



Microsoft®

BizTalk® Server 2009

Installing BizTalk Server 2009 on Windows Server 2008

Microsoft Corporation

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Installing BizTalk Server 2009 on Windows Server 2008

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Introduction

This document describes the process for installing and configuring Microsoft® BizTalk® Server on a single computer running Windows Server® 2008.

We recommend that you read this entire document before beginning your installation. This is because BizTalk Server connects many disparate components both internal and external to your enterprise so information can flow smoothly and securely in many directions. While even the most basic single-server deployment relies on many variables, most real-world deployment scenarios extend much farther to include multiple servers and eventually clusters of both physical and virtual computers.

You will also need to gather certain information on the needs of your enterprise before beginning installation, and to discuss the scope of your deployment with the IT Professionals, System Administrators, and Developers in your enterprise that will use BizTalk Server.

For these reasons, we strongly recommend that you read this document in its entirety before beginning your installation, and then follow it carefully throughout the deployment process: plan your installation carefully, and then install all of the prerequisites in the proper order.

By studying this Install Guide and carefully analyzing the specific needs of your enterprise, you will eventually create your own deployment roadmap.

How to Use this Document

This guide is divided into the following four sections:

Introduction gives an overview of the installation process and tells what information you'll need during the installation process. The section also lists important considerations regarding Windows® and SQL Server®.

Preparing your computer for installation walks you through installing and configuring all prerequisite software, and setting necessary permissions.

Installing and Configuring BizTalk Server walks you through installing and configuring BizTalk Server. The section includes procedures for determining whether your installation was successful, and for uninstalling BizTalk Server.

Appendices

- **A. Installing Windows SharePoint Services** walks you through this process (only necessary if you will use the Windows SharePoint® Services Adapter).
- **B. Silent Installation** lists commands and options for an unattended installation.
- **C. CAB Files** links to the redistributable CAB files containing BizTalk Server prerequisites.

Checklist: Planning Your Installation

Below is a high-level glimpse of the installation process. Installation on a single computer usually takes 4-6 hours. Note that each of these steps must be carried out in the order shown, and that each step contains many variables relevant to your enterprise. All of these issues will be addressed in later sections of this guide.

Preparing your computer for installation

- Install any critical updates for Windows
- Enable Internet Information Services (IIS) 6.0 or 7.0
- Install Microsoft Office Excel 2007
- Install Visual Studio® 2008 with Service Pack 1 (SP1)
- Install SQL Server 2008 (or SQL Server 2005 with Service Pack 2 (SP2))
- Install SQLXML 3.0 with Service Pack 3 (SP3)
- Install SQL Notification Services
- Install Microsoft Management Console 3.0
- Install prerequisites for MQSeries Agent
- Configure ASP.NET 2.0 for 64-bit Mode*
- Install Windows SharePoint Services 3.0 with Service Pack 1 (SP1)*
- Configure ASP.NET 2.0 for 32-bit mode*
- Configure Default Web Site for ASP.NET 2.0*
- Configure Windows SharePoint Services*
- Extend the Default Web Site as a Virtual server*
- Disable shared Memory Protocol
- Join the local Administrators group
- Configure the Application Event Log

*Only necessary if you are using the Windows SharePoint Services Adapter Web Service.

Installing and configuring BizTalk Server

- Install BizTalk Server 2009
- Verify your installation
- Configure BizTalk Server
- Enable TCP/IP and named pipes in the SQL Server Configuration Manager
- Enable Microsoft Distributed Transaction Coordinator (MS DTC) on the Local Host Server (LHS)

Choosing your BizTalk Server Features and Components

Review this list of features and components before beginning your installation, and decide which ones you want to install. Items are listed here in the same order that they appear in the Setup program feature tree.

Documentation Core documentation, tutorials, UI reference (F1 Help), programmer's reference, and usage instructions for the SDK samples and utilities.

Server Runtime The essential runtime services for BizTalk Server.

BizTalk EDI/AS2 Runtime Runtime services providing native support for Electronic Data Interchange (EDI) data exchange and AS2 (Applicability Statement 2) data transport messaging functionality.

Windows Communication Framework (WCF) Adapter Runtime Adapters enabling BizTalk Server to communicate with WCF-based applications.

Portal Components Also known as Business Activity Monitoring (BAM), these are a set of services enabling users to communicate and collaborate, and also to configure and monitor business processes and workflows.

Administrative Tools Software necessary to administer BizTalk Server on both the local computer and a remote server.

Windows Communication Framework (WCF) Administration Tools Administration services for WCF components.

Developer Tools and SDK Samples and utilities that enable the rapid creation of BizTalk Server 2009 solutions. This includes SDK samples and supporting documentation, BizTalk Explorer, schema and map designers, and Visual Studio project templates.



Important

You must install this component if you plan to do any development work. The Visual Studio extensions used by BizTalk Server will not work without the Developer Tools and SDK component installed.

Additional Software The following components enable a more flexible BizTalk deployment:

- **Enterprise Single Sign-On (SSO) Administration Module:** The interface for managing SSO Affiliate Applications and their mappings.

- **Enterprise Single Sign-On Master Secret Server:** The SSO server that stores the master secret. All other SSO servers in the system get the master secret from this server. The Master Secret Server is required in a BizTalk Server environment.
- **Business Rules Components:** Used for composing policies to be consumed by the Business Rules Engine.
- **MQSeries Agent:** Provides communication between the BizTalk Adapter for MQSeries and MQSeries Server for Windows.
- **Windows SharePoint Services Adapter Web Service:** Allows the Windows SharePoint Services Adapter to process incoming and outgoing documents through Windows SharePoint Services.
- **BAM Alert Provider for SQL Notification Services:** Allows BAM Alerts.
- **BAM Client:** Client-side software enabling business users to work with BAM.
- **BAM Eventing:** Interceptors for Windows Workflow Foundation and Windows Communication Foundation. Also includes the BAM Event API, which sends events to the BAM database from custom applications.
- **Project Build Component:** A tool enabling you to build BizTalk Server solutions without using Visual Studio.

Feature Dependency Matrix

The following table indicates which software you must install before installing BizTalk Server, based on the BizTalk Server features you plan to install.

| Feature Tree Selection | Platform Dependency | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-------------------------------------|------------------------|-----------------|------------------------------|-----------------------------------|-----------------|------------------------------|-----------------------------------|---------------------------------|-----------------------|--------------------------------------|-------------|-------------------|-----------|--------------------|---------------|-------------|--------------|----------------|---|----------------------------------|----------------------------------|--|--|--------------|--------------------------|---|
| | Internet Information Services (IIS) 7.0 | Windows SharePoint Services 3.0 SP1 | Visual Studio 2008 SP1 | SQL Server 2008 | SQL Server 2008 Client Tools | SQL Server 2008 Analysis Services | SQL Server 2005 | SQL Server 2005 Client Tools | SQL Server 2005 Analysis Services | SQL Notification Service Redist | Internet Explorer 7.0 | Microsoft Management Console 3.0 SP1 | ASP.Net 2.0 | Office Excel 2007 | Visual C# | .NET Framework 3.5 | MSXML 6.0 SP1 | ADO.NET 9.0 | ADO.NET 10.0 | SQLXML 4.0 SP1 | Microsoft Document Explorer 2008-KB953196 Patch | Microsoft Document Explorer 2008 | Enterprise Single Sign-On Server | Enterprise Single Sign-On Administration | Microsoft Primary Interoperability Assemblies 2005 Setup runtime files | MDAC 2.8 SP1 | Office Web Components 11 | |
| Documentation | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Server Runtime | | | | | | | | | | X | | | | | | X | X | X | X | X | | X | X | | | | X | |
| Microsoft EDI Feature Set | X | | X | X | | | | | | X | X | | | | | X | | X | X | | | | | | | | | |
| WCF Adapter | | | | | | | | | | | | | | | | X | X | X | X | X | | | | | | | | |
| Administrative Tools | | | | | | | | | | X | | | | | | X | | | | | | | | X | | | X | X |
| WCF Administration Tools | | | | | | | | | | | | | | X | X | X | X | X | | | | | | | | | | |
| Developer Tools and SDK | | | X | | | | | | | X | | | | | | X | | | | | | | X | | | | X | |
| Portal Components | | | | | | | | | | | | | X | | | X | | | | X | | | | | | X | X | |
| Business Activity Monitoring | X | | | X | X | | X | X | X | | | | | | | | | | | | | | | | | | | |
| Additional Software | | | | | | | | | | | | | | | | X | X | X | X | | | | | | | | | |
| Enterprise Single Sign-On Master Secret Server | | | | | | | | | | | | | | | | X | | | | | | | X | | | | | |
| Enterprise Single Sign-On Administration | | | | | | | | | | | | | | | | X | | | | | | | | X | | | | |
| Business Rules Components | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| MQSeries Agent | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Windows Sharepoint Services Adapter Web Service | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BAM Client | | | | | | | X | X | | | | | X | | | X | | | | | | | | | | | | |
| BAM Eventing | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Other Software | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Business Rule Engine | | | | | | | | | | X | | | | | | X | | | | | | | | | | | | |
| Health and Activity Tracking | | | | | | X | | | | | | | | | | | | | | | | | | | | | X | |
| UDDI | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | |

Hardware Requirements

The following table shows the minimum hardware requirements for your BizTalk Server computer. In a production environment, the volume of traffic may dictate greater hardware requirements for your servers.

| Component | Minimum Requirement |
|------------------------|---|
| Computer and processor | <p>A computer with an Intel Pentium-compatible CPU that is:</p> <ul style="list-style-type: none">• 1 GHz or higher for single processors• 900 MHz or higher for double processors• 700 MHz or higher for quad processors <p>Hyper-threading and dual-core processors are supported.</p> <p>The 64-bit versions of BizTalk Server require a 64-bit operating system running on an x64-based system. Computers based on CPUs that are compatible with the AMD64 (x86-64) and Extended Memory 64-bit Technology (EM64T) processor architecture are considered x64-based systems.</p> <p>BizTalk Server is not supported on Itanium-based systems.</p> |
| Memory | 2 GB of RAM |
| Hard disk | 10 GB of available hard disk space for a complete installation including the operating system and all prerequisite software. The hard disk must be NTFS formatted. |
| Drive | CD-ROM or DVD-ROM drive |
| Display | Windows Server 2003-compatible VGA or higher-resolution monitor set to 1024 x 768 pixels or greater resolution |
| Other | Network adapter card, and Microsoft mouse or compatible pointing device |

Software Requirements

This page lists the software required for running BizTalk Server. You'll be guided through installation steps for all of these prerequisites in a later section.

Microsoft Windows Can be either Windows Server 2008, Windows Server 2003, Windows® XP with Service Pack 3 (SP3), Windows Vista® with Service Pack 1 (SP1). Itanium (IA64) editions of Windows Server 2003 are not supported by the BizTalk Server runtime, however, BizTalk databases can be hosted on SQL Server running on IA64 hardware.

Internet Information Services (IIS) Versions 6.0 and 7.0 are supported. Provides a scalable Web application infrastructure.

Required for: EDI, BAM, WSS Adapter, and UDDI.

Windows SharePoint Services A collection of services for Windows Server which you can use for sharing and collaborating. Supported versions: WSS 2.0 with Service Pack 3 (SP3), WSS 3.0 with Service Pack 1 (SP1), and Microsoft Office SharePoint Server 2007 (MOSS).

Required for: WSS Adapter.

Microsoft Office Excel 2007 Business Activity Monitoring (BAM) uses an Excel workbook to display a real-time view of business processes.

Required for: BAM.

Microsoft .NET Framework 3.5 with Service Pack 1 (SP1) The Microsoft .NET Framework 3.5 SP1 (formerly WinFX), is the new managed code programming model for Windows. It combines .NET Framework 2.0 with four new technologies: Windows Presentation Foundation (WPF), Windows Communication Foundation (WCF), Windows Workflow Foundation (WF), and Windows CardSpace (WCS, formerly "InfoCard").

Required for: WCF adapter, WCF interceptor, and WCF Administration Tools.

Microsoft Visual Studio 2008 Provides a development environment for building applications that target any device and integrate with any platform. Professional Edition is recommended, but Standard and Team System are also supported.

Required for: BizTalk Server Developer Tools and SDK component.

SQL Server 2005 SP2 or 2008 A relational database server for processing high volumes of data. For optimal performance, we recommend SQL Server 2008 Enterprise Edition. In order to fully use the BizTalk Server 2009 SDK, or deploy BizTalk Server applications from a Visual Studio development environment, you must also install the SQL Server Development Tools.

Required for: BizTalk Server Runtime, EDI, and BAM.

SQL Server 2005 Notification Services Enables the use of BAM Alerts. Note that this SQL Server 2005 feature is not included in SQL Server 2008, and must be downloaded separately.

Required for: BAM Alerts.

SQLXML 3.0 with Service Pack 3 Enables XML support for your SQL Server database and allows developers to bridge the gap between XML and relational data. You can create an XML view of your existing relational data and work with it as if it were an XML file.

Required for: BizTalk Server Runtime, Administrative Tools, and BAM.

Considerations When Installing BizTalk Server 2009

You should understand the following before beginning your installation:

Account names You should use the default account names whenever possible. The BizTalk Server setup program automatically configures installed components to use the default accounts. While using the default names simplifies setup and configuration, it is not always possible. For example, there may be multiple BizTalk Server groups within an Active Domain forest. In this situation the account names must be modified to avoid conflicts. If you must change the names, note that BizTalk Server supports only *<NetBIOS domain name>\<user>* name formats for service accounts and Windows groups.

Account names with BAM Management Web Service BizTalk Server does not support use of either built-in accounts or accounts without passwords for the BAM Management Web Service User. This is because the web service accesses the BizTalk database, and such accounts may represent a security threat.

Configuring BizTalk Server with such accounts may appear to succeed, but the BAM Management Web Service will fail.

Note that use of such accounts for the BAM Application pool is supported.

BizTalk Assembly Viewer Use of the BizTalk Assembly viewer is not supported on a 64-bit platform.

Install and Uninstall Uninstalling BizTalk Server is fully supported. However it requires manually deleting a number of databases which can be complicated and time consuming. If you are installing BizTalk Server as a developer or evaluator, consider installing on a virtual computer. This way, if you need to reinstall, you can easily roll back to a preset checkpoint without having to go through the uninstall process.

32-bit and 64-bit computers There are relatively few differences between installing BizTalk Server on 32-bit editions of Windows compared to installation on 64-bit editions of Windows. This document covers both 32-bit and 64-bit installations. Differences between them are noted in the instructions to follow.

MOM If you are using Microsoft Operations Manager (MOM) for monitoring the BizTalk Server in your network environment, the TCP port 1270 must be open for the agent to connect to the MOM server.

Workgroups Installing and configuring BizTalk Server in the workgroup environment on a single computer is supported. SQL Server and BizTalk Server features and components are installed and configured on the same computer.

Terminal Server Installing BizTalk Server using Terminal Server running in application mode is not supported. For more information, see the support article at

<http://support.microsoft.com/default.aspx?scid=kb;en-us;832027>.

Preparing Your Computer for Installation

In this section you'll prepare your environment by installing and configuring all software prerequisites, and then creating accounts and setting permissions.

Important

You must perform these procedures in the order listed.

Install Critical Windows Updates

Before installing BizTalk Server or its prerequisites, make sure you have installed the latest critical Windows updates from Microsoft.

To install Windows updates

1. Click **Start**, point to **All Programs**, and then click **Windows Update**.
2. Follow the directions on the **Windows Update** site.
3. If prompted, restart your computer.

Enable Internet Information Services

Microsoft Internet Information Services (IIS) provides a Web application infrastructure for many BizTalk Server features. BizTalk Server requires IIS for the following features:

- HTTP adapter
- SOAP adapter
- Windows SharePoint Services adapter
- Secure Sockets Layer (SSL) encryption
- BAM Portal

To enable Internet Information Services 7.0

1. In the **Windows Initial Configuration Tasks** screen, under **Customize the Server**, click **Add Roles**.
2. On the **Before You Begin** screen, click **Next**.
3. On the **Select Server Roles** screen, click **Web Server (IIS)**.
4. If prompted, click **Add Required Features**, and then click **Next**.
5. Review the information on the **Web Server (IIS) screen**, and then click **Next**.
6. On the **Select Roles Services** screen, in addition to the default values, select **Application Development**, and then click **Add Required Features**.
7. Under **Security**, select **Basic Authentication** and **Windows Authentication**.
8. Under **Management Tools**, select **IIS 6 Management Compatibility**, and then click **Next**.
9. Review the information on the **Confirm Installation Selections** screen, and then click **Install**.
10. On the **Installation Results** screen, click **Close**.

Install Microsoft Office Excel

Microsoft Office Excel is required for using the Business Activity Monitoring (BAM) feature in BizTalk Server. You use the BAM Office Excel Workbook to define the business processes you want to monitor. You also use the BAM Excel Workbook to define the way in which business users see the data collected by BAM.

The following procedure installs only Office Excel. You can install additional Microsoft Office system applications and tools if you wish, but they are not necessary to complete the installation of BizTalk Server.

► To install Microsoft Office Excel

1. Insert the Microsoft Office installation disk into the DVD-ROM drive.
2. When you reach the **Type of Installation** screen, select **Custom Install**, and then click **Next**.
3. On the **Custom Setup** screen, ensure that **Excel** is selected, and then click **Next**.
4. Click **Install**.
5. On the **Setup Completed** screen, click **Finish**.

Install Visual Studio 2008 with SP 1

The BizTalk Server development tools are based on Visual Studio 2008 SP1. Therefore, at a minimum, you must have the Microsoft Visual C#® .NET portion of Visual Studio 2008 SP1 installed on your computer before installing the BizTalk Server Developer Tools and SDK component.

Visual Studio 2008 SP1 is *not* required if you are installing BizTalk Server on a production computer (runtime only), on which no application development or debugging will occur.

The BizTalk Server runtime components require .NET Framework 3.5 SP1. In addition, the .NET Framework 3.0 is required if the Windows Communication Foundation (WCF) adapter or WCF Interceptor is installed.



Note

If you install Visual Studio and BizTalk Server, and then upgrade to Visual Studio Team Explorer, it may be necessary to repair your BizTalk Server installation by using **Control Panel - Programs and Features**.

► To install Visual Studio 2008

1. Insert the Visual Studio 2008 installation disk into the DVD-ROM drive.
2. Click **Install Visual Studio 2008**.
3. After the installation loads, click **Next**.
4. On the **Start** page, accept the license agreement, type your **Product Key** and any other necessary information, and then click **Next**.

5. On the **Options** page, select **Custom**, and then click **Next**.
6. Under **Select features to install**, clear all features except **Visual C#**, and then click **Install**.

 **Important**

Your version of Visual Studio may include Microsoft SQL Server Express as an optional feature. Do not install this feature, as it will cause BizTalk Server setup to fail.

7. On the **Finish** page, click **Finish**.
8. On the Visual Studio Setup screen, click **Exit**.

 **To install Visual Studio 2008 SP1**

1. Insert the Visual Studio 2008 SP1 installation disk into the DVD-ROM drive.
2. On the **Welcome** screen, click **Next**.
3. Accept the license terms, and then click **Next** to begin installation.
4. When setup is complete, click **Finish**.

Install SQL Server 2008

BizTalk Server provides the capability to specify a business process and also a mechanism by which the applications used in that business process can communicate with each other. SQL Server is the main repository for this communication mechanism.

 **Important**

- The next several pages contain procedures for installing different versions and components of SQL Server.
- You must install **one** of the following:
 - SQL Server 2008 (Enterprise Edition recommended)
 - SQL Server 2005 with SP2
- You must also install **both** of the following:
 - SQLXML 3.0 with SP3
 - SQL Notification Services

 **To install SQL Server 2008**

1. Insert the SQL Server 2008 installation disk into the DVD-ROM drive. The setup program will begin automatically. If prompted for automatic installation of prerequisite software, click **OK**.
2. On the **SQL Server Installation Center**, click **Installation**.
3. Click **New SQL Server stand-alone installation or add features to an existing installation**.

4. Review the information on the **Setup Support Rules** screen, and then click **OK**.
5. On the **Product Key** screen, enter your product key and click **Next**.
6. On the **License Terms** screen, select **I accept the license terms**, and then click **Next**.
7. On the **Setup Support Files** screen, click **Install**.
8. On the **Feature Selection** screen, select the following features, and then click **Next**.
 - **Database Engine Services**
 - **SQL Server Replication**
 - **Full-Text Search**
 - **Analysis Services**
 - **Reporting Services**
 - **Business Intelligence Development Studio**
 - **Client Tools Connectivity**
 - **Integration Services**
 - **Management Tools - Basic**
 - **Management Tools - Complete**
9. On the **Instance Name** screen, select **Default instance**, and then click **Next**.
10. Review the information on the **Disk Space Requirements** screen, and then click **Next**.
11. On the **Service Accounts** screen, click **Use the same account for all SQL Server instances**, enter a local account or domain account and password, and then click **Next**.
12. On the **Database Engine Configuration** screen, select **Windows authentication mode**, click **Add Current User**, and then click **Next**.
13. On the **Analysis Services Configuration** screen, click **Add Current User**, and then click **Next**.
14. On the **Reporting Services Configuration** screen, select **Install the native mode default configuration**, and then click **Next**.
15. On the **Error and Usage Reporting** screen, leave the default values, and then click **Next**.
16. On the **Installation Rules** screen, review the information and resolve any issues, and then click **Next**.
17. On the **Ready to Install** screen, review the information, and then click **Install**.
18. On the **Installation Progress** screen, after setup has finished, click **Next**.
19. On the **Complete** screen, click **Close**.

Install SQLXML 3.0 with SP3

SQLXML enables XML support for your SQL Server database and allows developers to bridge the gap between XML and relational data. You can create an XML view of your existing relational data and work with it as if it were an XML file. SQLXML 3.0 with SP3 is required for the following:

- BizTalk Server runtime
- Administrative Tools
- BAM
- EDI
- SQL Adapter
- RosettaNet accelerator

▶ To install SQLXML 3.0 with SP3

- Go to <http://go.microsoft.com/fwlink/?LinkId=122479> and follow the installation instructions.

Install Microsoft Management Console 3.0

The Enterprise Single Sign-On (SSO) Administration Module requires the Microsoft Management Console 3.0. You can download this from the following locations:

- 32-bit: <http://go.microsoft.com/fwlink/?LinkId=67694>
- 64-bit: <http://go.microsoft.com/fwlink/?LinkId=88352>

Install Prerequisites for MQSeries Agent

If you plan to use the MQSeries Agent, you will need to download the following:

- .NET Framework 2.0: <http://go.microsoft.com/fwlink/?LinkID=61922>

You will also need to download one of the following:

- IBM WebSphere MQ 5.3 with CSD 10 (or later), or
- IBM WebSphere MQ 7.0

Caution

IBM WebSphere is not supported by Microsoft, and Microsoft makes no guarantees about the suitability of this program. Use of these programs is entirely at your own risk. For more information about these utilities, including download instructions, see the IBM Web site at www.ibm.com.

Finally, you must run the MQSAgent COM+ Configuration Wizard (MQSConfigWiz.exe) on the computer where MQSAgent is installed prior to using either the MQSeries Adapter or the Windows SharePoint Services Web service.

Install SQL Notification Services

If you plan to use BAM Alerts in your BizTalk Server project, you must install SQL Notification Services and its prerequisites on your BizTalk Server computer. This SQL Server 2005 feature is not included in SQL Server 2008, but you can install it from the Microsoft Download Center. You can skip this step if you are installing SQL Server 2005 with SP2.

► To install SQL Notification Services

1. Browse to <http://support.microsoft.com/hotfix/KBHotfix.aspx?kbnum=953752>.
2. Read the **Agreement for Microsoft Services**, and then click **I Accept**.
3. On the **Hotfix Request** page, in **Section 1**, locate the files that apply to your platform (x86, x64, or ia64). From these files, select:
 - SQLServer2005_XMO
 - Yukon_SP2_CU9_SNAC
4. In **Section 2**, enter the e-mail address where you want Microsoft to send the hotfix.
5. Answer the security challenge.
6. Click **Request Hotfix**.
7. Close your browser and open your e-mail.
8. When you receive an e-mail from hotfix@microsoft.com, open it and read the contents.
9. In the **Package** section of the e-mail, there is a link and a password for each of the two files you'll download. Click the link that includes **SQLServer2005_XMO**.
Do not close your e-mail.
10. Click **Run**, click **Continue**, and then click **OK**.
11. When prompted for a password, leave the box empty and click **Skip**, then click **OK**.
12. Repeat steps 9, 10, and 11 for the link in the e-mail which contains **Yukon_SP2_CU9_SNAC**.
13. Go to <http://go.microsoft.com/fwlink/?LinkId=131668>.
14. Scroll to the bottom of the page. Next to the file called SQLServer2005_NS_x64.msi, click **Download**.
15. Click **Run** to open the **Microsoft SQL Server 2005 Notification Services Setup** wizard, and then click **Next**.
16. On the **License Agreement** page, accept the terms and click **Next**.
17. On the **Registration Information** page, enter your information, and then click **Next**.
18. On the **Ready to Install** page, click **Install**.
19. When setup is complete, click **Finish**.

Install SQL Server 2005 with SP2

Although SQL Server 2008 Enterprise Edition is recommended, BizTalk Server will run on SQL Server 2005 with SP2. Use the following procedures to install the product and service pack.

▶ To install SQL Server 2005

1. Insert the SQL Server 2005 installation disk into the DVD-ROM drive.
2. On the **End User License Agreement** page, accept the terms and click **Next**.
3. If prompted to install prerequisites, click **OK**. When prerequisite setup is complete, click **Next**.
4. On the **Welcome to the Microsoft SQL Server Installation Wizard** screen, click **Next**.
5. On the **System Configuration Check** screen, ensure that there are no errors before you continue, and then click **Next**.
6. On the **Registration Information** page, enter your **Name**, **Organization** (optional), and **Product Key**, and then click **Next**.
7. On the **Components to Install** screen, select:
 - SQL Server Database Services
 - Workstation components, Books Online, and development toolsIf you plan to use BAM features, then you must also select:

- Analysis Services
- Notification Services
- Integration Services

Note

If certain features are unavailable, you may be missing some SQL Server prerequisites. Click **Help** on the **Components to Install** screen for more information.

8. After selecting all the necessary components, click **Next**.

Note

Depending on the features you selected in Step 7, some of the following steps may not appear.

9. On the **Instance Name** screen, select **Default instance**, and then click **Next**.
10. On the **Service Account** screen, do the following:
 - a. Clear the **Customize for each service account** check box.
 - b. Assign a logon account to the SQL Server services.
 - c. Select **Use a domain account**, and then enter a local or domain account and password.

 **Note**

If the computer on which you are installing SQL Server is a member of a domain, you should use a domain local or domain global account. Local accounts are not recommended because they are neither visible nor manageable except on the computer where they were created.

- d. Under **Start services at the end of setup**, select **SQL Server Agent**, and then click **Next**.
11. On the **Authentication Mode** screen, select **Windows Authentication Mode**, and then click **Next**.
12. On the **Collation Settings** screen, leave the default unless you have a specific requirement for a different collation, and then click **Next**.

 **Note**

BizTalk Server does not support binary (case sensitive) collations.

13. On the **Error and Usage Report Settings** screen, either leave the defaults or elect to participate in the error reporting and feature usage programs, and then click **Next**.
14. On the **Ready to Install** screen, review the information, and then click **Install**.
15. On the **Setup Progress** screen, after setup has finished, click **Next**.
16. On the **Completing Microsoft SQL Server 2005 Setup** screen, and then click **Finish**.

▶ **To install SQL Server 2005 SP2**

1. Browse to <http://go.microsoft.com/fwlink/?linkid=86436> to download the appropriate service pack for your computer. For Windows x64 editions, download and save **SQLServer2005SP2-KB921896-x64-ENU.exe** to your local hard drive. For 32-bit Windows editions, download and save **SQLServer2005SP2-KB921896-x86-ENU.exe** to your local hard drive.
2. Locate the file you just downloaded and double-click it to run Setup. The **Microsoft SQL Server 2005 Service Pack 2 Setup** screen will appear. Click **Next**.
3. Review the license terms, select **I accept the agreement**, then click **Next**.
4. On the **Feature Selection** screen, click **Next**.
5. On the **Authentication** screen, verify that the authentication method is set to **Windows Authentication**, and then click **Next**.
6. On the **Error and Usage Reporting Settings** screen, you can leave the defaults or choose to send error and feature usage data, and then click **Next**.
7. The **Running Processes** screen will appear. Running processes with locked files that need to be updated will be displayed here. Listed processes, if any, should be shut down using the Services management tool. When there are no running processes remaining in the list, click **Next**.
8. The **Ready to Install** screen will appear. Click **Install**.

Install Windows SharePoint Services

Windows SharePoint Services is a collection of services for Windows Server which enable you to share information, collaborate with other users on documents, and create lists and Web part pages. For information and procedures on installing Windows SharePoint Services, see Appendix A.



Note

You do not need to install WSS if you do not also plan to install the WSS adapter. However, if you are installing WSS, you must do it before continuing with the rest of the BizTalk Server prerequisites.

BizTalk Server 2009 supports these two versions of WSS:

- Windows SharePoint Services 3.0 with SP1
- Windows SharePoint Services 2.0 with SP3

Installing and configuring Windows SharePoint Services consists of the following procedures:

- Configure ASP.NET 2.0 for 64-bit mode
- Install Windows SharePoint Services
- Configure ASP.NET 2.0 for 32-bit mode
- Configure Default Web Site for ASP.NET 2.0
- Configure Windows SharePoint Services
- Extend the Default Web Site as a virtual server

Disable the Shared Memory Protocol

Under certain stress conditions (such as clients accessing SQL Server from the same computer), the SQL Server Shared Memory protocol may lower BizTalk Server performance. You can resolve this problem by disabling the use of the Shared Memory network protocol in the SQL Server Client Network Utility.



To disable Shared Memory protocol for SQL Server

1. Click **Start**, point to **All Programs**, click your version of **SQL Server**, click **Configuration Tools**, and then click **SQL Server Configuration Manager**.
2. In **SQL Server Configuration Manager**, expand **SQL Server Network Configuration**, and then click **Protocols for MSSQLSERVER**.
3. Right-click **Shared Memory**, and then click **Disable**.
4. Click **SQL Server Services**, right-click **SQL Server (MSSQLSERVER)**, and then click **Stop**. After the service has stopped, right-click **SQL Server (MSSQLSERVER)** again, and then click **Start**.
5. Close **SQL Server Configuration Manager**.

Join the Local Administrators Group

You must be an administrator to install and configure BizTalk Server 2009. Use this procedure to join the Administrators group on the local computer.

▶ Join the local Administrators group

1. Click **Start**, click **Control Panel**, and then double-click **User Accounts**.
2. Click **Manage User Accounts**.
3. In the **User Accounts** dialog box, click the **Advanced tab**.
4. Under **Advanced user management**, click **Advanced**.
5. In the left-hand pane, click **Groups**.
6. In the right-hand pane, double-click **Administrators**.
7. In the **Administrators Properties** dialog box, look for your name in the **Members** list.
8. If your name is in the list, proceed to Step 9.
If your name is not in the **Members** list, do the following:
 - Click **Add**.
 - In the **Enter the object names to select** box, type your name, and then click **Check Names**.
 - Once your name is recognized, click **OK**.
9. Click **OK** to close the **Administrators Properties** dialog box, and then close the **Local Users and Groups** pane.
10. Click **OK** to close the **User Accounts dialog box**.
11. Close the **Users Accounts** pane.

Configure the Application Event Log

BizTalk Server setup keeps a record of events in the Application Event Log. Depending on the BizTalk Server features installed, the amount of space required in the log may exceed its limit. If the application event log runs out of space during BizTalk Server setup, the installation will fail. To prevent this from happening, you can change the settings in the Application Event Log.

▶ To change settings in the Application Event Log

1. Click **Start**, click **Control Panel**, and then double-click **Administrative Tools**.
2. Double-click **Event Viewer**.
3. In the **Event Viewer**, expand **Windows Logs**.
4. Right-click **Application**, and then click **Properties**. This opens the **Log Properties** dialog box.
 - To see how much available space your log has, compare the **Log Size** field with the **Maximum log size** field.

- To provide more space in the event log, enter a higher number in the **Maximum log size** field.
 - To enable overwriting of old events when the log becomes full, select **Overwrite events as needed**.
 - To clear the log events, click **Clear log**.
5. Click **OK**, close the **Event Viewer**, and close **Administrative Tools**.

Installing and Configuring BizTalk Server

In this section you'll install BizTalk Server, confirm that the installation succeeded, and then configure BizTalk Server.

When you installed SQL Server, setup granted your account Database Administrator rights. Since these rights are also required for installing BizTalk Server, you must do one of the following:

- Use the same account you used when you installed SQL Server.
- Make sure the account you're using now also has Database Administrator rights.

▶ To install BizTalk Server 2009

1. Close any programs you have open.
2. Insert the BizTalk Server 2009 installation disk into the DVD-ROM drive.
3. On the **Start** screen, click **Install Microsoft BizTalk Server 2009 on this computer**.
4. On the **Customer Information** screen, type your user name and organization, enter your product key, and then click **Next**.
5. On the **License Agreement** screen, click **Yes, I accept the terms of the license agreement**, and then click **Next**.
6. On the **Component Installation** screen, review the available components and select the ones you want to install.
7. Accept the default installation location or click **Browse** to move to the location where you want to install BizTalk Server 2009, and then click **Next**.
8. If your computer is missing a prerequisite component such as ADOMD.NET, Setup can install the redistributable prerequisites. You can either:
 - Select **Automatically install the redistributable prerequisites from the web** OR
 - Select **Automatically install the redistributable prerequisites from a CAB file** if you have downloaded the CAB file. If you select this, you can then browse to the location of the CAB file and select it.
9. On the **Summary** screen, verify that the components that you select to install are correct.
10. To enable auto-logon after a system reboot, click **Set** and provide your logon information. Auto-logon is enabled only for reboots during setup, and is disabled when setup is complete.

11. Click **Install** to start the installation process.
12. On the **Installation Completed** screen, clear the **Launch BizTalk Server Configuration** check box, and then click **Finish**.

Verify Your Installation

You can check to see whether your installation was successful by using either Programs and Features or the Registry.

▶ To verify installation using Programs and Features

1. Click **Start**, click **Control Panel**, and double-click **Programs and Features**.
2. When the list is fully populated, look for **BizTalk Server 2009**. If it appears in the list, setup succeeded.

▶ To verify installation using the Registry

1. Open a command prompt.
2. Type **regedit** and then press Enter.
3. When the Registry opens, browse to **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\BizTalk Server\3.0**
4. If files exist in the 3.0 folder, setup succeeded.
5. Close the Registry, and then close the command prompt.

Configure BizTalk Server

Use the following procedure to complete a basic configuration of BizTalk Server. For information on customizing your configuration, see Custom Configuration in the BizTalk Server Help.

▶ To configure BizTalk Server 2009 using Basic Configuration

1. Click **Start**, click **All Programs**, click **Microsoft BizTalk Server 2009**, right-click **BizTalk Server Configuration**, and then click **Run as Administrator**.
2. In the **Database** field, enter the name of the local computer.
3. In the **Service Credential** field, type the **User name** and **Password** for the account that the BizTalk services will run under.
4. Click **Configure**.

Note

You may receive a warning if you enter a user name with administrative credentials on this computer. Click **OK** to continue.

5. On the **Summary** screen, review the configuration about to be performed, and then click **Next**.
6. On the **Completion** screen, click **Finish**.

Enable TCP/IP and Named Pipes

To facilitate transactions between SQL Server and BizTalk Server, you must enable TCP/IP and Named Pipes in SQL Server.

▶ To enable TCP/IP and Named Pipes

1. Click **Start**, click **All Programs**, click **SQL Server 2008**, click **Configuration Tools**, and then click **SQL Server Configuration Manager**.
2. In the left-hand pane, expand **SQL Server Network Configuration**.
3. Click **Protocols for MSSQLSERVER**.
4. Verify that both **TCP/IP** and **Named Pipes** are enabled. If they are, proceed to Step 5. If either is not, follow these steps:
 - Right-click the protocol, and then click **Enable**.
 - Repeat to enable the other protocol if necessary.
 - In the left-hand pane, click **SQL Services**.
 - In the right-hand pane, right-click **SQL Server (MSSQLSERVER)**, and click **Stop**.
 - When the service has stopped, right-click **SQL Server (MSSQLSERVER)** again, and click **Start**.
5. When the service has restarted, close the **Configuration Manager**.

Enable DTC on the Local Host Server

To facilitate transactions between SQL Server and BizTalk Server, you must enable Microsoft Distributed Transaction Coordinator (MS DTC) on the Local Host Server (LHS).

▶ To enable Distributed Transaction Coordinator (DTC) on the LHS

1. Click **Start**, click **Run**, type **dcomcnfg** and then click **OK** to open **Component Services**.
2. In the console tree, expand **Component Services**, expand **Computers**, expand **My Computer**, expand **Distributed Transaction Coordinator**, and then click **Local DTC**.
3. Right-click **Local DTC** and click **Properties** to display the **Local DTC Properties** dialog box.
4. Click the **Security** tab.
5. Ensure that each of the following four options is selected, and all others are cleared:
 - **Network DTC Access**
 - **Allow Inbound**
 - **Allow Outbound**
 - **No Authentication Required**
6. Click **OK** to close the **Local DTC Properties** dialog box. If prompted to restart the MSDTC service, click **Yes**.

7. Close **Component Services**.
8. Open **Control Panel**, and then open **Windows Firewall**.
9. Click **Change settings** to display **Windows Firewall Settings**.
10. Click the **Exceptions** tab.
11. Check the box for **Distributed Transaction Coordinator** and click **OK**.
12. Close **Windows Firewall**.
13. On the **Control Panel**, double-click **Administrative Tools**.
14. In the right-hand pane, double-click **Services**.
15. In the right-hand pane of **Services (Local)**, right-click **COM+ System Application**, click **Restart**, and wait for the service to restart.
16. Right-click and restart the **Distributed Transaction Coordinator** service.
17. Right-click and restart the **SQL Server (MSSQLSERVER)** service.
18. Close **Services (Local)**, and then close **Administrative Tools**.

Uninstalling BizTalk Server

Use the procedures in the following pages to uninstall BizTalk Server 2009.

Important

You must perform these actions in the order shown, or uninstallation will not be complete.

Uninstall BizTalk Runtime Components

To uninstall BizTalk Server 2009 runtime components

1. Click **Start**, point to **Control Panel**, and then click **Programs and Features**.
2. In the **Programs and Features** dialog box, click **Microsoft BizTalk Server 2009**, and then click **Uninstall/Change**.
3. On the **Program Maintenance** screen, select **Remove**, and then click **Next**.
4. On the **Summary** screen, review the components to be uninstalled, and then click **Uninstall**.
5. On the **Uninstall Completed** screen, click **Finish**.

Uninstall Enterprise Single Sign-On

▶ To uninstall Enterprise SSO services

1. Click **Start**, point to **Control Panel**, and then click **Programs and Features**.
2. In the **Programs and Features** dialog box, click **Microsoft Enterprise Single Sign-On**, and then click **Uninstall/Change**.
3. On the **Program Maintenance** screen, select **Remove**, and then click **Next**.
4. On the **Summary** screen, review the components to be uninstalled, and then click **Uninstall**.
5. On the **Uninstall Completed** screen, click **Finish**.

Remove All Remaining Components

▶ Remove SQL Server agent jobs

1. Click **Start**, point to **All Programs**, point to your version of **SQL Server**, point to **SQL Server Management Studio**, and then click **SQL Server Management Studio**.
2. Click **Connect**.
3. In **Object Explorer**, expand **SQL Server Agent**, and then expand **Jobs**.
4. Remove the following jobs:
 - Backup BizTalk Server (BizTalkMgmtDb)
 - CleanupBTFFExpiredEntriesJob_BizTalkMgmtDb
 - DTA Purge and Archive (BizTalkDTADB)
 - MessageBox_DeadProcesses_Cleanup_BizTalkMsgBoxDb
 - MessageBox_Message_Cleanup_BizTalkMsgBoxDb
 - MessageBox_Message_ManageRefCountLog_BizTalkMsgBoxDb
 - MessageBox_Parts_Cleanup_BizTalkMsgBoxDb
 - MessageBox_UpdateStats_BizTalkMsgBoxDb
 - Operations_OperateOnInstances_OnMaster_BizTalkMsgBoxDb
 - PurgeSubscriptionsJob_BizTalkMsgBoxDb
 - Rules_Database_Cleanup_BizTalkRuleEngineDb
 - TrackedMessages_Copy_BizTalkMsgBoxDb



Note

If you deployed BAM, you may also need to remove the job named `bam_<Cube Name>_<View Name>`.

▶ **Remove SQL Server Integration Services Packages**

1. Click **Start**, point to **All Programs**, point to your version of **SQL Server**, point to **SQL Server Management Studio**, and then click **SQL Server Management Studio**.
2. Click **Connect**.
3. In **Object Explorer**, click **Connect** and select **Integration Services**, and then click **Integration Services**.
4. Expand **Stored Packages** and expand **MSDB**.
5. Remove the packages with the following prefixes:
 - BAM_AN_<Cube Name>
 - BAM_DM_<View Name>

▶ **Remove BizTalk Server 2009 databases on SQL Server 2008**

1. Click **Start**, point to **All Programs**, point to **Microsoft SQL Server 2008**, and then click **SQL Server Management Studio**.
2. In **Object Explorer**, expand **Databases**.
3. Remove the following databases:
 - BMArchive
 - BAMPrimaryImport
 - BAMStarSchema
 - BizTalkDTADB
 - BizTalkMgmtDb
 - BizTalkMsgBoxDb
 - BizTalkRuleEngineDb
 - SSODB

▶ **Remove BizTalk Server 2009 databases on SQL Server 2005**

1. Click **Start**, point to **All Programs**, point to **Microsoft SQL Server 2005**, and then click **SQL Server Management Studio**.
2. In **Object Explorer**, expand **Databases**.
3. Remove the following databases:
 - BAMAlertsApplication
 - BAMAlertsNSMain
 - BMArchive
 - BAMPrimaryImport
 - BAMStarSchema
 - BizTalkDTADB

- BizTalkEDIDb
- BizTalkHwsDb
- BizTalkMgmtDb
- BizTalkMsgBoxDb
- BizTalkRuleEngineDb
- SSODB

▶ Remove BizTalk Server 2009 Analysis Service databases on SQL Server 2008

1. Click **Start**, point to **All Programs**, point to **Microsoft SQL Server**, point to **Analysis Services**, and then click **Analysis Manager**.
2. In **Analysis Manager**, expand **Analysis Servers**, and then expand your local server.
3. Remove the following databases:
 - BizTalkAnalysisDB
 - BAMAnalysis

▶ Remove BAM Alerts Notification Services instance

1. Click **Start**, point to **All Programs**, point to **Microsoft SQL Server 2005**, and then click **Configuration Tools**.
2. On the **Configuration Tools** menu, click **Notification Services Command Prompt**
3. Type the following command to disable the instance: **nscontrol disable -name BAMAlerts**.
4. Type the following command to stop the instance: **net stop NS\$BAMAlerts**.
5. Type the following command to unregister the instance: **nscontrol unregister -name BAMAlerts**.

Note

The BAM Notification name is generated as NS\$<Prefix for Alerts Database Name> where <Prefix for Alerts Database Name> is what you specified on the BAM Alerts configuration page. The default name is BAMAlerts.

Uninstallation Complete

At this point you have fully uninstalled BizTalk Server 2009.

Appendix A: Installing Windows SharePoint Services

Use the information and procedures in this section to install and configure Windows SharePoint Services.

Considerations for Installing Windows SharePoint Services

BizTalk Server requires Windows SharePoint Services (WSS) to support the following features:

- Windows SharePoint Services adapter Web service
- Business Activity Monitoring (BAM) portal

If you do not intend to install either feature listed above, you do not need to install WSS.

BizTalk Server 2009 supports Windows SharePoint Services 2.0 with SP3 and Windows SharePoint Services 3.0 with SP1, or Microsoft Office SharePoint Server 2007 (MOSS). Not all BizTalk Server features are compatible with all versions of Windows SharePoint Services.

Windows SharePoint Services support in BizTalk Server 2009 is summarized in the following table:

| Windows SharePoint Services version | WSS adapter | BAM portal |
|---|---|---------------|
| Windows SharePoint Services 2.0 with SP2. Support for 64-bit systems is provided by WOW64. IIS and ASP.NET must run in 32-bit mode. | 32-bit only | 32-bit only |
| Windows SharePoint Services 3.0, or Microsoft Office SharePoint Server 2007. WSS 3.0 and MOSS require IIS and ASP.NET to run in 64-bit mode on 64-bit Windows editions. | 32-bit on Windows 32-bit x86 editions. The WSS adapter is supported in 32-bit (WOW64) or native 64-bit modes on 64-bit Windows editions | Not supported |

Before you install Windows SharePoint Services, consider the following:

- BizTalk Server 2009 supports side-by-side installation of Windows SharePoint Services 2.0 with SP2 and Windows SharePoint Services 3.0.
- Although the Windows SharePoint Services adapter supports WSS 2.0 with SP3, WSS 3.0 with SP1, and MOSS 2007, the adapter can only be configured to use one version at a time.
- If you plan a side-by-side installation of WSS 2.0 and WSS 3.0, you should install WSS 3.0 before WSS 2.0. If WSS 3.0 is installed after WSS 2.0, the WSS 3.0 Setup Wizard will

automatically attempt to upgrade the existing WSS 2.0 installation. Installing WSS 3.0 first will avoid this problem.

- On 64-bit Windows, both IIS and ASP.NET must be configured to run in 64-bit mode before installing WSS 3.0.
- On 64-bit Windows, both IIS and ASP.NET must be configured to run in 32-bit mode before installing WSS 2.0.
- Although side-by-side installation of WSS 2.0 and WSS 3.0 is supported on 64-bit Windows, side-by-side execution is not supported. WSS 2.0 requires IIS and ASP.NET to run in 32-bit mode on 64-bit Windows, however, WSS 3.0 requires IIS and ASP.NET to run in 64-bit mode. IIS can only run in one mode, 32-bit or 64-bit, at any given time on 64-bit Windows. This prevents side-by-side execution of WSS 2.0 and WSS 3.0.
- Side-by-side installation and side-by-side execution of WSS 2.0 and WSS 3.0 is supported on Windows 32-bit x86 editions. This means that it is possible to configure the WSS adapter Web service to use WSS 3.0, and simultaneously host the BAM portal or BAS Web site using WSS 2.0. This configuration is only possible on Windows 32-bit x86 editions.
- Windows SharePoint Services 3.0 requires Microsoft .NET Framework 3.0. The .NET Framework must be installed prior to installing Windows SharePoint Services 3.0.
- The Windows SharePoint Services installation type must be Server Farm. This is true even if you are performing a single-server installation of BizTalk Server 2009. The Server Farm type of installation allows you to configure WSS to use the databases you specify.

For more information about the versions of Windows SharePoint Services that are supported for use with BizTalk Server 2009 see the BizTalk Server online Help topic Windows SharePoint Services Support in BizTalk Server 2009.

Configure ASP.NET 2.0 for 64-bit Mode

The following procedure only applies to the 64-bit Windows editions. You must configure IIS and ASP.NET 2.0 to run in 64-bit mode before installing WSS 3.0 SP1. You do not have to perform this step if you do not plan to install WSS 3.0 SP1.

► Configure ASP.NET 2.0 for 64-bit mode

1. Click **Start**, click **Run**, type **cmd**, and then click **OK**.
2. Type the following command to enable the 64-bit mode:
cscript %Systemdrive%\inetpub\adminscripts\adsutil.vbs SET W3SVC/AppPools/Enable32bitAppOnWin64 0
3. Type the following command to install the version of ASP.NET 2.0 (64-bit) and to install the script maps at the IIS root and under:
%Systemroot%\Microsoft.NET\Framework64\v2.0.50727\aspnet_regiis.exe -i -enable

4. Type the following command to reset IIS:
IISRESET
5. Close the command prompt.
6. Open **Control Panel**, open **Administrative Tools**, and then open **Internet Information Services (IIS) Manager**.
7. Expand **Local Computer**.
8. Click **Web Service Extensions**.
9. In the right-hand pane, click **ASP.NET v2.0.50727**.
10. Click **Allow**.
11. Close **IIS Manager**.

Install Windows SharePoint Services

Use the following procedure to install Windows SharePoint Services.

▶ To install Windows SharePoint Services 3.0 with SP1

1. BizTalk Server 2009 requires Microsoft .NET Framework 3.5, which must be installed before beginning installation of Windows SharePoint Services 3.0 with SP1. The .NET Framework is available for download at <http://go.microsoft.com/fwlink/?linkid=109422>.
2. Browse to <http://go.microsoft.com/fwlink/?linkid=122886> (32-bit x86) or <http://go.microsoft.com/fwlink/?linkid=122887> (64-bit x64). Download the installation package to your hard disk.
3. Locate the package you just downloaded (**SharePoint.exe**), then double-click the package to start setup.
4. On the **End User License Agreement** screen, select **I accept the terms in the License Agreement**, and then click **Continue**.
5. Under **Choose the installation you want**, click the **Advanced** button.
6. On the **Server Type** tab, select **Web Front End**, and then click **Install Now**.
7. When installation is completed, clear the box for **Run the SharePoint products and technologies Configuration Wizard**, then click **Close**. You will not configure anything at this time.

Configure ASP.NET 2.0 for 32-bit mode

If your system is using IIS 6.0 on 64-bit Windows, you must configure both IIS and ASP.NET 2.0 to run in 32-bit mode before installing Windows SharePoint Services. If you are running IIS 7.0, this step is not necessary.

► Configure ASP.NET 2.0 for 32-bit mode

1. Click **Start**, click **Run**, type **cmd**, and then click **OK**.
2. Type the following command to enable the 32-bit mode:
cscript %Systemdrive%\inetpub\adminscripts\adsutil.vbs SET W3SVC/AppPools/Enable32bitAppOnWin64 1
3. Type the following command to install the version of ASP.NET 2.0 (32-bit) and to install the script maps at the IIS root and under:
%Systemroot%\Microsoft.NET\Framework\v2.0.50727\aspnet_regiis.exe -i -enable
4. Type the following command to reset IIS:
IISRESET
5. Close the command prompt.
6. Open **Control Panel**, open **Administrative Tools**, and then open **Internet Information Services (IIS) Manager**.
7. Expand **Local Computer**.
8. Click **Web Service Extensions**.
9. In the right-hand pane, click **ASP.NET v2.0.50727**.
10. Click **Allow**.
11. Close **IIS Manager**.

Configure Default Web Site for ASP.NET 2.0

In this procedure you configure the Default Web Site for ASP.NET 2.0. This must be done prior to installing the Windows SharePoint Services adapter for BizTalk Server.



Note

The following procedure applies to 32-bit Windows only. There are no user-configurable options for ASP.NET 2.0 on 64-bit systems. For more information, see <http://go.microsoft.com/fwlink/?linkid=99413>.

► To configure Default Web Site for ASP.NET 2.0

1. Click **Start**, point to **Administrative Tools**, and then click **Internet Information Services (IIS) Manager**.
2. In **Internet Information Services (IIS) Manager**, expand your **server**, expand **Web Sites**, right-click **Default Web Site**, and then click **Properties**.

3. In **Default Web Site Properties**, click the **ASP.NET** tab.
4. The **ASP.NET Version** drop-down list, select **2.0.50727.0**, and then click **OK**.
5. Close IIS Manager.

Configure Windows SharePoint Services

Use the following procedure to finish configuring Windows SharePoint Services.



Note

This procedure (and the configuration procedures that follow) suggests generic names for objects such as the application pool and Windows SharePoint Services database. You are free to substitute names to suit your organizational requirements and preferences, however, be sure to use the correct names in place of the generic names in the configuration procedures following this one.

▶ To configure Windows SharePoint Services

1. Click **Start**, point to **Administrative Tools**, and then click **SharePoint 3.0 Central Administration**.



Note

Because you did not finish the configuration earlier, you are presented with the configuration screens for Windows SharePoint Services.

2. The **SharePoint Products and Technologies Configuration Wizard** opens. On the **Welcome to SharePoint Products and Technologies** screen, click **Next**. If prompted to start services, click **Yes**.
3. On the **Connect to a server farm** screen, select **No, I want to create a new server farm**, and then click **Next**.
4. On the **Specify Configuration and Database Settings** screen, enter the database server, and leave the default database name. Enter a valid username and password, and then click **Next**.
5. On the **Configure SharePoint Central Administration Web Application** screen, leave the default values, and then click **Next**.
6. Review the information on the **Completing the SharePoint Products and Technologies Configuration Wizard** screen, and then click **Next**.
7. On the **Configuration Successful** screen, click **Finish**.

Extend the Default Web Site as a Virtual Server

Microsoft Windows SharePoint Services uses virtual servers to host Web sites on your server. The process of applying Windows SharePoint Services to a virtual server is called extending. You must extend a virtual server with Windows SharePoint Services before you can create a Web site based on Windows SharePoint Services. In the following procedure you extend the Default Web Site as a Windows SharePoint Services virtual server.

Before proceeding you need to create a service account that Windows SharePoint Services will use when accessing the SharePoint database.

► To extend the Default Web Site as a virtual server

1. Click **Start**, point to **Administrative Tools**, and then click **Microsoft SharePoint Services 3.0 Central Administration**.
2. Navigate to the **Application Management** page.
3. Under **SharePoint Web Application Management**, click **Create or Extend Web Application**.
4. On the **Create or Extend Web Application** page, click **Extend an existing Web application**.
5. On the **Extend Web Application to Another IIS Web Site** page, under **Web Application**, select **Change Web Application**.
6. On the **Select Web Application** page, select **SharePoint Central Administration v3**.
7. In the **IIS Web Site** section, click **Use an existing IIS Web site**.
8. From the drop-down list, select **Default Web Site**.
9. Leave the rest of the default values, and then click **OK**.

Appendix B: Silent Installation


BizTalk Server 2009 enables automated electronic software distribution, also known as silent installation. You use silent installation to install BizTalk Server 2009 in an automated way on computers that have the same configurations. Silent installation lets system administrators who want to install BizTalk Server 2009 on remote computers do so without user intervention. With a silent installation, a user does not have to monitor the installation and provide input.


To perform a silent installation, use the command-line options provided to suppress all interaction and to provide parameters for all options.

When you perform a silent installation, the installation program does not display messages. Instead, a log file captures the installation information that includes whether the installation was successful. You can then review the log file and determine the results of the installation.

► To perform a BizTalk Server 2009 silent installation

1. Click **Start**, point to **All Programs**, point to **Accessories**, and then click **Command Prompt**.
2. To start the silent installation, at the command prompt, type **setup.exe /<command name> <options>**, and then press **ENTER**.
3. Check the installation status in the log file.

| Command name | Option | Description |
|---------------------|--------------------------|--|
| /HELP, or /?, or /H | | Provides help and quick reference. |
| /QUIET | | Suppresses UI during setup – all dialog boxes, errors, or prompts requiring user input. All messages are entered into the setup log file.  Note The Quiet flag cannot be specified for an upgrade, because upgrade requires user confirmation of selected options. |
| /CABPATH | <CAB file location> | Indicates the location of the redistributable CAB file. |
| /S | <Configuration XML file> | Performs a silent installation of features found in the |

| Command name | Option | Description |
|------------------|--|---|
| | | specified configuration file.  Note To install all features, specify ALL for the <code>InstalledFeature</code> parameter of the configuration XML file. |
| /PASSIVE | | Performs a passive installation. The setup program only displays the progress bar. |
| /NORESTART | | Suppresses restart prompts and automatic restarts at the end of the installation. |
| /FORCERESTART | | Always forces a restart after the installation is complete. |
| /PROMPTRESTART | | Prompts the user before restarting. |
| /X or /UNINSTALL | | Uninstalls BizTalk Server 2009. |
| /L | <Logfile> [i][w][e][a][r][u][c][m][p][v][*] | Writes logging information to a log file to the specified path. Always uses verbose Windows Installer logging and it appends to an existing file. The following flags indicate which information to log: i - Status messages w - Nonfatal warnings e - All error messages a - Startup of actions r - Action-specific records u - User requests c - Initial user interface |

| Command name | Option | Description |
|----------------------------|------------------------|---|
| | | parameters m - Out-of-memory p - Terminal properties v – Verbose output * - All |
| /IGNOREDEPENDENCIES | | Bypasses the checks for downloadable prerequisites. |
| /INSTALLDIR <install path> | <program files folder> | Specifies the full path to product install location. |
| /COMPANYNAME | <company name> | Sets the company or organization name. |
| /USERNAME | <user name> | Sets the user name. |
| /ADDLOCAL ALL | | Installs all features. |
| /REMOVE ALL | | Removes all features. |
| /REPAIR ALL | | Repairs all features. |

Appendix C: Redistributable CAB Files

BizTalk Server relies on diverse products and technologies to provide essential services and features. This software will be installed on your computer during the installation of BizTalk Server if it is not already present. Setup gives you the option of downloading software prerequisites from the Web or extracting them from CAB files that you download before running setup.

Important

You cannot use CAB files from previous versions of BizTalk Server to install BizTalk Server 2009, including CAB files intended for BizTalk Server 2006. To ensure that you have the correct CAB file, please download the latest version from the links given in the tables below.

Note

You cannot download the CAB files through a Telnet session.

Each CAB file contains localized versions of the following software:

- Microsoft Office 2003 Web Components (OWC11) Version 4
- Microsoft Data Access Components (MDAC) 2.8 with SP1
- Microsoft XML Core Services (MSXML) 6.0 with SP1
- Microsoft .NET Framework 3.5 with SP1
- SQLXML 4.0 with SP1
- ADOMD.NET 9.0
- ADOMD.NET 10

CAB Files (32-Bit Editions)

The following table provides the locations of the localized CAB files for BizTalk Server 2009 running on 32-bit Windows.

| Language | Link |
|----------|---|
| CN | http://go.microsoft.com/fwlink/?LinkID=138895&clcid=0x804 |
| DE | http://go.microsoft.com/fwlink/?LinkID=138887&clcid=0x407 |
| EN | http://go.microsoft.com/fwlink/?LinkID=137254 |
| ES | http://go.microsoft.com/fwlink/?LinkID=138889&clcid=0x40a |
| FR | http://go.microsoft.com/fwlink/?LinkID=138953&clcid=0x40c |
| IT | http://go.microsoft.com/fwlink/?LinkID=138891&clcid=0x410 |
| JA | http://go.microsoft.com/fwlink/?LinkID=138900&clcid=0x411 |
| KO | http://go.microsoft.com/fwlink/?LinkID=138965&clcid=0x412 |

| Language | Link |
|----------|---|
| TW | http://go.microsoft.com/fwlink/?LinkID=138898&clcid=0x404 |

CAB Files (64-Bit Editions)

The following table provides the locations of the localized CAB files for BizTalk Server 2009 running on 64-bit editions of Windows.

| Language | Link |
|----------|---|
| CN | http://go.microsoft.com/fwlink/?LinkId=138932&clcid=0x804 |
| DE | http://go.microsoft.com/fwlink/?LinkId=138914&clcid=0x407 |
| EN | http://go.microsoft.com/fwlink/?LinkID=137261 |
| ES | http://go.microsoft.com/fwlink/?LinkId=138931&clcid=0x40a |
| FR | http://go.microsoft.com/fwlink/?LinkId=138956&clcid=0x40c |
| IT | http://go.microsoft.com/fwlink/?LinkId=138962&clcid=0x410 |
| JA | http://go.microsoft.com/fwlink/?LinkId=138925&clcid=0x411 |
| KO | http://go.microsoft.com/fwlink/?LinkId=138968&clcid=0x412 |
| TW | http://go.microsoft.com/fwlink/?LinkId=138933&clcid=0x404 |