ManageEngine
ADAudit Plus

Windows server auditing guide

www.adauditplus.com

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Document summary

A Windows member server is a computer that runs on Windows Server, belongs to a domain, and is not a domain controller. Windows member servers typically run different services and can act like a file server, print server, etc. For the sake of convenience, Windows member servers will be referred to as Windows servers in this guide.

ADAudit Plus is a real-time change auditing and user behavior analytics solution that helps keep your Windows servers secure and compliant. With ADAudit Plus, you can:

- Monitor file integrity.
- Audit local logon and account management.
- Track printer, removable storage, AD FS, AD LDS, and LAPS activities.
- Keep tabs on scheduled tasks and processes.

ADAudit Plus enables you to audit the following versions of Windows Server:

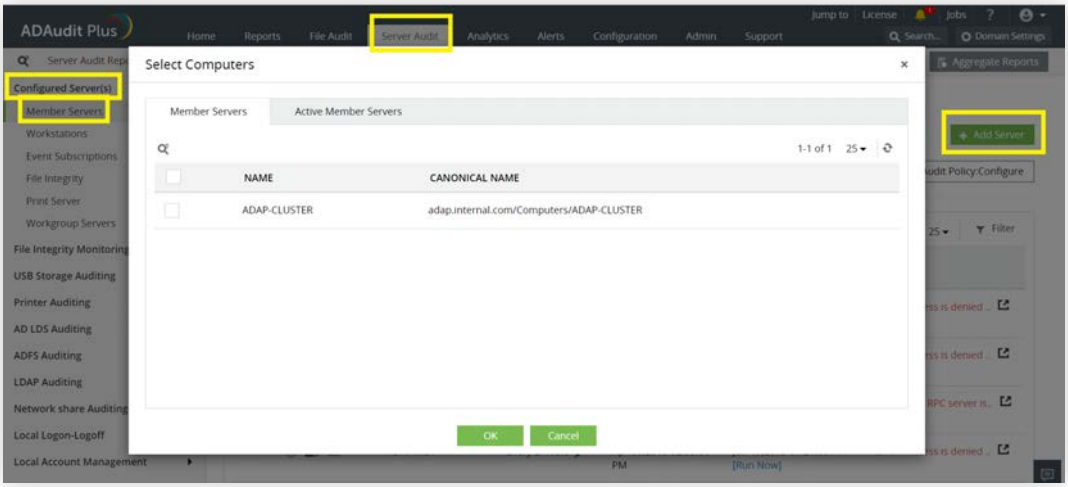
- Windows Server 2003/2003 R2
- Windows Server 2008/2008 R2
- Windows Server 2012/2012 R2
- Windows Server 2016
- Windows Server 2019

This guide takes you through the process of setting up ADAudit Plus and your Windows servers for real-time change auditing and user behavior analytics.

1. Configure Windows servers in ADAudit Plus

Log in to the ADAudit Plus web console. Go to the **Server Audit** tab → **Configured Servers** → **Member Servers** → **Add Server.** Enter the details needed to complete the configuration.

Note: ADAudit Plus can automatically configure the required audit policies for Windows server auditing. In the final step, you can either choose **Yes** to let ADAudit Plus automatically configure the required audit policies, or choose **No** to manually configure the required audit policies.



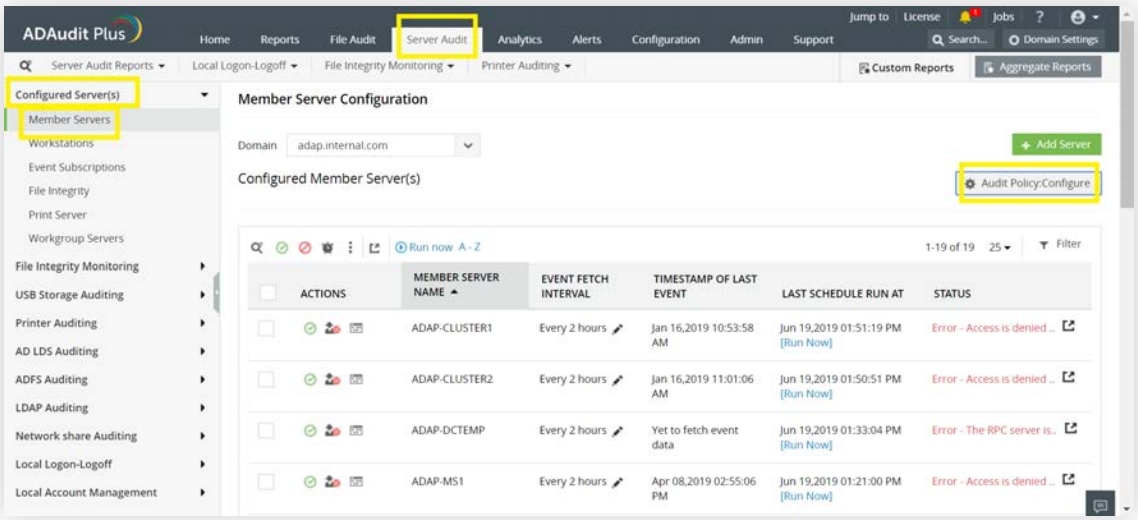
2. Configure audit policies in your domain

Audit policies must be configured to ensure that events are logged whenever any activity occurs.

2.1 Automatic configuration

Log in to the ADAudit Plus web console. Go to the **Server Audit** tab → **Configured Servers** → **Member Servers** → **Audit Policy: Configure.**

Note: ADAudit Plus can automatically configure the required audit policies for Windows server auditing. After clicking **Audit Policy: Configure** in the above step, you can either choose **Yes** to let ADAudit Plus automatically configure the required audit policies, or choose **No** to manually configure the required audit policies.



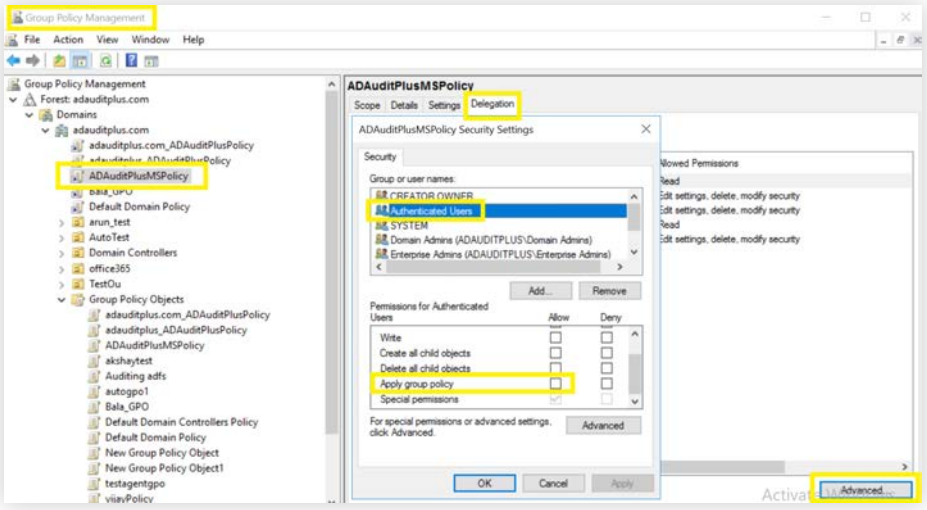
2.2 Manual configuration

1. Log in to any computer that has the Group Policy Management Console (GPMC) with Domain Admin credentials, then open the GPMC.
2. **Create a new domain-level GPO:** Right-click your domain, select **Create a GPO in this domain and Link it here,** then name the GPO "ADAuditPlusMSPolicy".

Note: Since configuring audit policies on individual computers is an elaborate process, a domain-level GPO is created and applied on all monitored computers.

2.2.1 Uncheck Apply Group Policy privilege for Authenticated Users in the ADAuditPlusMSPolicy GPO

Click ADAudit PlusMSPolicy, navigate to the right panel, and then select the **Delegation** tab → **Advanced** → **Authenticated Users.** Remove the Apply Group Policy permission.



2.2.2 Create a new group, add all Windows servers that need to be audited to the group, and link the ADAuditPlusMSPolicy GPO to the group:

1. **Log in to your domain controller with Domain Admin privileges.** Open Active Directory Users and Computers, right-click on your domain, then select **New → Group.** Name the group "ADAuditPlusMS".
2. **Add all the audited computers as members of the ADAuditPlusMS group:** Right-click the ADAuditPlusMSPolicy GPO, then select **Properties → Members.** Add all the Windows servers that you wish to audit.
3. **Add the ADAuditPlusMS group to the security filter settings of the ADAuditPlusMSPolicy GPO:** Open the GPMC, then select **Domain.** Select the ADAuditPlusMSPolicy GPO, navigate to the right panel, and click on the **Delegation** tab. Select **Advanced,** then add the ADAuditPlusMS group.

2.2.3 Configure advanced audit policies

Advanced audit policies help administrators exercise granular control over which activities get recorded in the logs, helping cut down on event noise. We recommend configuring advanced audit policies on Windows Server 2008 and above.

1. Log in to any computer that has the GPMC with Domain Admin credentials. Open the GPMC, then right-click **ADAuditPlusMSPolicy** and select **Edit.**
2. In the Group Policy Management Editor, go to **Computer Configuration → Policies → Windows Settings → Security Settings → Advanced Audit Policy Configuration → Audit Policy.** Double-click on the relevant policy setting.
3. Navigate to the right pane and right-click on the relevant Subcategory. Select **Properties,** then choose **Success, Failure,** or both, as directed in the table below.

Cateogory	Sub Category	Audit Events
Account Logon	◦ Audit Kerberos Authentication Service	✓ Success and Failure
Account Management	◦ Audit Computer Account Management ◦ Audit Distribution Group Management ◦ Audit Security Group Management	✓ Success

	• Audit User Account Management	✓ Success and Failure
Detailed Tracking	• Audit Process Creation • Audit Process Termination	✓ Success
DS Access	• Audit Directory Service Changes • Audit Directory Service Access	✓ Success
Logon/Logoff	• Audit Logon • Audit Network Policy Server	✓ Success and Failure
	• Audit Other Logon/Logoff Events • Audit Logoff	✓ Success
Object Access	• Audit File System • Audit Handle Manipulation • Audit File Share	✓ Success and Failure
Policy Change	• Audit Authentication Policy Change • Audit Authorization Policy Change	✓ Success
System	• Audit Security State Change	✓ Success

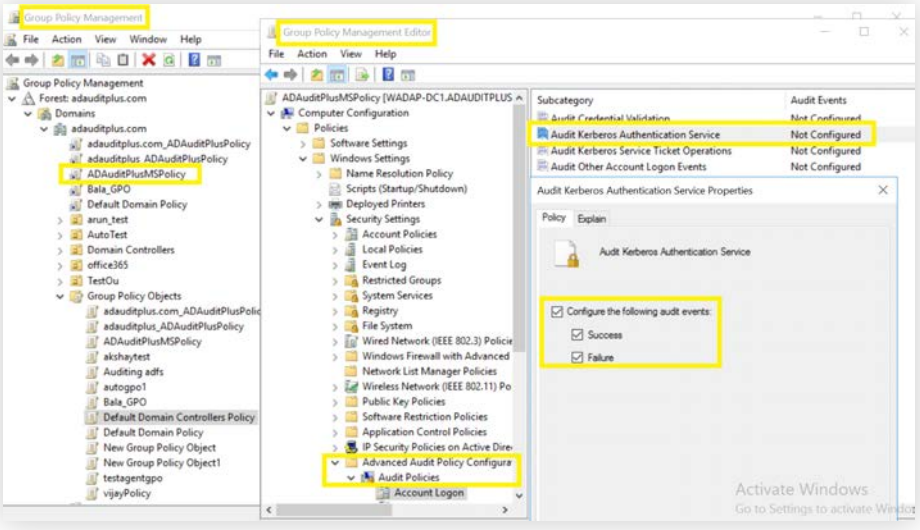
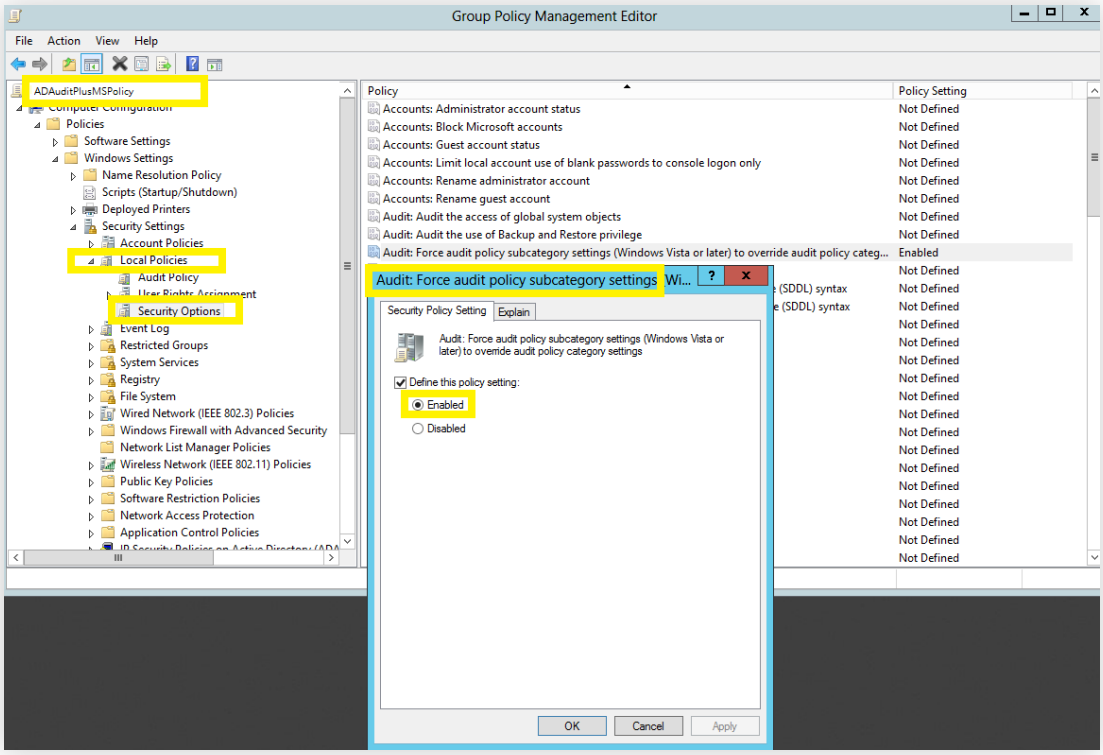


Image showing: Account Logon category → Audit Kerberos Authentication Service subcategory → Both Success and Failure configured.

2.2.4 Force advanced audit policies

When using advanced audit policies, ensure that they are forced over legacy audit policies.

1. Log in to any computer that has the GPMC with Domain Admin credentials. Open the GPMC, right-click **ADAuditPlusMSPolicy,** then select **Edit.**
2. In the Group Policy Management Editor, go to **Computer Configuration → Policies → Windows Settings → Security Settings → Local Policies → Security Options.**
3. Navigate to the right pane, then right-click **Audit: Force audit policy subcategory settings.** Select **Properties,** then **Enable.**



2.2.5 Configure legacy audit policies

Due to the unavailability of advanced audit policies in Windows Server 2003 and earlier versions, legacy audit policies need to be configured for these types of servers.

1. Log in to any computer that has the GPMC with Domain Admin credentials. Open the GPMC, right-click **ADAuditPlusMSPolicy,** then select **Edit.**
2. In the Group Policy Management Editor, go to **Computer Configuration** → **Policies** → **Windows Settings** → **Security Settings** → **Local Policies,** and double-click **Audit Policy.**
3. Navigate to the right pane and right-click on the relevant policy. Select **Properties,** then choose **Success, Failure,** or both, as directed in the table below:

Category	Audit Events
Account Logon	✓ Success and Failure
Audit Logon/Logoff	✓ Success and Failure
Account Management	✓ Success
Directory Service Access	✓ Success
Process Tracking	✓ Success
Object Access	✓ Success
System Events	✓ Success

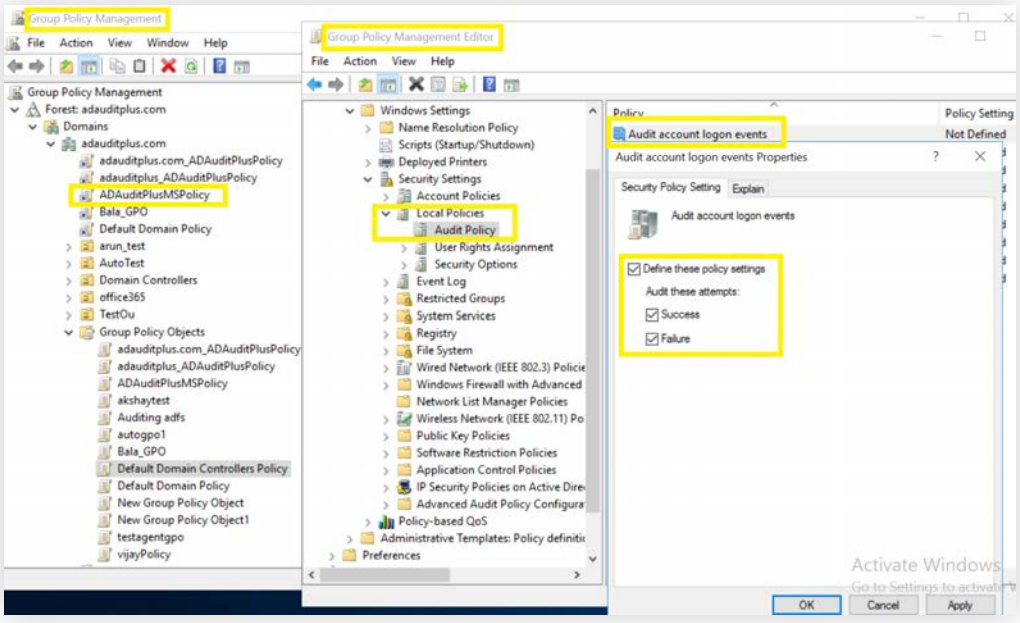


Image showing: Audit account logon events category → Both Success and Failure configured.

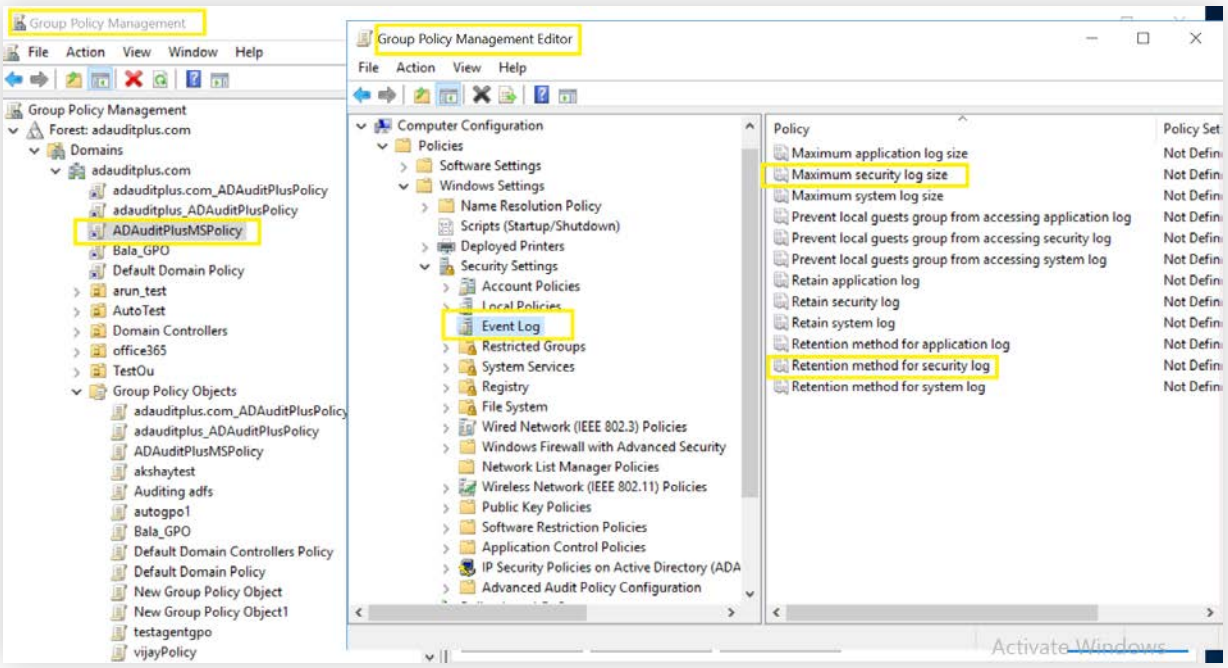
3. Configure event log settings in your domain

Event log size needs to be defined to prevent loss of audit data due to overwriting of events.

To configure event log size and retention settings, follow the steps outlined below:

1. Log in to any computer that has the GPMC with Domain Admin credentials. Open the GPMC, right-click **ADAuditPlusMSPolicy,** then select **Edit.**
2. In the Group Policy Management Editor, select **Computer Configuration → Policies → Windows Settings → Security Settings → Event Log.**
3. Navigate to the right pane and right-click on **Retention method for security log.** Select **Properties → Overwrite events as needed.**
4. Navigate to the right pane, then right-click **Maximum security log size** and define the size as directed in the table below.

Role	Operating System	Operating System
Windows file server	Windows Server 2003	512MB
Windows file server	Windows Server 2008 and above	4,096MB



4. FAQs

1. **To verify if the desired audit policies and security log settings are configured:**

   Log in to any computer that has the GPMC with Domain Admin credentials. Open the GPMC, right-click **Group Policy Results,** and open the Group Policy Results Wizard. Select the computer and user (current user), then verify if the desired settings as defined in step 2.2 are configured.

2. **To verify if the desired events are getting logged:**

   Log in to any computer with Domain Admin credentials. Open **Run,** then type "eventvwr.msc". Right-click on Event Viewer. Connect to the target computer, then verify if events corresponding to the configured audit policies are getting logged.

   For example, event ID 4768 should get logged when Success audit events is configured under the Audit Kerberos Authentication Service Subcategory, under the Account Logon Category (refer to step 2.2.1).