

# Windows Server Update Services 3.0 SP2 Release Notes

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These release notes describe the Windows Server Update Services 3.0 Service Pack 2 (WSUS 3.0 SP2) release. This document contains the following sections:

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## What's New In This Release

- Integration with Windows Server 2008 R2.
- Support for the BranchCache feature in Windows Server 2008 R2.
- Support for Windows 7 clients.
- Windows Update Agent (WUA) client improvements. The new WUA client offers a collection of performance enhancements, user experience improvements, plus an array of bug fixes based on customer feedback.
  - Client scan time is faster than previous versions.
  - Computers managed by WSUS servers can now run 'scoped' scans against those same WSUS servers, instead of performing a full scan. This will result in order-of-magnitude faster scans for applications using Microsoft Update APIs such as Windows Defender.
  - Windows Update Agent (WUA) user experience improvements help users better organize updates and provide greater clarity on update value and behavior.
  - Imaged machines will be more clearly displayed in the WSUS console. For more information, see article titled [A Windows 2000-based, Windows Server 2003-based, or Windows XP-based computer that was set up by using a Windows 2000, Windows Server 2003, or Windows XP image does not appear in the WSUS console.](#)
- New features:

- Auto-approval rules now include the ability to specify the approval deadline date and time for all computers or specific computer groups.
- Improved handling of language selection for downstream servers includes a new warning dialog that appears when you decide to download updates only for specified languages.
- New Update and Computer Status reports let you filter updates that are approved for installation. You can run these reports from the WSUS console or use the application programming interface (API) to incorporate this functionality into your own reports.
- The user interface is compatible between Service Pack 1 and Service Pack 2 for WSUS 3.0 on both the client and the server.
- Software updates.
- Known issues with Windows Update Agent that are resolved in this release:
  - a. WSUS 3.0 SP2 and Windows 7 include a new release of the Windows Update Agent (for Windows XP, Windows Vista, Windows Server 2000, Windows Server 2003, and Windows Server 2008). This release fixes the following issue: APIs called by nonlocal system callers in a noninteractive session will fail.
  - b. Issue that is fixed by version 7.2.6001.788 of the Windows Update Agent. This update fixes the following issue: When you try to install 80 or more updates at the same time from the Windows Update Web page or from the Microsoft Update Web page, you may receive the error code 0x80070057.
  - c. Improvements and issues that are fixed by version 7.2.6001.784 of the Windows Update Agent. This update includes the following: Improves scan times for Windows Update, improves the speed at which signature updates are delivered, enables support for Windows Installer reinstallation functionality, and improves error messaging.

## System Requirements for the WSUS 3.0 SP2 Server Installation

This section describes the software and hardware requirements needed for the installation of WSUS 3.0 SP2.

### WSUS Server Software Prerequisites

- You must have one of the following supported operating systems installed:
  - Windows Server 2008 R2
  - Windows Server 2008 SP1 or later versions

#### **Warning**

If WSUS 3.0 SP2 is installed on Windows Server 2008 before upgrading to Windows Server 2008 R2, the upgrade to Windows Server 2008 R2 will fail. See [Known Issues](#) section for more information.

- Windows Server 2003 SP1 or later versions

- Windows Small Business Server 2008
- Windows Small Business Server 2003

Notice that additional prerequisites apply for Windows Small Business Server. See the “Windows Small Business Server Prerequisites” section for more information.

- Internet Information Services (IIS) 6.0 or later versions
- The Microsoft .NET Framework 2.0 or later versions
- You must have one of the following supported databases installed:
  - Microsoft SQL Server 2008 Express, Standard, or Enterprise Edition
  - SQL Server 2005 SP2
  - Windows Internal Database

If one of the supported versions of SQL Server is not installed, the WSUS 3.0 SP2 Setup Wizard will install Windows Internal Database.

- Microsoft Management Console 3.0
- Microsoft Report Viewer Redistributable 2008



#### **Important**

Windows Server 2008 R2 requires WSUS 3.0 SP2. If you install Windows Server 2008 R2, then you should install WSUS 3.0 SP2. Do not install WSUS 3.0 SP1 on Windows Server 2008 R2.

WSUS 3.0 SP2 is not supported for use with Terminal Services on the front-end server in a remote SQL configuration.

## **WSUS Administration Console Software Prerequisites**

- One of the following supported operating systems: Windows Server 2008 R2, Windows Server 2008, Windows Server 2003 SP2 or later versions, Windows Small Business Server 2008 or Windows Small Business Server 2003, Windows Vista, or Windows XP SP2
- Microsoft .NET Framework 2.0 or later versions
- Microsoft Management Console 3.0
- Microsoft Report Viewer Redistributable 2008

## **WSUS Server Hardware Minimum Requirements**

The following list contains the minimum hardware requirements that are needed for a basic server installation. Refer to the WSUS 3.0 SP2 Deployment Guide at <http://go.microsoft.com/fwlink/?LinkId=139832> for a comprehensive list of supported hardware configurations.

- Both the system partition and the partition on which you install WSUS 3.0 SP2 must be formatted with the NTFS file system.
- Minimum 1 GB of free space on the system partition.

- Minimum 2 GB of free space on the volume on which database files will be stored.
- Minimum 20 GB of free space is required on the volume on which content is stored, 30 GB is recommended.



### **Important**

WSUS 3.0 SP2 cannot be installed on compressed drives.

## **Configuration Prerequisites and Best Practice Recommendations for the WSUS Server**

Make sure that you have completed the applicable tasks in this section before you install WSUS 3.0 SP2.

### **IIS**

- On the Server Manager Web Server (IIS) Role Services page, install any required features, all of the default IIS role services, and the following role services: **ASP.NET**, **Windows Authentication**, **Dynamic Content Compression**, and **IIS 6 Management Compatibility**.
- If IIS is running in IIS 5.0 isolation mode, the installation will fail. Disable IIS 5.0 isolation mode before you install WSUS 3.0 SP2.
- If any IIS component is installed in 32-bit compatibility mode on a 64-bit platform, the WSUS 3.0 SP2 installation may fail. All IIS components should be installed in native mode on 64-bit platforms.

### **Proxy Servers**

WSUS 3.0 SP2 allows a proxy server to support HTTP only. As a best practice, configure a second proxy server that runs HTTPS by using the command line (**wsusutil configuresslproxy**) before configuring the WSUS server from the Configuration Wizard or the Administration Console.

### **Web Sites Running on Port 80**

If you have two or more Web sites that are running on port 80 (for example Windows SharePoint Services), delete all except one of them before you install WSUS. If you do not do this, the server's clients may fail to self-update.

### **Antivirus Programs**

When you install WSUS 3.0 SP2, you may have to disable antivirus programs before you can successfully perform the installation. After you disable the antivirus software, restart the computer before you install WSUS. Restarting the computer prevents files from being locked when the installation process has to access them. After the installation is complete, be sure to re-enable

your antivirus software. Visit your antivirus software vendor's Web site for the exact steps to disable and re-enable your antivirus software and version.

### **Caution**

This workaround may make your computer or the network more vulnerable to attack by malicious users or by malicious software such as viruses. We do not recommend this workaround, but are providing this information so that you can implement this workaround at your own discretion. Use this workaround at your own risk.

Antivirus software helps protect your computer from viruses. Do not download or open files from sources that you do not trust, visit Web sites that you do not trust, or open e-mail attachments when your antivirus program is disabled.

## **Nested Triggers Option in SQL Server**

If you plan to use a SQL Server database as the Windows Server Update Services data store, the SQL Server administrator should verify that the nested triggers option on the server is turned on before the WSUS administrator installs WSUS 3.0 SP2. The nested triggers option is turned on by default; however, it can be turned off by a SQL Server administrator. WSUS 3.0 SP2 Setup turns on the RECURSIVE\_TRIGGERS option that is a database-specific option. However, WSUS 3.0 SP2 Setup does not turn on the nested triggers option, which is a server global option.

## **Remote SQL Limitations and Requirements**

WSUS 3.0 SP2 supports running a compatible version of SQL Server software on a computer that is separate from the computer on which the WSUS 3.0 SP2 application is running. The following requirements apply to a remote SQL installation.

- You cannot use a server configured as a domain controller for the back end of the remote SQL pair.
- You cannot run Terminal Services on the computer that will be the front-end server of a remote SQL installation.
- Both the front-end computer and the back-end computer must be joined to an Active Directory domain. If the front end and back end computers are in different domains, establish a cross-domain trust between the domains before you run WSUS Setup.
- If you already have WSUS 2.0 installed in a remote SQL configuration and want to upgrade to WSUS 3.0 SP2, do the following before you install WSUS:
  - a. Uninstall WSUS 2.0 (by using **Add or Remove Programs** in Control Panel) while ensuring that the existing database remains intact.
  - b. Install SQL Server 2005 SP2 or SQL Server 2008 and upgrade the existing database.

## IIS will be restarted during WSUS 3.0 SP2 Setup

WSUS 3.0 SP2 setup will restart IIS without notification, which could affect existing Web sites within your organization. As a best practice, notify affected parties in advance of this installation. Be aware that if IIS is not running, WSUS 3.0 SP2 setup will start IIS during setup.

## Windows Small Business Server Prerequisites

If you are installing WSUS 3.0 SP2 on Windows Small Business Server, the following prerequisites apply.

### If the IIS Virtual Root is Restricted to Certain IP Addresses or Domain Names

Some installations of Windows Small Business Server may have the default IIS Web site configured for **IP address and domain name restrictions**. If this is the case, the Windows Update Client on the server may be unable to update itself. Remove the restriction before you install WSUS 3.0 SP2.

### If You Are Using an ISA Proxy Server

- If Windows Small Business Server uses an ISA proxy server to access the Internet, type **proxy server settings, proxy server name, port** in the **Settings** user interface (UI).
- If ISA is using Windows Authentication, type the proxy server credentials in the form *DOMAINuser*. The user should be a member of the Internet Users group.

### If You Added a Subnet to Your Network and Did Not Use Windows Small Business Server Wizards

The WSUS server setup process installs two IIS roots on the server: SelfUpdate and ClientWebService. Setup also puts some files under the root directory of the default Web site (on port 80), which enables client computers to self-update through the default Web site. By default, the default Web site is configured to deny access to any IP address other than localhost or to specific subnets attached to the server. Therefore, client computers that are not on localhost or on those specific subnets cannot self-update. If you have added a subnet to the network without using the Microsoft Windows Small Business Server wizards, perform this procedure:

1. In Server Management, expand **Advanced Management**, expand **Internet Information Services**, expand **Web Sites**, expand **Default Web Site**, right-click the **Selfupdate** virtual directory, and then click **Properties**.
2. Click **Directory Security**.
3. Under **IP address and domain name restrictions**, click **Edit**, and then click **Granted Access**.
4. Click **OK**, right-click the **ClientWebService** virtual directory, and then click **Properties**.

5. Click **Directory Security**.
6. Under **IP address and domain name restrictions**, click **Edit**, and then click **Granted Access**.

## System Requirements for WSUS 3.0 SP2 Remote Console Installation

The WSUS 3.0 SP2 Remote Console can be installed on any of the following operating systems:

- Windows Server 2008 R2, Windows Server 2008 SP1 or later versions, Windows Server 2003 SP2 or later versions, Windows Small Business Server 2003, Windows Small Business Server 2005, or Windows Small Business Server 2008, Windows Vista, or Windows XP Professional SP3 or later versions.

## System Requirements for the WSUS Client Installation

Automatic Updates, the WSUS client software, can be installed on any of the following operating systems:

- Windows Server 2008 R2, Windows Server 2008 SP1 or later versions, Windows Server 2003 SP2 or later versions, Windows Small Business Server 2003, Windows Small Business Server 2005, or Windows Small Business Server 2008, Windows Vista, Windows XP Professional RTM, Windows XP Professional SP1, Windows XP Professional SP2, Windows XP Professional SP3, or later versions, Windows 2000 SP4, or Windows 7 client.

## Upgrade Requirements and Recommendations

The following versions of WSUS can be upgraded to WSUS 3.0 SP2 and do not require uninstalling the earlier version:

- WSUS 2.0, 2.0 SP1, 3.0, and 3.0 SP1.

Upgrades from WSUS 1.0 to WSUS 3.0 SP2 are not supported. Uninstall Software Update Services (SUS) 1.0 before you install WSUS 3.0 SP2.

Windows Server 2008 R2 Requires WSUS 3.0 SP2. If you install Windows Server 2008 R2 then you should install WSUS 3.0 SP2. Do not install WSUS 3.0 SP1 on Windows Server 2008 R2.

### Before Upgrading to WSUS 3.0 SP2

1. Check for recent errors in the event logs, problems with synchronization between downstream servers and upstream servers, and client reporting problems. Resolve these issues before you upgrade.
2. Optionally, you can run DBCC CHECKDB to make sure that the WSUS database is

indexed correctly. For more information about DBCC CHECKDB, refer to [DBCC CHECKDB](#).

3. Back up the WSUS database. Notice that WSUS 3.0 SP2 setup will add the new database to the default directory, which is *drive*\WSUS (*drive* is the local NTFS drive that has the greatest amount of free space). If there is a database backup already in this directory, it may be overwritten. As a best practice, save a database backup of the current version of WSUS in a different location before you upgrade to WSUS 3.0 SP2.
4. If you manually changed the port used by WSUS (that is, you did not use the Wsusutil utility) and are currently running SUS 1.0 or WSUS 2.0, start the default Web site before uninstalling SUS 1.0 or WSUS 2.0 64-bit.
5. If connections are open to an existing WSUS database (for example, if SQL Server Management Studio is open), the installation may fail. Close all of the connections before you install WSUS 3.0 SP2.

## Recovering From a Failed Upgrade

If you are upgrading from an earlier version of WSUS to WSUS .0 SP2 and the upgrade fails (for any reason other than trying an unsupported upgrade from SUS 1.0), perform the following tasks.

1. Reinstall the earlier version of WSUS.
2. Restore the database from the backup that you made before you try to upgrade. You cannot successfully complete an upgrade if there is an existing WSUS 3.0 SP2 database from a previous installation. In most cases, WSUS also automatically creates a backup. See the WSUSSetup.log file for the location.
3. Review the logs to determine the cause of the failure, and resolve the problem.
4. Install WSUS 3.0 SP2.

## Changing the computer name prior to upgrading to WSUS 3.0 SP2 can cause the upgrade to fail

If you change the computer name after you install WSUS 2.0 and before you upgrade to WSUS 3.0 SP2, the upgrade can fail.

Use the following script to remove and re-add the ASPNET and WSUS Administrators groups. Then run the upgrade again.

You have to replace *<DBLocation>* with the folder where the database is installed, and *<ContentDirectory>* with the local storage folder.

```
sqlcmd.exe -S <DBLocation> -E -Q "USE SUSDB DECLARE @asplogin varchar(200) SELECT @asplogin=name from sysusers WHERE name like '%ASPNET' EXEC sp_revokedbaccess @asplogin"
sqlcmd.exe -S <DBLocation> -E -Q "USE SUSDB DECLARE @wsusadminslogin varchar(200) SELECT @wsusadminslogin=name from sysusers WHERE name like '%WSUS Administrators' EXEC sp_revokedbaccess @wsusadminslogin"
```

```
sqlcmd.exe -S <DBLocation> -E -Q "USE SUSDB DECLARE @asplogin varchar(200) SELECT
@asplogin=HOST_NAME()+'\ASPNET' EXEC sp_grantlogin @asplogin EXEC sp_grantdbaccess
@asplogin EXEC sp_addrolemember webService,@asplogin"

sqlcmd.exe -S <DBLocation> -E -Q "USE SUSDB DECLARE @wsusadminslogin varchar(200) SELECT
@wsusadminslogin=HOST_NAME()+'\WSUS Administrators' EXEC sp_grantlogin @wsusadminslogin
EXEC sp_grantdbaccess @wsusadminslogin EXEC sp_addrolemember webService,@wsusadminslogin"

sqlcmd.exe -S <DBLocation> -E -Q "backup database SUSDB to
disk=N'<ContentDirectory>\SUSDB.Dat' with init"
```

## If you have migrated from MSDE to SQL Server 2008 or SQL Server 2005 on WSUS 2.0, you have to change a registry value

If you have an installation of WSUS 2.0, and have migrated to SQL Server 2008 or SQL Server 2005, you have to change the **HKLM\SOFTWARE\Microsoft\Update Services\Server\Setup\WmsdeInstalled** value from 1 to 0. If you do not do so before upgrading to WSUS 3.0 SP2, the upgrade will fail.

## If you uninstall WSUS 3.0 SP2 and leave the log files behind, they may not have the appropriate permissions after reinstallation

If you uninstall WSUS 3.0 SP2, you have the option to keep the installation log files. When you reinstall WSUS 3.0 SP2, the old log files may lose their permissions (usually for WSUS Administrators only). As a best practice, confirm the permissions on these log files after installation.

## If WSUS 2.0 clients have updates with "Not Applicable" status, the updates will appear as "Unknown" for a short time after upgrading to WSUS 3.0 SP2

If an existing WSUS 2.0 server has clients that have **Not Applicable** updates, these updates may be listed with an **Unknown** status for a short time after you upgrade to WSUS 3.0 SP2. The update status will return to **Not Applicable** after the next time that the client does a scan.

## Installing WSUS 3.0 SP2

The WSUS Step by Step Installation Guide at <http://go.microsoft.com/fwlink/?LinkId=139836> provides instructions for installing WSUS 3.0 SP2 by using either Windows Server Manager or the WSUSSetup.exe file.

For complete information about how to install and use WSUS, see:

The WSUS Deployment Guide at <http://go.microsoft.com/fwlink/?LinkId=139832>.

The WSUS Operations Guide at <http://go.microsoft.com/fwlink/?LinkId=139838>.

## Setup Command-line Parameters for Unattended WSUS 3.0 SP2 Installations

You can perform unattended installations of WSUS 3.0 SP2 by using the WSUS command-line setup program. This table shows the command-line parameters for WSUS 3.0 SP2 setup.

Option	Description
<b>/q</b>	Perform silent installation.
<b>/u</b>	Uninstall.
<b>/p</b>	Prerequisite check. Inspects the system and reports any prerequisites that are missing.
<b>/?, /h</b>	Display command-line parameters and their descriptions.
<b>/g</b>	Upgrade from the previous version of WSUS. (Upgrades from SUS 1.0 are not supported.) The only valid parameter with this option is <b>/q</b> (silent installation). The only valid property with this option is <b>DEFAULT_WEBSITE</b> .

This table shows the command-line properties for WSUS 3.0 SP2.

Property	Description
<b>CONTENT_LOCAL</b>	0=content hosted locally, 1=host on Microsoft Update
<b>CONTENT_DIR</b>	Path to content directory. The default is <i>WSUSInstallationDrive\WSUS\WSUSContent</i> , where <i>WSUSInstallationDrive</i> is the local drive with the largest amount of free space.
<b>WYUKON_DATA_DIR</b>	Path to Windows Internal Database data directory.
<b>SQLINSTANCE_NAME</b>	The name should appear in the format <i>ServerName\SQLInstanceName</i> . If the database instance is on the local machine, use the <b>%COMPUTERNAME%</b> environment variable. If an existing instance is not present, the default is <b>%COMPUTERNAME%\WSUS</b> .

Property	Description
DEFAULT_WEBSITE	0=port 8530, 1=port 80
PREREQ_CHECK_LOG	Path and file name for log file
CONSOLE_INSTALL	0=install the WSUS server, 1=install console only
ENABLE_INVENTORY	0=do not install inventory features, 1=install inventory features
DELETE_DATABASE	0=retain database, 1=remove database
DELETE_CONTENT	0=retain content files, 1=remove content files
DELETE_LOGS	0=retain log files, 1=remove log files (used with the /u installation switch)
CREATE_DATABASE	0=use current database, 1=create database
PROGRESS_WINDOW_HANDLE	Window handle to return Windows Installer progress messages
MU_ROLLUP	1=join Microsoft Update Improvement Program, 0=do not join Microsoft Update Improvement Program
FRONTEND_SETUP	1=do not write the content location to the database, 0=write the content location to the database (for NLB)

## Sample Usage

`WSUSSetup.exe /q DEFAULT_WEBSITE=0` (install in quiet mode using port 8530)

`WSUSSetup.exe /q /u` (uninstall WSUS)



### Important

If you install WSUS 3.0 SP2 in quiet mode (/q), and the computer does not have all the prerequisites installed, the installation will generate a file that is named `WSUSPreReqCheck.xml` and save it in the `%TEMP%` directory.

## Known Issues

- After successful completion of the WSUS Installation Wizard, the user is instructed to click **Finish**. In rare cases, an error dialog box appears that contains the following message, **“An error occurred when communicating with the server and this wizard must be closed. You may restart the WSUS Server Configuration Wizard from the Options page in the**

**WSUS console.**” To make sure that your installation selections were saved, open the **Options** page on the WSUS administration console and confirm the settings in each section.

- **Localized versions of the Windows Update Agent (WUA) client will be released later than the WSUS 3.0 SP2 release.** This is due to a dependency on the Windows 7 localization schedule. During the time between the WSUS 3.0 SP2 release and the localized release of the WUA client, the WUA client only supports five languages (English, German, French, Spanish, and Japanese).
- **The new Update and Computer Status reports that were introduced in this SP2 release are not functional in an environment where downstream WSUS 3.0 SP1 servers are managed from a WSUS 3.0 SP2 server.** If the new reports are run for an SP1 server, the following error message appears, “An error occurred while generating the report. Try running the report again or contact your network administrator if the problem persists.” Running the report again will not solve the problem, nor is this problem related to networking. The new reports depend on API functionality that does not exist in SP1; however, the SP2 Administration Console does not block the new reports when managing an SP1 server.
- **Upgrading to WSUS 3.0 SP2 fails when SSL is configured without certificate name.** A certificate name is required if configuring SSL.
- **WSUS 3.0 SP2 running Windows Internal Database installed on Windows Server 2008 prevents upgrading to Windows Server 2008 R2.** Before continuing with the upgrade to Windows Server 2008 R2, a Compatibility Report error message appears, instructing you to turn off the Windows Internal Database. It is necessary to upgrade Windows Internal Database before the upgrade to Windows Server 2008 R2 can proceed. See [How to obtain the latest service pack for Windows Internal Database](#) (<http://go.microsoft.com/fwlink/?LinkId=162104>) for instructions and more information about upgrading Windows Internal Database.

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