Secret Server Installation Vista/Server 08 and Windows 7/Server 2008 R2

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Requirements

NOTE: This is the installation guide for Windows Vista, Windows 7, Windows Server 2008, and Windows Server 2008 R2. If you are looking for the installation guide for Windows XP and Windows Server 2003, please click here.

System Requirements

1. Microsoft SQL Server 2005 or Microsoft SQL Server 2008.
2. One of the following operating systems:
    - Windows Server 2008[1]
    - Windows Server 2008 R2
    - Microsoft Windows Vista Ultimate, or Windows Vista Business[2].
    - Microsoft Windows 7 Ultimate, or Windows 7 Professional[2].
3. Microsoft Internet Information Services (IIS) (Internal Part of Operating System)
4. Microsoft .NET Framework 3.5 with Service Pack 1. Both 32-bit and 64-bit editions are supported.

NOTE: Windows 7 and Windows Server 2008 R2 come with the .NET Framework 3.5 SP1 already installed (but may need to be enabled from the Server Role screen). You do not need to install the .NET Framework if you are using one of these operating systems, **but make sure it has been enabled as a Server Role**.

Recommendations

1. SSL enable your Secret Server.
2. **Run Microsoft Update on your server to make sure all components are up to date.**

[1] Both 32-bit and 64-bit Editions of Windows are supported. You must install the proper version of the .NET Framework to support 64-bit.
[2] Windows Vista/7 is only supported for testing environments. Microsoft does not support this operating system as a production environment.

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Before You Begin

Administrative Access

Throughout most of this installation, you will be required to be an administrator to perform most of these actions. Please ensure that you are logged on to your system with an account that has Administrative permissions.

Installation Process

Components should be installed in this order.

1. Internet Information Services (IIS)
2. ASP.NET 2.0 / .NET Framework 3.5 SP1 (Windows Vista / Server 2008 Only)
3. SQL Server 2008
4. Secret Server

Installing IIS

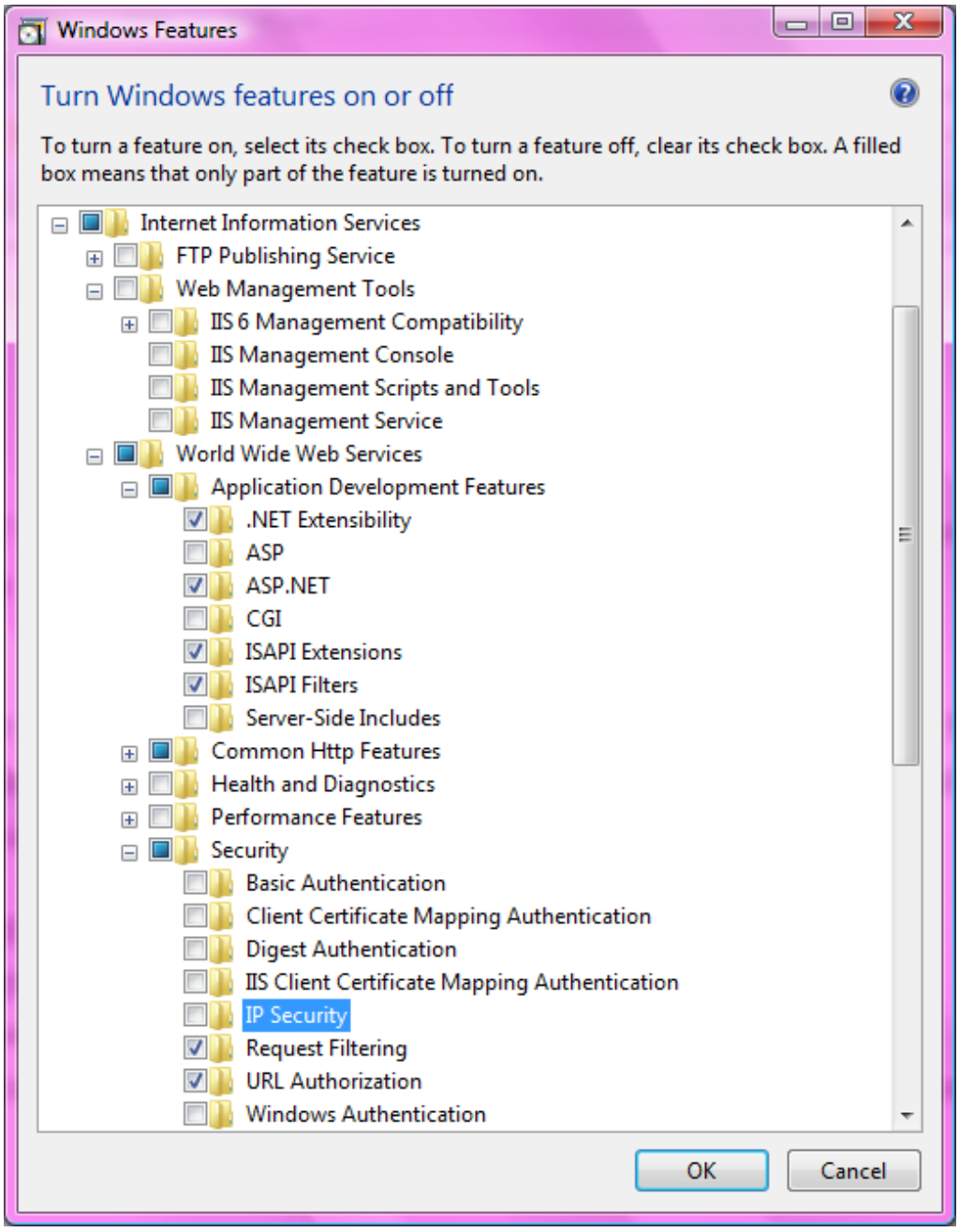
IIS is an internal part of the Microsoft Windows Operating System. Installing it will vary depending on which version of the Operating System you are using.

Windows Vista / Windows 7

Please ensure you have your Windows installation disk available if the system asks for it. This disk should have been included with the System Manufacturer or the Administrator that installed Windows on that machine.

1. Start by clicking the Start Menu, then Control Panel.
2. Open the “Programs and Features” Control Panel item.
3. On the left pane, click “Turn Windows Features on or off”.

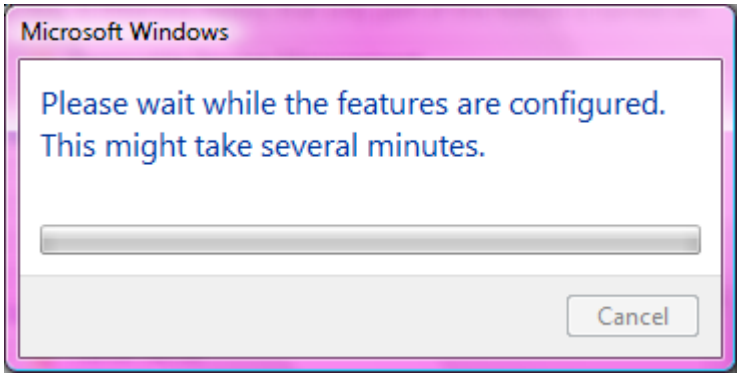
4. A dialog like this should appear. It may take a moment or two for the system to load.



Expanding “Internet Information Services” > “World Wide Web Services” > “Application Development Features” and checking “ASP.NET” will also check other needed dependencies.

5. Expand “Common Http Features” and check the following:
    a. Static Content
    b. Default Document

6. Click “OK”. At this point, Windows will now install IIS. It may ask you for your operating system’s disk.



7. At this point, IIS is now installed. Depending on your operating system, Windows may ask you to restart your computer.

You can verify the installation of IIS by opening the Control Panel, clicking “Administrative Tools”, and an icon in there should now appear called “Internet Information Services”.

We recommend you run Windows Update to get the latest security patches for IIS once you have IIS installed.

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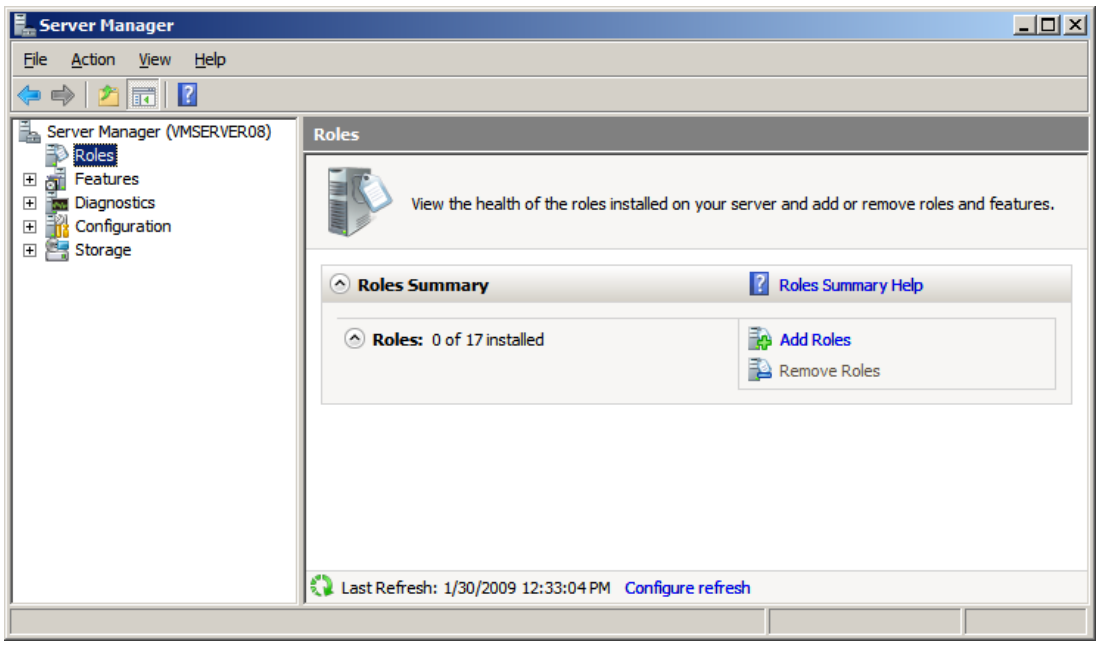
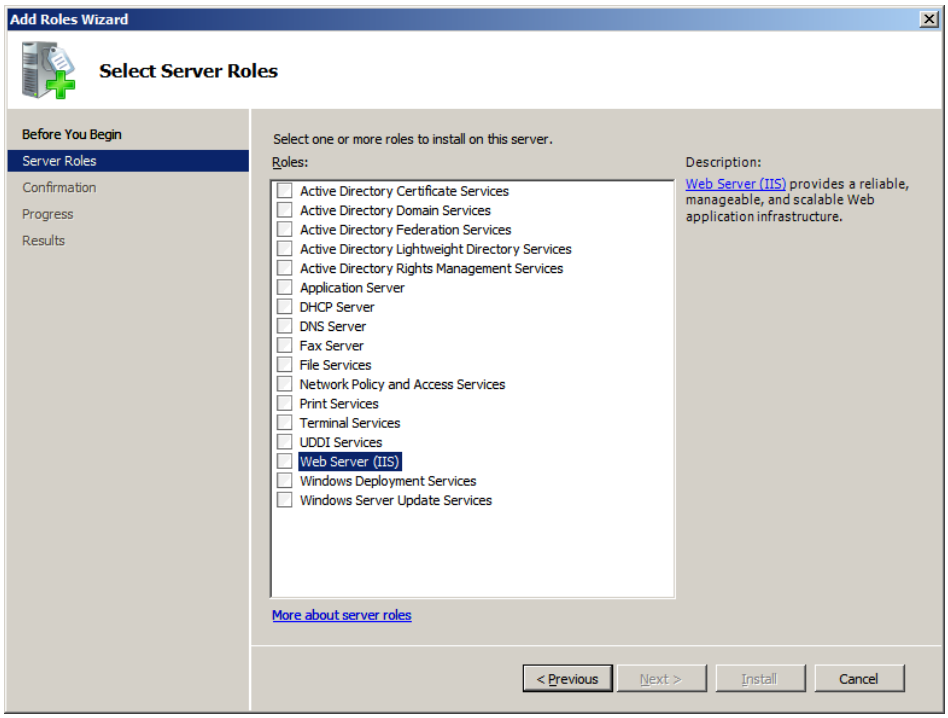
Windows Server 2008 / Windows Server 2008 R2

To install Internet Information Services on Windows Server 2008 or Server 2008 R2, you will give your server the “Web Server (IIS)” role.

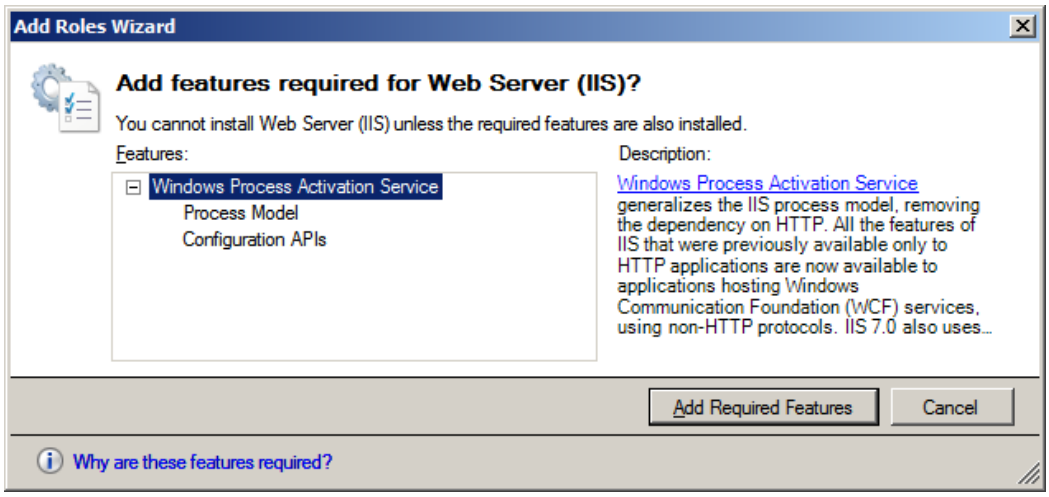
1. Begin by opening the Server Manager and selecting “Roles”



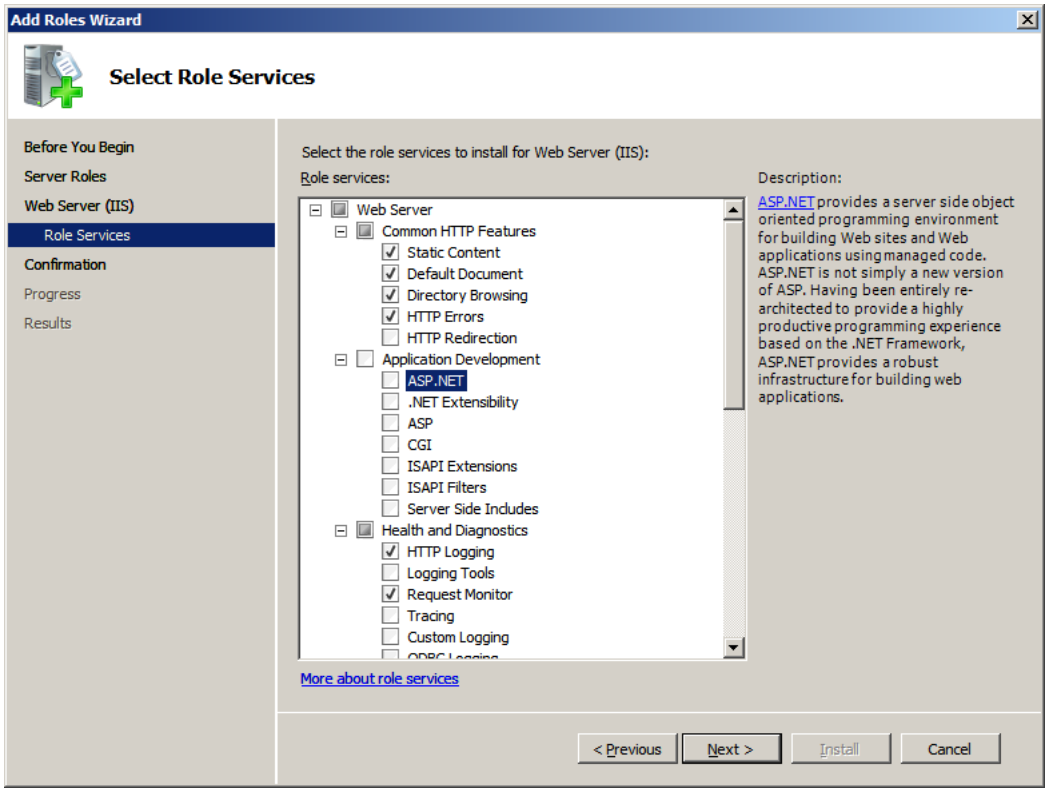
2. Click “Add Roles”.
3. Select the “Web Server (IIS)” role.



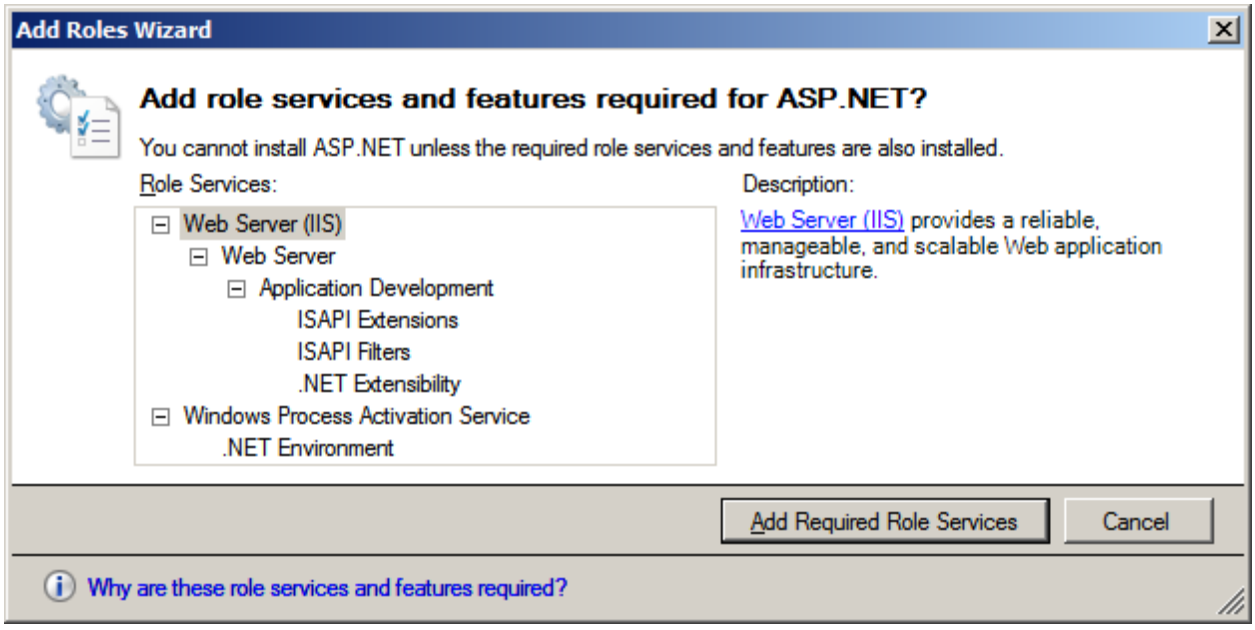
4. Click “Next >”.
5. Selecting the “Web Server (IIS)” role will automatically select all of the features needed to run this role. When the dialog appears, select “Add Required Features”.



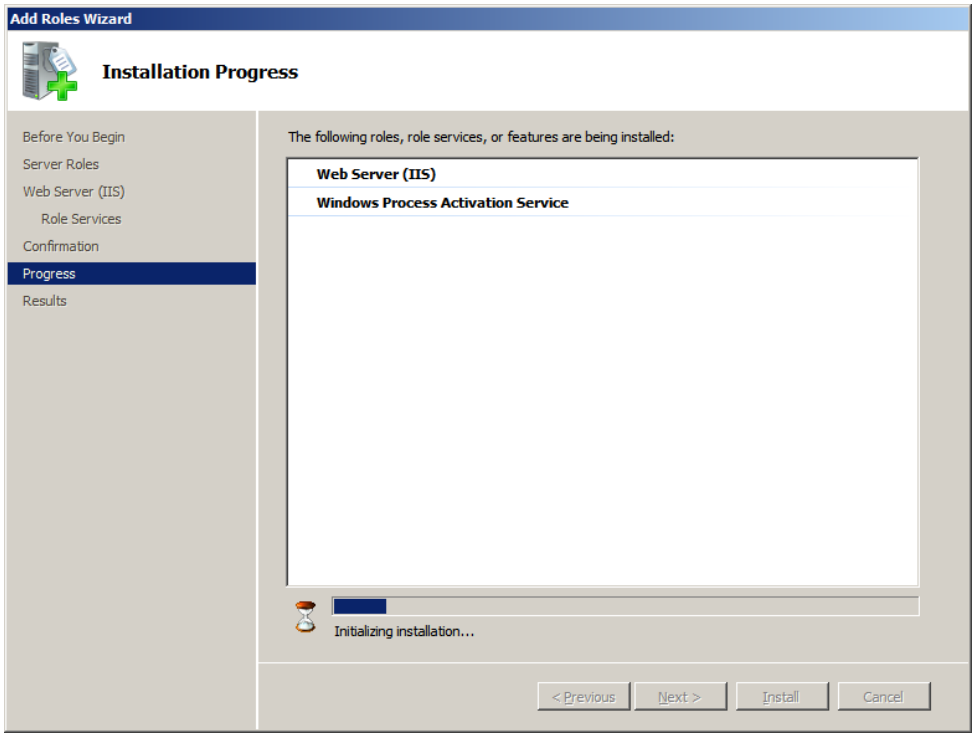
6. When asked for the services of the Role you want to enable, select “ASP.NET” under Application Development.



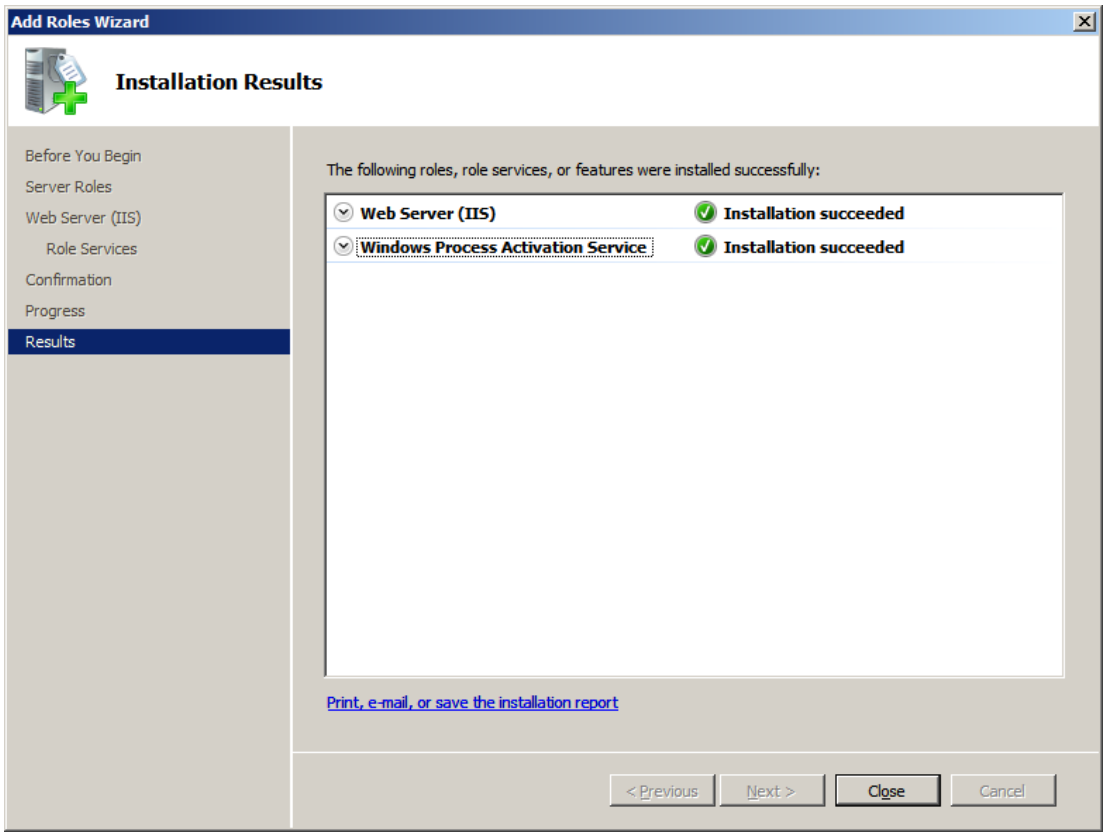
7. Checking “ASP.NET” will prompt you to automatically check other role services needed to run ASP.NET. Select “Add Required Role Services” to continue.



8. Also ensure that “Static Content”, “Default Document”, and “HTTP Errors” are selected under “Common HTTP Features”.
9. Click “Next >”.
10. After confirming your installation, the installation will begin



11. Finally once the installation is complete, a summary dialog will appear.



12. Click “Close”.

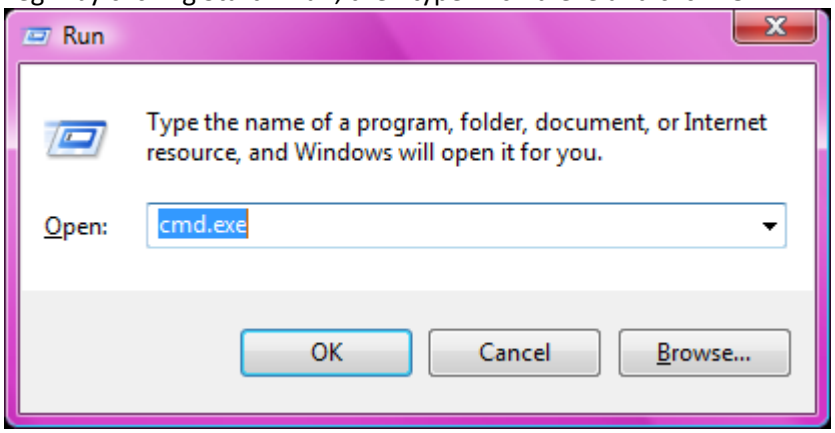
Your server is now configured to run Secret Server.

Installing ASP.NET before IIS

NOTE: This is only applicable to Windows 7 and Windows Server 2008.

We recommend installing IIS before you install ASP.NET. However, if the .NET Framework 3.5 was already installed before IIS was, there are some additional steps required to configure ASP.NET in IIS. You must register ASP.NET in IIS. This step is only necessary if you installed the .NET Framework 3.5 before IIS.

1. Begin by clicking Start > Run, then type in cmd.exe and click "OK"

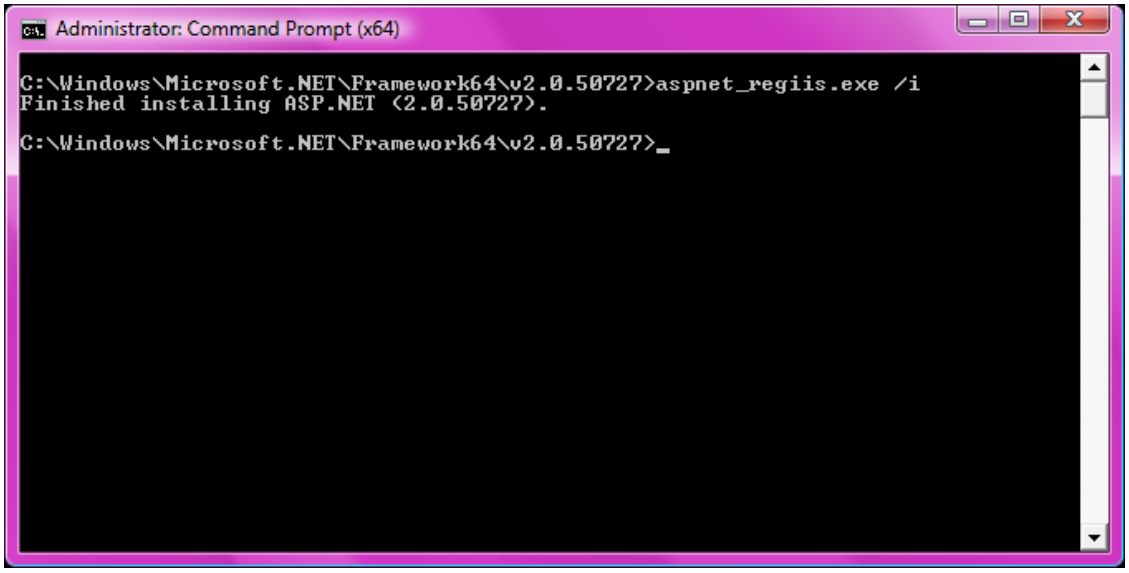


2. At the command prompt, type "cd %WINDIR%\Microsoft.NET\Framework\v2.0.50727" and press enter.

TIP: If you are using the x64 Edition of Windows and the .NET Framework, you should use: "cd %WINDIR%\Microsoft.NET\Framework64\v2.0.50727"

3. Then at the command prompt, type "aspnet_regiis.exe /i" and press enter. The ASP.NET registration into IIS will then begin. After a few moments, ASP.NET will be registered in IIS.

Warning: This command requires elevated privileges in Vista if UAC (User Account Control) is enabled. You can do this by opening the start menu, find the Command Prompt, right-click, and select "Run as Administrator". Running it without Administrative Privileges will result in the error "An error has occurred: 0x80004005 Unspecified error".



4. ASP.NET is now correctly registered.

Installing ASP.NET 2.0 and the .NET Framework 3.5 SP1

TIP: We recommend installing IIS before you complete this process.
TIP: This is only applicable to Windows 7 and Windows Server 2008.

1. Begin by downloading the .NET Framework 3.5 SP1.
2. Execute the download to begin the installation process.
3. Once setup is complete, ASP.NET and the .NET Framework are now properly installed on your system.

WARNING: Microsoft has released an update for the .NET Framework 3.5 SP1 which contains compatibility fixes for applications running on previous versions of the .NET Framework. It is recommended that this update is installed after the .NET Framework 3.5 SP1 has been installed.

It can be downloaded here: http://support.microsoft.com/kb/959209

Installing SQL Server 2008

We recommend using SQL Server 2008. A free edition called SQL Server 2008 Express is available to download for free.

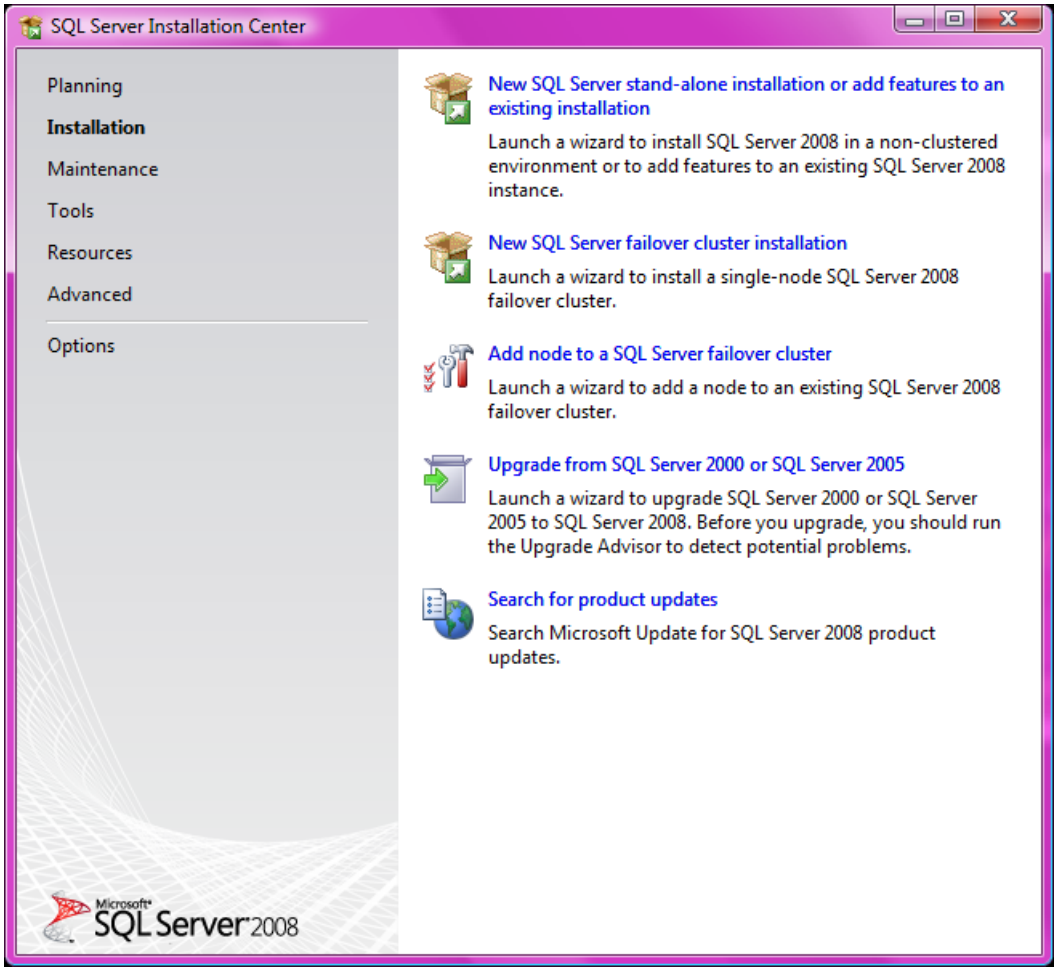
WARNING: SQL Server 2008 SP1 must be installed immediately after the installation is complete to resolve compatibility issues with Windows 7 and Windows Server 2008 R2.

WARNING: SQL Server 2008 Express has some prerequisites that must be installed first. Please see our appendix for required software for SQL Server 2008 Express.

The instructions given below are for the SQL 2008 Express Edition with Tools. The installation processes for other editions such as Enterprise or Standard may be similar, but not the same.

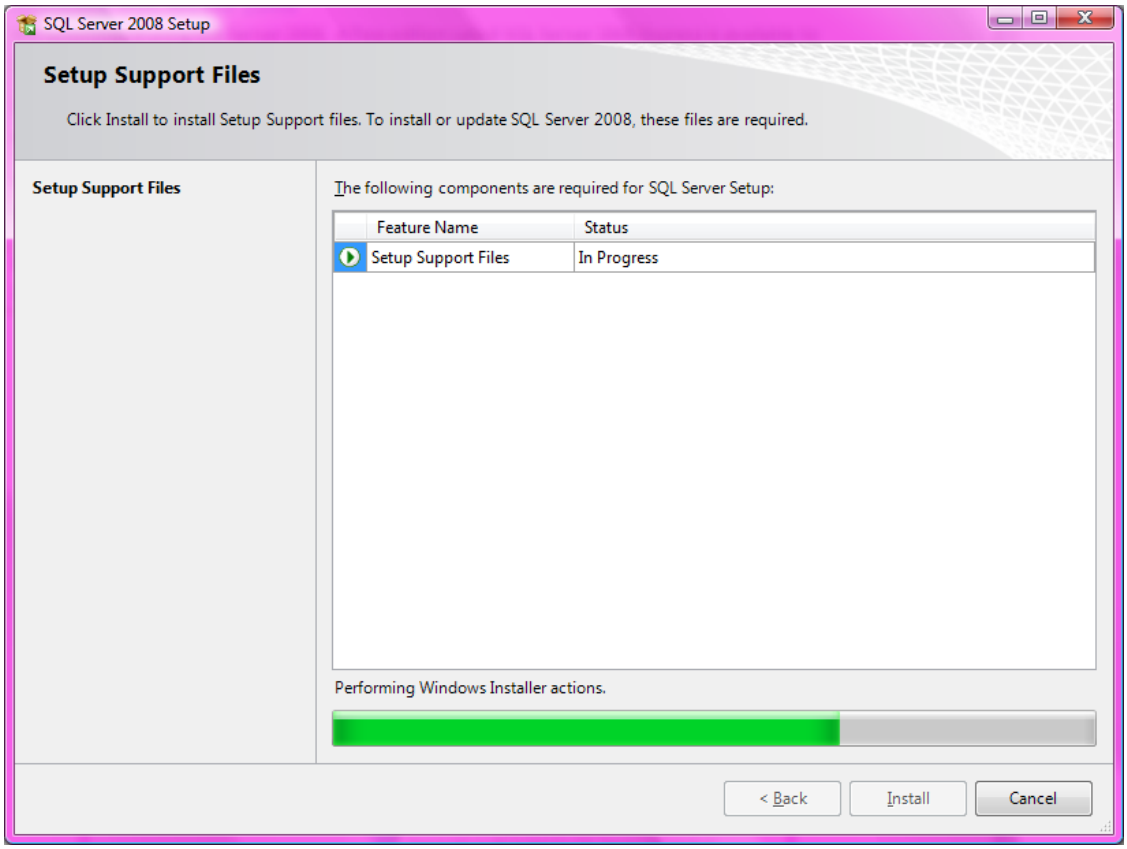
TIP: There are several editions of SQL Server 2008 Express. We recommend downloading "SQL Server 2008 Express with Tools".

1. Download the installation package, right-click it and select "Run as Administrator" if you have UAC enabled.
2. From the welcome screen, select "Installation" from the left menu.



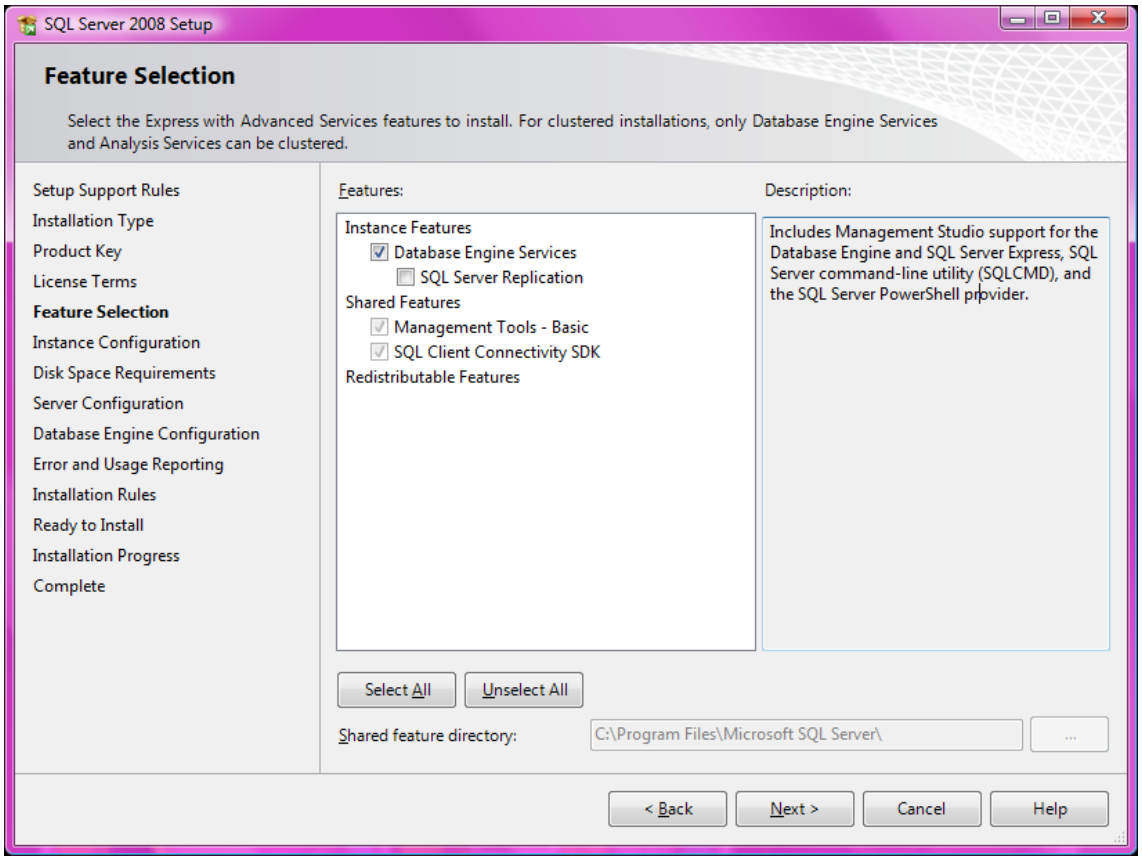
3. Select “New SQL Server installation stand-alone installation or add features to an existing installation”.
4. SQL Server will then initialize your installation.

5. SQL Server may ask you to install some preparation files first. Select “Install”



6. Continue to click next until the “Feature Selection screen is next”

7. Select “Database Engine Services” and “Management Tools – Basic” and select “Next”.



8. Under “Instance Configuration” click “Next”.
9. Ensure your environment meets all of your Disk Space requirements.
10. For “Server Configuration” click “Use the same account for all SQL Server services”.
    a. Under the “Account Name” drop down list select “NT AUTHORITY\NETWORK SERVICE”
    b. Do not enter anything into the password field.
    c. Click “OK”.
    d. Click “Next”

11. For Database Engine Configuration, the installer will then ask you if you want to enable Mixed Mode or Windows only mode. If you intend on using a SQL Server account to authenticate Secret Server to your SQL Server, you should select Mixed. Otherwise, choose Windows. Using a SQL Account is easier to set up Secret Server.

    Click the “Add Current User” for the “SQL Server Administrators”.
12. Continue to click next until the “Ready to Install” step is reached. Ensure all of the configuration options look correct.
13. SQL Server 2008 Express is now installed.

TIP: We recommend running Microsoft Update to get all of the latest service packs and fixes for SQL 2008.

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Creating a SQL Server Database

Creating the Database

1. Open Management Studio Express.
2. Connect to your SQL Server database.
3. Right click the “Databases” folder and select “New Database…"
4. Enter a database name and click “OK”

Creating the SQL Server User

1. Open Management Studio Express.
2. Connect to your SQL Server Database.
3. Expand the “Security” folder.
4. Right click “Logins” and select “New Login…”
5. Enter a new username and password.
6. Select the “User Mappings” from the left menu.
7. Check the checkbox next to your Secret Server database.
8. Give the user “db_owner” permission.
9. Click OK.

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Creating Secret Server Website

TIP: Make sure you have the required software installed before attempting to setup Secret Server.

Download the latest version of Secret Server.

Secret Server can be installed in a few different ways:

- As a Virtual Directory
- As a Website
- Part of a Website

Installing as a Virtual Directory

1. Extract the contents of the ZIP file where you would like Secret Server to be located on your system.
2.

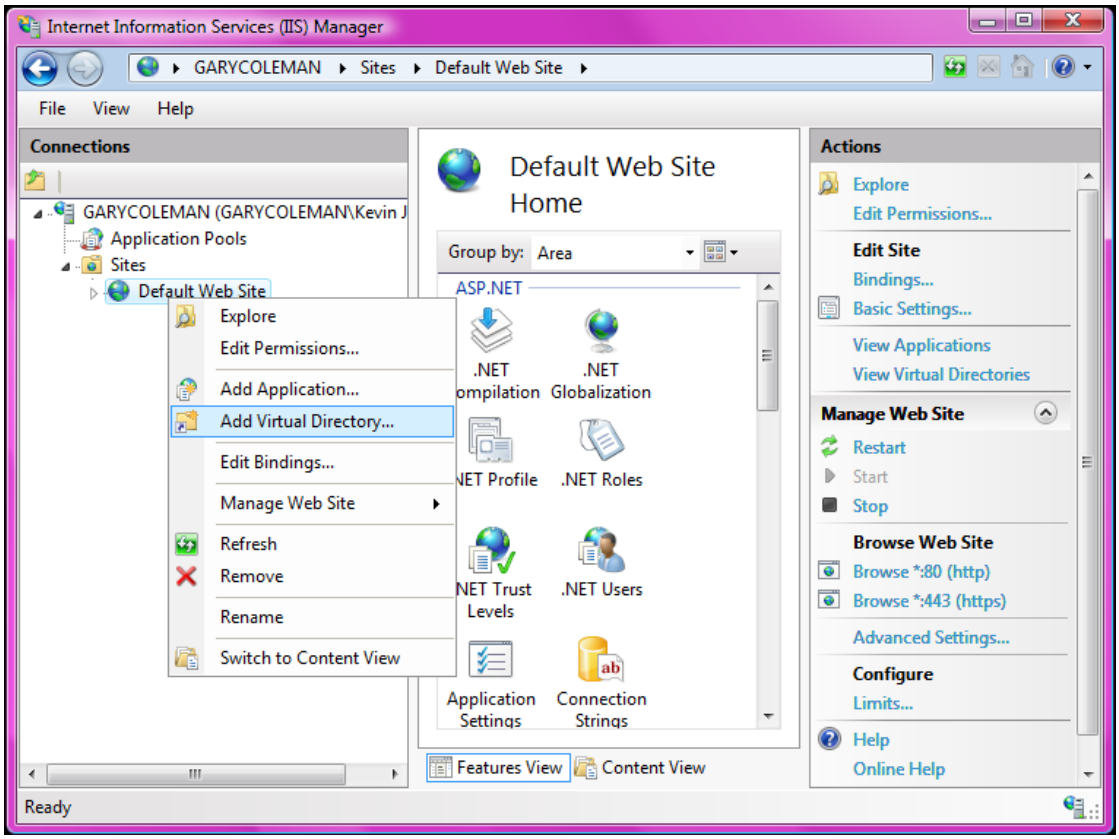
a. **Windows Vista / Server 2008:** Ensure that the folder has the proper permissions on it for IIS. Ensure that the **NETWORK SERVICE** Windows Account has **Read**, **Write**, and **Modify** permissions on the folder where Secret Server is installed. The same permissions should be applied to the IIS anonymous account, called "IUSR".

b. **Windows 7 / Server 2008 R2:** Ensure that the folder has the proper permissions on it for IIS. Ensure that the **NETWORK SERVICE** virtual account has **Read**, **Write**, and **Modify** permissions on the folder where Secret Server is installed.

WARNING: Windows 7 / Server 2008 R2 will default the application pool to a virtual identity, **ApplicationPoolIdentity** that will be problematic when setting the permissions on the folder so it is recommended the application pool identity is **NETWORK SERVICE**.

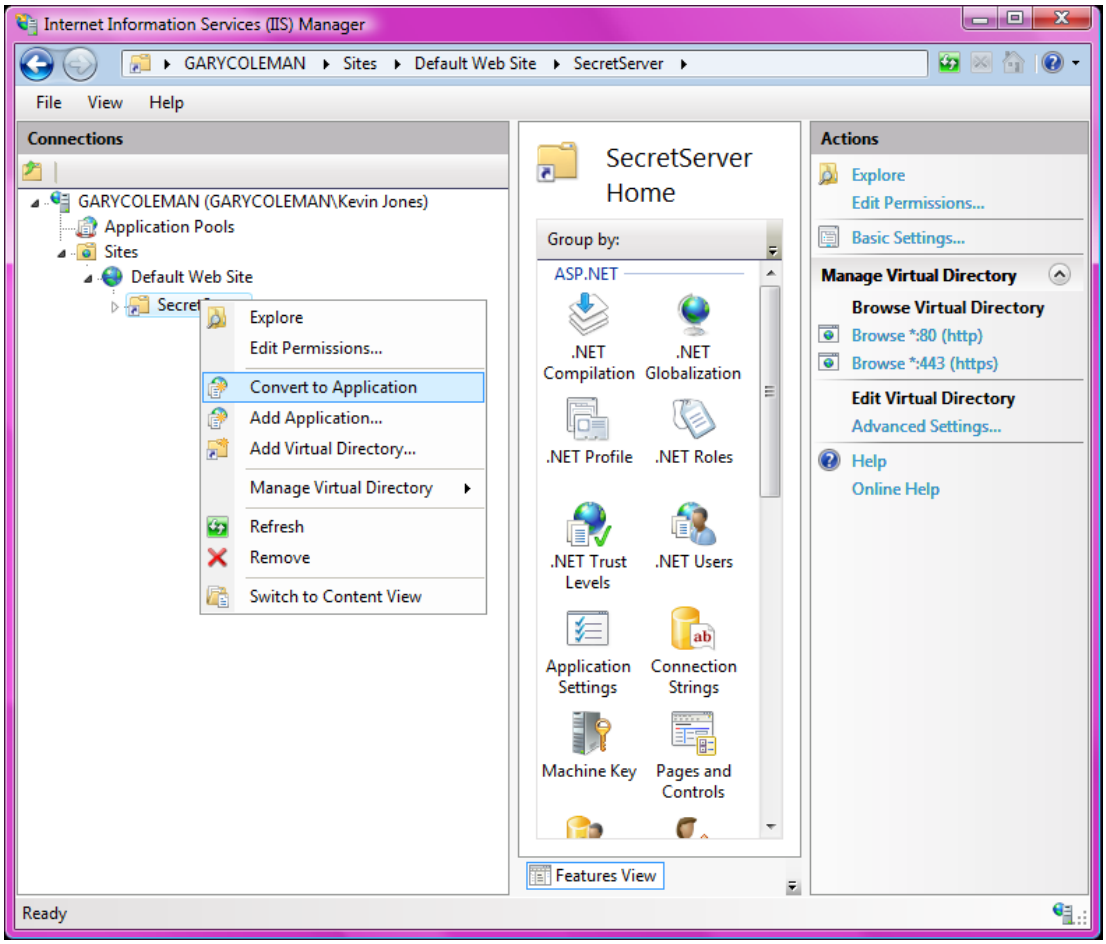
3. Open the IIS Control Panel by going into the Control Panel, then "Administrative Tools" > "Internet Information Services (IIS) Manager".

4. Select “Default Web Site”, right-click it, select “Add Virtual Directory…”.



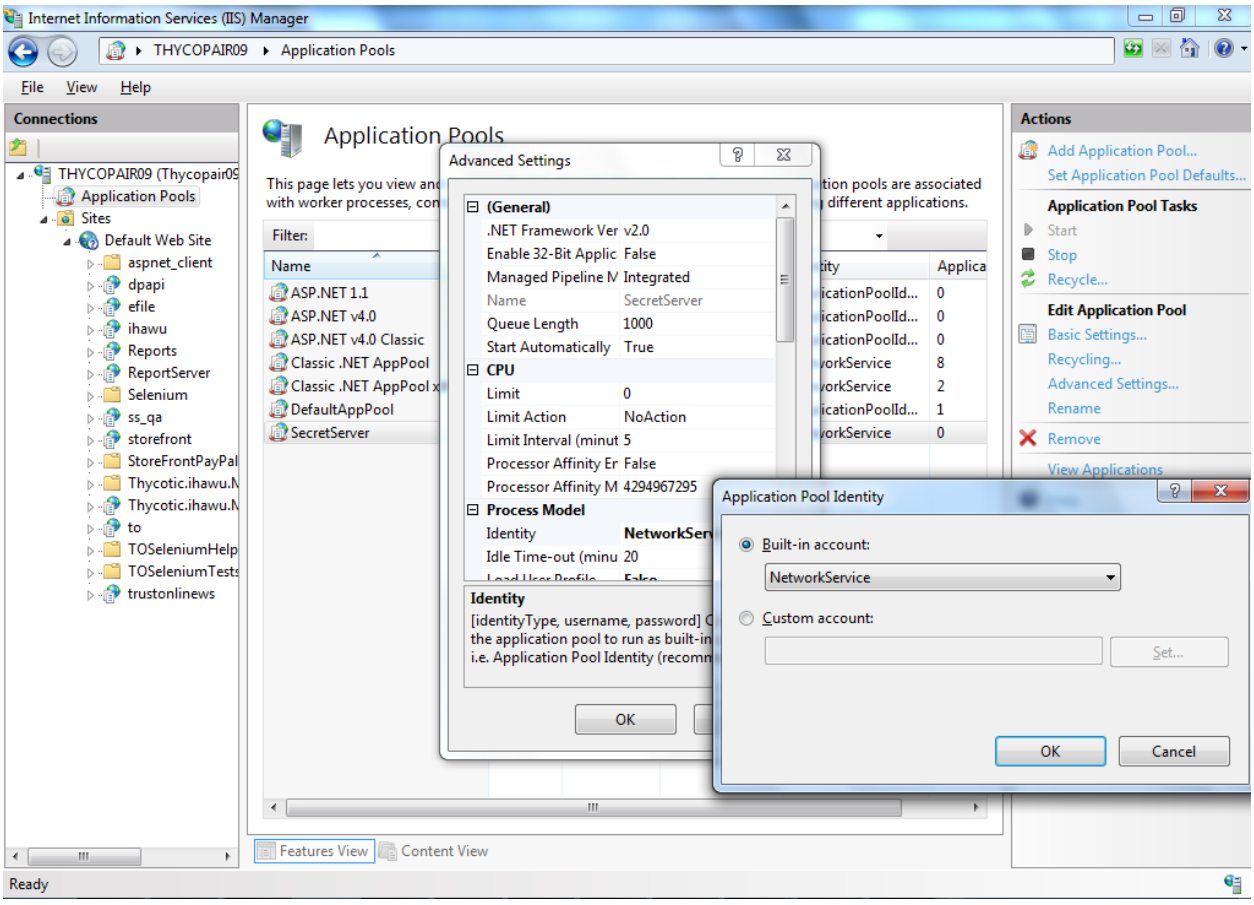
5. Select an alias for your Secret Server. The alias is what will be appended to the website. For instance, *http://myserver/SecretServer*.
6. Select the physical directory for where you unzipped Secret Server.

7. In the tree, right click the new virtual directory and select “Convert to Application”.



8. In the new dialog, click OK.

9. Change the Application Pool Identity to **NETWORK SERVICE**. In IIS, click the *Application Pools* node, select the one running Secret Server, click *Advanced Settings..*, and then under *Process Model* set *Identity* to **NETWORK SERVICE.**



WARNING: Windows 7 / Server 2008 R2 will default the application pool to a virtual identity, **ApplicationPoolIdentity** that is problematic when setting the permissions on the folder, so it is recommended to change the application pool identity to **NETWORK SERVICE**.

You can use a Domain Service account but since it is significantly more complicated to setup, so we recommend using **NETWORK SERVICE** for the initial install. The detailed instructions for setting the Application Pool to run as a Domain account can be found here.

For more information on Virtual Accounts, please see the section VIRTUAL ACCOUNTS in the Appendix.

10. See our section on CONFIGURING THE PIPELINE.
11. Secret Server is now ready to be installed. Go to INSTALLING SECRET SERVER .

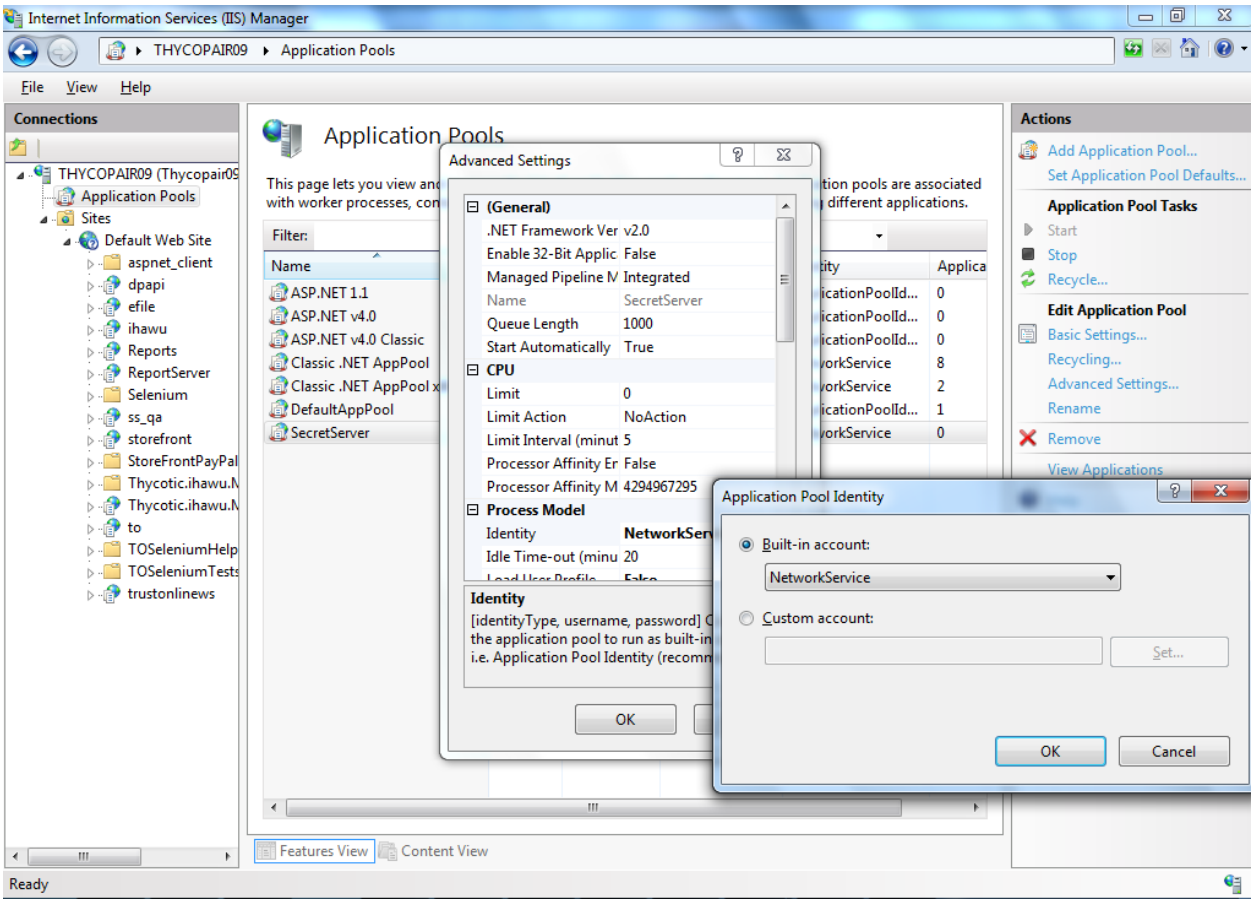
Installing as part of a Website

1. Extract Secret Server to the path where your website is (Commonly C:\Inetpub\wwwroot). For example, C:\Inetpub\wwwroot*SecretServer*
2.
   a. **Windows Vista / Server 2008:** Ensure that the folder has the proper permissions on it for IIS. Ensure that the NETWORK SERVICE Windows Account has **Read**, **Write**, and **Modify** permissions on the folder where Secret Server is installed. The same permissions should be applied to the IIS anonymous account, called "IUSR_*machinename*" Where *machinename* is the name of the computer.
   b. **Windows 7 / Server 2008 R2:** Ensure that the folder has the proper permissions on it for IIS. Ensure that the **NETWORK SERVICE** virtual account has **Read**, **Write**, and **Modify** permissions on the folder where Secret Server is installed.

> **WARNING: Windows 7 / Server 2008 R2** will default the application pool to a virtual identity, **ApplicationPoolIdentity** that will be problematic when setting the permissions on the folder so it is recommended the application pool identity is **NETWORK SERVICE**.

3. Open the IIS Control Panel by going into the Control Panel, then "Administrative Tools" > "Internet Information Services (IIS) Manager".
4. Expand the Default Website and locate the Secret Server folder. Right-click it, and select "Convert to Application".
5. Select "OK" in the new dialog.

6. Change the Application Pool Identity to **NETWORK SERVICE**. In IIS, click the *Application Pools* node, select the one running Secret Server, click *Advanced Settings..*, and then under *Process Model* set *Identity* to **NETWORK SERVICE.**



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For more information on Virtual Accounts, please see the section VIRTUAL ACCOUNTS in the Appendix.

7. See our section on CONFIGURING THE PIPELINE.
8. Secret Server is now ready to be installed. Go to INSTALLING SECRET SERVER .

Configuring the Pipeline

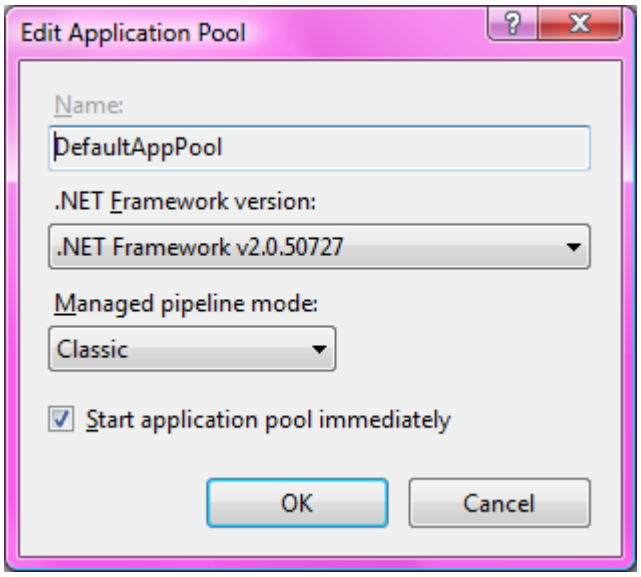
Secret Server requires that the application pool's managed pipeline mode be set to "Classic". This can be done by changing the Application Pool's mode or creating a new one.

Tip: It is recommended that you create a new Application Pool if you have other web applications running on the server. This will help avoid changing the configuration for another application.

Changing the Pipeline Mode

Secret Server is by default placed in the "DefaultAppPool" application pool. You can modify the pipeline mode.

1. In the Internet Information Services (IIS) Manager, select the "Application Pools" node.
2. Double-click the DefaultAppPool.
3. For the "Managed Pipeline Mode" select "Classic".

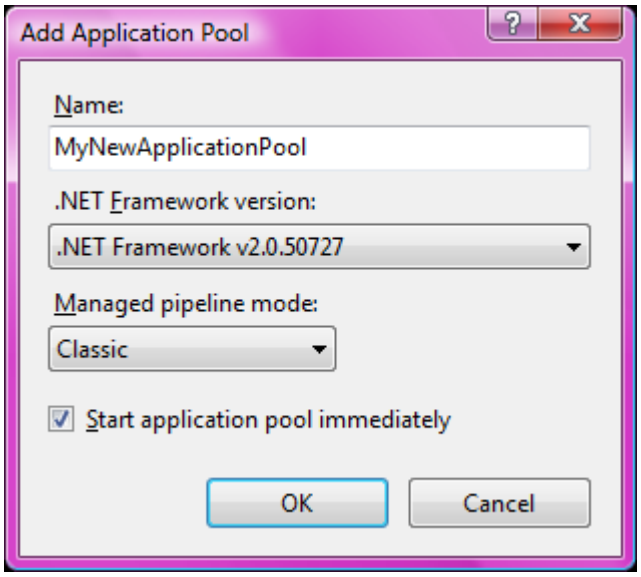


4. Click OK.

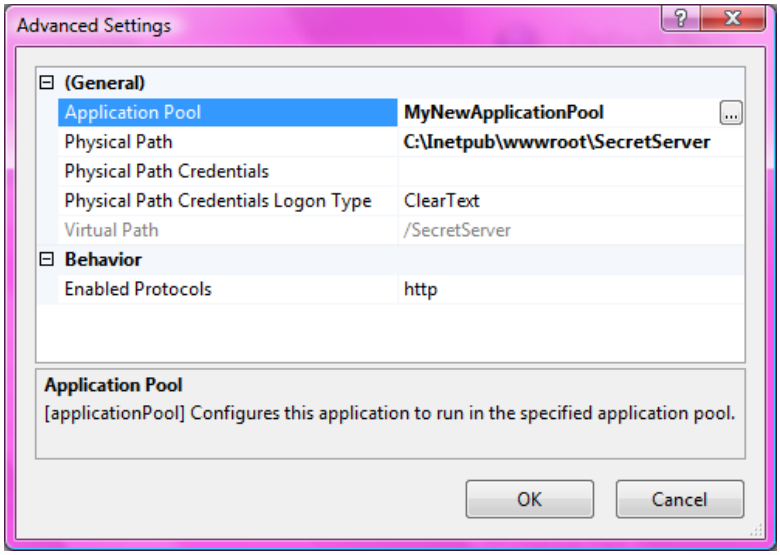
Creating a New Application Pool

1. In the Internet Information Services (IIS) Manager, right-click the "Application Pools" node and select "Add Application Pool…"
2. Select a name for your application pool. It does not have to be anything specific.
3. Ensure that the .NET Framework Version is set to ".NET Framework v2.0.50727"

4. For the “Managed Pipeline Mode” select “Classic”.



5. Click “OK”.
6. Right click the Virtual Directory in Internet Information Services (IIS) Manager, select “Manage Application” -> “Advanced Settings…”
7. In the new Window, change the Application Pool to the one we just created.



Installing Secret Server

Secret Server is now ready to begin installation through its installer. Open a browser and browse to where your Secret Server is located, for example: http://localhost/ss.

Secret Server has a 5 step installation process:

1. This step ensures that Secret Server has write access to its location. You must give the correct account write and modify permissions. Once the permissions are set, click “Next”.

   > **TIP:** If you don’t want to change the permissions of a folder, you can give Secret Server a Windows Username and Password that does, and Secret Server will “impersonate” as that user during the installation process.
   > **TIP:** Secret Server only needs write permission during installation and upgrade. You can remove the write and modify permissions once the installation process is complete.

2. Step two creates your unique encryption key. Click “Next”
3. Step 3 is where you specify the database.
   If Secret Server is installed on the same machine as SQL Server, you can specify (local). If you are using a named instance of SQL, specify a slash then the instance name, for instance: (local)\InstanceName.

   > **NOTE:** Secret Server does not create the database for you. You must create the database yourself. See CREATING THE DATABASE.

   Enter the SQL Username and Password if using SQL Server Authentication, or select Windows Authentication. To create a SQL Server user, see Using Windows Authentication.
4. Secret Server will now attempt to download, and install the latest version from the internet. You must have an active internet connection. If you do not, Secret Server will continue to install the current version.
5. Secret Server will ask you to agree to your End User Licenses Agreement. If you do, click continue. Secret Server will then configure your database.
6. Secret Server will now ask you to create your first user.

Secret Server has now successfully been installed.

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Appendix

SQL Server 2008 Express Prerequisites

SQL Server 2008 Express requires some software to be installed before it can be installed.

TIP: Only the Express Edition requires these components to be installed separately. If you are installing another edition of SQL such as Standard or Enterprise, these components will be installed for you.

1. Windows PowerShell 1.0.
2. Microsoft .NET Framework 3.5 SP1.
   See our System Requirements for information about the .NET Framework 3.5 SP1.
3. Windows Installer 4.5.
   Get Windows Installer 4.5.

Installing PowerShell

Windows Vista

Simply download and run the installer that you can download here: Get PowerShell 1.0

Windows 7

Windows 7 includes PowerShell 2.0. There is no need to install anything.

Windows Server 2008 / Windows Server 2008 R2

1. Open the "Server Manager"
2. Select "Features" on the left.
3. Select "Add Features"
4. Check "Windows PowerShell"
5. Click "Next"
6. Click "Install"

PowerShell is now installed for Windows Server 2008 / Server 2008 R2.

Virtual Accounts

Virtual Accounts, or Managed Service Accounts, is a new feature in Windows 7 and Windows Server 2008 R2. Windows will create a virtual account for the name of the Application Pool. Thus, if your Application Pool's *name* is "DefaultAppPool" and its *identity* is set to "ApplicationPoolIdentity", then you would assign folder permissions to the account "IIS AppPool\DefaultAppPool".

Recommended: To assign the identity to NETWORK SERVICE to avoid the issues with virtual accounts.