Advanced Configuration Guide for Autodesk®
Vault Server 2014
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Introduction

The Advanced Configuration Guide contains additional information for setting up the Autodesk® Vault Server 2014. The topics in this guide relate to the Autodesk® Vault Server and can be used for all versions of Vault 2014 unless otherwise noted in the instructions for each configuration. As these topics cover advanced configurations, some familiarity with IT procedures is assumed. For more information, refer to the Autodesk® Vault Server Implementation and Managing Your Data guides.

Installing Autodesk Vault Server 2014

For standard installation configurations, consult the Autodesk Vault Server 2014 Implementation guide.

Customizing your Autodesk Vault Server 2014 installation

To customize your installation perform the following:

1. From the Install > Configure Installation screen, select the down arrow “Easily manage, track, and organize your CAD data directly from your design application”.

2. Installation Type can be a Local Database, or a Remote Database. You may specify the SQL installation location if SQL has not been installed previously.

If a Remote database will be used, enter these options.
3. Optionally, you may set the SQL sa password during installation by checking the box next to Use my SQL credentials. **This will need to be entered if the Autodesk Vault SQL instance was installed prior to the Autodesk Vault Server with a sa password other than the default Autodesk Vault@26200. Additionally, you can specify the impersonation user account if desired.

4. Vault Server 2014 has the option to automatically configure IIS to a port other than the default HTTP port, 80.

5. Click the up arrow at the top of the available options to return to the installation product list and proceed with the installation.

Note: IIS 7.x, 8.x has a limit of 10 simultaneous requests on non-server OS editions. When the connection limit is reached, the request is queued until the number of currently processing requests drops below the limit. IIS then will take the first request in the queue and starts to process it. Previous versions of IIS would return an Error 403.9 Access Forbidden – Too many users are connected.
Configuring Internet Information Services (IIS) 7.x, 8.x

IIS 7.x/8.x can be installed by the Autodesk Vault Server 2014 installation process. If you are installing IIS 7.x/8.x manually, follow the steps below to configure the system options:

Windows 7/Windows 8

1. From the Windows Control Panel.
2. In the Control Panel, double-click Programs and Features.
3. In the Programs and Features group, click Turn Windows Features On or Off.
4. If prompted to allow the application to run, click Continue.
5. Select the following options underneath Internet Information Services:
   - IIS Metabase and IIS 6 configuration compatibility;
   - IIS Management Console;
   - .NET Extensibility;
   - ASP.NET;
   - ISAPI Extensions;
   - ISAPI Filters;
   - Default Document;
   - Directory Browsing;
   - HTTP Errors;
   - Static Content;
   - HTTP Logging;
   - Request Monitor;
   - Static Content Compression;
   - Request Filtering.
Windows 2008 / 2008 R2

1. From the Windows Start menu select **Server Manager**.
2. Under **Roles Summary** select **Add Role**.
3. On the Select Server Roles Page, select **Web Server (IIS)**

4. On the Select Role Services Page, add the following **Roles**:
## Role Services: 22 installed

<table>
<thead>
<tr>
<th>Role Service</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Server</td>
<td>Installed</td>
</tr>
<tr>
<td>Common HTTP Features</td>
<td>Installed</td>
</tr>
<tr>
<td>Static Content</td>
<td>Installed</td>
</tr>
<tr>
<td>Default Document</td>
<td>Installed</td>
</tr>
<tr>
<td>Directory Browsing</td>
<td>Not installed</td>
</tr>
<tr>
<td>HTTP Errors</td>
<td>Installed</td>
</tr>
<tr>
<td>HTTP Redirection</td>
<td>Not installed</td>
</tr>
<tr>
<td>Application Development</td>
<td>Installed</td>
</tr>
<tr>
<td>ASP.NET</td>
<td>Installed</td>
</tr>
<tr>
<td>.NET Extensibility</td>
<td>Installed</td>
</tr>
<tr>
<td>ASP</td>
<td>Not installed</td>
</tr>
<tr>
<td>CGI</td>
<td>Not installed</td>
</tr>
<tr>
<td>ISAPI Extensions</td>
<td>Installed</td>
</tr>
<tr>
<td>ISAPI Filters</td>
<td>Installed</td>
</tr>
<tr>
<td>Server Side Includes</td>
<td>Not installed</td>
</tr>
<tr>
<td>Health and Diagnostics</td>
<td>Installed</td>
</tr>
<tr>
<td>HTTP Logging</td>
<td>Installed</td>
</tr>
<tr>
<td>Logging Tools</td>
<td>Not installed</td>
</tr>
<tr>
<td>Request Monitor</td>
<td>Installed</td>
</tr>
<tr>
<td>Tracing</td>
<td>Not installed</td>
</tr>
<tr>
<td>Custom Logging</td>
<td>Not installed</td>
</tr>
<tr>
<td>ODBC Logging</td>
<td>Not installed</td>
</tr>
<tr>
<td>Security</td>
<td>Installed</td>
</tr>
<tr>
<td>Basic Authentication</td>
<td>Not installed</td>
</tr>
<tr>
<td>Windows Authentication</td>
<td>Installed</td>
</tr>
<tr>
<td>Digest Authentication</td>
<td>Not installed</td>
</tr>
<tr>
<td>Client Certificate Mapping Authentication</td>
<td>Not installed</td>
</tr>
<tr>
<td>IIS Client Certificate Mapping Authentication</td>
<td>Not installed</td>
</tr>
<tr>
<td>URL Authorization</td>
<td>Not installed</td>
</tr>
<tr>
<td>Request Filtering</td>
<td>Installed</td>
</tr>
<tr>
<td>IP and Domain Restrictions</td>
<td>Not installed</td>
</tr>
<tr>
<td>Performance</td>
<td>Installed</td>
</tr>
<tr>
<td>Static Content Compression</td>
<td>Installed</td>
</tr>
<tr>
<td>Dynamic Content Compression</td>
<td>Not installed</td>
</tr>
<tr>
<td>Management Tools</td>
<td>Installed</td>
</tr>
<tr>
<td>IIS Management Console</td>
<td>Installed</td>
</tr>
<tr>
<td>IIS Management Scripts and Tools</td>
<td>Not installed</td>
</tr>
<tr>
<td>Management Service</td>
<td>Not installed</td>
</tr>
<tr>
<td>IIS 6 Management Compatibility</td>
<td>Installed</td>
</tr>
<tr>
<td>IIS 6 Metadata Compatibility</td>
<td>Installed</td>
</tr>
<tr>
<td>IIS 6 WMI Compatibility</td>
<td>Not installed</td>
</tr>
<tr>
<td>IIS 6 Scoping Tools</td>
<td>Not installed</td>
</tr>
<tr>
<td>IIS 6 Management Console</td>
<td>Not installed</td>
</tr>
</tbody>
</table>
Windows 2012

1. From the Windows Desktop Bar, select **Server Manager**.
2. In the **Quick Start** section of the **Dashboard**, select **Add roles and features**.
3. For the **Installation Type**, select **Role-based or feature-based installation**.
4. For **Server Selection**, select the server you are currently working on.
5. On the **Server Roles**, select **Web Server (IIS)**.

6. If prompted to automatically add other services, select **Add Features**.
7. On the **Server Roles** section, select the following Roles

8. On the **Confirmation** section, verify your selections.
Installing Autodesk Vault Server 2014 with other web applications using a different .NET version

The Autodesk Vault Server software will usually coexist with other web applications in the Default Web Site of IIS. However, there are certain applications that require a different .NET Framework version. This section illustrates how you can configure the Autodesk Vault Server Virtual directory to run under a different .NET version in the Default Application pool. You cannot run two different versions of .NET Framework in the same application pool. To work around this limitation, you will need to create a second application pool, and then configure it to run .NET Framework 4.0. Prior to running the Autodesk Vault Server installation you will have to configure the Default Web Site to use .NET 4.0.

Internet Information Services (IIS) 7.x, 8.x

To create an Application Pool

1. Open Internet Information Services (IIS) Manager in the Administrative Tools of the Control Panel.
2. Right-click the Application Pools folder. Click Add Application Pool.
3. In the Name field, enter AutodeskAppPL.
4. Ensure
   - .NET Framework version: is set to “.NET Framework v4.0.30319”
   - Managed pipeline mode: is set to “Integrated”
   - Start application pool immediately is checked
5. Click the OK button to apply the changes.

To assign the new Application Pool

1. Under Sites, expand the Default Web Site and navigate to the AutodeskDM\Services virtual directory.
2. Right-click on the Services directory and select Manage Application -> Advanced Settings.
3. Under General, change the Application Pool to AutodeskAppPL
4. Click OK to apply the changes and close the properties of the Services virtual directory.
Enabling Windows Authentication on Windows 2008/R2/2012 after Installing Vault Server


2. While still in Server Manager, expand Web Server (IIS), click on IIS Manager, and navigate through to MachineName>Sites>Default Web Site>AutodeskDM. Select Services and Dbl-click on Authentication feature under the IIS section.

   **NOTE:** Services is the only tree node that would need Windows Authentication enabled. It is not necessary to enable WinAuth on Default Web Site or AutodeskDM directories.
3. Ensure Windows Authentication is Enabled; right-click and select Enable if otherwise.

For Windows 2008 R2/Windows 2012, while Windows Authentication is still selected select “Providers” and ensure that “Negotiate” and “NTLM” are listed.
If one is missing click “Available Providers” select the provider and click Add

Ensure that they are listed in this Order:

1. Negotiate
2. NTLM
If you have installed the "IIS Management Scripts and Tools" role in IIS, an alternative for setting the UI as shown in the above two screenshots, open a CMD prompt and execute the following commands (no quotes); if your website is other than 'Default Web Site', make the substitution prior to running each command:

A) "C:\Windows\System32\inetsrv\appcmd.exe set config "Default Web Site/AutodeskDM/Services" -section:system.webServer/security/authentication/windowsAuthentication /+"providers,[value='Negotiate']" /commit:apphost"

B) "C:\Windows\System32\inetsrv\appcmd.exe set config "Default Web Site/AutodeskDM/Services" -section:system.webServer/security/authentication/windowsAuthentication /+"providers,[value='NTLM']" /commit:apphost"

4. In Internet Explorer, set web browser security settings to automatic logon with current user name and password.
Reconfigure IIS Worker Process and Application Pool

IIS 7
1. Open the Active Directory Users and Computers and select an Organizational Unit (OU) to create the account in.
2. Create an account named AutodeskID. Set the password to match your domain password policy.
3. Make the AutodeskID account a member of the IIS_IUSRS local group on DMMachine.
4. Give AutodeskID account Full Control permissions to the %SystemRoot%\Temp directory on DMMachine.
5. Give the AutodeskID account Full Control permissions to the \FSMachine\VaultData remote file store directory.
6. Right click on the Application Pools and select Add Application Pool.
7. In the Add Application Pool dialog, name the application pool AutodeskAppPL and keep the other options at their default.
8. In the Applications Pool listing, find your newly created application pool and right click on it.
9. Select the Advanced Settings.
10. Under Process Model, Select Identity and change the Identity to use the Domain account (AutodeskID) that you created earlier.
11. Expand the Default Web Site and navigate to the AutodeskDM\Services virtual directory.
12. Right-click on the Services directory and select Manage Application -> Advanced Settings.
   1. Change the Application Pool to the newly created AutodeskAppPL Application Pool.
   2. Apply the changes and close the properties of the Default Web site.
   3. Close the IIS Manager.
   4. Open a Command prompt and type IISRESET.
   13. Add new files to the vault and verify that the properties are able to be indexed.

Installing Microsoft SQL Server prior to Autodesk Vault Server 2014

Vault Server 2014 will install Microsoft SQL 2008 SP3 x86 or x64 Express Edition (Build Number 10.0.5000.0) depending on the version of Vault that you are installing. If it is unable to find an existing SQL instance named AUTODESKVAULT. It is important to note, if Full SQL is installed without the AutodeskVault instance name, SQL Express will be installed.

If you plan on running a full SQL version with Vault Server 2014, it can be installed before or upgraded after the installation of Vault Server 2014.
Note: This installation process may require the server to reboot multiple times. Please be sure you are able to perform the necessary reboots. As noted previously, if a custom password for the SQL SA account is used, it will need to be specified during the installation of the Autodesk Vault Server. If using a custom password for the SA account, use something that adheres to your company’s password policy. We do not record the password for the SA account during installation.

Please see the Customizing your Autodesk Vault Server 2014 Installation section in this document.

Microsoft SQL 2008

1. Start the installation process for Microsoft SQL 2008 Server by selecting New SQL Server stand-alone installation or add features to an existing installation from the installation menu.

2. The installation process installs any necessary prerequisites and begins running the pre-installation checks. Note any errors and take the necessary corrective actions before continuing.

3. In the Feature Selection window, select Database Engine Services. You can also specify the installation location at this point.

4. In the Instance Configuration window, select Named instance and enter the name as AutodeskVault.

5. Note: If you install SQL without using this instance name, the Autodesk Vault Server installation will create its own instance of SQL Server named AutodeskVault using Microsoft SQL Express 2008 SP3. It will NOT recognize any SQL instance not named AutodeskVault.

6. In the Server Configuration window, select the Service Accounts tab.
a. Specify the **NT AUTHORITY\NETWORK SERVICE** account for the SQL Server Database Engine. The local system account is also acceptable to use. If you plan on performing backups and restores to remote locations specify a Domain User account. **Set the Startup Type to Automatic.**
7. In the Database Engine Configuration window, select the Account Provisioning tab.
   a. Select **Mixed Mode** authentication and set the SA password. The default password used during a default installation for the SA password is `AutodeskVault@26200`
   b. Add the local administrator account (or desired account) as a SQL Server administrator. **Only Windows users entered in this dialog will have full rights when logging into the SQL server. All other Windows logins will be treated as a guest account.**

   ![Database Engine Configuration Window](image)

   **Note:** If you use a different SA password, you will need to use the **use my SA Credentials** option in the **Customizing your Autodesk Vault Server 2014 Installation** section in this document.

8. Verify the installation options chosen and **Install**. Once the installer has finished, it can be closed.

9. Download and install SQL 2008 SP3 and applicable hot fixes from Microsoft’s web site if needed. The database engine version will be 10.0.5### once SP 3 has been successfully installed. **Verify Vault System Requirements.**
Microsoft SQL 2008 R2 (Express Edition)

1. Start the installation process for Microsoft SQL 2008 R2 Server Express Edition by selecting **New installation or add features to an existing installation** from the **Installation** menu.

2. The installation process installs any necessary prerequisites and begins running the pre-installation checks. Note any errors and take the necessary corrective actions before continuing.

3. Select the **Database Engine Services** and any additional roles required by the environment. **SQL Server Replication** is required in a Connected Workgroup environment and not supported with the Express edition of SQL, so it is not necessary to keep it checked. Keep **SQL Client Connectivity SDK** checked.

4. In the Instance Configuration window, select Named instance and enter the name as **AUTODESKVAULT**.

**Note:** If you install SQL without using this instance name, the Autodesk Vault Server installation will create its own instance of SQL Server called **AUTODESKVAULT** using Microsoft SQL Express 2008 SP2. It will **NOT** recognize any other SQL Instance name.
5. In the Server Configuration window, select the Service Accounts tab.
   a. Specify the **NT AUTHORITY\NETWORK SERVICE** account for the SQL Server Database Engine. The local system account is also acceptable to use. If you plan on performing backups and restores to remote locations specify a Domain User account. Set the Startup Type to Automatic.

6. In the Database Engine Configuration window, select the Account Provisioning tab.
   a. Select **Mixed Mode** authentication and set the SA password. The default password used during a default installation for the SA password is `AutodeskVault@26200`.
   b. Add the local administrator account (or desired account) as a SQL Server administrator. Only Windows users entered in this dialog will have full rights when logging into the SQL server. All other Windows logins will be treated as a guest account.

   ![Database Engine Configuration Window](image)

**Note:** If you use a different SA password, you will need to use the **use my SA Credentials** option in the Customizing your Autodesk Vault Server 2014 Installation section in this document.

7. Verify the installation options chosen and **Install**. Once the installer has finished, it can be closed.

8. Download and install SQL Server Service Packs from Microsoft’s web site if needed. **Verify Vault System Requirements.**
Microsoft SQL 2008 R2 / 2012 (Standard or Enterprise)

1. Start the installation process for Microsoft SQL 2008 R2 / SQL Server 2012 (Standard or Enterprise) by selecting **New SQL Server stand-alone installation or add features to an existing installation** from the installation menu.

2. The installation process installs any necessary prerequisites and begins running the pre-installation checks. Note any errors and take the necessary corrective actions before continuing.

3. During Setup Role, select **SQL Server Feature Installation**

4. Select the **Database Engine Services** and any additional roles required by the environment. **SQL Server Replication** is required in a Connected Workgroup environment and the **Management Tools** is recommended. Please note that only Management Tools – Basic is available in the Express version of SQL.

5. In the Instance Configuration window, select Named instance and enter the name as **AUTODESKVAULT**.
6. In the Server Configuration window, select the Service Accounts tab.
   
a. Specify the **NT AUTHORITY\NETWORK SERVICE** account for the SQL Server Database Engine. The local system account is also acceptable to use. If you plan on performing backups and restores to remote locations specify a Domain User account. **Set the Startup Type to Automatic.**
   
i. **NOTE:** The image below displays the startup type as manual. This must be set to Automatic.
7. In the Database Engine Configuration window, select the Account Provisioning tab.
   a. Select **Mixed Mode** authentication and set the SA password. The default password used during a default installation for the SA password is **AutodeskVault@26200**.
   b. Add the local administrator account (or desired account) as a SQL Server administrator. **Only Windows users entered in this dialog will have full rights when logging into the SQL server. All other Windows logins will be treated as a guest account.**

   ![Database Engine Configuration](image)

   **Note:** If you use a different SA password, you will need to use the **use my SA Credentials** option in the **Customizing your Autodesk Vault Server 2013 Installation** section in this document.

8. Verify the installation options chosen and **Install**. Once the installer has finished, it can be closed.

9. Download and install Service Packs from Microsoft's web site if needed. **Verify Vault System Requirements.**
Reconfiguring SQL Logins

If you don’t have a domain password policy, you can skip this section. If your domain has a password policy configured, you must use a password that complies with the policy. After the installation is complete, reset the sa password to AutodeskVault@26200 and uncheck the Enforce password policy check box. It is also necessary to create two SQL login accounts named VaultSys and ADMS-<COMPUTERNAME>.

To create the VaultSys account:

1. Open the Microsoft SQL Server Management Studio.
2. Expand the Security -> Logins folder.
3. Right-click on the Logins folder
4. Select New Login.
5. Type VaultSys for the login name.
7. Type Superman769400006! as the password.
8. **Uncheck** the box for Enforce password policy.
9. Select the Server Roles page.
10. Check the boxes next to the following roles:
   - dbcreator
   - processadmin
   - setupadmin
11. Click OK to create the account.

To create the ADMS-<COMPUTERNAME> account:

12. Open the Microsoft SQL Server Management Studio.
14. Right-click on the Logins folder
15. Select New Login.
16. Type ADMS-<COMPUTERNAME> for the login name. (Where <COMPUTERNAME> indicates the NT Computer name) Example, if the computer name is MAINSERVER then the login name would = ADMS-MAINSERVER.
17. Select SQL Server Authentication.
18. Type WeakerMan769400006! as the password.
19. Uncheck the box for Enforce password policy.
20. Select the Server Roles page.
   - Ensure that only public is selected.
21. Click OK to create the account.
Installing SQL Server on a Domain Controller

Referencing the following Microsoft Article:


Installing SQL Server on a Domain Controller

For security reasons, **Microsoft recommends that you do not install SQL Server 2008 / 2008 R2 / 2012 on a domain controller.** SQL Server Setup will not block installation on a computer that is a domain controller, but the following limitations apply:

- You cannot run SQL Server services on a domain controller under a local service account or a network service account.
- After SQL Server is installed on a computer, you cannot change the computer from a domain member to a domain controller. You must uninstall SQL Server before you change the host computer to a domain controller.
- After SQL Server is installed on a computer, you cannot change the computer from a domain controller to a domain member. You must uninstall SQL Server before you change the host computer to a domain member.
- SQL Server failover cluster instances are not supported where cluster nodes are domain controllers.
- SQL Server Setup cannot create security groups or provision SQL Server service accounts on a read-only domain controller. In this scenario, Setup will fail.

Upgrading The AUTODESKVAULT SQL instance

When upgrading to a higher version of Microsoft SQL Server, it is assumed the appropriate IT and engineering staff required, are available to allow access to the server and client systems, as well as to execute periodic system restarts. It is also recommended that the process be verified in a test environment prior to performing the upgrade on the production environment. Client side systems are needed to verify that the upgrade has been completed successfully.

The server upgrade can be performed at any time after Autodesk Vault Server has been installed or the AutodeskVault instance is installed and before Vault Server is installed.

During the upgrade, the SQL server instance and the Autodesk Vault Server Services are shut down. Anyone logged into the vault at the time is automatically disconnected. Make sure all users are logged out of the Autodesk Vault Server. The upgrade will not affect the state of checked out files, nor will it modify the database structure, state of the files, or parent child relationships.

Before upgrading SQL server, perform a backup from the Autodesk Vault Server Console application. For more information on backing up data, see the Autodesk Vault Server console Help.


Microsoft does not support cross-platform, in place, upgrades to or from 64 bit SQL. See the Microsoft “Version and Edition Upgrades” website for more information. This means that you cannot upgrade from 32 bit SQL to 64 bit SQL.
After Upgrading to SQL Standard or Enterprise

If you intend to implement the more advance features of SQL supported by Autodesk Vault, such as Replication, you will then need to switch to the Installation page and click, New installation or add new features to an existing installation.

On the Installation Type page, ensure that Add features to an existing instance of SQL Server 2008 R2 and the AUTODESKVAULT instance is selected.

On the Feature Selection page, ensure the features intended to be installed are selected.
In the above example, **SQL Server Replication** is needed to implement Connected Workgroups in Vault and **Management Tools – Complete** is recommended.

The SQL Server Agent needs to be set to run automatically on startup. Type `Services.msc` at a Run prompt. In the Services Console, locate **SQL Server Agent (AUTODESKVAULT)**, right click and select Properties, On the General tab, change the Startup type to Automatic, click Apply. Switch to the Log On tab, ensure that Network Service is selected, go back to General tab and click Start.

### Assigning SQL a custom TCP/IP Port

This section outlines the steps to set SQL to a non-standard TCP/IP port.

**SQL Server 2008, 2008R2 or 2012**

1. Install full SQL Server as per the Advanced Configuration Guide.
2. On the server where SQL is installed, start the **SQL Server Configuration Manager**.
3. In the SQL Server Configuration Manager dialog, expand the **SQL Server Network Configuration** and select **Protocols for AUTODESKVAULT**.
4. In the right pane double-click on the TCP\IP protocol to open its properties.
5. In the TCP\IP Properties dialog, select the **Protocol** tab and change the Enabled property to Yes.
6. Select the **IP Addresses** tab.
7. Scroll down to the bottom of the dialog until you get to the **IPAll** section.
8. Change the TCP Port field to the port you desire.
9. Apply your changes and select OK to close the TCP\IP Properties dialog.
10. In the SQL Server Configuration Manager dialog, select the **SQL Server Services** section in the left pane.
11. Select **SQL Server (AutodeskVault)** in the right-pane, right-click on it and select Restart.

**Autodesk Vault Server**

1. Run `C:\Windows\System32\cliconfig` from and the **SQL Server Client Network Utility**.
2. In the **SQL Server Client Network Utility** dialog, select the **Alias** tab.
3. In the **Alias** tab, select the **Add** button.
4. In the **Edit Network Library Configuration** dialog, select TCP/IP under Network Libraries.
5. In the **Server alias** box type the name of the server where SQL is installed along with the instance name.
6. **Uncheck** the Dynamically determine port and enter the port number you configured in step 8 above.

7. Click the **OK** button to apply the settings.
8. **Start** your Autodesk Vault Server installation.
Managing a remote file store

To move the location of your file store to a mapped drive or remote shared location:
The vault supports two basic file store configurations:

1. File store located on the Autodesk Vault Server.

2. File store located on a remote file server that has a shared folder.

A remote file server can be used for hosting the file store and/or backing up and restoring vault data. This section describes the steps required to configure a remote file store.
Moving the file store to a mapped drive or remote share

For simplicity purposes, the computer hosting Autodesk Vault Server is called **DMMachine** and the computer hosting the remote file store is called **FSMachine.** The domain name is **MyDomain.** We are also assuming that the server where Autodesk Vault Server is installed is a member server and not a domain controller.

If you have the Autodesk Vault Server installed on a domain control, the AutodeskVault domain account is used and you can go the Moving the File Store section below.

Create a new domain user account.

1. Open the Active Directory Users and Computers and select an Organizational Unit (OU) to create the account in.
2. Create an account named **AutodeskRemote.** Set the password to match your domain password policy and set the password to **never** expire.

Create a remote share.

1. Open Windows Explorer on the FSMachine and create a directory called **VaultData.**
2. Right-click on the folder and select **Properties.**
3. Go to the **Sharing** tab and create a new share named **VaultData.**
4. Click **Permissions** and set the **AutodeskRemote, Network Service,** and **System** user to **Full Control.**
5. Click **OK** in the Permissions for Share dialog box.
6. Go to the **Security** tab and add the **AutodeskRemote** account and set it to **Full Control** permission.

Setting the new account in the Autodesk Vault Server Console

1. On the DMMachine, open the Autodesk Vault Server console.
2. Select **Tools -> Administration.**
3. In the Advanced Settings tab select the Settings button next to **Advanced Configuration settings.**
4. In the Advanced Settings dialog, change the User Name to `MyDomain\AutodeskRemote` and type in the corresponding password.

![Advanced Settings dialog]

5. Apply the changes

6. Click OK.

**Moving the vault file store**

1. Select the vault which you would like to move to a different location.
2. Select Actions -> **Move File Store**.
3. Set the New File Store Location field to `\FSMachine\VaultData`.
4. Click OK.
User Account Control

If you plan to schedule automatic backups using ADMS Console, the User Account Control settings in Windows 7|Windows 8|2008|2008 R2|2012 must be configured to allow applications to run without prompting for administrator permission. **Note:** Configuring the following settings will affect all of the applications on your computer. All applications will be run without prompting for administrator approval.

1. From the Windows Start menu, type Run.
2. In the Run dialog box, enter secpol.msc. Click OK.
3. When you are prompted to allow the security policy application to run, click Continue.
4. In the **Local Security Policy** dialog box, expand:
   - Security Settings
     - Local Policies
     - Security Options
   - Click Properties.
     - Select **Elevate without Prompting**
     - Click OK.
6. Locate the **User Account Control: Run all administrators in Admin Approval Mode** policy and right-click it.
   - Click Properties.
7. Select Disable,
8. Click OK
Post-install Configuration Changes

Setting up a remote backup location
If you plan to back up your vault data to a remote share, follow the steps in the Creating a new domain user account, Create a remote share and Setting the new account in the Autodesk Vault Server Console sections in this document. After that is complete, you will have to modify the SQL Service to use a domain account using the following steps:

**Note**: The new domain account created for these steps needs to be added to the default SQL users group for the AutodeskVault instance. The group created by SQL 2008 is called SQLServer2008MSSQLUser$<computername>$AUTODESKVAULT.

1. Double-click the Services icon in the Administrative Tools in the Control Panel.
2. Double-click on the SQL Server (AutodeskVault) service and select the Log On tab.
3. Select the This Account radio button and enter a domain account in the form of Domain_Name\Domain_account (with the correct password).
   **NOTE**: If you change the service’s login credentials, you will be prompted to restart the MS SQL Server service. Please do so for changes to take effect. In addition, ensure that clients are not using the Autodesk Vault Server before restarting SQL Server.
4. Verify that the account specified has write access on the share to which you are backing up.
Configuring a remote Vault connection using FQDN

To configure the Vault Server to allow remote connections over the internet using a Fully Qualified Domain Name (FQDN):

1. Create a DNS "A" or host record for your current FQDN with your ISP.
2. Install Autodesk Vault Server on your server and verify that it works properly.
3. On your server, open the Internet Information Services Manager and expand the Websites folder.
4. Right-click on the website that contains the AutodeskDM virtual directory. Click Properties.
5. In the Properties dialog box, click the Website tab.
6. On the Website tab, click Advanced.
7. In the Advanced Website Identification dialog box, under the Multiple identities for the website, click Add.
8. In the Add/Edit Web Site Identification dialog box, select the correct IP address that will interact with the website.
9. Enter the TCP port you want to use. If this is not port 80, then your clients will have to add ":<port#>" at the end of the FQDN in order for the connection to work.
10. In the Host Header value, enter the FQDN.
11. Click OK to close each dialog box.

Note: Additional settings may be required for your router or firewall. Check with your IT department for the necessary changes.

How to increase the timeout values on the Autodesk Vault Server

As the vault database increases in size, you may have to modify some timeout values on the server to allow for the server to process more data. Increase the timeout values for client and server functions:

1. Open Windows Explorer and navigate to the C:\Program Files\Autodesk\ADMS Product 2014\Server\Web\Services directory.
2. Create a backup copy of the Web.config file.
3. Open the Web.config file with Notepad and look for the following line:

   ![Code snippet]

   Note: these values may be different, depending on the size of the vault and the speed of the server it is installed on. Higher values may be necessary.

5. Open a command prompt and type IISRESET.

Note: If you increase the defaultCommand value higher then 1000, you must increase the executionTimeout value to an equal or higher value. This is found on the following line:

   ![Code snippet]
Using Vault with a Proxy Server

This section describes setting up a proxy to enable successful Autodesk Client/Server data communication.

If a client machine connects to the web server through a proxy server, then all calls to the Autodesk Vault Server from any Autodesk client will fail. To have a successful Autodesk Client/Server communication, you need to bypass the proxy server.

Change the proxy settings in Internet Explorer 8, 9, 10

1. Open Internet Explorer.
2. From the Tools menu, select Internet Options.
3. Select the Connections tab.
4. Click LAN Settings.
5. If Automatically Detect Settings is selected, remove the check box.
6. If the Use a proxy server for your LAN check box is enabled, turn on the Bypass proxy server for local addresses check box.
7. Click the Advanced button next to the Port field.
8. In the Proxy Setting dialog, add the Vault Server name and IP address into the Exceptions field.
9. Click OK.
10. Click OK.
11. Click OK to close Internet Options.

All addresses without a period, for example: http://webserver, will bypass the proxy and be resolved directly.

If Internet Explorer continues to connect to the assigned HTTP proxy server, then the HTTP proxy address may contain a period. If this happens, configure the proxy server to use a host name.

Configure the proxy server to use a host name

1. Follow steps 1-5 above for changing the proxy settings in Internet Explorer.
2. If the “Address” field is http://webserver.domainname.com or http://10.0.0.1, then change it to http://webserver only.
3. Click OK and close Internet Explorer Options.

For more information on advanced proxy bypass configurations:

- Read Microsoft Knowledge Base article 262981: Internet Explorer Uses Proxy Server for Local IP Address Even if the ‘Bypass Proxy Server for Local Addresses’ Option Is Turned On

Bypassing a Proxy Server with the Application configuration file

By default HttpWebRequest's uses the proxy setting specified inside of Internet Explorer. You can change those settings by going to Control Panel -> Internet Options -> Connections Tab -> LAN Settings Button. You can disable auto detection by un-checking the "Automatically Detect Settings" button. In most cases this allows the client application to function properly. However, in some cases you may experience slow connectivity and delayed responses from the application when connected to Autodesk Vault Server. There is an option to disable proxy configuration through your application.exe.config file:

In this example, for Inventor, the configuration file is located in the following directory. Each client application has a similar configuration file. Make a backup copy of the file then edit the file using Notepad.exe ONLY.

"C:\Program Files\Autodesk\Inventor 2014\Bin\Inventor.exe.config"

Add this line of code to the file:

```xml
<system.net>
  <defaultProxy
    enabled="false"
    bypassonlocal="true"
  />
</system.net>
```

After you have added the text, save and close the file. The changes will take effect the next time the application is started.
Autodesk Vault Server Log Files

This section shows you where to find the various log files and other files used for troubleshooting potential problems with Autodesk Vault.

For the purposes of this section, we will refer to the %temp% folder. This is the temporary folder location defined in Windows for the user account that is currently logged into the computer. By default, this folder is located in the following location for all supported Operating Systems.

C:\Users\<Accountname>\AppData\Local\Temp

Vault server log files

There are the different log files to look for in the following location for all supported Operating Systems.

C:\ProgramData\Autodesk\VaultServer\Filestore

Vlog-YYYYMMDD.txt – Contains all other ADMS activities and events.

AVFS-YYYYMMDD.txt – Contains all FileStore specific functionality (file upload, download, sign-in) errors. Also any events related to the filestore such as replication.

ADMSConsoleLog-YYYYMMDD.txt – Contains any server-side problems related to backup, restore, purge reindex or other operations performed within the Autodesk Vault Server Console.

Emaillog-YYYYMMDD.txt – Contains errors in regards to email sent from the server.

LicensingLog.txt – Contains errors encountered by the Vault server when attempting to get a license from the license manager.

%TEMP%\DWGFILT.*.log – DWG iFilter Log Files – This is the log files use by the DWG iFilter when performing various Vault operations such as a re-index.

Autodesk Vault Server 2014 installation log files

During the installation of the Autodesk Vault Server, errors may be encountered and reported by the diagnostic tool or during the installation.

%TEMP%\EDMLog\prechecks.xml
%TEMP%\EDMLog\prechecks.xsl

Autodesk Vault <Version> 2014 Client Installation Logs

%TEMP%\Autodesk Vault <Version> 2014 Install.log
%TEMP%\Autodesk Vault <Version> 2014 Setup.log

Autodesk Vault <Version> 2014 Server Installation Logs

%TEMP%\Autodesk Vault <Version> 2014 (Server) Install.log
%TEMP%\Autodesk Vault <Version> 2014 (Server) Setup.log

Microsoft SQL Server log files

Folder – C:\Program Files\Microsoft SQL Server\<SQL Instance>\LOG

Filenames – Errorlog, Errorlog.1 – Errorlog.7

The SQL logs are named sequentially with the most recent (current) file being named errorlog followed by errorlog.1 then errorlog.2 and so on.
Enabling Logging in IIS (7.x or later)

IIS 7.0 (Which comes with Windows 7, Windows Server 2008, Windows Server 2008 R2) does not automatically install the very valuable Logging Feature by Default.

From a Windows 7 machine you need to make sure that the feature is installed before you can begin viewing the files that it generates.

In Control Panel > Programs and Features. Click "Turn Windows features on or off".

**Internet Information Services**

**Web Management Tools**

**IIS Management Console**, Check this

**World Wide Web Services**

**Health and Diagnostics**, Check all options

Restart the web service (From a command line type IISRESET).

Once Logging is installed, Open **Internet Information Services (IIS) Manager**.
Select the Site and clicking **Logging**

Click **Select Fields** and make sure all values are selected
Vault Professional 2014 Multisite Replication

This section addresses topics specifically related to the unique environments associated with replicating data to multiple work sites.

Scalability of Replication

Replication uses a single database for all sites and replicates the file store to each location. This architecture has distinct advantages in ease of implementation, end user experience and the instantaneous nature of the information availability. This architecture is not suited to multiple sites that are distributed over great distances or poor networks. It is recommended that the replication environments are not distributed across multiple continents.

If you are unsure of the appropriateness of Replication in your environment you can easily estimate the performance. The performance can be gauged between two remote sites by browsing a network share between the sites. If the responsiveness of the remote share is deemed acceptable for daily access Replication should also be acceptable. Vault communicates via http which is more efficient than the default windows system which is observed when browsing a remote share.

Vault Professional 2014, Service Pack 1, now offers Autodesk Vault File Server (AVFS) to be used at the remote site for multisite replication. Please see subscription center>Downloads>Product Enhancements for more information.
Content Center in a Replicated Environment

Introduction

Autodesk Inventor Standard Content is delivered in the form of library databases that are hosted by the Autodesk Vault Server. Users access these library databases through Inventor to automatically create selected library components as Inventor part files. Once instanced these components are stored in a folder defined by the Inventor project file. When the assembly is then checked into Vault, the instanced Content components are also checked into Vault.

In a Replicated Autodesk Vault environment we can tune the performance of Content Center by altering the configuration of the Inventor project file.

Assumptions

The following examples assume all software including the Content has been installed. These examples also assume the reader has a functional understanding of how Content is instantiated and referenced. If required please reference the Content Center help files.

The following diagrams show the SQL server as a separate computer for clarity. SQL Server may be on a separate computer or on the Autodesk Vault Server, either case is supported and has no impact on the workflows detailed in this document.

Private Content Center Folder

The default configuration when using Inventor is for each client to have a private Content folder.

Advantages:
- Suitable for assemblies that have a high volume of Content components by eliminating network traffic for existing local components.
- Allows each user to have only the content they use in their Private Content Folder.

Disadvantages:
- Consumes considerable disk space on the client
- Each client must instantiate each referenced component in their Private Content Folder
1. Client 1 creates an instance of a component from the Content Center database. The instanced part file is written to the Private Content Center folder located on the client computer.

2. User checks in the instanced component as part of an assembly. The Content part is copied into the Vault file store.

   Note: Keeping the part file in the local folder will remove the delays, for this user, due to instancing the part file or copying it from the file store.

3. Client 2 inserts the same component that Client 1 used. Since the part does not yet exist in the Private Content Center Folder for Client 2 it must be instanced from the database.

4. Once instanced the assembly may be checked into Vault. Vault knows that this component already exists and will resolve the assembly with the existing component in the file store.

5. During the scheduled replication at each Autodesk Vault Server the Content components will be copied to the local file store at each site.

6. Client 3 inserts the same component that Client 1 & 2 have previously used. The component must be instanced from the remote database. This is the same process as Client 2 in step 3 but the instantiation delay may be increased based upon the distance and network latency between the client and the SQL Server.
Seeding the Content Center Folders

The re-in-stancing of existing components can be avoided by performing a Get Entire Folder from the Vault thick client. This will seed the Content Center Folder with all instanced Content that has been checked into the Vault. This applies to both the Private and Shared Content Center Folders. In environments where new content is created frequently it may be advantages to perform this operation on regular basis.
## Revision History:

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<td>Transferred contents of ACG 2014 to new Autodesk template. Reformatted and fix headings, navigation, table of contents</td>
<td>10/10/13</td>
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<td>2.0</td>
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