

Quick Start Guide

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Document summary

ManageEngine ADAudit Plus is a user behavior analytics-driven change auditor that helps keep your Active Directory, file servers, Windows servers, and workstations secure and compliant.

This guide takes you through the basic configurations required to quickly set up ADAudit Plus for change auditing. To view the entire set of configurations, refer to the <u>online help document.</u>

1. System requirements

Hardware

It is recommend that you install ADAudit Plus on a dedicated Windows Server machine with the following specifications:

Resource	Minimum	Recommended
Processor	2.4 GHz	3 GHz
Core	4	8
RAM	8 GB	16 GB
Disk space	50 GB	100 GB

Note:

- Use a machine with 16 cores and 32 GB RAM for best performance.
- Deploy an agent for auditing large environments that are geographically distributed and operate across wide area network (WAN) connections, or involve 1000+ workstations. For information on how to deploy an **agent**, click here.
- DB disk space is dependent on the number of events ingested by ADAudit Plus and the archive settings configured in ADAudit Plus. To calculate the required **disk space**, run the product for a month, then use the disk utilization graph, by navigating to Admin > Disk space analysis, in the product.

Operating systems

ManageEngine ADAudit Plus can be installed and run on the following Microsoft Windows operating system versions:

- Windows Server 2022
- Windows Server 2019
- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2008 R2
- Windows Server 2008
- Windows 11
- Windows 10
- Windows 8.1
- Windows 8
- Windows 7 (EOLed by Microsoft)
- Windows Vista (EOLed by Microsoft)

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Web browsers

ManageEngine ADAudit Plus requires one of the following browsers to be installed in the system.

- Mozilla Firefox 3.6 and above
- Google Chrome
- Microsoft Edge

Recommended screen resolution:

1024 x 768 pixels or higher.

Databases

PostgreSQL is the default database of ADAP and comes bundled with it. MS SQL can also be used as the product database. Mentioned below are the versions supported:

- SQL Server 2022
- SQL Server 2019
- SQL Server 2017
- SQL Server 2016

Note: For steps to migrate from PgSQL to MS SQL database, click here.

Auditing platforms

ManageEngine ADAudit Plus supports the following platforms:

- Windows Active Directory 2008 and above
- AWS managed Active Directory
- Azure Active Directory/Microsoft Entra ID
- Active Directory Federation Service 2.0 and above
- Active Directory Certification Service
- Windows Server 2008 and above
- Windows workstations XP and above
- MacOS Catalina 10.15 and above
- Windows File Server 2008 and above
- Windows Failover Cluster with SAN
- NetApp Filer Data ONTAP 7.2 and above
- NetApp Cluster Data ONTAP 8.2.1 and above

- EMC Storage Systems: Celerra, VNX, VNXe,
- Unity, and Isilon
- Synology DSM 5.0 and above
- Hitachi NAS 13.2 and above
- Huawei OceanStor V5 series, OceanStor 9000
 V5 storage, and OceanStor Dorado
 All-Flash Storage, and OceanStor Hybrid Flash
 Storage (V6 series)
- Amazon FSx for Windows
- QNAP
- Azure files

- SQL Server 2014
- SQL Server 2012 (EOLed by Microsoft)
- SQL Server 2008 R2 (EOLed by Microsoft)

2. Prerequisites

Ensure that the following settings and components are configured prior to deploying ADAudit Plus.

2.1 Configuring audit policies and object-level auditing

Audit policy settings specify categories of security-related events that you want to audit. Advanced audit policy settings help administrators exercise granular control over which activities get recorded in the logs, helping reduce event noise.

Object-level auditing settings (referred to as system access control list [SACL] in this document), log attempts to access a secured object.

Audit policies or advanced audit policies (recommended for computers running Windows 7, Windows Server 2008, and later) must be configured for computers, while object-level auditing must be configured for secured objects to ensure that security-related events get logged whenever any relevant activity occurs.

Note: The required audit policy and object-level auditing settings can be configured automatically via the ADAudit Plus console, by following the steps found under the Automatic configuration section in each of the links found below.

2.1.1 To audit Active Directory:

- 1. <u>Configure the Default Domain Controller policy</u>.
- 2. Configure object-level auditing.

2.1.2 To audit Windows file servers:

- 1. <u>Configure audit policies for the Windows file servers</u> that need to be audited.
- 2. <u>Configure object-level auditing for the shares</u> that need to be audited.

2.1.3 To audit Windows member servers:

1. <u>Configure audit policies for the Windows servers</u> that need to be audited.

2.1.4 To audit Windows workstations:

1. <u>Configure audit policies for the Windows workstations</u> that need to be audited.

2.1.5 To audit NetApp Filers:

1. <u>Configure audit policies and SACLs for the NetApp Filers</u> Filers that need to be audited.

2.1.6 To audit NetApp clusters:

1. <u>Configure audit policies and SACLs for the NetApp clusters</u> that need to be audited.

2.1.7 To audit EMC servers:

1. <u>Configure audit policies and SACLs for the EMC servers</u> that need to be audited.

2.1.8 To audit EMC Isilon:

1. <u>Configure auditing settings for the EMC Isilon nodes</u> that need to be audited.

2.1.9 To enable File Integrity Monitoring (FIM):

1. <u>Configure audit policies for the domain controllers</u>, <u>Windows servers</u>, and <u>Windows</u> <u>workstations</u> on which file integrity needs to be monitored.

2. Configure object-level auditing for the shares that need to be audited.

2.1.10 To audit Group Policy Objects (GPOs):

1. <u>Configure the Default Domain Controller policy</u>.

2. Configure object-level auditing.

2.1.11 To audit removable storage devices:

1. <u>Configure audit policies for the domain controllers</u>, <u>Windows servers</u>, and <u>Windows</u> <u>workstations</u> on which removable storage activity needs to be audited.

2.1.12 To audit Windows PowerShell:

1. <u>Configure audit policies for the domain controllers</u>, <u>Windows servers</u>, <u>and Windows</u> <u>workstations</u> on which PowerShell activity needs to be audited.

2.1.13 To audit Active Directory Federation Service (AD FS):

1. <u>Configure audit policies for the domain controllers and Windows servers</u> on which AD FS activity needs to be audited.

2.2 Configuring security log size and retention settings

Security log size and retention settings must be configured to prevent loss of audit data due to overwriting of events.

Follow these recommendations to configure appropriate security log settings.

2.3 Ports to be opened

Ports must be opened to allow exchange of data between computers. Here is the <u>list of default ports used by ADAudit Plus and the ports that should be opened</u> <u>on the destination computers.</u>

2.4 Setting-up a service account

After the Domain Admin credentials are entered, ADAudit Plus starts to audit activities. If you do not want to provide Domain Admin credentials, follow these <u>steps to set up the service</u> <u>account to have only the least privileges required for auditing your environment.</u>

3. Deploying ADAudit Plus

ADAudit Plus is distributed in the EXE format. It is available in 32-bit (ADAudit Plus.exe) and 64-bit (ADAudit Plus_x64.exe) versions for <u>download</u>.

3.1 Installing ADAudit Plus

ADAudit Plus can be installed on any Windows operating system based-machine in the domain with the specified <u>system requirements.</u>

When you install the product, the Professional Edition is loaded, and will work for 30 days. After 30 days, it will automatically revert to the Free Edition, unless the Standard or Professional Edition license is purchased. Check out the various <u>editions of ADAudit Plus</u>.

ADAudit Plus can be installed as an application, or as a Windows service.

3.1.1 Installing ADAudit Plus as an application

By default, ADAudit Plus gets installed as an application. Once you've downloaded and launched the .exe file, follows these steps to install ADAudit Plus:

- 1. In the InstallShield Wizard that opens, click Next.
- 2. Read the License Agreement, and click Yes.
- 3. Choose the destination folder for installation files, and click **Next**. By default, ADAudit Plus is saved in C:\Program Files (x86)\ManageEngine\ADAudit Plus.
- 4. Enter the port number that you wish to use for ADAudit Plus, and click **Next**. By default, ADAudit Plus uses port number 8081.
- 5. Sign up for technical support by providing your business email ID, and click **Next**. You can choose to skip this step.
- 6. Click Next again, to begin installation. This process will take a few minutes. Once installation is complete, click **Finish**.

Note: When ADAudit Plus is installed as an application, it runs with the privileges of the user who is logged on to the system.

3.1.2 Installing ADAudit Plus as a Windows service (Recommended)

Installing ADAudit Plus as a Windows service is recommended to ensure that event collection does not stop even after a user logs out.

To install ADAudit Plus as a service from the Command Prompt:

After the product is installed, go to <Installation directory>\bin, open an elevated Command Prompt (right-click Command Prompt and select **Run as administrator**), and execute InstallNTService.bat

To install ADAudit Plus as a service from the Start menu:

After the product is installed, Type ADAudit Plus in the Start search bar > Install ADAudit Plus Service > Run as administrator.

Note: When ADAudit Plus is installed as a Windows service, ADAudit Plus runs with the privileges of the service account provided in the Domain Settings tab, within the product console. Follow these steps to <u>set-up the service account with only the least privileges required</u> for auditing your environment.

3.2 Starting ADAudit Plus

ADAudit Plus can be started as an application or as a Windows service.

3.2.1 Starting ADAudit Plus as an application

After installing ADAudit Plus as an application, go to Windows > ADAudit Plus > Start ADAudit Plus server.

3.2.2 Starting ADAudit Plus as a Windows service

After installing ADAudit Plus as a service, go to Windows > Services > Right-click on ManageEngine ADAudit Plus > Start.

Note: When ADAudit Plus is started in Windows 8/7/Vista/XP/Windows 2012/2008 R2/2008/2003 machines with firewall enabled, Windows may display a security alert, asking whether to allow access to the following programs:

- Database Server
- Java(TM) 2 Platform Standard Edition binary

Click on Allow access to start ADAudit Plus.

Windows Security Alert					
Windows Firewall has blocked some features of this program					
Windows Firewall h all public, private a		e features of Java(TM) 2 Platform Standard Edition binary on orks.			
	Name:	Java(TM) 2 Platform Standard Edition binary			
	Publisher:	Sun Microsystems, Inc.			
	Path:	D: \program files (x86) \manageengine \4630 \adaudit plus \jre \bin \java.exe			
Allow Java(TM) 2 Platform Standard Edition binary to communicate on these networks:					
🔽 Domain netv	vorks, such as a	s workplace network			
Private networks, such as my home or work network					
Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)					
What are the risks of allowing a program through a firewall?					
		Allow access Cancel			

3.3 Launching ADAudit Plus

- Open a web browser and type http://<hostname>:<port number> in the address bar. The hostname is the DNS name of the machine where ADAudit Plus has been installed, and the port number is the web server port number that was specified during the installation of ADAudit Plus. The default port used by ADAudit Plus is 8081.
- **2.** Specify the user name and password as **admin** (for first time users) in the respective fields and click **Login**.

Note: After launching, ADAudit Plus automatically discovers the local domain and the domain controllers running in it. Login to ADAudit Plus web console > **Domain Settings > Configure >** Provide Domain Admin credentials, to start auditing. You can select the necessary domain controllers by clicking on the respective check boxes.

If you do not want to provide Domain Admin credentials, follow these steps to <u>set-up the service</u> account with only the least privileges required for auditing your environment.

In case automatic discovery fails, follow these steps to <u>manually add the required domain and</u> <u>domain controllers.</u>

4. Configuring components in ADAudit Plus

- 4.1 Configuring domain controllers.
- 4.2 Configuring file servers.
- 4.3 Configuring Windows member servers.
- 4.4 Configuring Windows workstations.
- 4.5 Configuring cloud directory (Azure AD).

Related documentation

- <u>ADAudit Plus help document</u> details the entire set of configurations related to ADAudit Plus.
- ADAudit Plus architecture details how ADAudit Plus works.
- Database migration guide covers the steps to:
 - Move DB and/or data from PostgreSQL/MySQL to MS SQL.
 - Move DB and/or data between two different versions of MS SQL.
 - Move DB and/or data from MySQL/MS SQL to PostgreSQL.
 - Move ADAudit Plus from one server/drive to another.
 - Move ADAudit Plus from 32-bit to 64-bit architecture.
- <u>Agent installation guide</u> covers the steps to install agents on target computers to enable agent based log collection.
- <u>SSL configuration guide</u> covers the steps to enable SSL in ADAudit Plus to secure communication between the users' web browsers and ADAudit Plus.
- <u>Event collection troubleshooting guide</u> covers solutions to resolve the common issues faced during event collection in ADAudit Plus.
- <u>Security hardening guide</u> details the recommended ways to configure ADAudit Plus to ensure that your data stays secure.
- <u>ADAudit Plus pricing</u> covers information about pricing and editions available.

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ManageEngine) ADAudit Plus

ManageEngine ADAudit Plus is a real-time change auditing and user behavior analytics solution that helps keep your Active Directory, Azure AD, Windows servers, and workstations secure and compliant.

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