring Plans and select your plan in the list.
2. Click Edit.
3. In the your monitoring plan settings, click Update in the right pane.
4. Check your mailbox for an email notification and make sure that the data collection has completed successfully.
8.1. Review an Activity Summary

Activity Summary email is generated automatically by Netwrix Auditor and lists all changes that occurred since the last Activity Summary delivery. By default, 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.

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

![Activity Summary Email]

The example Activity Summary provides the following information:

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Shows the type of action that was performed on the object.</td>
</tr>
<tr>
<td>Object Type</td>
<td>Shows the type of the object.</td>
</tr>
<tr>
<td>What</td>
<td>Shows the name of the changed object or its path.</td>
</tr>
<tr>
<td>Item</td>
<td>Shows the item associated with the selected monitoring plan.</td>
</tr>
<tr>
<td>Where</td>
<td>Shows the name of the server where the change occurred.</td>
</tr>
<tr>
<td>Who</td>
<td>Shows the name of the account under which the change was made.</td>
</tr>
<tr>
<td>When</td>
<td>Shows the exact time when the change occurred.</td>
</tr>
<tr>
<td>Workstation</td>
<td>Shows the of the computer where the user was logged on when the change was</td>
</tr>
</tbody>
</table>
8. See How Netwrix Auditor Enables Complete Visibility

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details</td>
<td>Shows the before and after values of the modified object, object attributes, etc.</td>
</tr>
</tbody>
</table>

**8.2. Review Overview Dashboard**

**Overview** diagram provides a high-level overview of activity trends by date, user, server, object type or data source in your IT infrastructure. The **Overview** diagram aggregates data on all monitoring plans and all data sources, while system-specific diagrams provide quick access to important statistics within one data source.

After collecting initial data, making test changes to your environment and running data collection again, you can get at-a-glance statistics for changes with the **File Servers Overview**.

**To see how your changes are reported with File Servers Overview**

1. On the main Netwrix Auditor page, navigate to the **Intelligence** section and click the **Reports** tile.
2. Expand the **Predefined → File Servers → File Servers Activity** reports.
3. Select the **File Servers Overview** report and click **View**.
4. Review your changes.
5. Click on any chart to jump to a table report with the corresponding grouping and filtering of data.
8.3. Review the All Changes Report

The Netwrix Auditor client provides a variety of predefined reports that aggregate data from the entire audited IT infrastructure or individual data sources.

Change and activity reports can be found under the Reports → Predefined → your data source type 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. On the main Netwrix Auditor page, navigate to Reports → Predefined → your data source.
2. Select the All File Server Activity report.
3. Click View to open the report.

8.4. Browse Data with Intelligence Search

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

After collecting initial data, making test changes to your environment and running data collection again, you can review changes in details with Intelligence search.
To browse your audit data and see you test changes

1. On the main Netwrix Auditor page, navigate to Intelligence → 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.

**NOTE:** Refer to Netwrix Online Helpcenter for detailed instructions on how to apply filters and change match types

3. Click Search.

4. Now, you can narrow your search and modify it right from the search results pane. Click any entry that contains excess data, select Exclude from search in the Details section and specify a filter, e.g., Action: Added to leave information on modifications only.

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

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

- Click Save as report to save the selected set of filters. This search will be added to the Custom section inside Reports, so that you will be able to access it instantly. Refer to Custom Search-Based Reports for detailed instructions on how to create saved searches.
- Click Create alert to get instant email or SMS notifications on suspicious activity that matches your current search criteria. You only need to specify a name for a new alert, add recipient and assign a risk score. The selected set of search criteria will be associated with the new alert automatically. Refer to Alerts for detailed instructions on how to create and configure alerts.

Try making more similar test changes to provoke an alert. For example:
Once you have received the alert, click the **Behavior Anomalies** tile on the main Netwrix Auditor page to see how the product identifies potentially harmful users and displays their risk scores. Drill-down to user profile to review anomalies and mitigate risks. Refer to [Netwrix Online Helpcenter](http://www.netwrix.com) for more information on behavior anomalies and risk scores.
8. See How Netwrix Auditor Enables Complete Visibility

<table>
<thead>
<tr>
<th>Alert Time</th>
<th>Alert Name</th>
<th>Risk score</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/27/2017 7:32:36 AM</td>
<td>Program installation</td>
<td>70</td>
<td>Active</td>
</tr>
</tbody>
</table>
9. Related Documentation

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

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netwrix Auditor Online Help Center</td>
<td>Gathers information about Netwrix Auditor from multiple sources and stores it in one place, so you can easily search and access any data you need for your business. Read on for details about the product configuration and administration, its security intelligence features, such as interactive search and alerts, and Integration API capabilities.</td>
</tr>
<tr>
<td>Netwrix Auditor Installation and Configuration Guide</td>
<td>Provides detailed instructions on how to install Netwrix Auditor, and explains how to configure your environment for auditing.</td>
</tr>
<tr>
<td>Netwrix Auditor Administration Guide</td>
<td>Provides step-by-step instructions on how to configure and use the product.</td>
</tr>
<tr>
<td>Netwrix Auditor Intelligence Guide</td>
<td>Provides detailed instructions on how to enable complete visibility with Netwrix Auditor interactive search, report, and alert functionality.</td>
</tr>
<tr>
<td>Netwrix Auditor Integration API Guide</td>
<td>Provides step-by-step instructions on how to leverage Netwrix Auditor audit data with on-premises and cloud auditing solutions using RESTful API.</td>
</tr>
<tr>
<td>Netwrix Auditor Release Notes</td>
<td>Lists the known issues that customers may experience with Netwrix Auditor 9.9, and suggests workarounds for these issues.</td>
</tr>
</tbody>
</table>