Bluespring BPM_5

Installation Guide

This document is intended to provide step by step directions for the installation of the Bluespring BPM_5 services and applications.

June 2011

Contents

Introduction

You purchased Bluespring Software's BPM_5, an innovative version of Business Process Management (BPM) software which will allow your company to effectively reduce cost, increase customer responsiveness, ensure quality, maintain compliance, and manage growth with proven success. Bluespring Software has acted as a supplement to an array of companies' business processes since 1998.

This guide will lead you through the installation of the BPM_5. If you have questions about the installation, please contact Bluespring Support by email at support@bluespringsoftware.com or by phone at (877) 871-9566.

The following services and applications will be installed upon the completion of the steps in this guide:

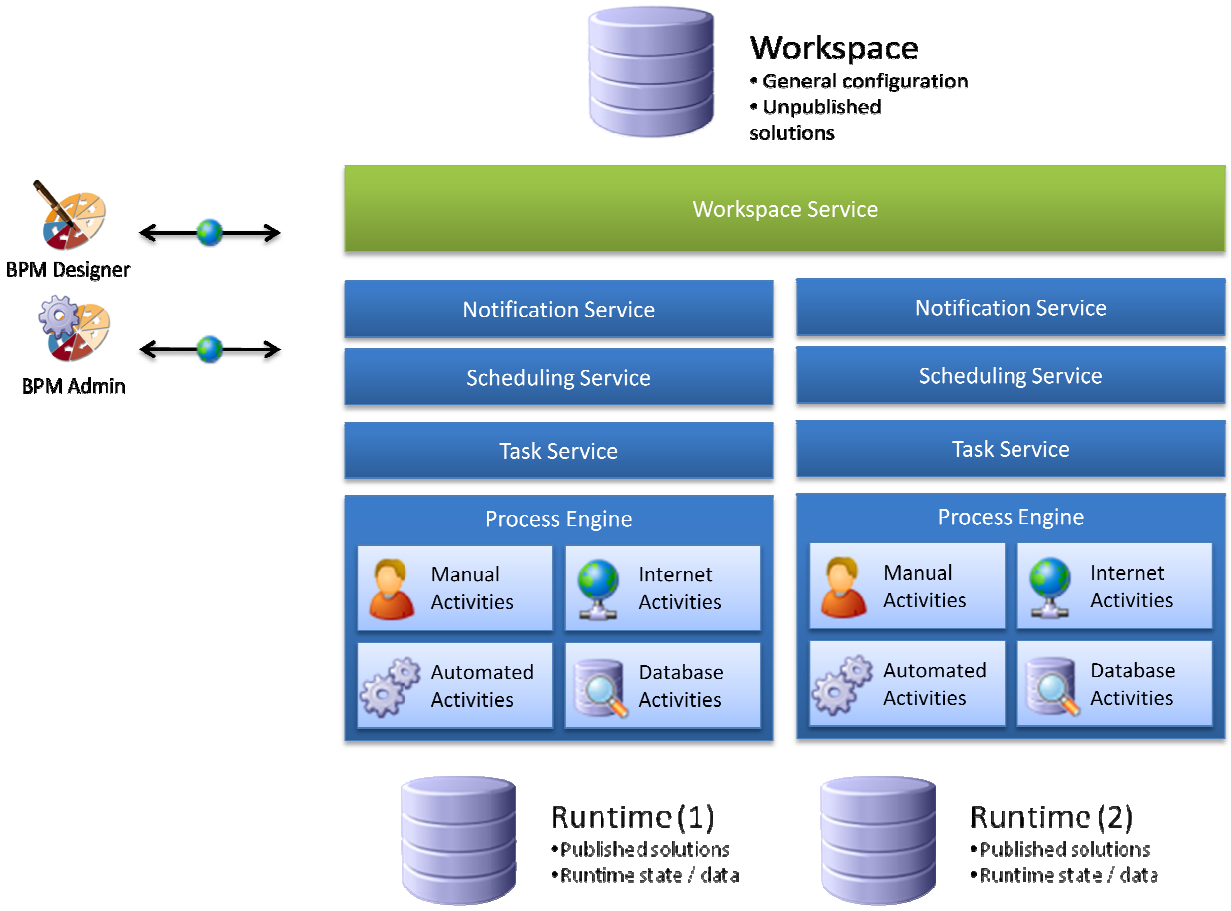
- BPM Workspace Service
- BPM Task Service
- BPM Notification Service
- BPM Scheduling Service
- BPM Process Engine Service
- BPM File Monitor Service (optional)
- BPM SharePoint Service (optional)
- BPM CRM Service (optional)
- BPM Designer 5
- BPM Admin 5

BPM_5 Capabilities

You can use BPM5 to perform a series of automated and managed tasks as part of your business processes. Key capabilities include:

- Collaborative definition and deployment of process solutions that span any combination of people, systems, data sources, locations, and organizational entities.
- Improved utilization of Microsoft investment (SharePoint, Dynamics, Exchange, etc).
- Ability for you to control your existing IT assets, including systems, data sources, and documents within any business process through standards-based integration methods.
- Management of steps that require human interaction for the completion of a task.
- Operation as a non-intrusive service within your existing infrastructure to drive highly consistent, reliable, scalable, and dynamic automated processes.
- Presentation of tools which will allow you to effectively monitor and manage the operating process on a real-time basis.
- Ability to report in real-time how a business process is performing and make decisions that positively impact your bottom line.

BPM_5 Architecture



BPM_5 will run against on Workspace which supports multiple run-time environments.

The number of run-time environments you create will support your process development lifecycle. Development lifecycles may vary and BPM_5 is designed to support agile and waterfall approaches to process development.

Hardware and Software Requirements

Verify that the server(s) you have designated for Bluespring BPM_5 meet the following hardware and software requirements.

Hardware	Software
☐ 32-bit or 64-bit ☐ CPU > 2.2 GHz (Dual or Quad Core recommended, depending upon volume projections) ☐ 4 GB RAM ☐ 10 GB usable disk space (additional storage for databases required) ☐ 100BaseTX Ethernet Network Adapter (Gigabit Ethernet recommended) ☐ Separate Hardware RAID 10 volumes are recommended for database data, index, and log files (when used in production environment)	☐ Services require one of the following: Windows Server 2003 Windows Server 2008 ☐ Designer and Admin support: Windows XP Windows Vista Windows 7 ☐ Message Queuing Component/Feature ^ ☐ .NET Framework 3.5 SP1 or later* ☐ SMTP-compliant server in the enterprise ☐ Database server with one of the following: Microsoft SQL Server 2005 Express** Microsoft SQL Server 2005 Standard Microsoft SQL Server 2005 Enterprise Microsoft SQL Server 2008 Express** Microsoft SQL Server 2008 Standard Microsoft SQL Server 2008 Enterprise

* These files can be downloaded for free from Microsoft's web site (www.microsoft.com).

^ Only required on the server hosting the Process Engine service. For Server 2003, you only need to select the Common subcomponent of the Message Queuing component. For Server2008, you only need to select the Message Queuing Server service of the Message Queuing feature.

** Expect limited performance when using Express editions. Express editions not recommended.

Bluespring recommends that BPM_5 be installed on a minimum of two servers to get started. Additional Workspace and Runtime servers may be required to support your process development lifecycle.

Workspace and Runtime Server

This server hosts the Workspace, Process Engine, Task, Notification, and Scheduling services for one runtime environment. The first runtime environment will likely be your "development" runtime environment. You can then stand up subsequent runtime environments (additional servers) to support testing, staging, and production environments.

SQL Server Database Server

If you have a *non-virtualized* instance of SQL, then Bluespring requests that you create a named SQL instance to hold the one Bluespring Workspace database and one-to-many runtime

databases. If the SQL Server is virtualized, then Bluespring will need to understand the specs and how the virtualization was configured.

Bluespring Support Policy

Bluespring Software is committed to providing you with the best overall product experience. Our products are designed with superior quality and ease of use in mind, but we understand that issues do arise from time to time that need the backing of our support resources.

For more information, please contact Bluespring Software's Customer Support Operations at (877) 871-9566.

Bluespring support services are subject to the prices, terms, and conditions in place at the time the services are used.

Contact Information

Address:	200 West Fourth Street Sixth Floor Cincinnati, Ohio 45202
Telephone:	(513) 794-1764 (Cincinnati) (877) 871-9566 (Toll Free)
Fax:	(513) 794-1724
WWW:	www.bluespringsoftware.com www.bluespringonline.com
Email:	support@bluespringsoftware.com
Office hours:	Monday to Friday 8:00 A.M. to 5:00 P.M. Eastern Time

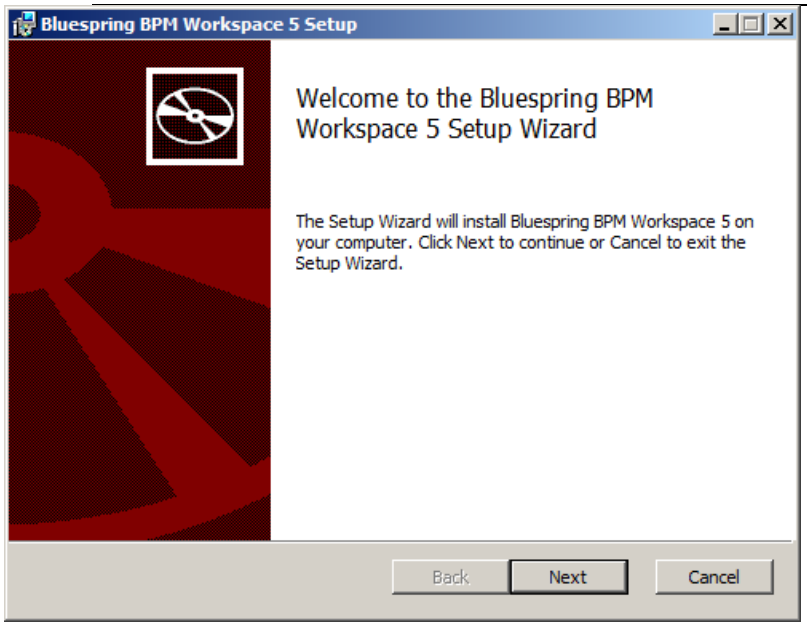
Installing BPM Workspace Service

The BPM Workspace Service manages communication between the BPM 5 services, the BPM 5 Workspace Database, and the BPM 5 Runtime Databases.

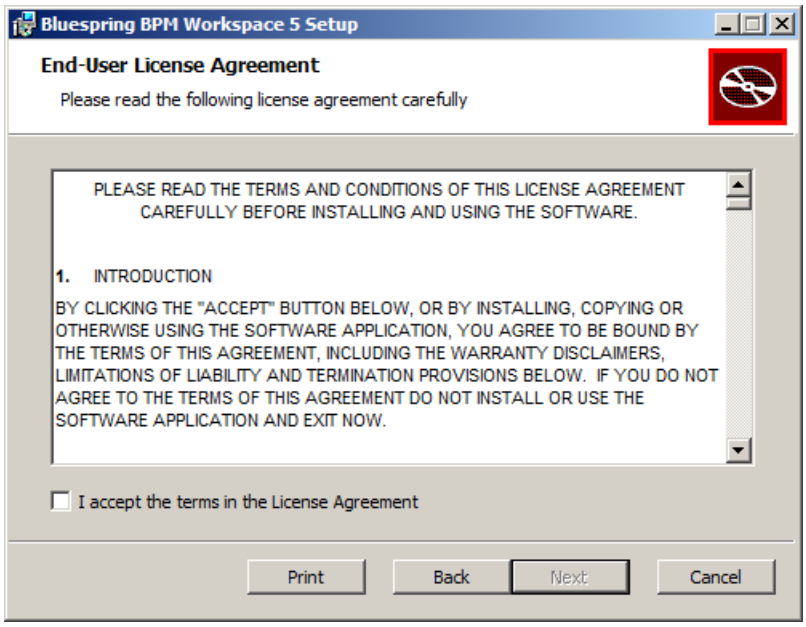
To install the BPM Workspace Service, complete the following steps:

1. Double-click the BPM Workspace setup file (**bpm workspace.msi**). The B**PM Workspace 5 Setup Wizard** is displayed.

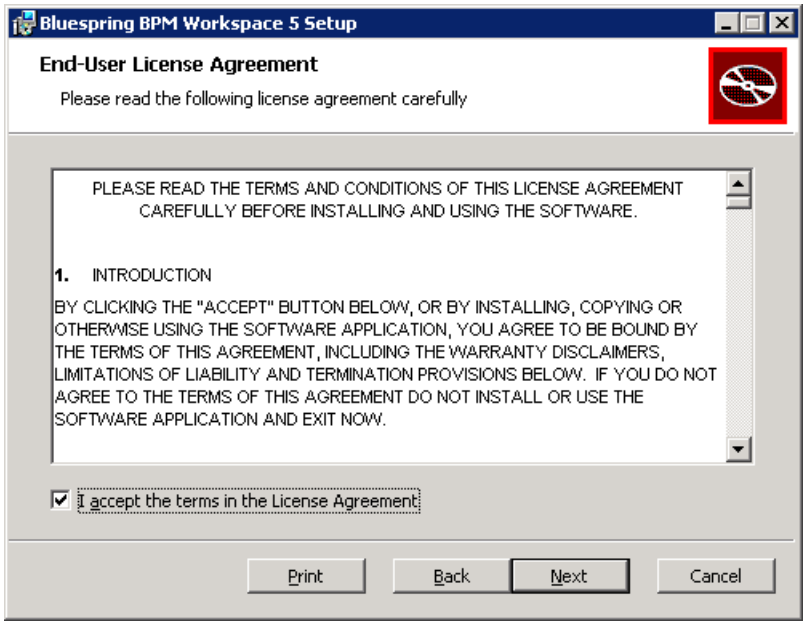
> **Note:** If you encounter an error during the install, please retry the install, but double-click the **bpm workspace.bat** file to start the install. Using that file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



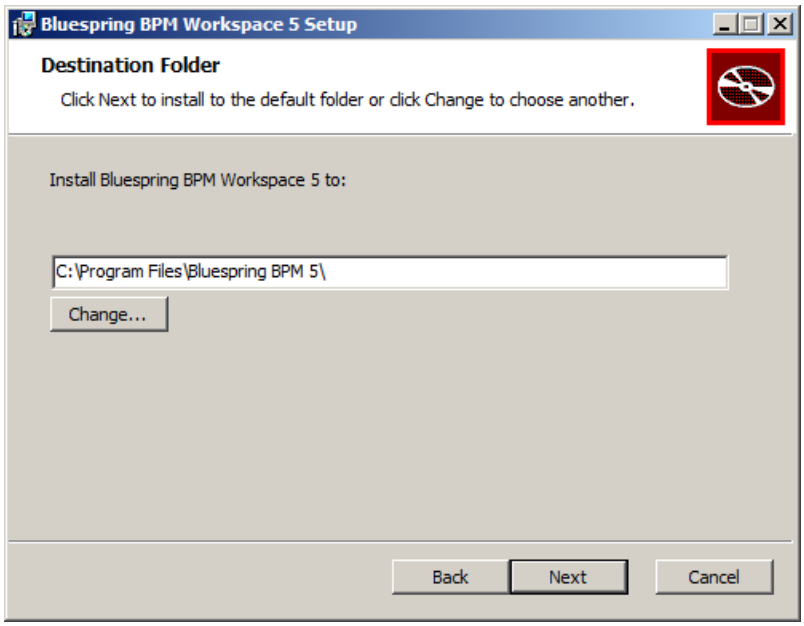
2. Click **Next**. The **End-User License Agreement** screen is displayed



3. After reading the agreement, select the **I accept the terms in the License Agreement** checkbox.

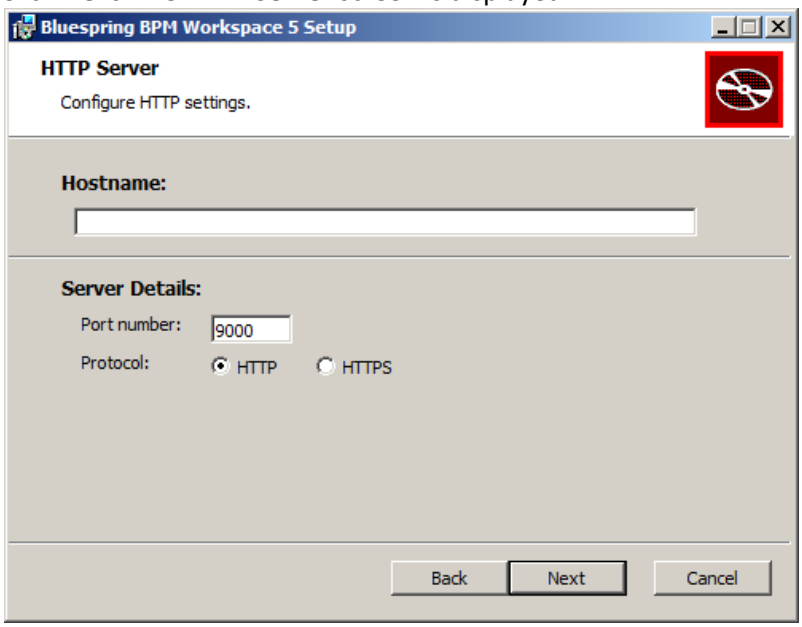


4. Click **Next**. The **Destination Folder** screen is displayed.



Note: If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Workspace Service files.

5. Click **Next**. The **HTTP Server** screen is displayed.



6. In the **Hostname** field, type the name of the host server.

Note: Bluespring recommends using the server's Fully Qualified Domain Name (FQDN). If you do not know the server's FQDN, please contact your IT department.

For example, if your domain is called domain.net and the server name is BPM, then the FQDN would be bpm.domain.net.

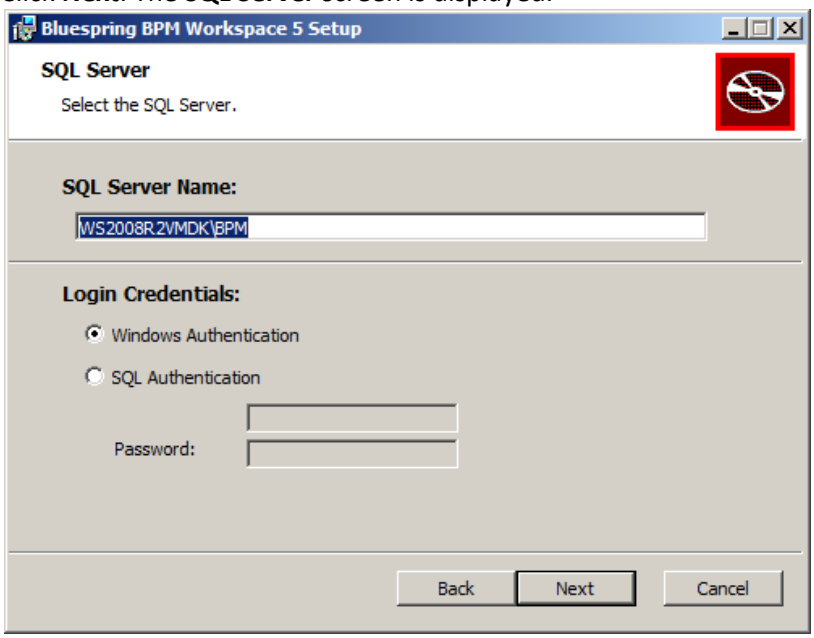
7. In the **Server Details** fields:
   a. Type the port number in the Port number field. The Workspace Service will listen for requests on this port.

   Note: Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application.

   b. Select **HTTP** from the **Protocol** options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.

   Note: Using HTTPS requires additional system configuration for security certificates. Please contact Bluespring Support if interested in using HTTPS.

8. Click **Next**. The **SQL Server** screen is displayed.



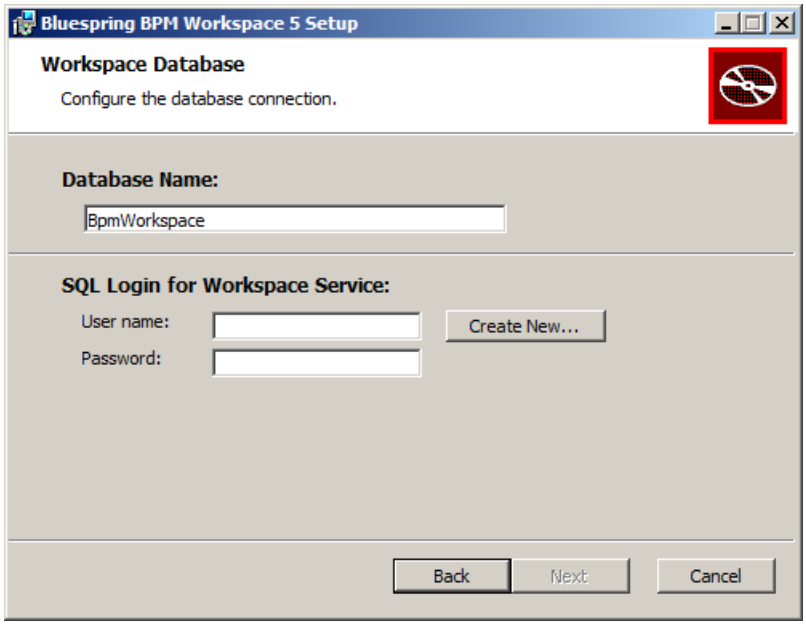
9. In the **SQL Server Name** field, type the name of your Microsoft SQL Server 2005/2008 server and SQL instance, if applicable.

   Note: The SQL Server instance must be configured to use mixed mode authentication, so it can support SQL logins.

10. From the **Login Credentials** fields, select the required authentication type.

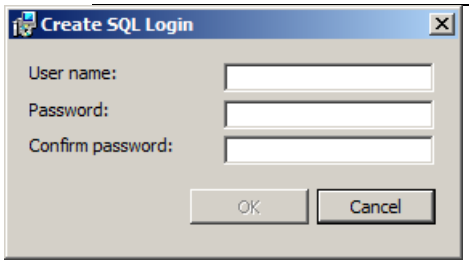
    Note: Windows Authentication will use the account of the Windows user performing the install. If that user does not have System Administrator (sysadmin) permissions to the server, then select the SQL Authentication option and enter the credentials of a SQL login account. This account is used only while creating the Workspace database and, if necessary, SQL logins.

11. Click **Next**. The **Workspace Database** screen is displayed.



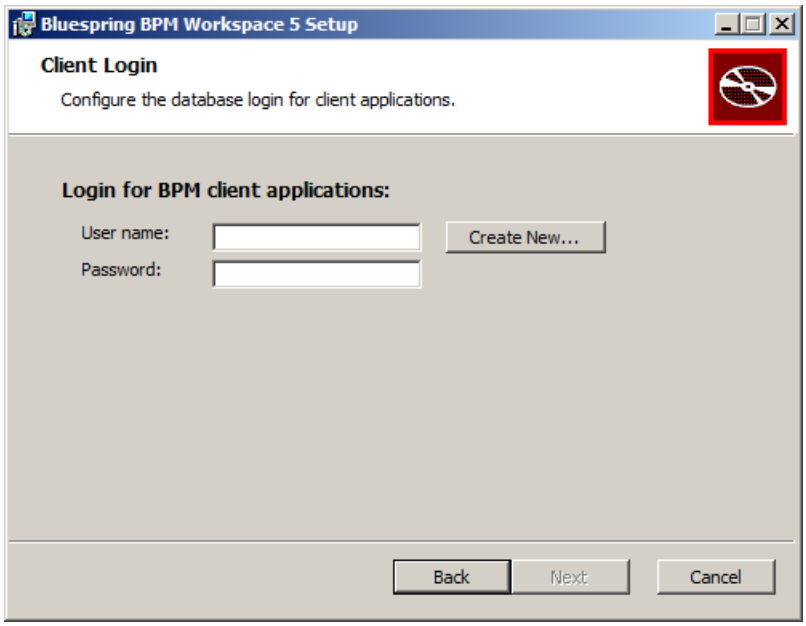
12. In the **Database Name** field, type a name for your Workspace database.
13. In the SQL Login for Workspace Service fields, click Create New. The **Create SQL Login** window is displayed.

> **Note:** If you have a SQL Login, type that user name and password in the respective fields and skip to step 15. The account will be added to a new SQL role called Bluespring.
>
> You type the credentials for a new SQL user account used by the Workspace Service to connect to the Workspace database.



14. Complete the following fields:
    a. In the **User name** field, type the user name.
    b. In the **Password** field, type the user's password.
    c. In the **Confirm password** field, retype the password.
15. Click **OK**. You created a new SQL login for the Workspace service.

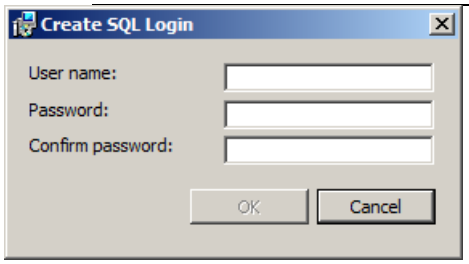
16. Click **Next**. The **Client Login** screen is displayed.



17. In the Login for BPM client applications fields, click Create New. The Create SQL Login window is displayed.

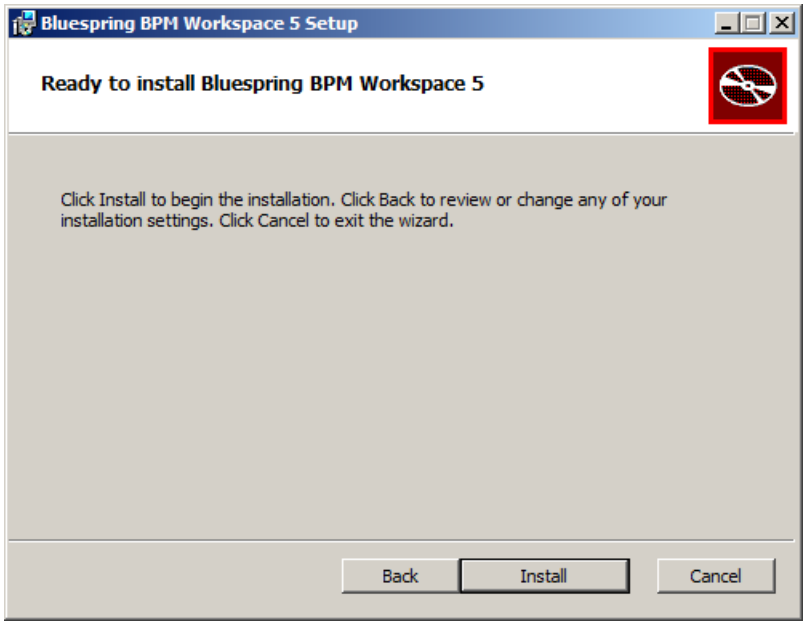
    This login will be used by BPM Designer clients to read and write information to the Workspace database.

> **Note:** If you have a SQL Login, type that user name and password in the respective fields and skip to step 19. The Client SQL login is assigned lesser permissions than the Workspace Login. Bluespring recommends that you do not use the Workspace Login for the client login because of the security differences.

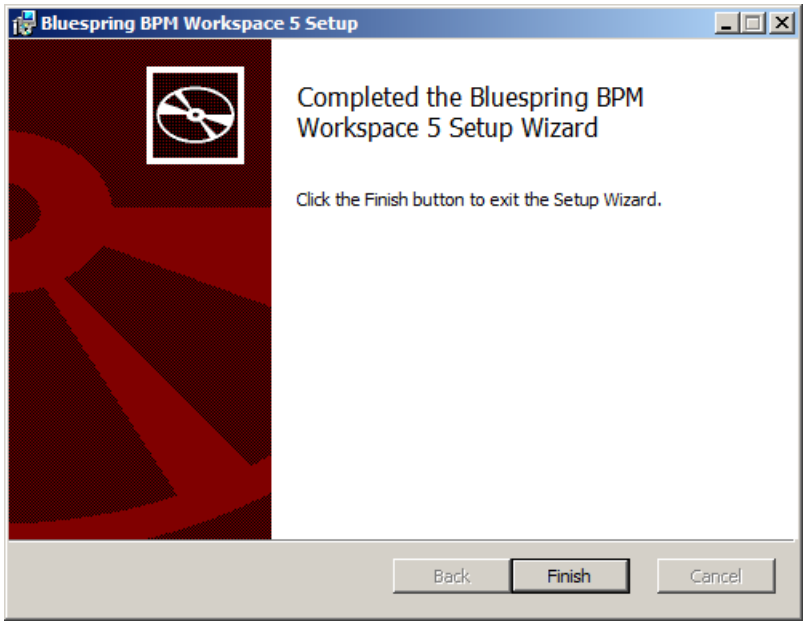


18. Complete the following fields to create a new SQL login:
    a. In the **User name** field, type your user name.
    b. In the **Password** field, type your password.
    c. In the **Confirm password** field, retype the password.
19. Click **OK**. You created a new login for BPM client applications.

20. Click **Next**. The **Ready to install Bluespring BPM Workspace 5** screen is displayed.



21. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM Workspace 5 Setup Wizard** screen is displayed.



22. Click **Finish**. You installed the Bluespring BPM Workspace Service 5.

Verifying the BPM Workspace Service 5 Installation

Verify that your installation was successful by checking for errors in the service's log file or by checking the service's status in the Services utility or both.

To check for errors in the Bluespring Workspace log file, complete the following steps:

1. Navigate to the Workspace Service folder. This is the folder you selected as the destination folder in step 4 of Installing the BPM Workspace Service.
2. Open the Bluespring Workspace Service log file (**Bluespring.WorkspaceService.log**).

   You should not see any errors and see two lines similar to the following two lines:

   - 2010-06-14 22:41:42 WorkspaceService running => http://bpm:9000/Bluespring/Workspace.ashx
   - 2010-06-14 22:41:42 IWorkspaceHttpService running => http://bpm:9000/Bluespring

To check the BPM Workspace Service installation status in the **Services** utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools** and then select **Services**.
2. In the **Services** window, select **Bluespring Workspace Service**. The status of the selected service is displayed as **Started** under the **Status** column.

Note:	If the installation is successful, the status will be displayed as **Started**.

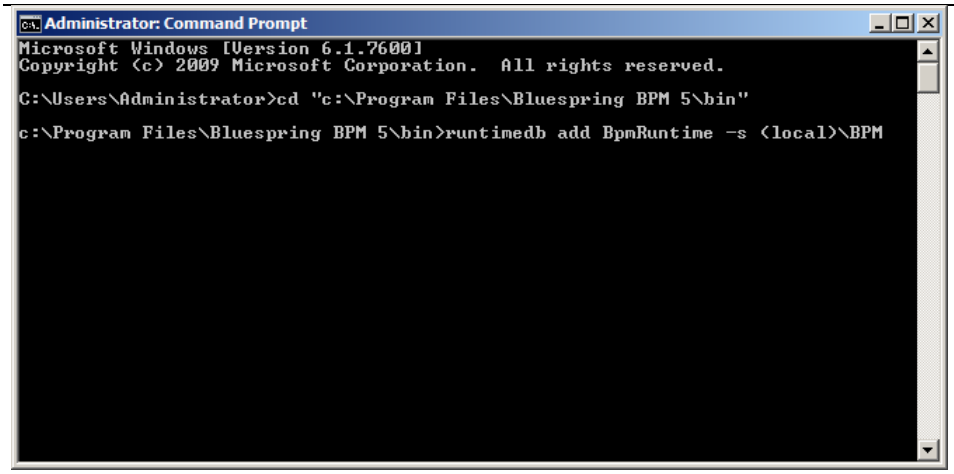
Creating a Runtime Database

You need to create a runtime database for each BPM 5 Runtime environment. Typically, companies using BPM 5 will have three runtime environments, which are separate for Development, Testing, and Production.

To create a BPM 5 Runtime database, complete the following steps:

1. From the **Start** menu on the Workspace Service server, select **All Programs** > **Accessories**.
2. Right-click **Command Prompt**.
3. Select **Run as administrator**. The **Administrator: Command Prompt** window is displayed.

Note: You do not need to complete steps one through three, if you are using Windows Server 2003 or if your User Account Controls are disabled.



4. Navigate to the **bin** folder in the BPM Workspace Destination folder.

> **Note:** This folder is the destination folder that you selected in Step 3 of the Installing the BPM Workspace Service steps.

5. Enter the following command and any parameters as necessary:

```
runtimedb add <runtime database name>
```

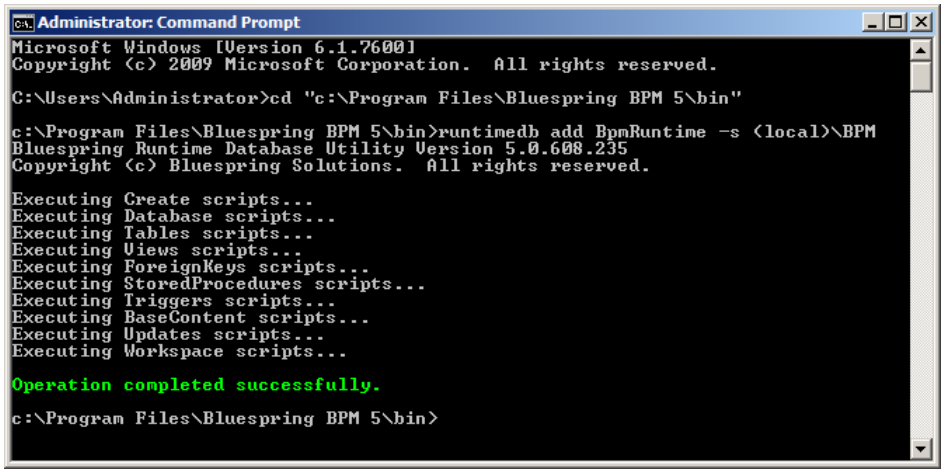
> **Note:** The SQL Server instance must be configured to use mixed mode authentication, so that it can support SQL logins.

The *runtimedb* command also supports the switches (or parameters) in the following table:

Switch	Description
-cu	Existing SQL user account to be used as the BPM 5 runtime login. The default

	account is c*lient_<WorkspaceDatabase>* if empty.
-cp	Existing SQL user's password. Auto-generated if empty.
-f	Package file. The default is *RuntimeDB.sqlx*.
-nologo	Prevents the display of logo information
-s	SQL server and instance. The default is *local*, if empty. You must specify a value if the Workspace Server is not your SQL Server.
-u	SQL user account used to create the runtime database and, if necessary, user.
-p	SQL user's password.
-t	Optional. SQL command timeout in seconds.

6. Press the **Enter** key. The command starts executing. When complete, the **Operation completed successfully** message is displayed.



7. Exit the command prompt. You created a runtime database.

Note: You need to select this runtime database while installing the Process Engine Service, Task Service, Scheduling Service, and Notification Service.

Updating the SMTP Information Table in the Workspace Database

You need to update the SMTP information table (SmtpInfo) after you have installed the BPM Workspace service and created the Runtime Database. You update this table, so the Notification Service knows which SMTP server to use when sending emails.

> **Note:** These steps assume you have knowledge of Microsoft SQL Server Management Studio and have executed queries against Microsoft SQL Server databases. If you have questions, please contact your Microsoft SQL Server Database Administrator.

To update the SMTP information table in the Workspace database, complete the following steps:

1. Connect to the SQL server and instance hosting your Workspace database, using Microsoft SQL Server Management Studio.
2. Select the following:
    a. From the **Server type** drop down list, the type of the server (e.g. Database Engine).
    b. From the **Server name** drop down list, the name of your SQL server.
    c. From the **Authentication** drop down list, the required authentication.
3. Click **Connect**. The **Microsoft SQL Server Management Studio** window is displayed.
4. On the toolbar, click **New Query**.
5. Type the following query:

```
DECLARE @SmtpServer as varchar(50)
DECLARE @RuntimeDatabase as varchar(50)
SET @SmtpServer = '<SMTP Server>'
SET @RuntimeDatabase = '<Runtime Database Name>'

DECLARE @EnvID as uniqueidentifier

SELECT TOP 1 @EnvID = ID FROM Environment
WHERE [Name]= @RuntimeDatabase

INSERT INTO SmtpInfo (EnvironmentID, Host, Port, Timeout)
VALUES (@EnvID, @SmtpServer, 25, 60000)
SELECT * FROM SmtpInfo
```

> **Note:** Replace the <SMTP Server> and <Runtime Database Name> placeholders with the name of your SMTP server and the name of your Runtime database, respectively. For information on the Host and the Port number, contact your IT department.

The query sets the timeout to 1 minute, which is 60000 milliseconds. To change the timeout, modify the 60000 value before executing the query. You can later modify the value in the database to increase or decrease the timeout.

6. Execute the query against your Workspace database. The corresponding ID, Environment ID, Host name, Port number, and Timeout are displayed in the **Results** tab.
7. Exit the SQL Server Management Studio. You updated the SMTP Information table.

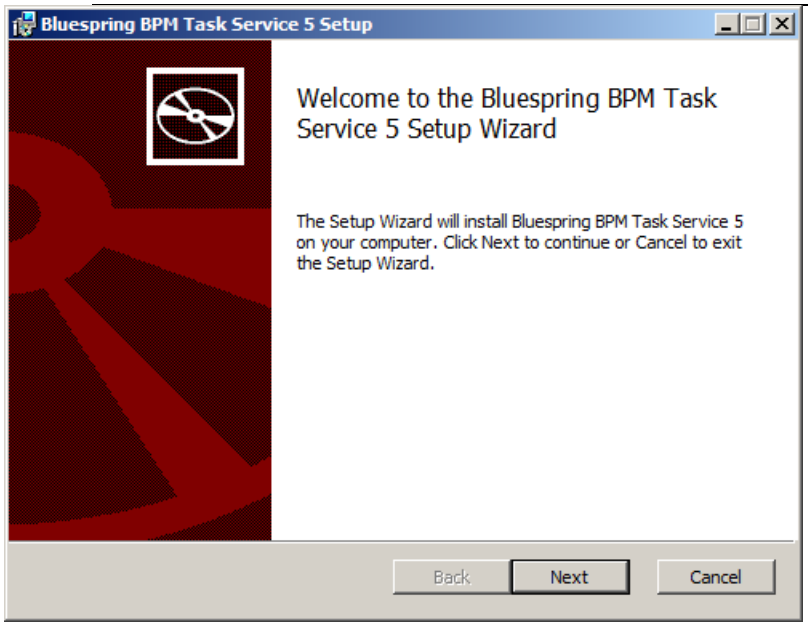
Installing BPM Task Service

The BPM Task Service is a Windows service that manages the execution of process activities and the assignment of tasks to people in a process.

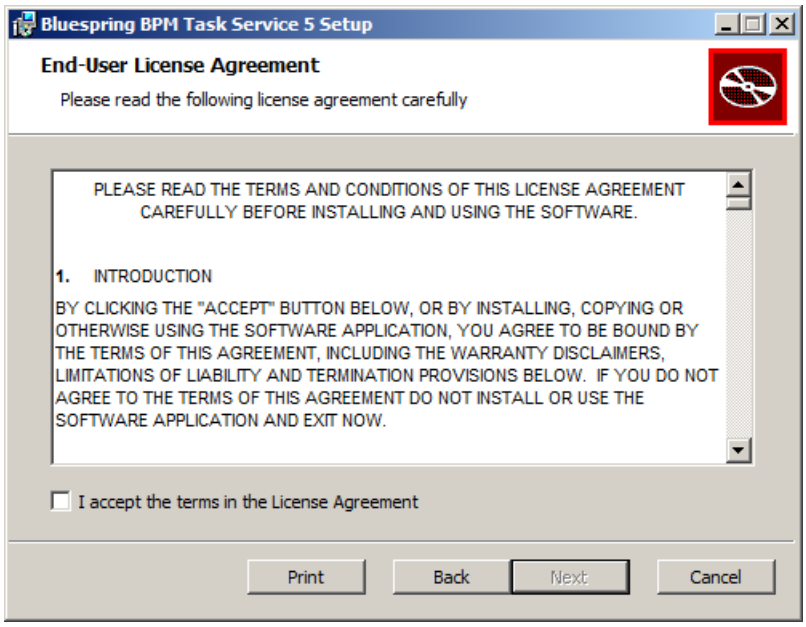
To install the BPM Task Service, complete the following steps:

1. Double-click the BPM task service setup file (**bpm task service.msi**). The **Bluespring BPM Task Service 5 Setup Wizard** is displayed.

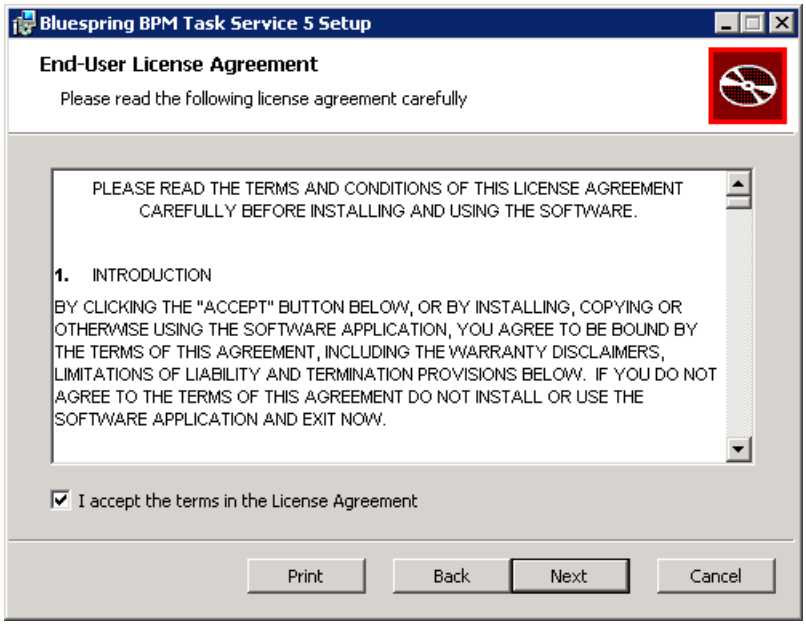
> **Note:** If you encounter an error during the install, please retry the install, but double-click the **bpm task service (logfile).bat** file to start the install. Using that file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



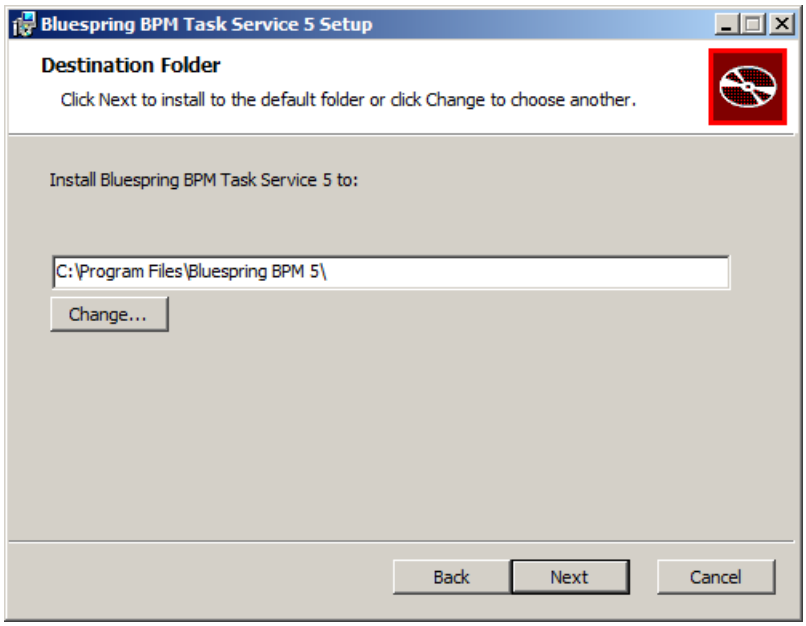
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select the **I accept the terms in the License Agreement** check box.



4. Click **Next**. The **Destination Folder** screen is displayed.



> **Note:** If you want to choose a different destination folder, click Change and select the folder where you want to store the BPM Task Service files.

5. Click **Next**. The **BPM Workspace** screen is displayed.
6. In the **Workspace server name** field, type the name of the server hosting your Workspace service.
7. In the **Port number** field, type the Workspace Service's Port Number.

> **Note:** The port number you enter here should be the same port number you entered on the **HTTP Server** screen in the Workspace Service install.

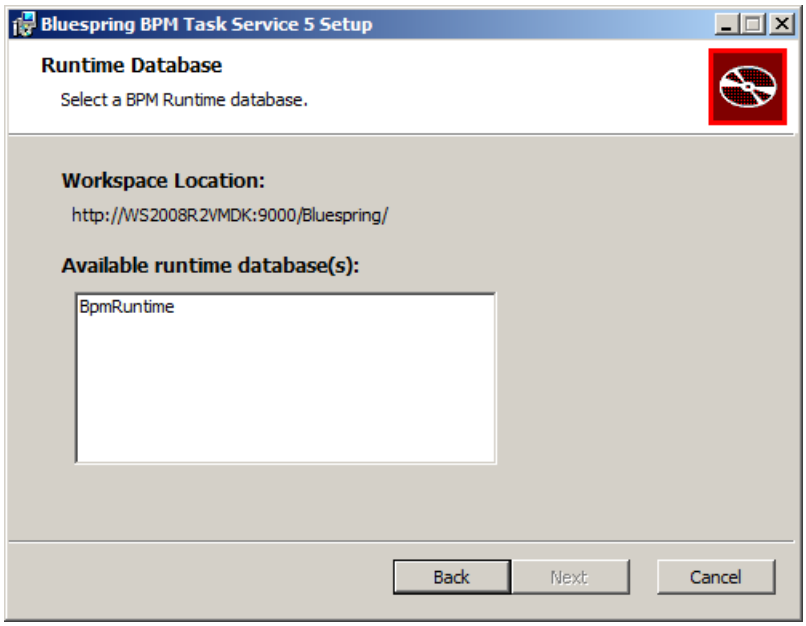
8. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

   Optionally, to connect as another user, complete the following steps:

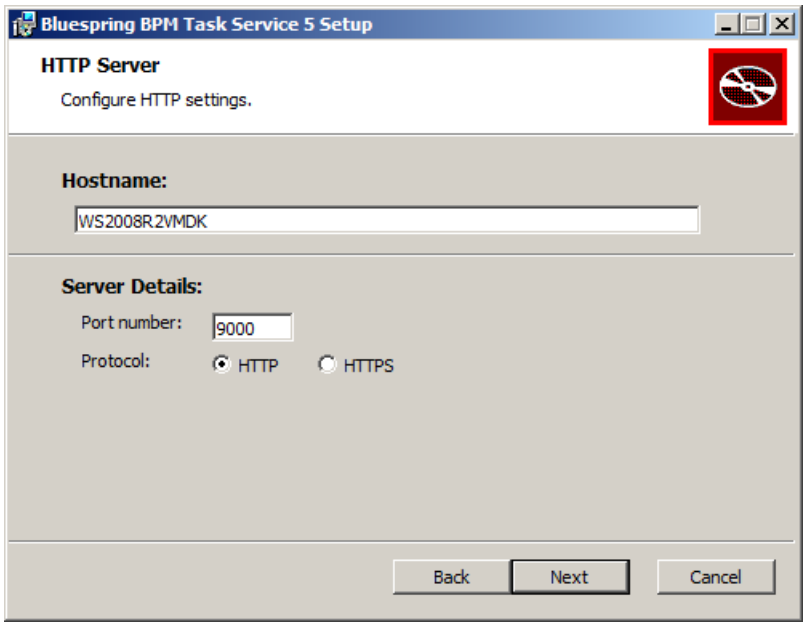
   - Select the Connect as another user checkbox.
   - Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the Task service.

   > **Note:** By default, the Task Service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

9. Click **Next**. The **Runtime Database** screen is displayed.



10. From the **Available runtime database(s)** list, select the Runtime Database that you created in the section **Creating a Runtime Database**.
11. Click **Next**. The **HTTP Server** screen is displayed.

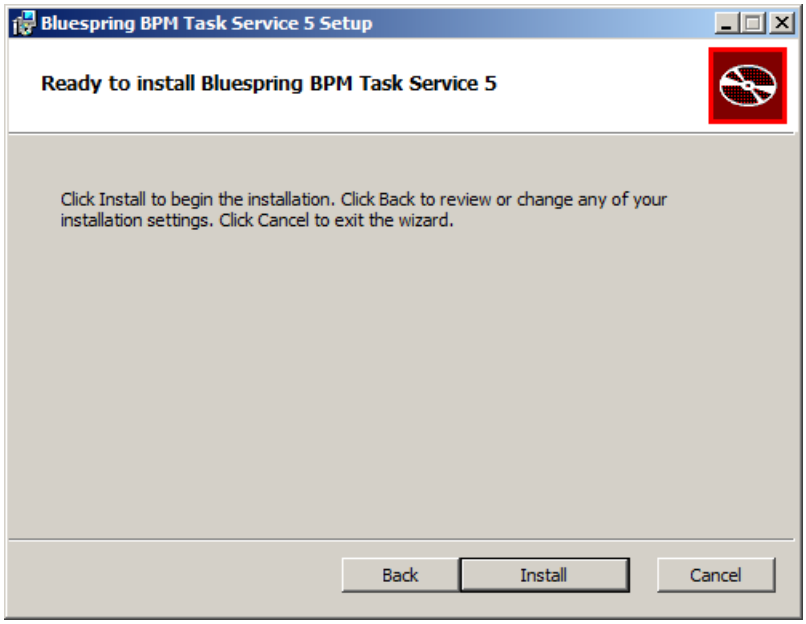


12. In the **Hostname** field, type the name of the host server.
13. In the **Server Details** fields type the following details:
    a. Type the port number in the Port number field. The Task Service will listen for requests on this port.

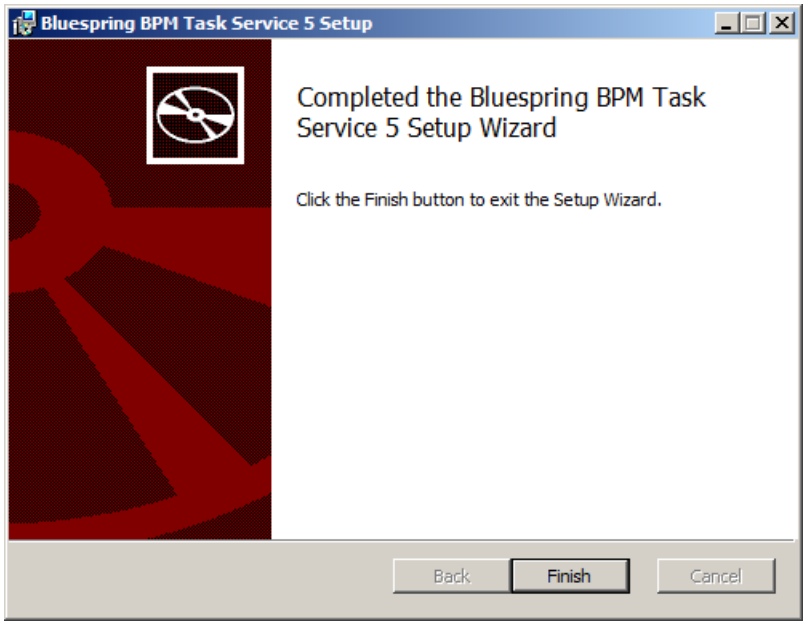
Note: Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application

b. Select HTTP from the Protocol options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.

14. Click **Next**. The **Ready to install Bluespring BPM Task Service 5** screen is displayed.



15. Click **Install**. The Installation begins. When the installation is completed, the **Completed the Bluespring BPM Task Service 5 Setup Wizard** screen is displayed.



16. Click **Finish**. You installed the Bluespring BPM Task Service 5.

Verifying the BPM Task Service 5 Installation

Verify that your installation was successful by checking for errors in the service's log file or by checking the service's status in the Services utility or both.

To check for errors in the Bluespring Task Service log file, complete the following steps:

1. Navigate to the Task Service folder. This is the folder you selected as the destination folder in step 4 of Installing the BPM Task Service.
2. Open the Bluespring Task Service log file (**Bluespring.TaskService.log**).
   You should not see any errors and the first three lines should be similar to the following lines:
   - 2010-06-17 14:20:34 ITaskService stopped => http://bpm-qa.qa.bluessw.net:9000/Bluespring/BpmRuntime/Tasks.ashx
   - 2010-06-17 14:20:34 ITaskHttpService stopped => http://bpm-qa.qa.bluessw.net:9000/Bluespring/BpmRuntime/tasks
   - 2010-06-17 14:20:34 IEventCallback stopped => http://bpm-qa.qa.bluessw.net:9000/Bluespring/BpmRuntime/Tasks/Callback.ashx

To check the BPM Task Service installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select Administrative Tools and then select **Services**.
2. In the **Services** window, select Bluespring Task Service. The status of the selected service is displayed as **Started** under the **Status** column

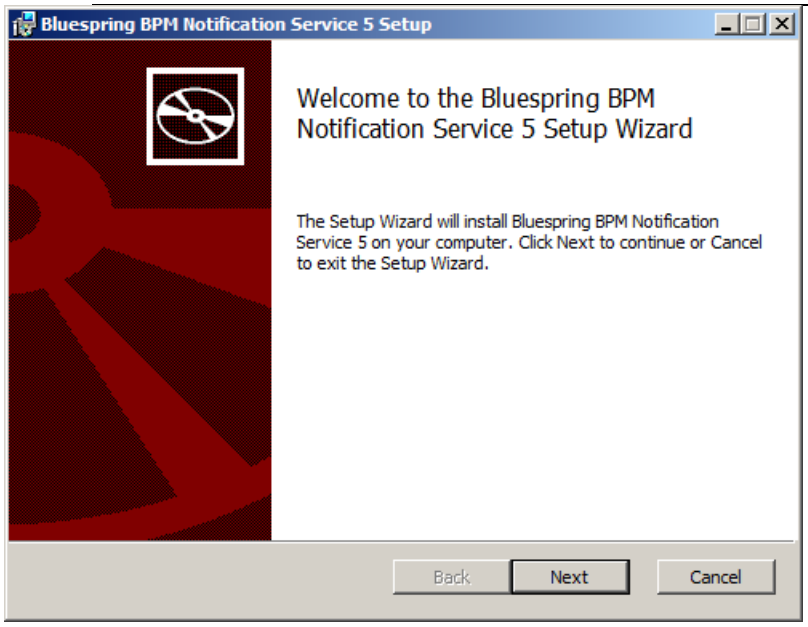
Installing BPM Notification Service

The BPM Notification Service is used to send notifications to a user. For example, the Notification Service is used by the Send Email activity and by the activities that can send task notifications. Notifications can be sent when a task is assigned, escalated, reassigned, completed, timed out, or failed.

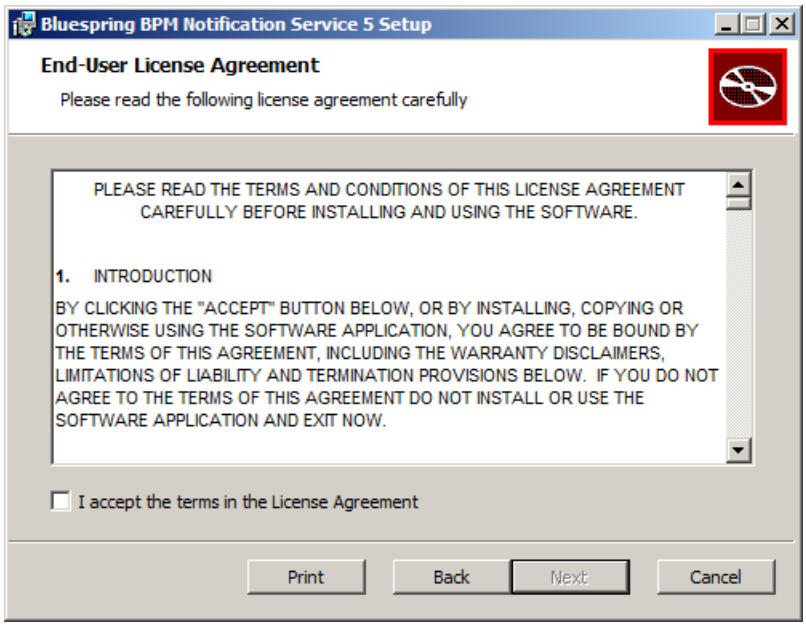
To install the BPM Notification Service, complete the following steps:

1. Double-click the BPM Notification Service setup file (**bpm notification service.msi**). The **Bluespring BPM Notification Service 5 Setup** wizard is displayed.

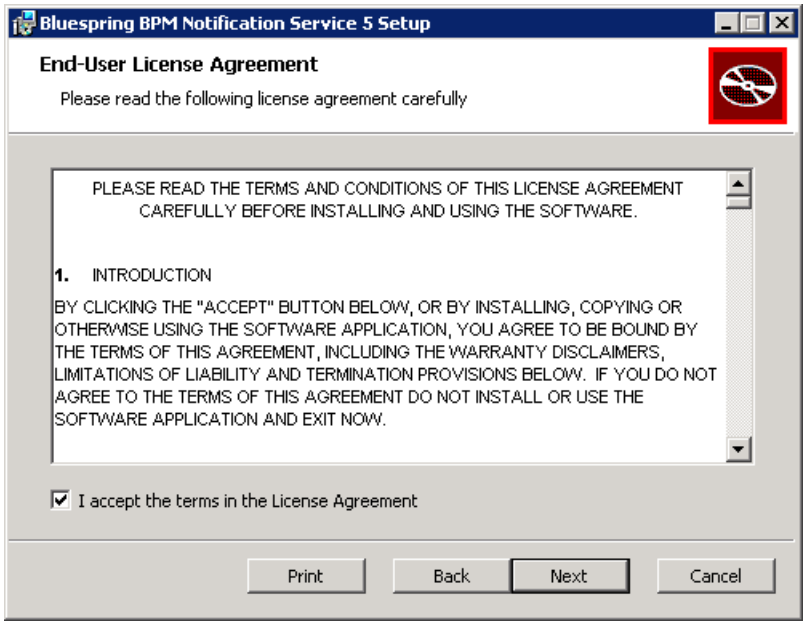
> **Note:** If you encounter an error during the install, please retry, but double-click the **bpm notification service (logfile).bat** file to start the install. Using the install file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



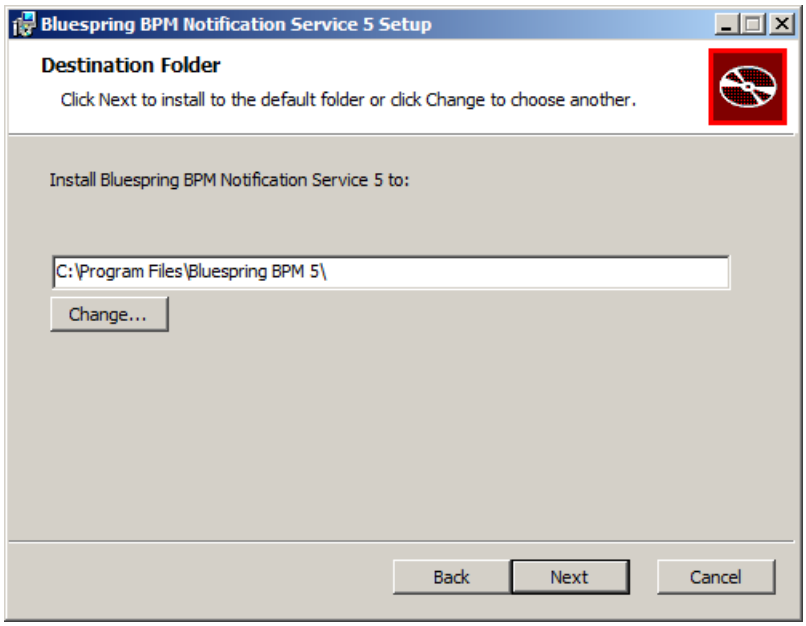
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select the **I accept the terms in the License Agreement** check box.

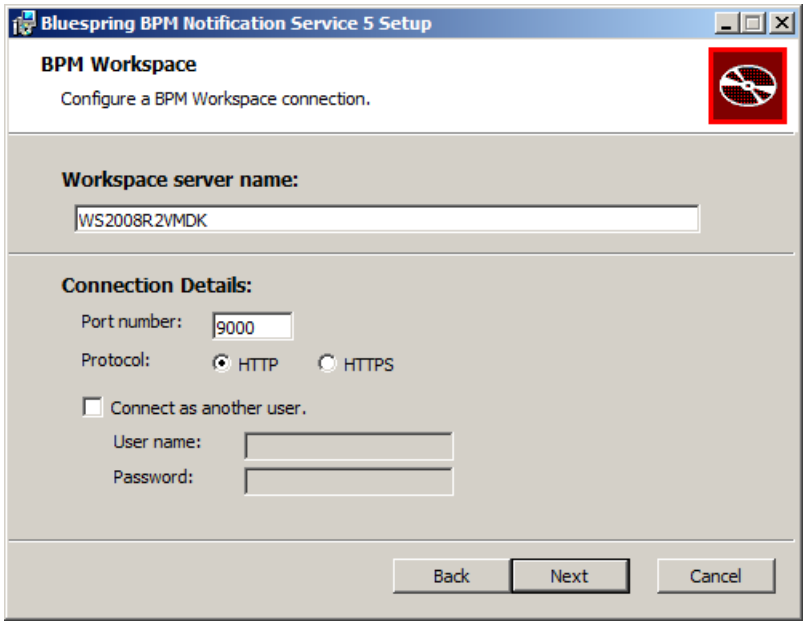


4. Click **Next**. The **Destination Folder** screen is displayed.



> **Note:** If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Notification Service files.

5. Click **Next**. The **BPM Workspace** screen is displayed.



6. In the **Workspace server name** field, type the name of your workspace server.
7. In the **Port number** field, type the Workspace Service's Port Number.

> **Note:** The port number you enter here should be the same port number you entered on the HTTP Server screen in the Workspace Service install.

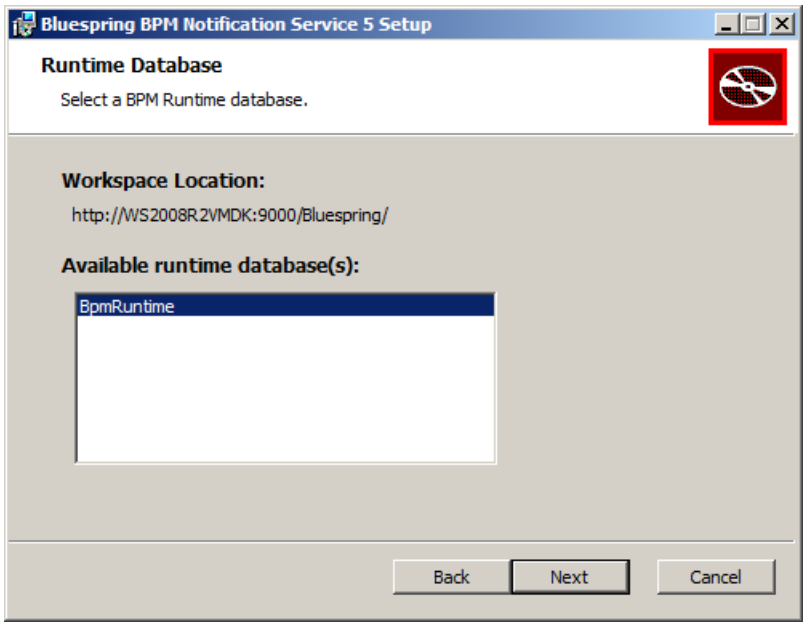
8. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

   Optionally, to connect as another user, complete the following steps:

   - Select the Connect as another user checkbox.
   - Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the Notification service.

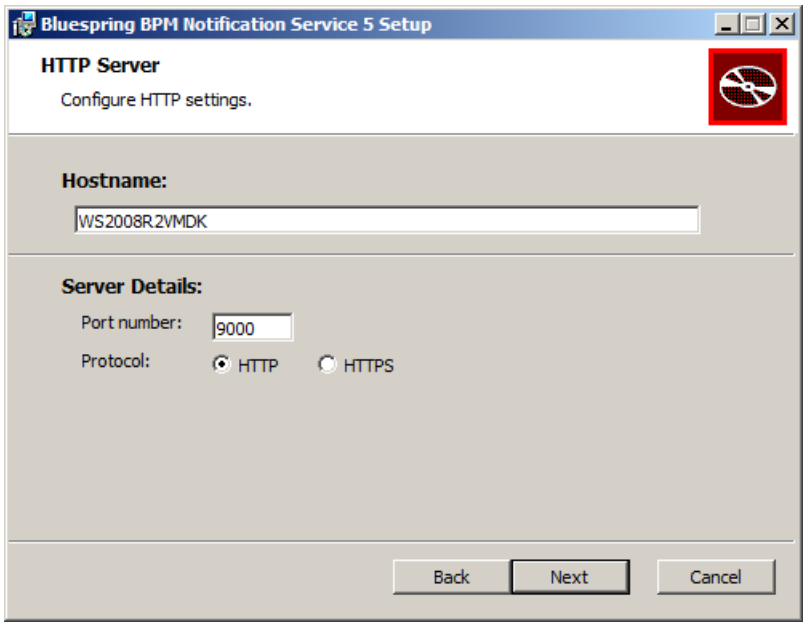
   Note: By default, the Notification service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

9. Click **Next**. The **Runtime Database** screen is displayed.



10. From the **Available runtime database(s)** list, select the Runtime Database that you created in the section **Creating a Runtime Database**.

11. Click **Next**. The **HTTP Server** screen is displayed.

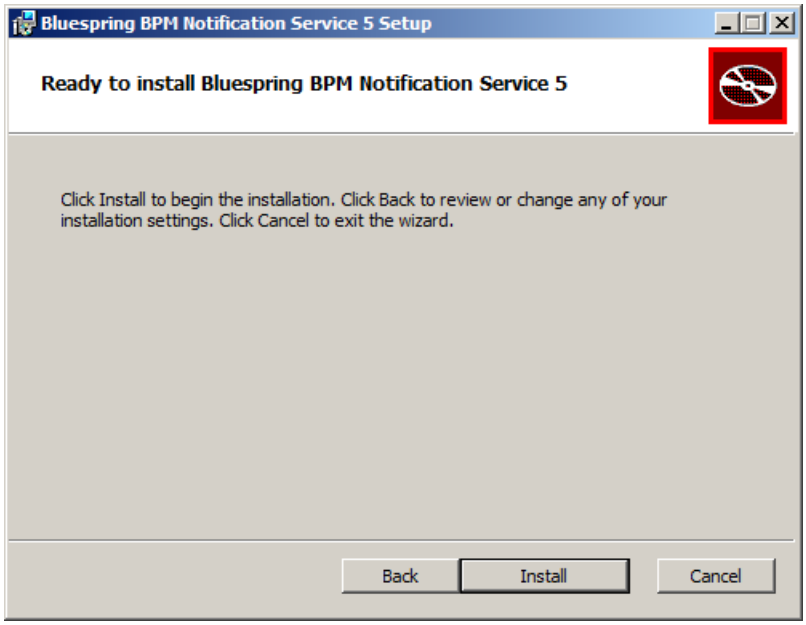


12. In the **Hostname** field, type the name of the host server.
13. In the **Server Details** fields type the following:
    a. The port number in the **Port number** field. The Notification Service will listen for requests on this port.

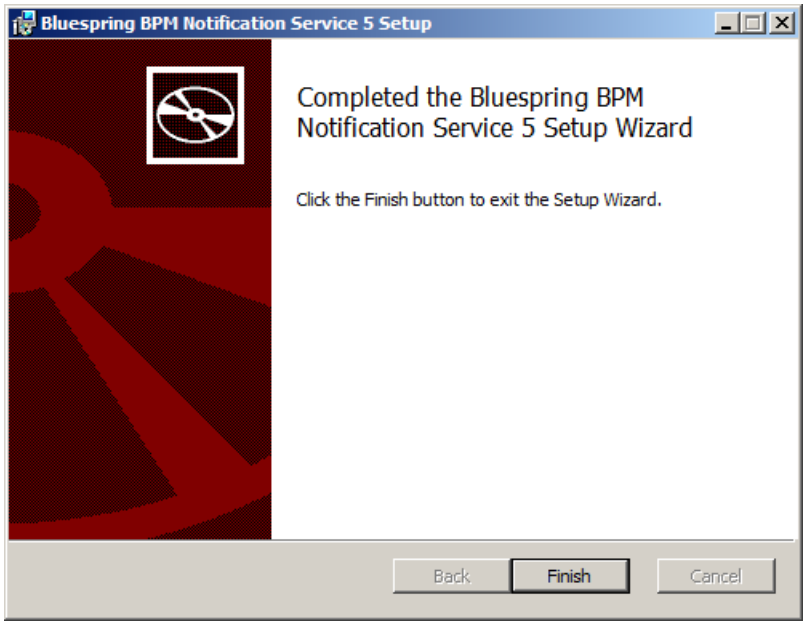
    Note: Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application.

    b. Select **HTTP** from the **Protocol** options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.

14. Click **Next**. The **Ready to install Bluespring BPM Notification Service 5** screen is displayed.



15. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM Notification Service 5 Setup Wizard** screen is displayed.



16. Click **Finish**. You installed the Bluespring BPM Notification Service 5.

Verifying the BPM Notification Service 5 Installation

Verify that your installation was successful by checking for errors in the service's log file or by checking the service's status in the Services utility or both.

To check for errors in the Bluespring Notification Service log file, complete the following steps:

To check the installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools**.
2. Select **Services**. The **Services** window is displayed.
3. Select **Bluespring Notification Service**. The status of the selected service is displayed as **Started** under the **Status** column.

Note:	If the installation is successful, the status will be displayed as **Started**.

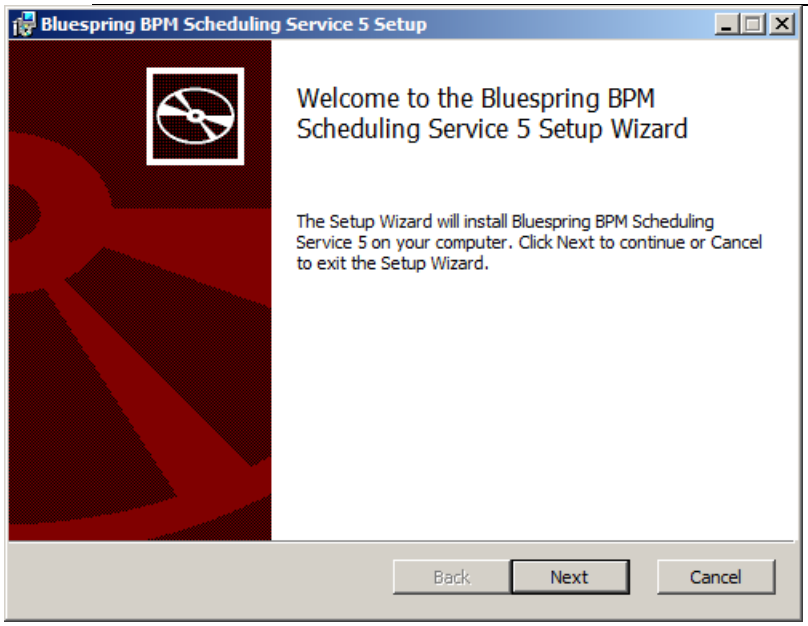
Installing BPM Scheduling Service

The BPM Scheduling service manages the starting of processes configured to use the Scheduled Start and any process delays configured in the Delay Process activity.

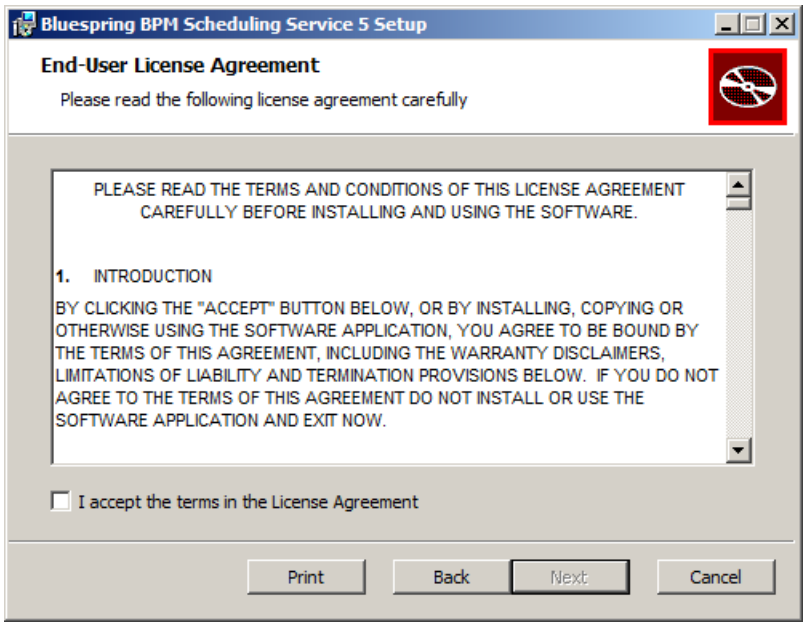
To install the BPM Scheduling Service, complete the following steps:

1. Double-click the BPM Scheduling Service setup file (bpm scheduling service.msi). The Bluespring BPM Scheduling Service 5 Setup Wizard is displayed.

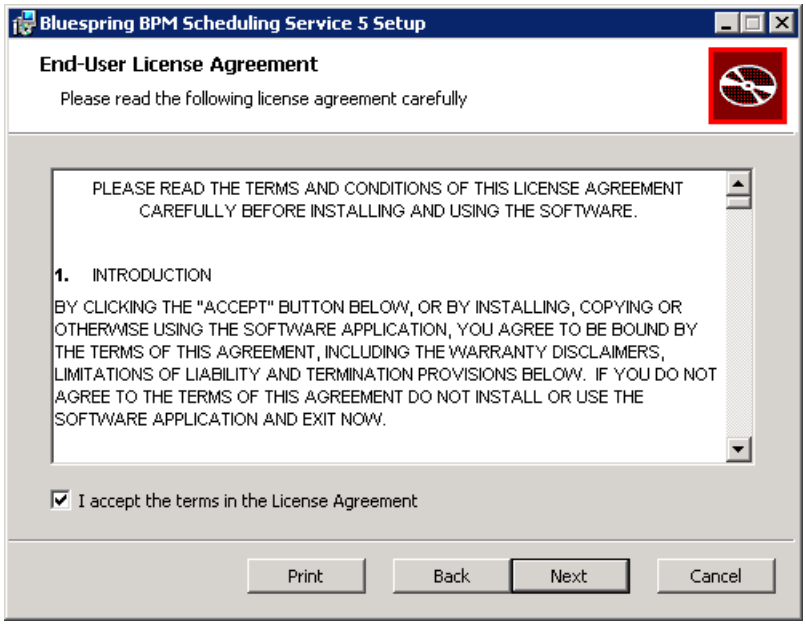
> **Note:** If you encounter an error during the install, please retry, but double-click **the bpm scheduling service (logfile).bat** file to start the install. Using the install file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



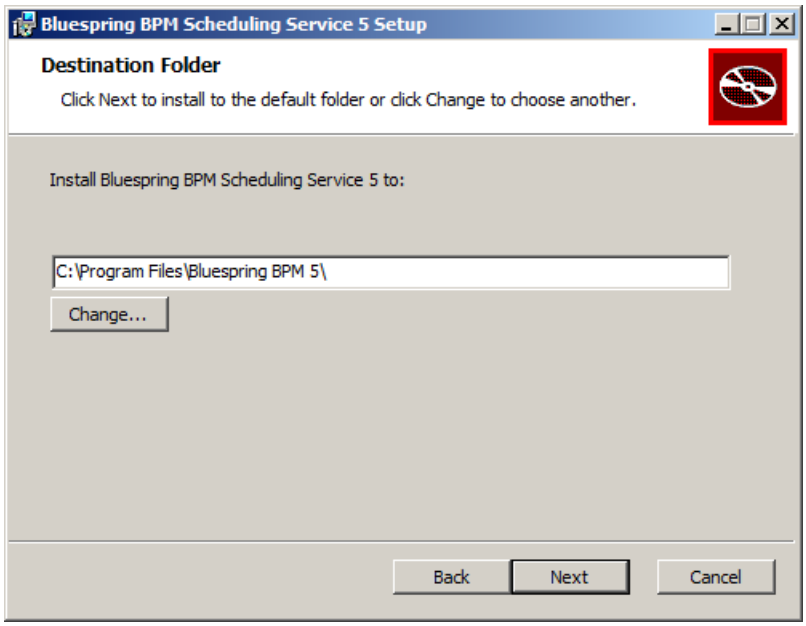
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select the **I accept the terms in the License Agreement** check box.

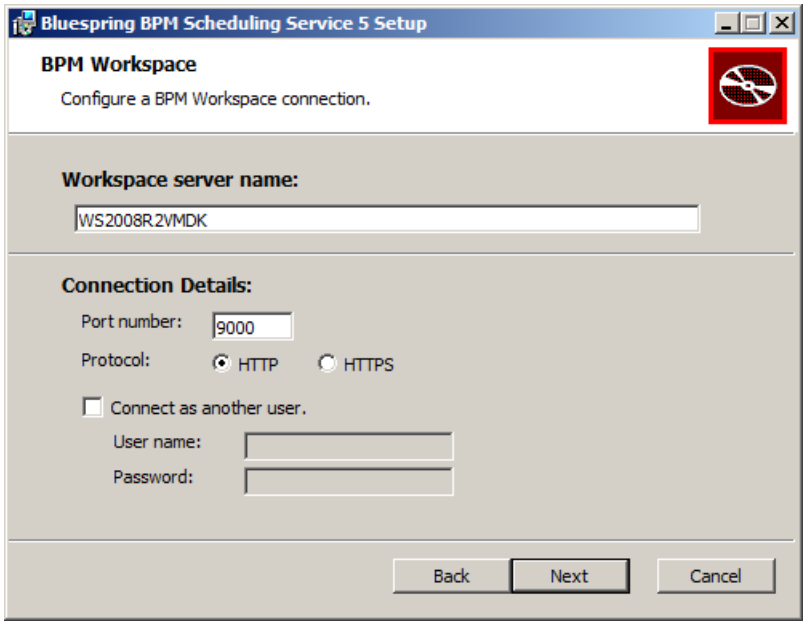


4. Click **Next**. The **Destination Folder** screen is displayed.



> **Note:** If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Scheduling Service files.

5. Click **Next**. The **BPM Workspace** screen is displayed.



6. In the **Workspace server name** field, type the name of your Workspace server.
7. In the **Port number** field, type the Workspace Service's Port Number.

> **Note:** The port number you enter here should be the same port number you entered on the **HTTP Server** screen in the Workspace Service install

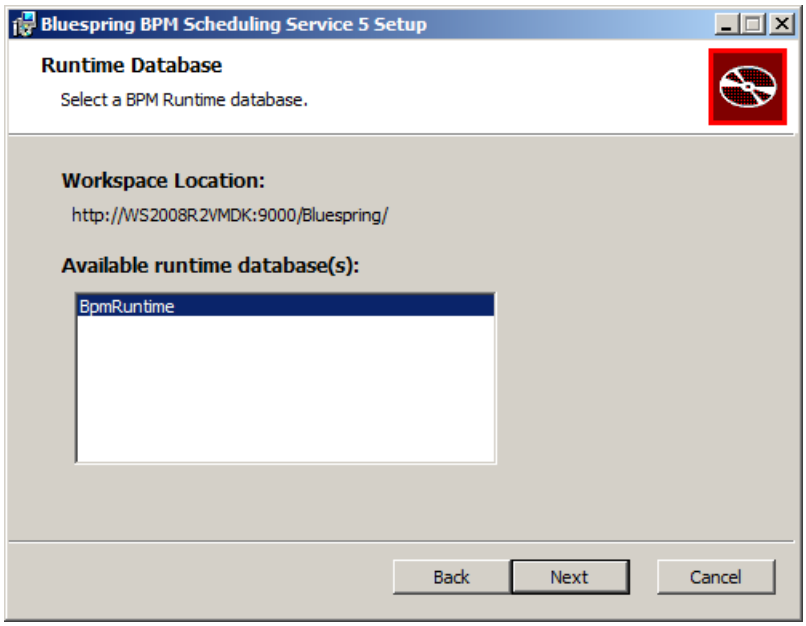
8. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

   Optionally, to connect as another user, complete the following steps:

   - Select the **Connect as another user** checkbox.
   - Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the Scheduling service.

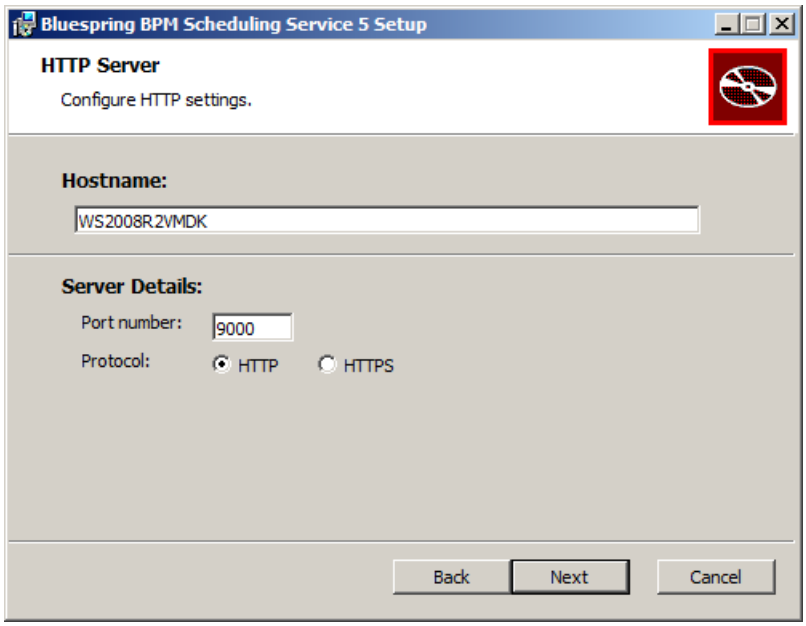
   Note: By default, the Scheduling Service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

9. Click **Next**. The **Runtime Database** screen is displayed.



10. From the **Available runtime database(s)** list, select the Runtime Database that you created in the section **Creating a Runtime Database**.

11. Click **Next**. The **HTTP Server** screen is displayed.

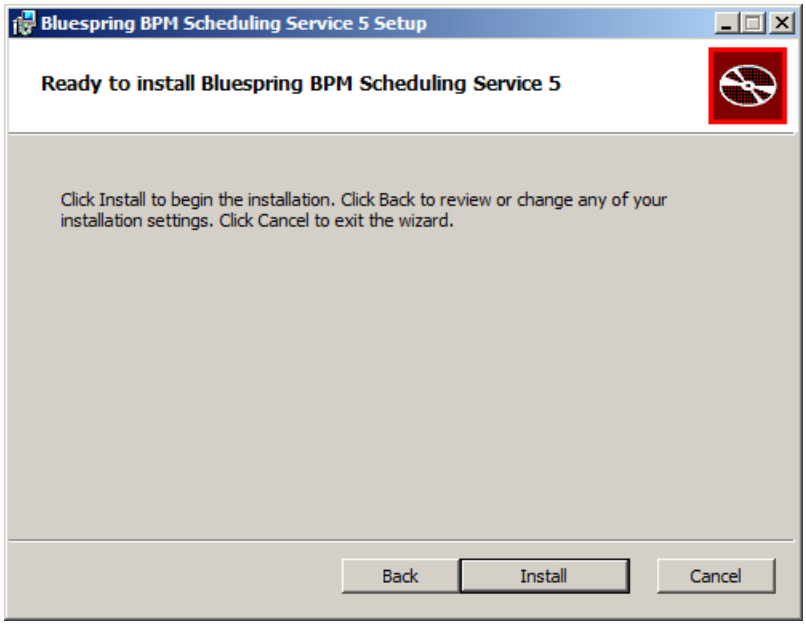


12. In the **Hostname** field, type the name of your host server.
13. In the **Server Details** fields:
    a. Type the port number in the **Port number** field. The Scheduling Service will listen for requests on this port.

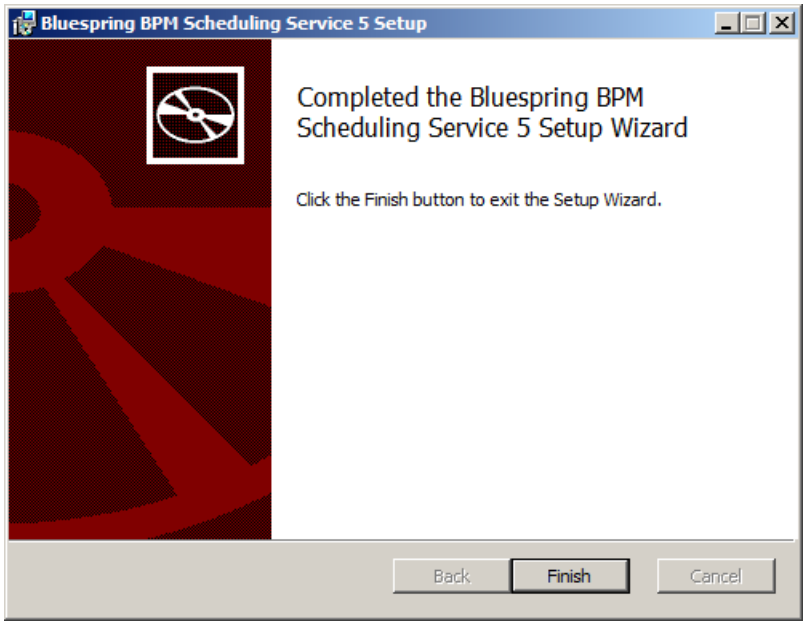
    Note: Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application.

    b. Select **HTTP** from the **Protocol** options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.

14. Click **Next**. The **Ready to install Bluespring BPM Scheduling Service 5** screen is displayed.



15. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM Scheduling Service 5 Setup Wizard** screen is displayed.



16. Click **Finish**. You installed the Bluespring BPM Scheduling Service 5.

Verifying the BPM Scheduling Service 5 Installation

Verify that your installation was successful by checking for errors in the service's log file or by checking the service's status in the Services utility or both.

To check the BPM Scheduling Service installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools** and then select **Services**.
2. In the **Services** window, select **Bluespring Scheduling Service**. The status of the selected service is displayed as **Started** under the **Status** column.

Note:	If the installation is successful, the status will be displayed as **Started**.

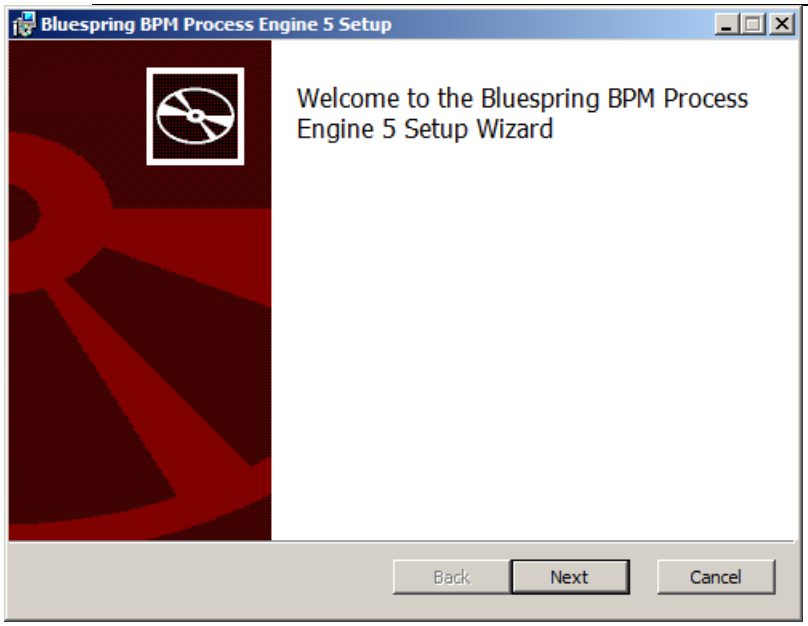
Installing BPM Process Engine

The BPM Process Engine is a Windows service that manages the processing of activities and information in a solution.

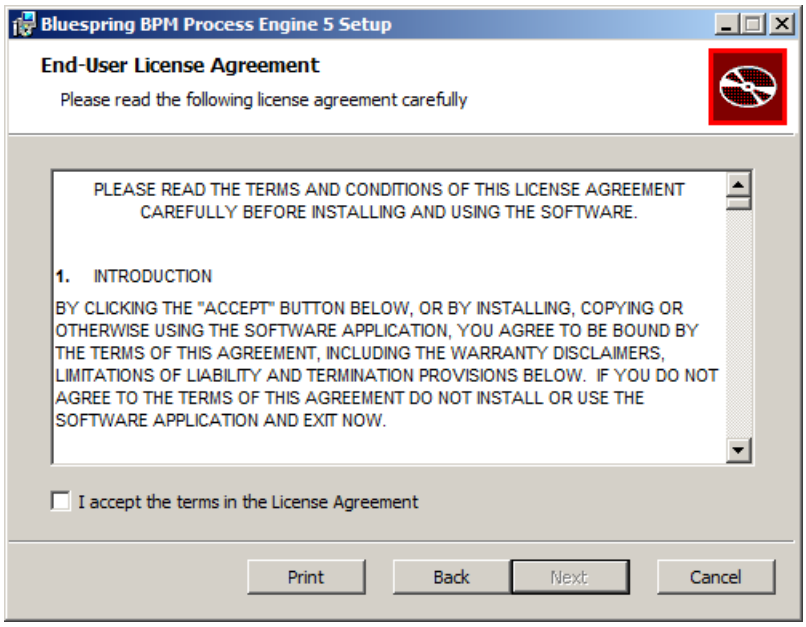
To install the BPM Process Engine complete the following steps:

1. Double-click the BPM Process Engine setup file (**bpm process engine.msi**). The **Bluespring BPM Process Engine 5 Setup Wizard** is displayed.

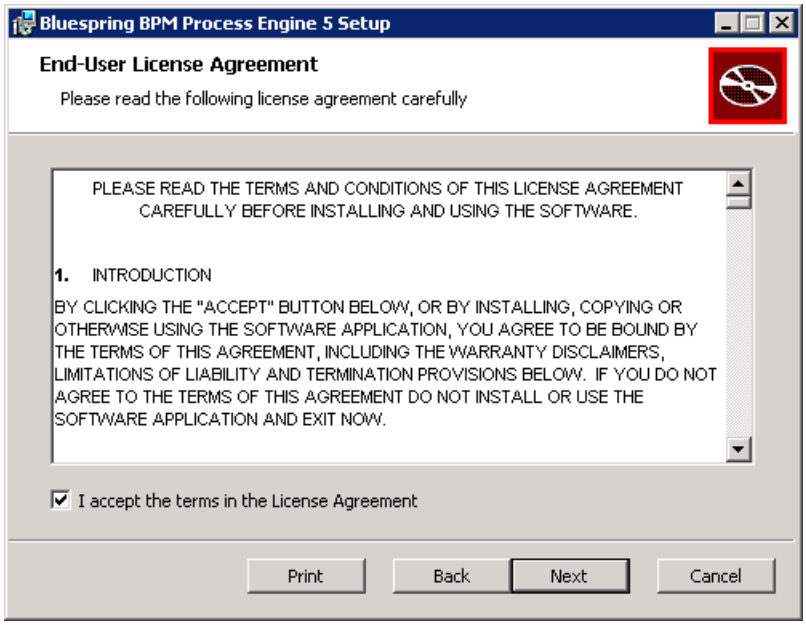
> **Note:** If you encounter an error during the install, please retry the install, but double-click the **bpm process engine (logfile).bat** file to start the install. Using that file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



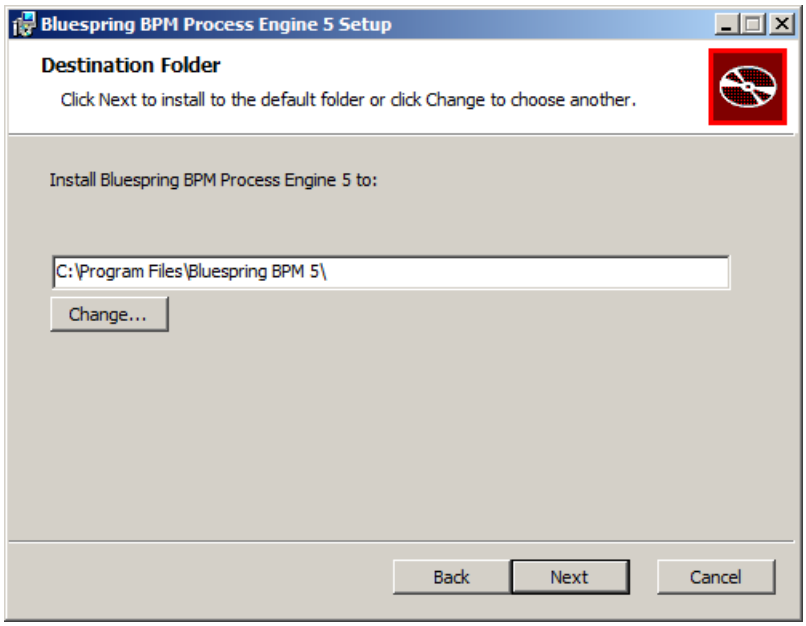
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select the **I accept the terms in the License Agreement** check box.

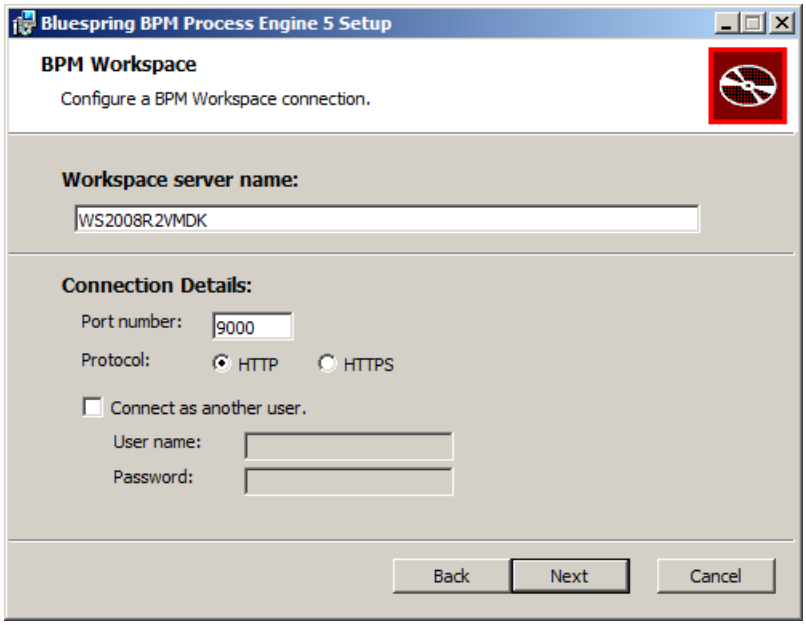


4. Click **Next**. The **Destination Folder** screen is displayed.



Note: If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Process Engine files.

5. Click **Next**. The **BPM Workspace** screen is displayed.



6. In the **Workspace server name**: field, type the name of the server hosting your Workspace service.
7. In the **Port number** field, type the Workspace Service's Port Number.

Note: The port number you enter here should be the same port number you entered on the HTTP Server screen in the Workspace Service install.

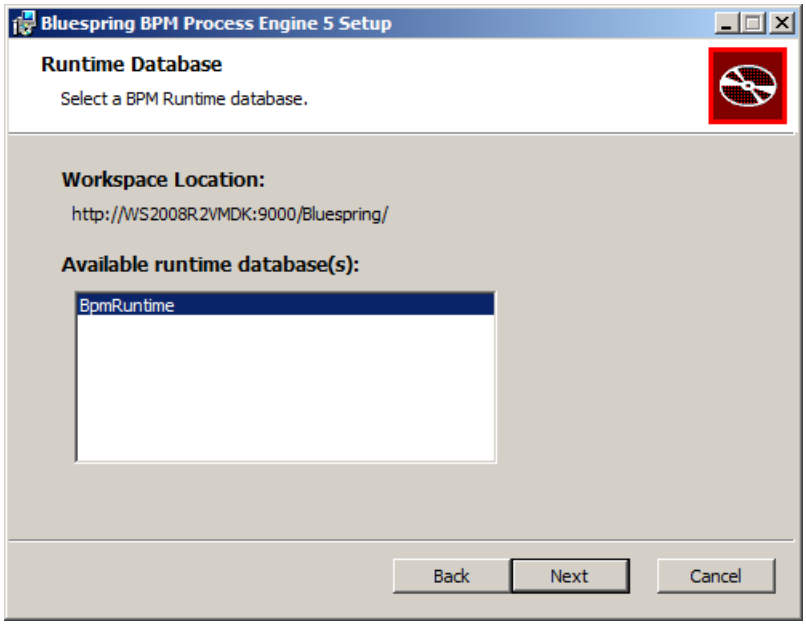
8. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

   Optionally, to connect as another user, complete the following steps:

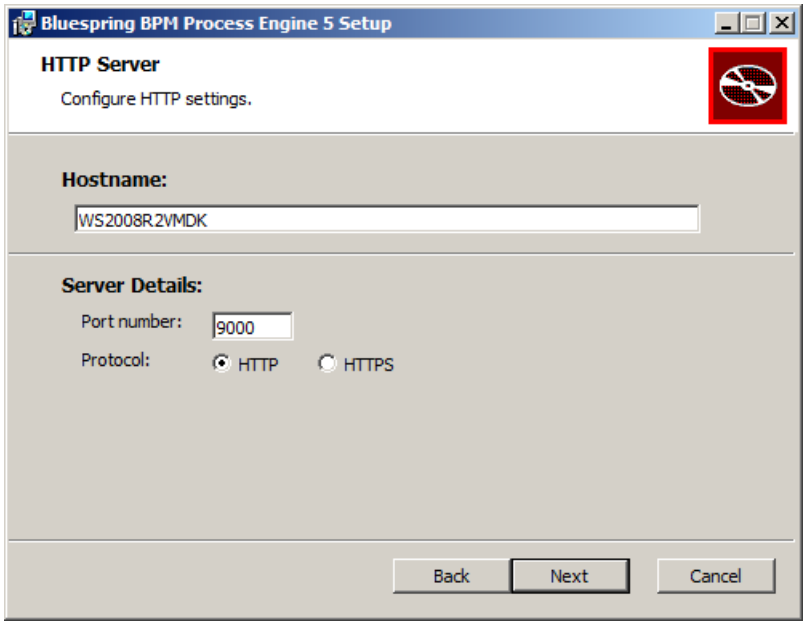
   - Select the **Connect as another user** checkbox.
   - Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the File Monitor service.

   Note: By default, the Process Engine service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

9. Click **Next**. The **Runtime Database** screen is displayed.



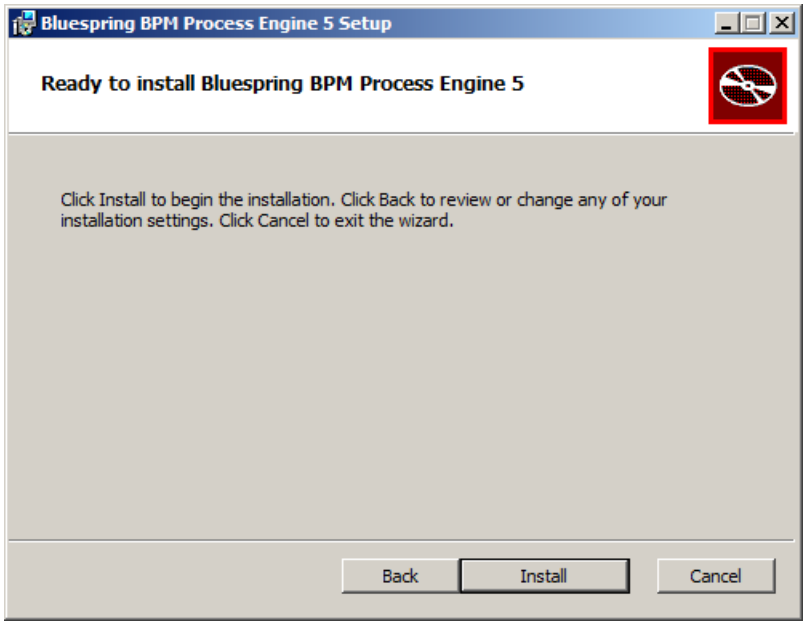
10. From the **Available runtime database(s)** list, select the Runtime Database that you created in the section **Creating a Runtime Database**.
11. Click **Next**. The **HTTP Server** screen is displayed.



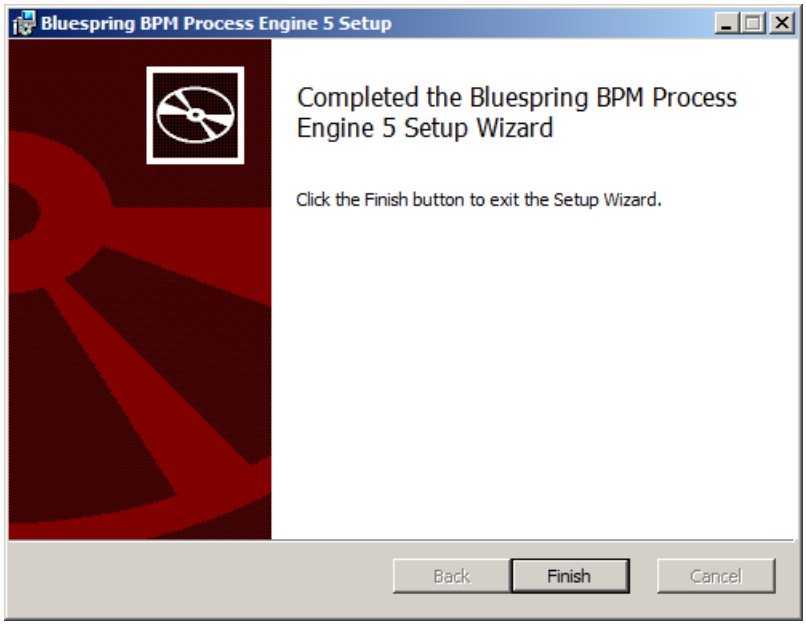
12. In the **Hostname**: field, type the name of your host server.
13. In the **Server Details** fields:
    a. Type the port number in the **Port number** field. The Process Engine Service will listen for requests on this port.

    Note: Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application.

    b. Select **HTTP** from the **Protocol** options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.
14. Click **Next**. The **Ready to install Bluespring BPM Process Engine 5** screen is displayed.



15. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM Process Engine 5 Setup Wizard** screen is displayed.



16. Click **Finish**. You installed the Bluespring BPM Process Engine 5 and now you have to activate the service for it to properly function. Please see the next section, **Activating the BPM Process Engine 5 Installation**.

Activating the BPM Process Engine 5 Installation

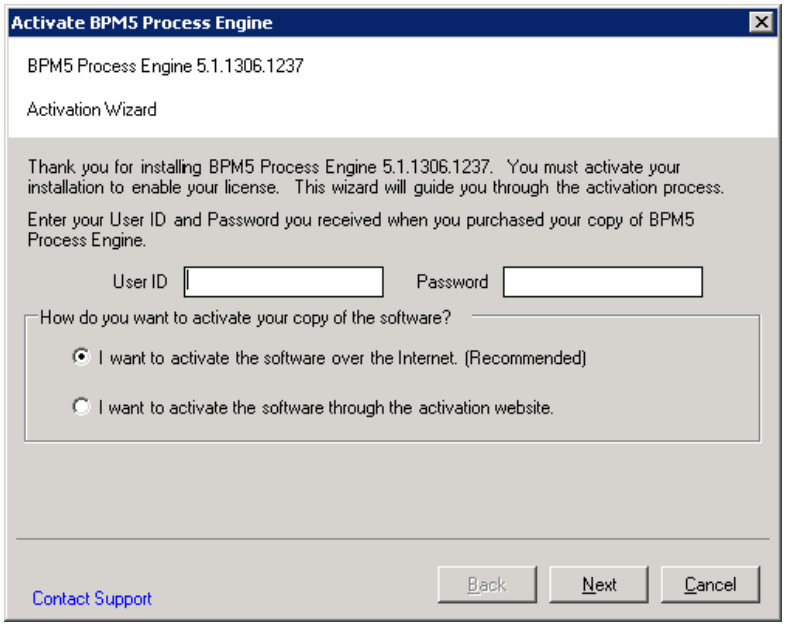
When the Process Engine install completes you will be prompted to activate BPM Process Engine 5. To activate you will need either your Trial or Full license credentials provided by Bluespring.

> **Note:** If you do not have Internet access on the server, access the activation website from another location to retrieve your activation code. See **Appendix F** for further instructions.

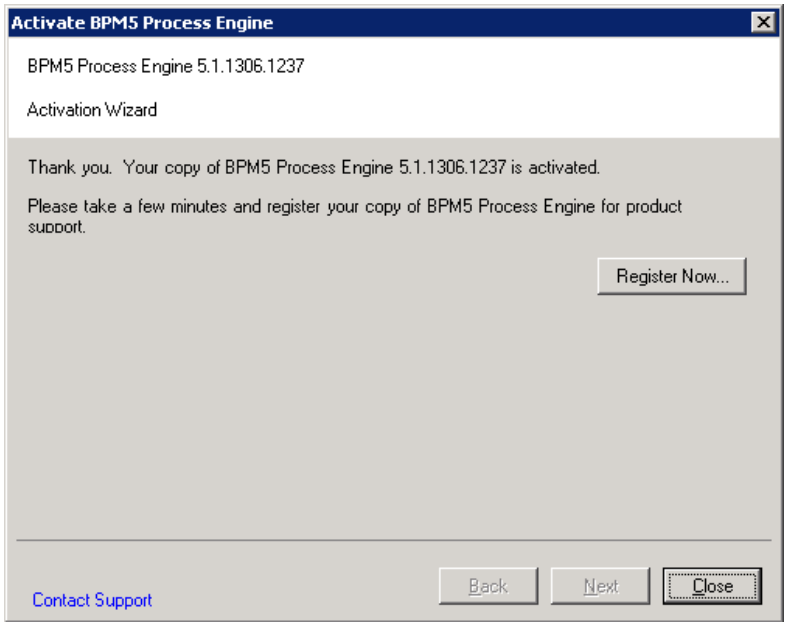
To activate your Process Engine, complete the following steps:

1. In the **User ID** field of the **Activate BPM5 Process Engine** window, enter the User ID from the license you received from Bluespring. The User ID will be a series of numbers (Example: 1234).
2. In the **Password** field, enter the password associated with the User ID you received from Bluespring.

> **Note:** By default, the **I want to activate the software over the internet** option is selected.

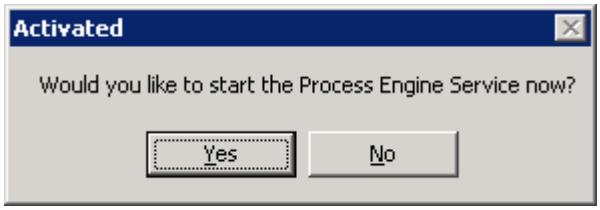


3. Click **Next**. The activation status page is displayed.



Note: Registration is optional. If you do not want to register your copy of the service, skip to step 4.

4. Click **Close** in the **Activate BPM5 Process Engine** window. The **Activated** window is displayed indicating you successfully activated BPM5 Process Engine through the internet and now you want to start the Process Engine service.



5. Click **Yes** to start the Process Engine Service. You started the Process Engine Service.

Verifying the BPM Process Engine 5 Installation

Verify that your installation was successful by checking for errors in the service's log file or by checking the service's status in the Services utility or both.

To check for errors in the Bluespring Process Engine log file, complete the following steps:

1. Navigate to the Process Engine folder. This is the folder you selected as the destination folder in step 4 of Installing the BPM Process Engine.
2. Open the Bluespring Process Engine Service log file (**Bluespring.ProcessEngine.log**).
   You should not see any errors and see lines similar to the following lines:
   - 2010-06-19 07:03:37 Engine: Start [CALLED]
   - 2010-06-19 07:03:37 Engine: StartAllPlugins [CALLED]

To check the installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools** and then select **Services**.
2. In the **Services** window, select **Bluespring Process Engine**. The status of the selected service is displayed as **Started** under the **Status** column.

Note:	If the installation is successful, the status will be displayed as **Started**.

Installing BPM File Monitor Service

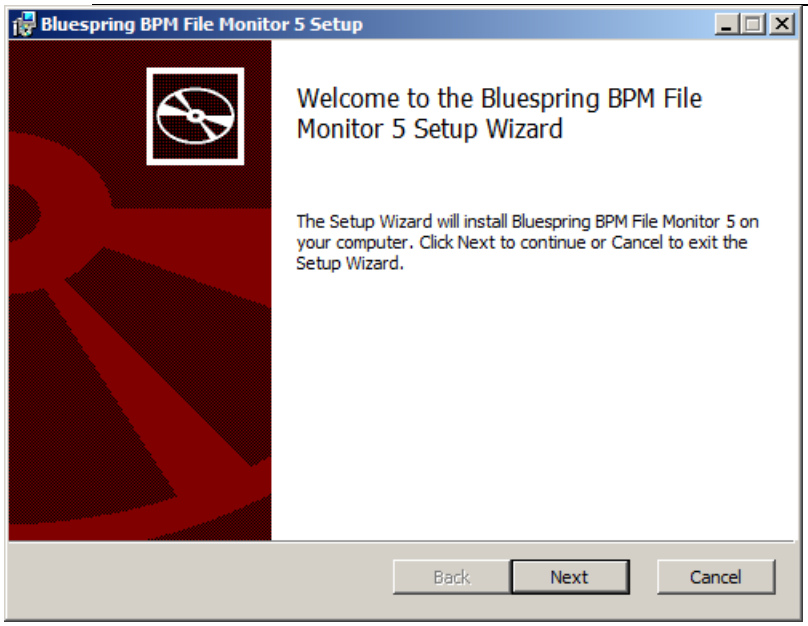
The BPM File Monitor Service is a Windows service used to monitor file shares for file events. When a file event occurs, the BPM File Monitor Service will start an instance of a process in BPM. The process started will include the Receive File Monitor Event activity and be configured to use the File Monitor Service System Resource.

The File Monitor Service can be installed on the server hosting your other BPM 5 services; however, Bluespring recommends installing the service on the server that contains the directory or folder being monitored. Network latency may cause undesired results if the File Monitor service is monitoring a network folder or directory not available on the File Monitor service's server.

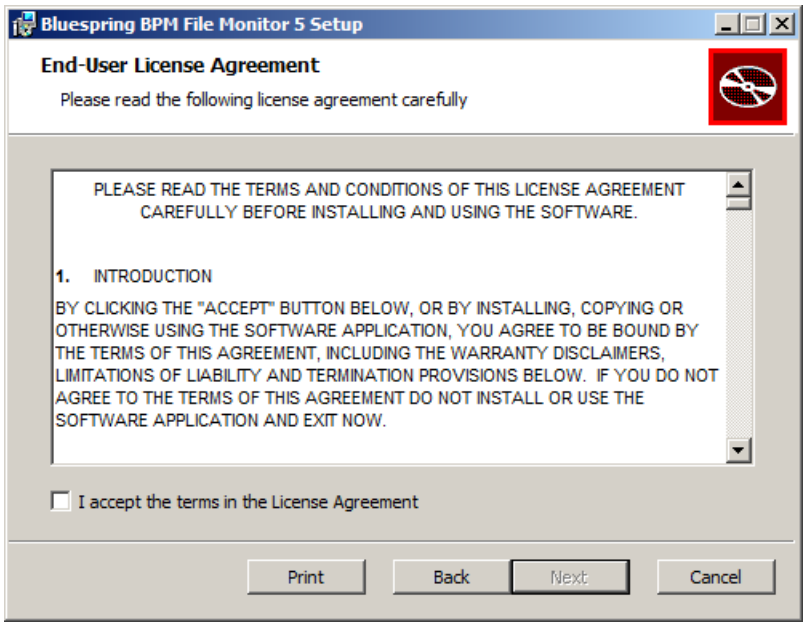
To install the BPM File Monitor Service, complete the following steps:

1. Double-click the BPM File Monitor Service setup file (**bpm file monitor service.msi**). The **Bluespring BPM File Monitor 5 Setup Wizard** is displayed.

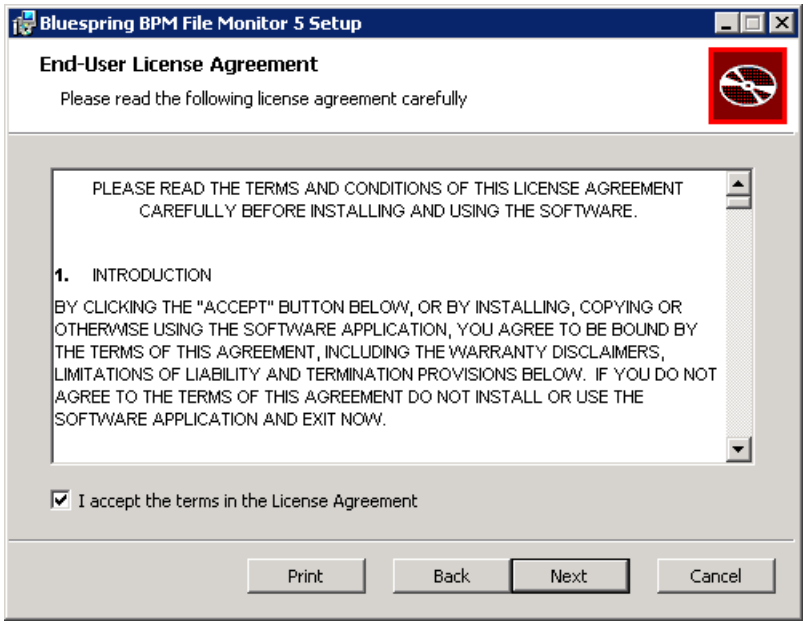
> **Note:** If you encounter an error during the install, please retry, but double-click the **bpm file monitor service (logfile).bat** file to start the install. Using the install file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



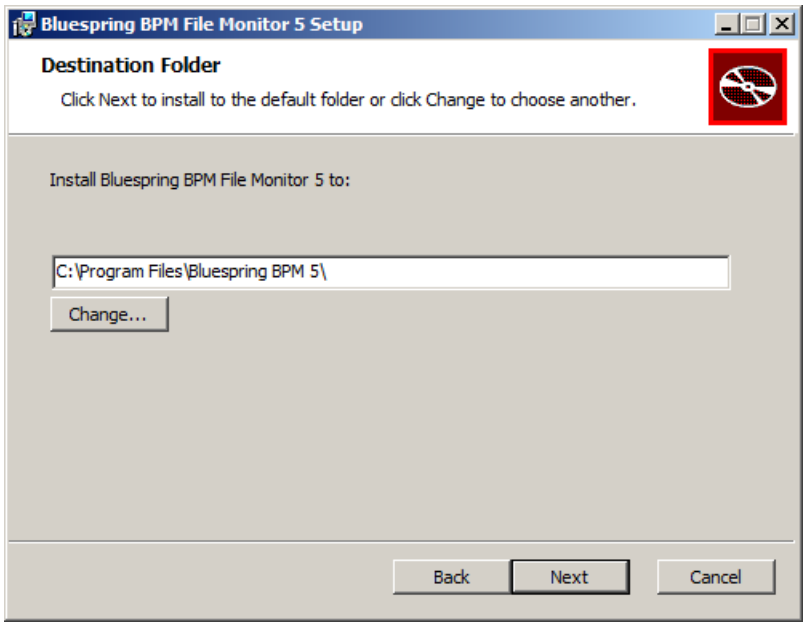
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select the **I accept the terms in the License Agreement** check box.

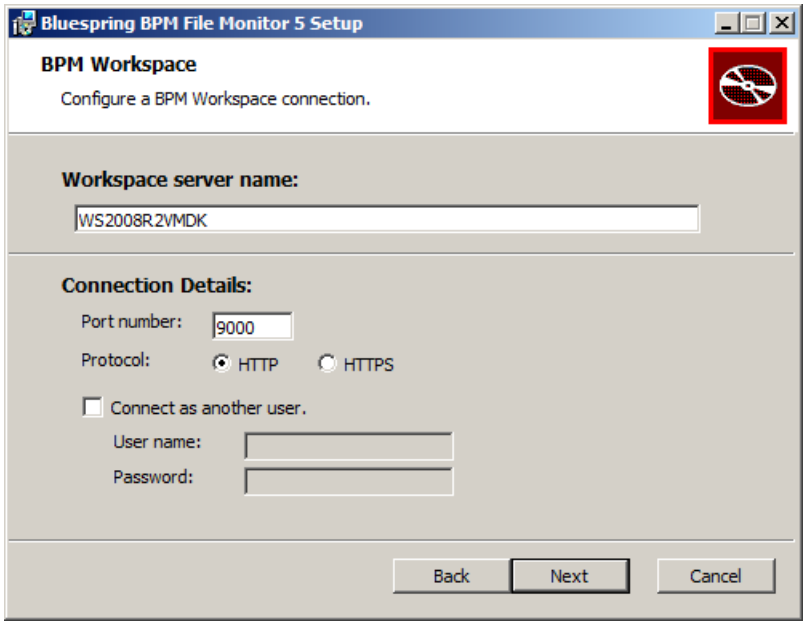


4. Click **Next**. The **Destination Folder** screen is displayed.



> **Note:** If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM File Monitor Service files.

5. Click **Next**. The **BPM Workspace** screen is displayed.



6. In the **Workspace server name** field, type the name of the server hosting your Workspace service.
7. In the **Port number** field, type the Workspace Service's Port Number.

Note: The port number you enter here should be the same port number you entered on the HTTP Server screen in the Workspace Service install.

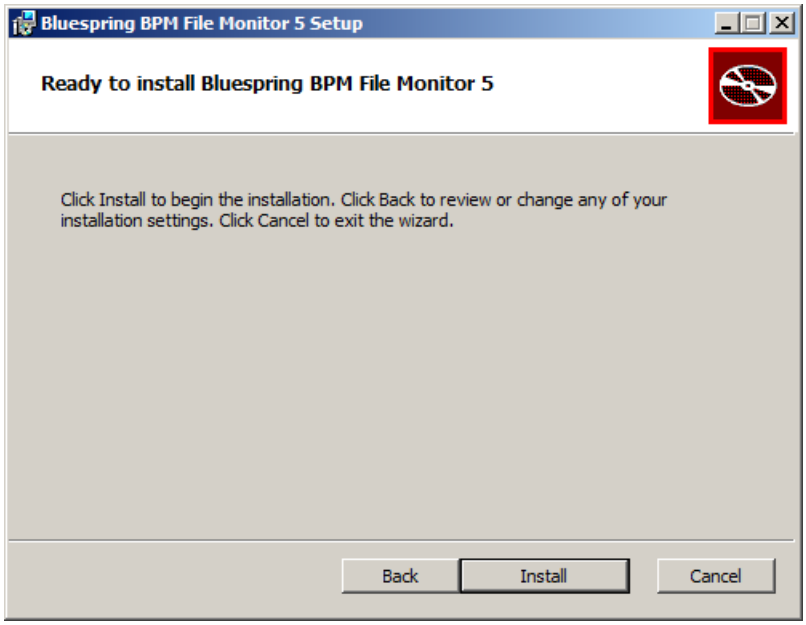
8. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

   Optionally, to connect as another user, complete the following steps:

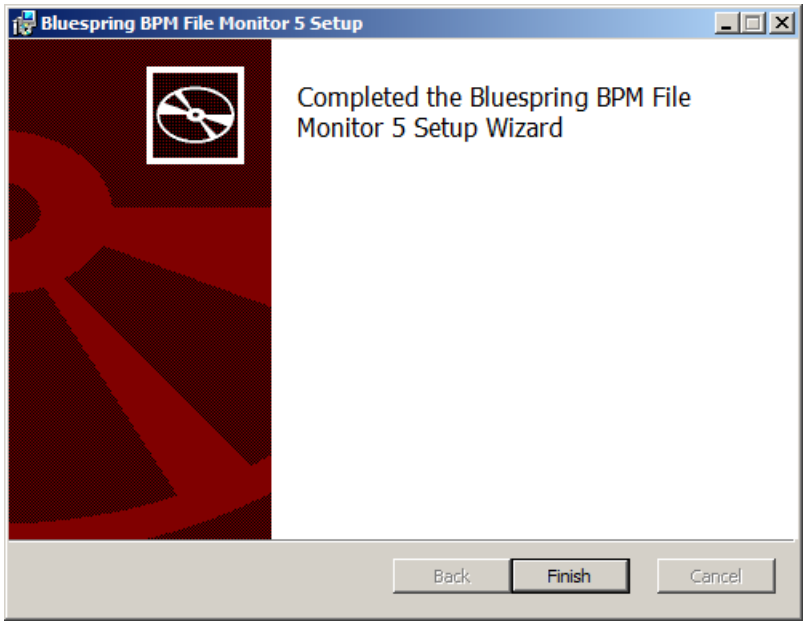
   - Select the **Connect as another user** checkbox.
   - Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the File Monitor service.

   Note: By default, the File Monitor service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

9. Click **Next**. The Ready to install **Bluespring BPM File Monitor 5** screen is displayed.



10. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM File Monitor 5 Setup Wizard** screen is displayed.



11. Click **Finish**. You installed the Bluespring BPM File Monitor 5.

Verifying the BPM File Monitor Installation

Verify that your installation was successful by checking the service's status in the Services utility.

To check the installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools** and then select Services.
2. In the **Services** window, select Bluespring File Monitor. The status of the selected service is displayed as Started under the Status column.

Note:	If the installation is successful, the status will be displayed as **Started**.

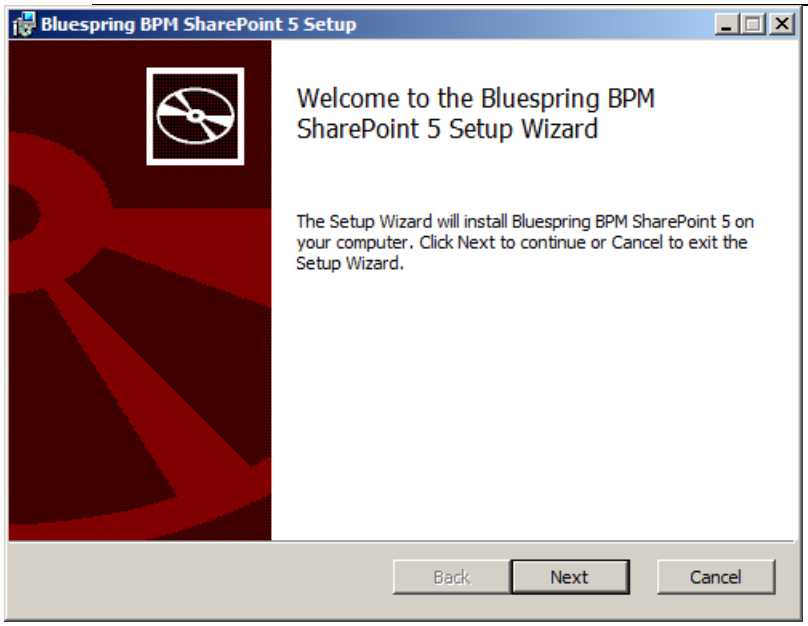
Installing BPM SharePoint Service

The BPM SharePoint Service is a Windows service that enables communication among BPM services. This service runs on Microsoft SharePoint 2007 servers.

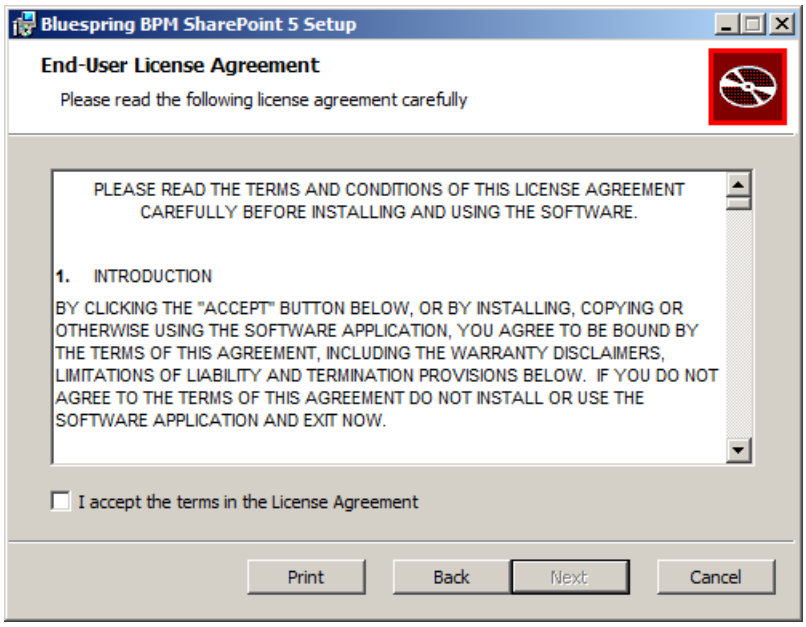
To install the BPM SharePoint Service, complete the following steps:

1. Double-click the BPM SharePoint 5 setup file (bpm sharepoint.msi). The Bluespring BPM SharePoint 5 Setup Wizard is displayed.

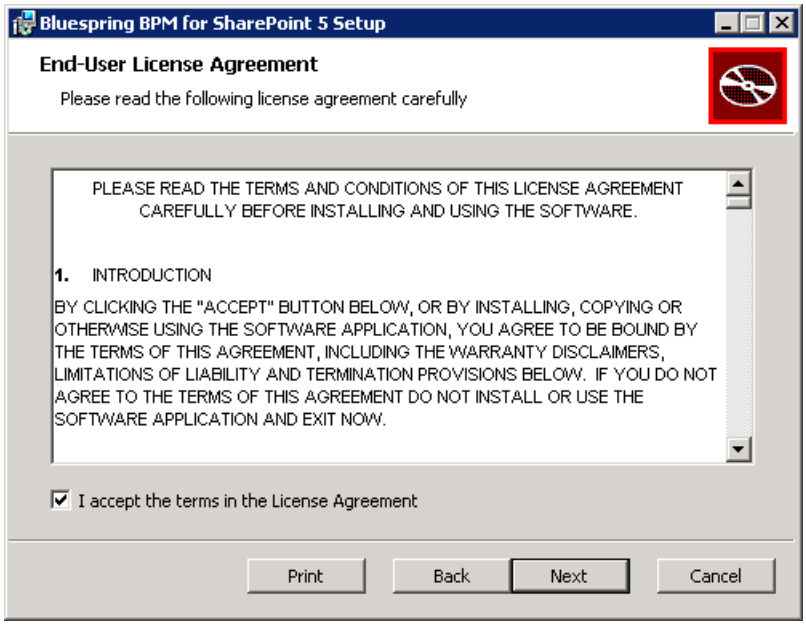
> **Note:** If you encounter an error during the install, please retry the install, but double-click the **bpm sharepoint (logfile).bat** file to start the install. Using that file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



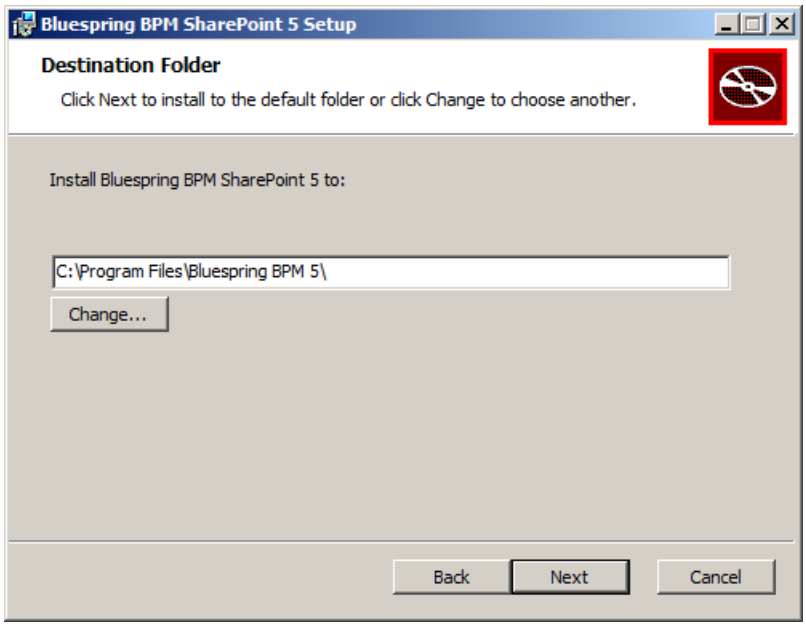
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select the **I accept the terms in the License Agreement** check box.

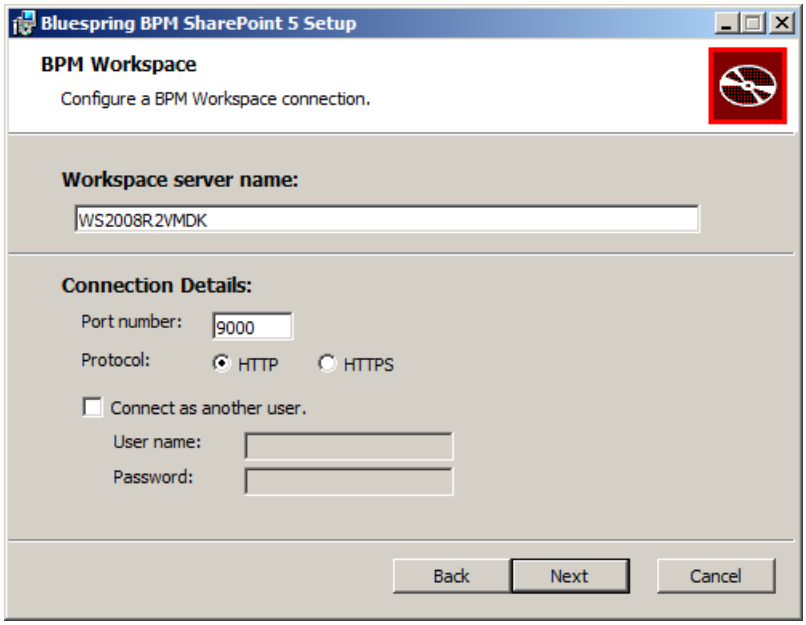


4. Click **Next**. The **Destination Folder** screen is displayed.



Note: If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM SharePoint Service files.

5. Click **Next**. The **BPM Workspace** screen is displayed



6. In the **Port number** field, type the Workspace Service's Port Number.

Note: The port number you enter here should be the same port number you entered on the HTTP Server screen in the Workspace Service install.

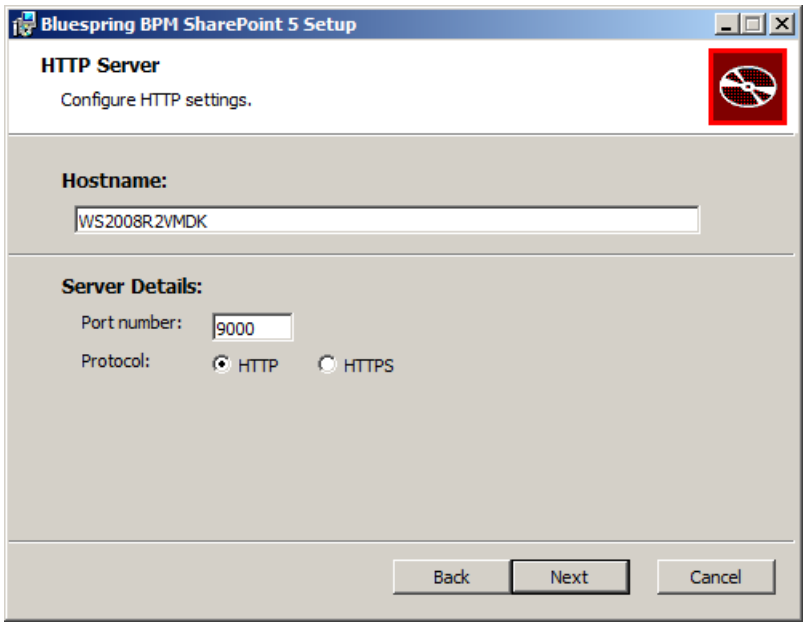
7. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

Optionally, to connect as another user, complete the following steps:

- Select the Connect as another user checkbox.
- Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the SharePoint service.

> **Note:** By default, the SharePoint service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

8. Click **Next**. The **HTTP Server** screen is displayed.

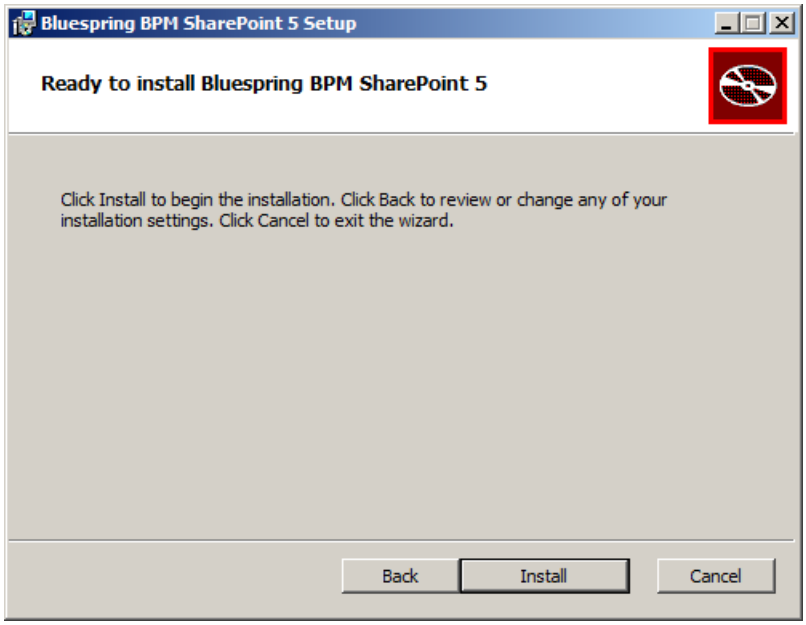


9. In the **Hostname** field, type the name of your host server.
10. In the **Server Details** fields:
    a. Type the port number in the **Port number** field. The Process Engine Service will listen for requests on this port.

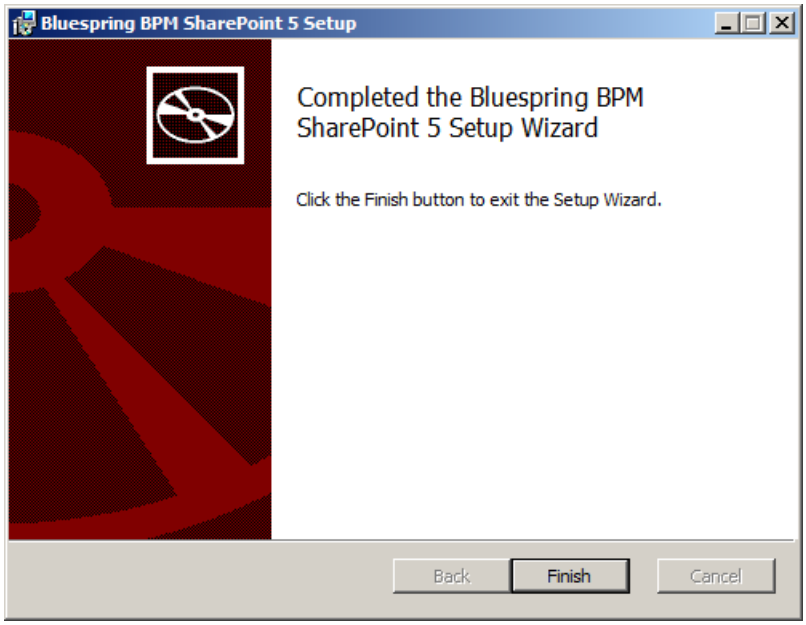
> **Note:** Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application.

    b. Select **HTTP** from the **Protocol** options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.

11. Click **Next**. The **Ready to Install Bluespring BPM SharePoint 5** screen is displayed.



12. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM SharePoint 5 Setup Wizard** screen is displayed.



13. Click **Finish**. You installed the Bluespring BPM SharePoint 5.

Verifying the BPM SharePoint 5 Installation

Verify that the installation was successful by checking the service's status in the Services utility.

To check the installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools** and then select **Services**.
2. In the **Services** window, select **Bluespring SharePoint Service**. The status of the selected service is displayed as **Started** under the **Status** column.

Note:	If the installation is successful, the status will be displayed as **Started**.

Enabling the Bluespring SharePoint Initiator Feature on SharePoint 2007

Enable the Bluespring SharePoint Initiator feature to ensure that any properly configured process that utilizes the Receive SharePoint Event activity successfully completes. If the feature is not enabled, the process that utilizes this activity will fail.

1. Access the site that you would like to enable the Bluespring feature on.
2. Locate and click **Site Actions** > **Site Settings**.
3. Click **Site features** from the **Site Administration** column.
4. Click **Activate** in the row designated for the Bluespring SharePoint Initiator feature. You activated the Bluespring SharePoint Initiator feature.

Enabling the Bluespring SharePoint Initiator Feature on SharePoint 2010

Enable the Bluespring SharePoint Initiator feature to ensure that any properly configured process that utilizes the Receive SharePoint Event activity successfully completes. If the feature is not enabled, the process that utilizes this activity will fail.

1. Access the site that you would like to enable the Bluespring feature on.
2. Locate and click **Site Actions** > **Site Settings**.
3. Click **Manage site** features, from the **Site Actions** category.
4. Click **Activate** in the row designated for the Bluespring SharePoint Initiator feature. You activated the Bluespring SharePoint Initiator feature.

Installing CRM 5

The CRM Monitor Service is used to monitor events and actions within Microsoft Dynamics CRM 4.0. The monitor will start a process when following a CRM event and pass data about the entity to the process.

To install BPM CRM Monitor Service, complete the following steps:

1. Double-click the BPM Designer 5 setup file (**bpm crmservice.msi**). The **Bluespring BPM CRM 5 Setup Wizard** is displayed.

   Note: If you encounter an error during the install, please retry, but double-click the **bpm crm service (logfile).bat** file to start the install. Using the install file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.

2. Click **Next**. The **End-User License Agreement** screen is displayed.
3. After reading the agreement, select **I accept the terms in the License Agreement** check box.
4. Click **Next**. The **Destination Folder** screen is displayed.

   Note: If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Designer files.

5. Click **Next**. The **BPM Workspace** screen is displayed.
6. In the **Port number** field, type the Workspace Service's Port Number.

   Note: The port number you enter here should be the same port number you entered on the HTTP Server screen in the Workspace Service install.

7. Select the Protocol (HTTP or HTTPS) that is used by the Workspace Service.

   Optionally, to connect as another user, complete the following steps:

   - Select the Connect as another user checkbox.
   - Type the User name and Password of a domain user that is a member of the Local Administrators group on the server hosting the SharePoint service.

   Note: By default, the CRM service will connect to the Workspace Service using the Local System account. The Local System account does not have permission to access the Workspace Service when it is hosted on a remote server.

8. Click **Next**. The **HTTP Server** screen is displayed.

9. In the **Hostname** field, type the name of your host server.
10. In the **Server Details** fields:

a. Type the port number in the **Port number** field. The Process Engine Service will listen for requests on this port.

> **Note:** Port 9000 is the default port used by BPM 5's services; however, you can change the port number if port 9000 is used by another application.

b. Select **HTTP** from the **Protocol** options. You select HTTP to transmit unencrypted data and HTTPS to transmit encrypted data.

11. Click **Next**. The **Ready to Install Bluespring BPM CRM 5** screen is displayed.
12. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM CRM 5 Setup Wizard** screen is displayed.
13. Click **Finish**. You installed the Bluespring BPM SharePoint 5.

Verifying the BPM CRM 5 Installation

Verify that the installation was successful by checking the service's status in the Services utility.

To check the installation status in the Services utility, complete the following steps:

1. From the **Start** menu, select **Administrative Tools** and then select **Services**.
2. In the **Services** window, select **Bluespring CRM 5**. The status of the selected service is displayed as **Started** under the **Status** column.

> **Note:** If the installation is successful, the status will be displayed as **Started**.

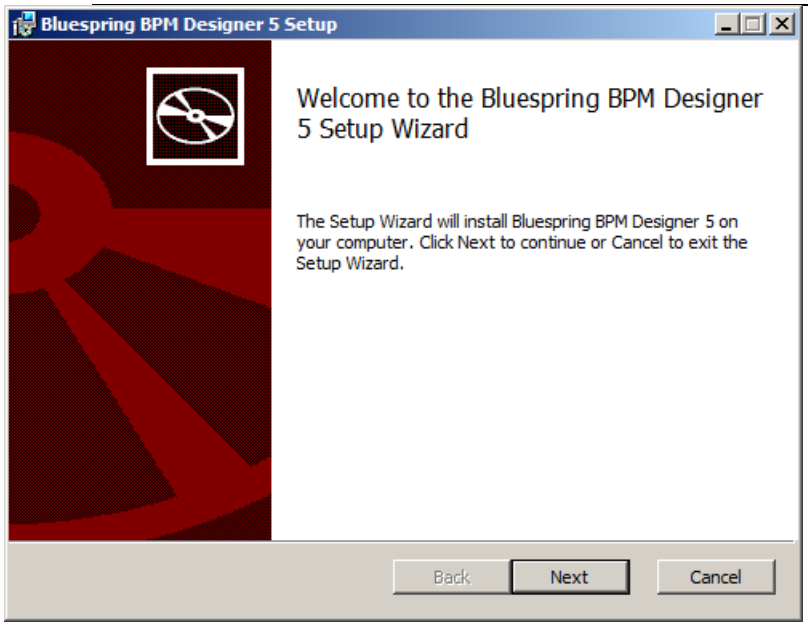
Installing BPM Designer 5

The BPM Designer 5 is an application used to design and configure process solutions. It is typically used by Business and Process Analysts.

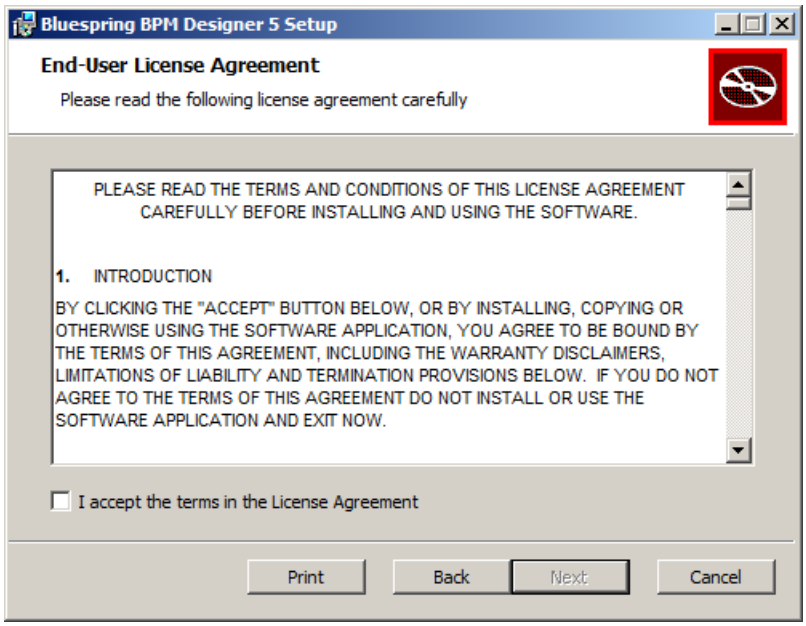
To install the BPM Designer 5, complete the following steps:

1. Double-click the BPM Designer 5 setup file (**bpm designer.msi**). The **Bluespring BPM Designer 5 Setup Wizard** is displayed.

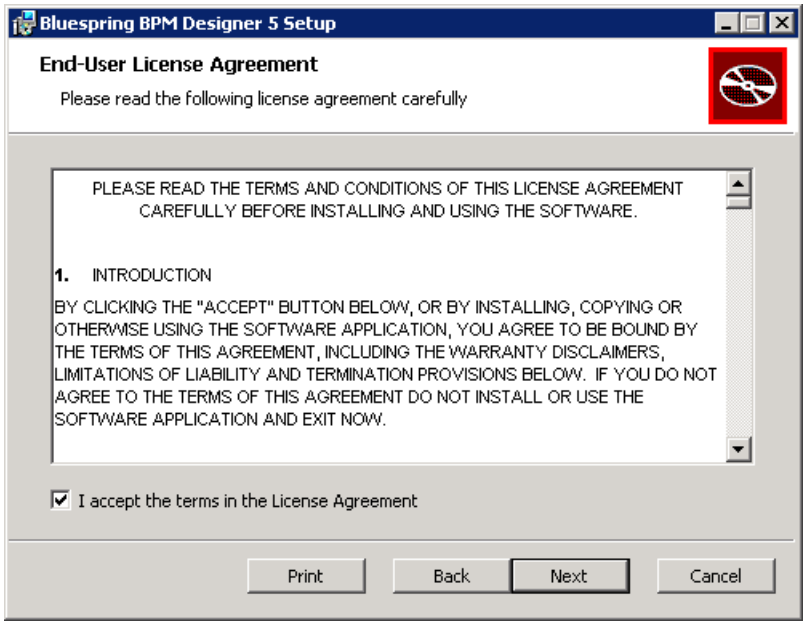
> **Note:** If you encounter an error during the install, please retry, but double-click the **bpm designer (logfile).bat** file to start the install. Using the install file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



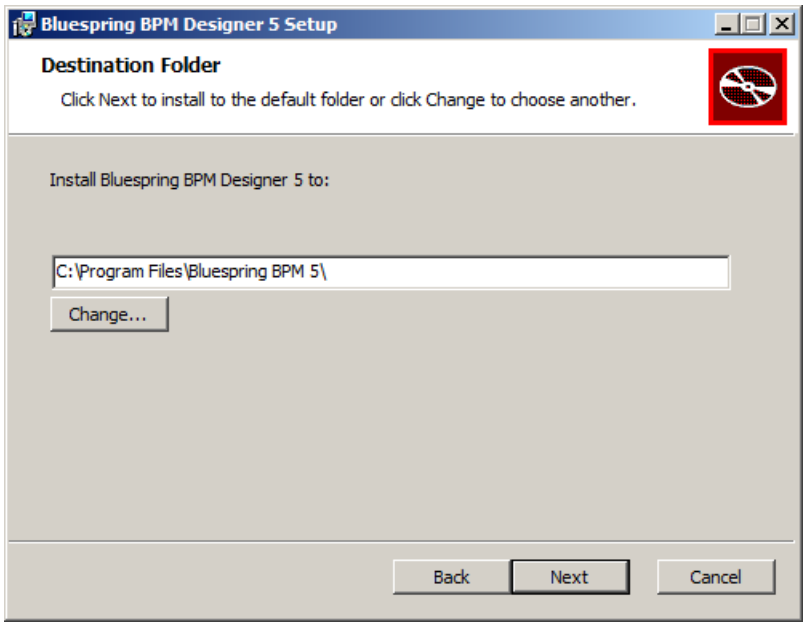
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select **I accept the terms in the License Agreement** check box.

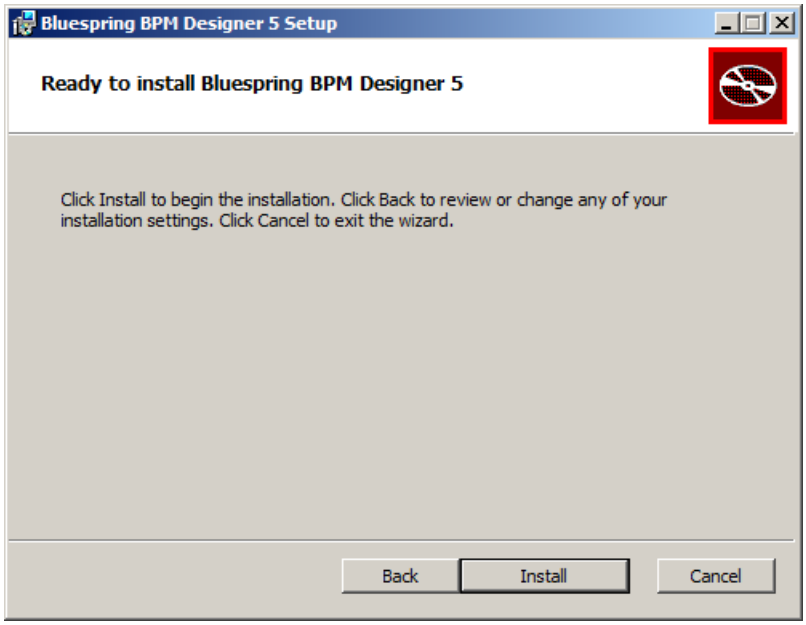


4. Click **Next**. The **Destination Folder** screen is displayed.

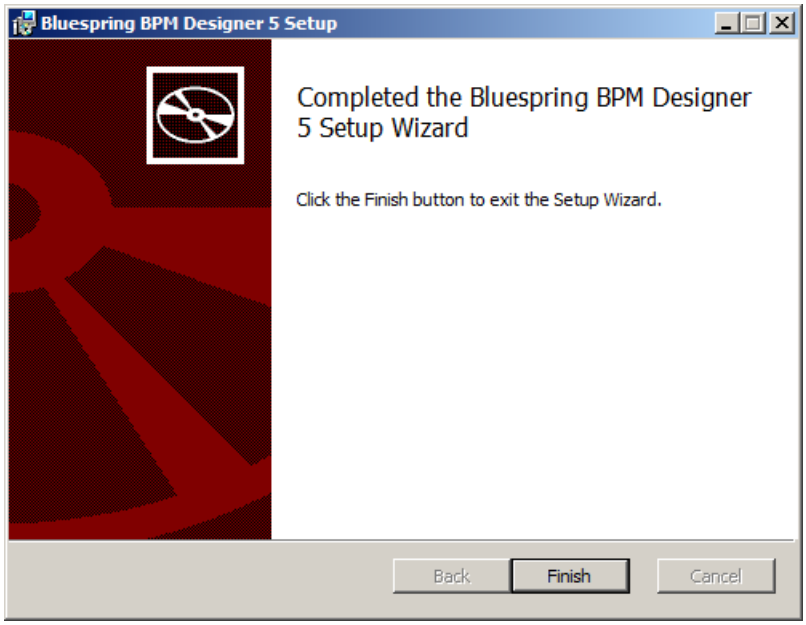


Note: If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Designer files.

5. Click **Next**. The **Ready to Install Bluespring BPM Designer 5** screen is displayed.



6. Click **Install**. The installation process begins. When complete, the **Completed the Bluespring BPM Designer 5 Setup Wizard** screen is displayed.



7. Click **Finish**. You installed the Bluespring BPM Designer 5.

Verifying the BPM Designer 5 Installation

Verify that the installation was successful by opening BPM Designer 5 and logging into your workspace.

To open BPM Designer 5 and connect to a workspace, complete the following steps:

1. From the **Start** menu, click **All Programs**. The **All Programs** menu is displayed.
2. Click **Bluespring BPM 5**. The list of installed BPM 5 applications is displayed.
3. Click **BPM Designer 5**. BPM Designer 5 opens and the **Connect to Workspace** window is displayed.
4. Click **Workspaces**. The **Add/Remove Workspace** window is displayed.
5. Click **Add**. The **Add Workspace** window is displayed.
6. Type the following:
    a. The name of the Workspace server in the Workspace server name field
    b. The port number in the **Port** field
    c. The appropriate protocol from the **Protocol** options

    Note: The Workspace server name, port number, and the protocol you enter here should be same as those you entered on the HTTP Server screen in the Workspace Service install.

7. Click **OK**.
8. Click **Close**.

9. From the **Connect to a Workspace** drop-down list, select your Workspace.
10. Click **Connect**. The BPM Designer workspace is displayed.

    You successfully installed BPM Designer 5 and connected to a workspace.

Installing BPM Admin 5

The BPM Admin 5 is an application that is used to monitor instances of process solutions. It is used by Bluespring administrators.

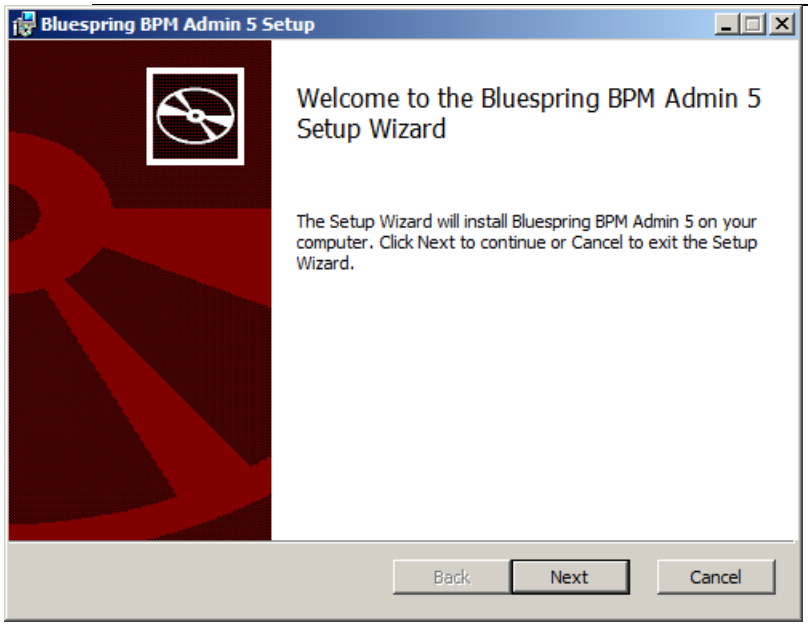
You use BPM Admin to:

- Monitor process instances in a runtime database
- Restart a process or an activity
- Cancel a process or an activity
- View process status
- View subprocesses
- View data item values before and after activity execution
- View activity execution log with informational, warning, and error messages

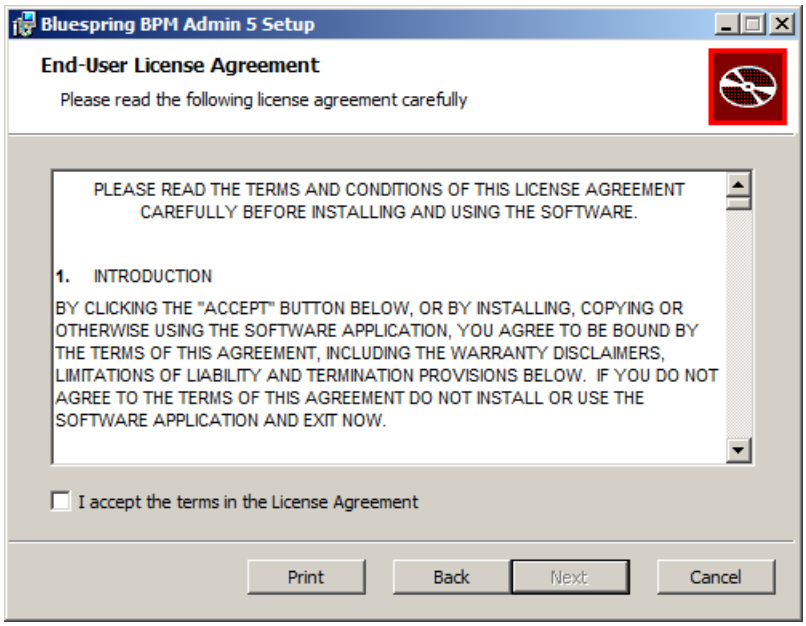
To install the BPM Admin 5, complete the following steps:

1. Double-click the BPM Admin 5 setup file (**bpm admin.msi**). The **Bluespring BPM Admin 5 Setup Wizard** is displayed.

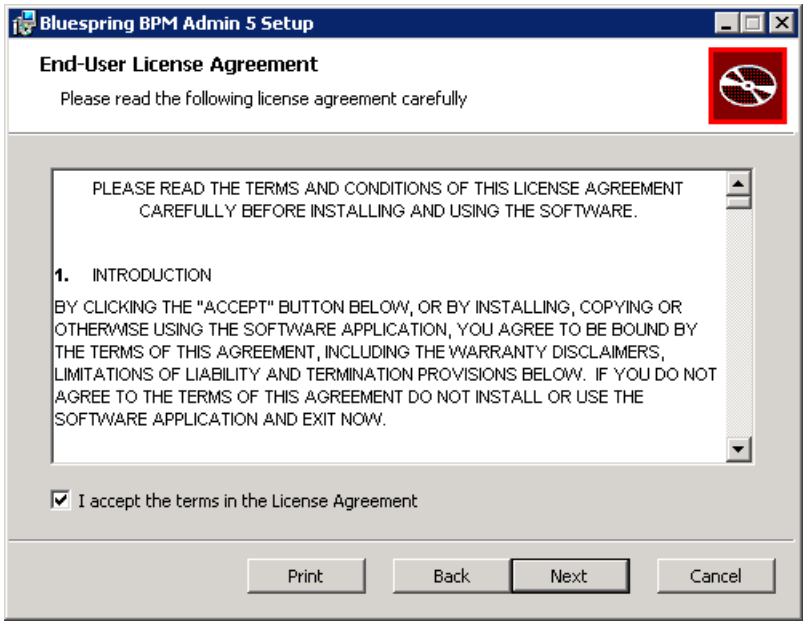
> **Note:** If you encounter an error during the install, please retry, but double-click the **bpm admin (logfile).bat** file to start the install. Using the install file will generate a detailed installation log file. You can send this log file to Bluespring Support for assistance.



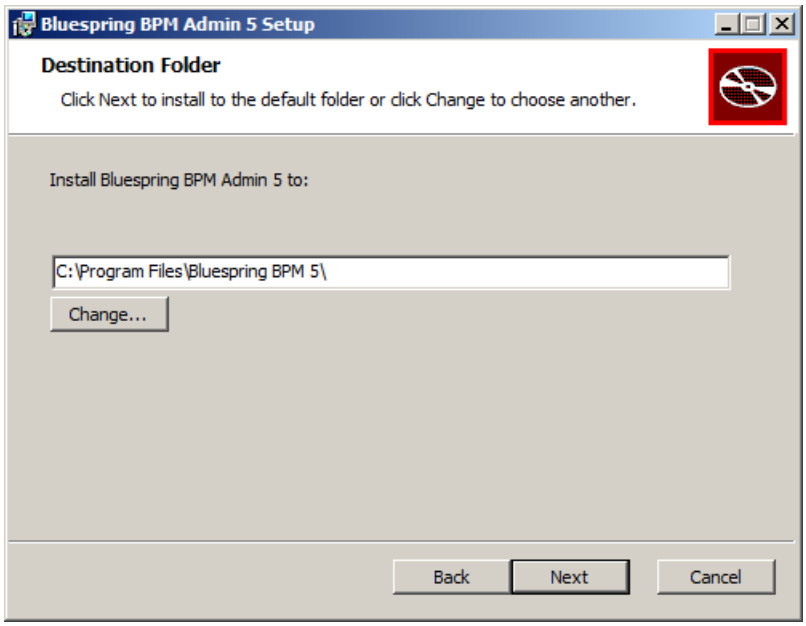
2. Click **Next**. The **End-User License Agreement** screen is displayed.



3. After reading the agreement, select **I accept the terms in the License Agreement** check box.

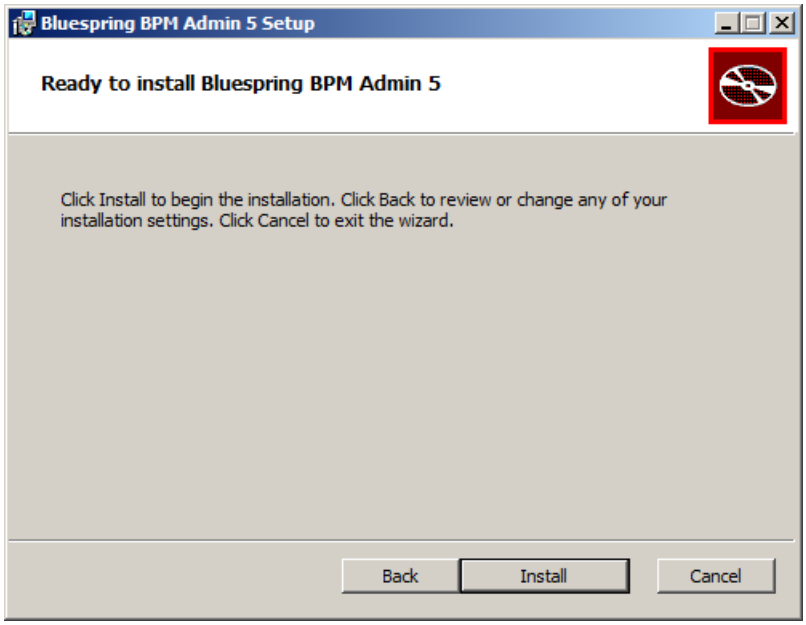


4. Click **Next**. The **Destination Folder** screen is displayed.

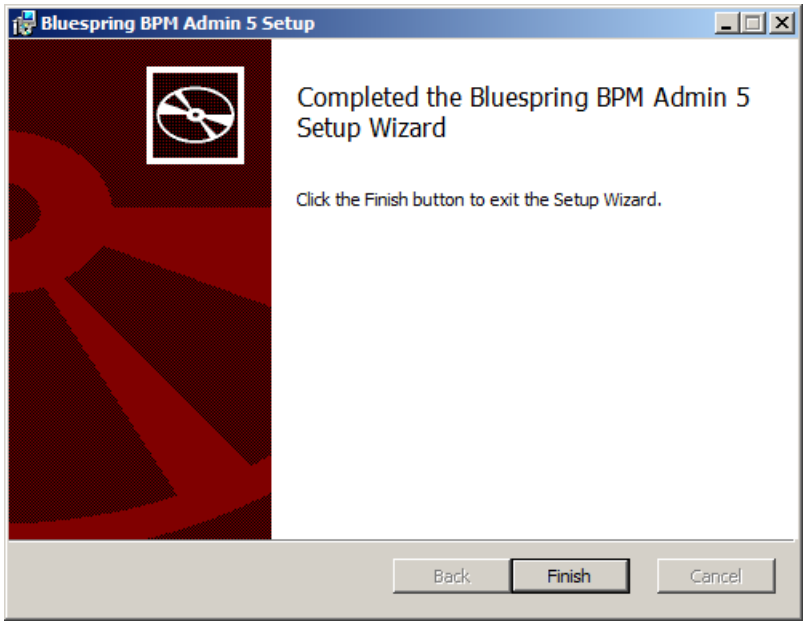


Note: If you want to choose a different destination folder, click **Change** and select the folder where you want to store the BPM Admin files.

5. Click **Next**. The **Ready to Install Bluespring BPM Admin 5** screen is displayed.



6. Click **Install**. The installation begins. When complete, the **Completed the Bluespring BPM Admin 5 Setup Wizard** screen is displayed.



7. Click **Finish**. You installed the BPM Admin 5.

Verifying the BPM Admin 5 Installation

Verify that the installation was successful by opening BPM Admin 5.

1. From the **Start** menu, click **All Programs**. The **All Programs** menu is displayed.
2. Click **Bluespring BPM 5**. The list of installed BPM 5 applications is displayed.
3. Click **BPM Admin 5**. BPM Admin 5 opens.

You successfully completed the installation of Bluespring BPM_5.

Note: In order to save your Workspace in BPM Admin, create a console with the Bluespring Admin Snap-in. Please see Appendix D for further instructions.

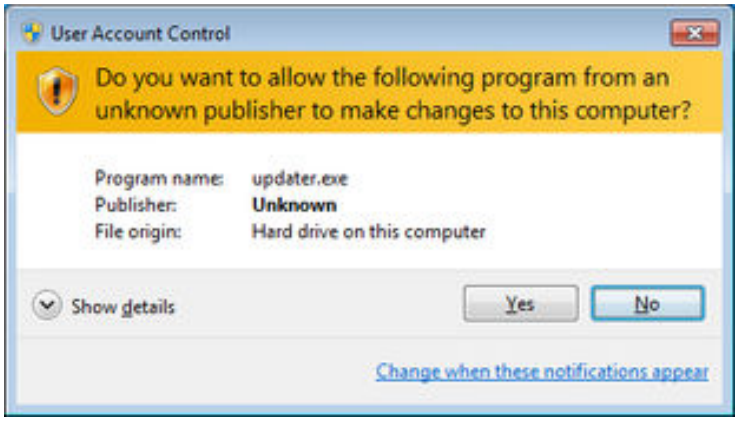
Appendix A

Security Note: Windows Server 2008 User Account Control

You may see a User Account Control window may appear when installing on Server 2008. If you do not see the window, then your IT department has disabled this feature and you can ignore this section.

User Account Control windows are meant to provide additional security for Microsoft Windows. Prior to changes being made to your computer, an unauthorized application must receive authorization to do so. In order to proceed with installation, you must click Yes to authorize the application.

A User Account Control window may resemble the image below:



Appendix B: Windows Firewall and SQL Server Configuration

Bluespring recommends the service and applications be installed on one server and the workspace and runtime databases be installed on another server dedicated to hosting Microsoft SQL Server. Because the services and applications will be installed on a separate server, you will need to confirm the following Windows Firewall and SQL Server settings are correct:

- Open TCP port 1433 in Windows Firewall on the Microsoft SQL Server
- Open TCP port 9000 in Windows Firewall on Bluespring Server(s)
- Start SQL Browser Service on SQL Server
- Enable TCP/IP in SQL Server Configuration Manager

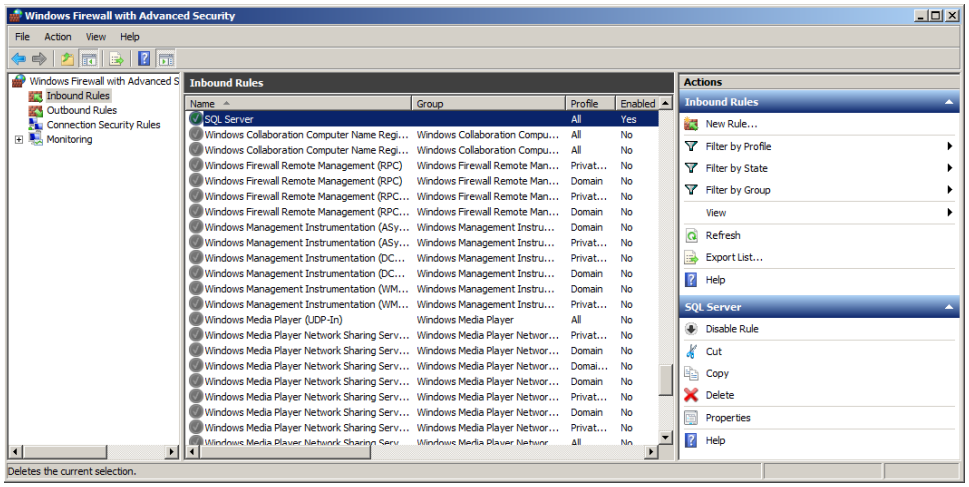
Opening TCP Port 1433 in Windows Firewall on the Microsoft SQL Server

For BPM Designer, BPM Admin, and the services to access the database from the remote computer or server, TCP port 1433 needs to be open in Windows Firewall on Server 2008. By default, Windows Firewall blocks this port, which is SQL Server's default port for accepting connection. The port number can be changed, so confirm with your database administrators that the port number being used is 1433 or note the port being used by the database.

If the SQL and BPM_5 services and applications are on one server then you do not need to open the port, because all of the communication between the components happens behind the computer's firewall.

To open the TCP port 1433 in Windows Firewall on Server 2008, complete the following steps:

1. From the **Start** menu, click **Control Panel**.
2. Click **System and Security**.
3. Click **Windows Firewall**. The Windows Firewall screen is displayed.
4. Click **Advanced Settings**. The Windows Firewall with Advanced Security window opens.



5. Click **Inbound Rules**. The Inbound Rules are displayed in the center pane.

6. From the **Actions** on the right-side of the window, click the **New Rule**. The New Inbound Rule Wizard window is displayed.
7. On the **Rule Type** tab, select the **Port** option, and then click **Next**. The Protocol and Ports tab is displayed.
8. Confirm the **TCP** option is selected. If not selected, select TCP instead of UDP.
9. In the specific port field type **1433**, and then click **Next**. The options for the Action tab are displayed.
10. Confirm the **Allow the connection** option is selected. If not selected, select that option.
11. Click **Next**. The Profile tab is displayed.
12. Click **Next**. The Name tab is displayed.
13. In the **Name** field type SQL Server. The Description is optional.
14. Once you are finished typing the Name and, optionally, the Description, click **Finish**. You opened the TCP port 1433.

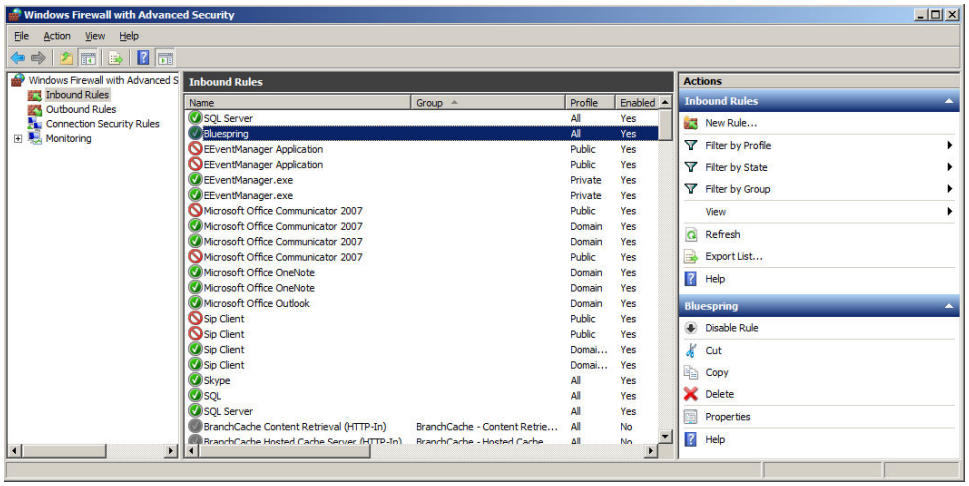
Opening TCP port 9000 in Windows Firewall on Bluespring Server(s)

By default, the BPM_5 service installs assume you want to install them to port 9000. You should only change this option if the port is taken by another application; however, Bluespring also recommends each server be dedicated to BPM_5 for optimal processing. If the port is blocked, which it is by default, then you will not be able to communicate with the Bluespring BPM_5 Services from a remote computer.

If all of the BPM_5 services and applications are on one server then you do not need to open the port, because all of the communication between the components happens behind the firewall.

To open TCP port 9000 in Windows Firewall on Server 2008, complete the following steps:

1. From the **Start** menu, click **Control Panel**.
2. Click **System and Security**.
3. Click **Windows Firewall**. The Windows Firewall screen is displayed.
4. Click **Advanced Settings**. The Windows Firewall with Advanced Security window opens.



5. Click **Inbound Rules**. The Inbound Rules are displayed in the center pane.
6. From the **Actions** on the right-side of the window, click **New Rule**. The New Inbound Rule Wizard window opens.
7. On the **Rule Type** tab, select the **Port** option, and then click **Next**. The Protocol and Ports tab is displayed.
8. Confirm the **TCP** option is selected. If not selected, select TCP instead of UDP.
9. In the specific port field type **9000**, and then click **Next**. The options for the Action tab are displayed.
10. Confirm the **Allow the connection** option is selected. If not selected, select that option.
11. Click **Next**. The Profile tab is displayed.
12. Click **Next**. The Name tab is displayed.
13. In the **Name** field type Bluespring. The Description is optional.
14. Once you are finished typing the Name and, optionally, the Description, click **Finish**. You opened the TCP port 9000.

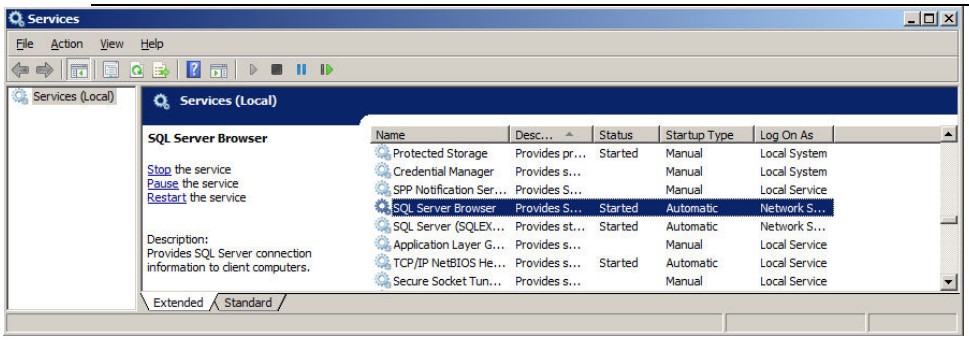
Starting SQL Server Browser Service on SQL Server

When you start the SQL Server Browser, it supplies client computers with SQL Server connection information and is required when the Bluespring services and applications are not hosted on the SQL Server.

To start the SQL Server Browser service, complete the following steps:

1. On your SQL Server hosting the workspace and runtime databases, open **Services**.

> **Note**: One way to open Services is to go to Windows Start > Control Panel > System and Security > Administrative Tools > Services**.**



2. Right-click **SQL Server Browser**. A drop-down list will be displayed.
3. From the drop-down list select Start. The SQL Server Browser service is now started.

Enabling TCP/IP in SQL Server Configuration Manager

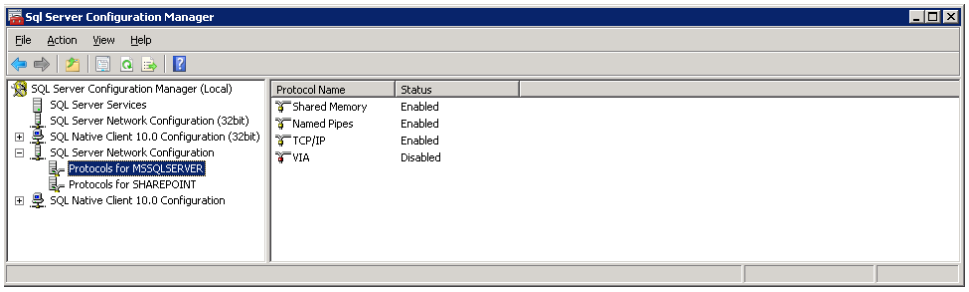
Finally, you will need to enable TCP/IP for the SQL Server instance hosting the workspace and runtime databases. This feature is required when the Bluespring services and applications are not hosted—as recommended—on the SQL Server.

To enable TCP/IP in SQL Server Configuration Manager, complete the following steps:

1. From the **Start** menu, click **Microsoft SQL Server 2008 R2**.

   Note: Similar steps apply for Microsoft SQL Server 2005 and Microsoft SQL Server 2008.

2. Click **Configuration Tools**.
3. Click **SQL Server Configuration Manager**. The SQL Server Configuration Manager window opens.

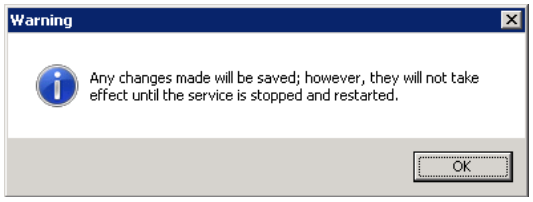


4. Expand the **SQL Server Network Configuration**. A list of SQL Server instances is listed.
5. Click the **Protocols for *<Bluespring Instance>*** where *<Bluespring Instance>* is the SQL Server instance hosting your workspace and runtime databases. The protocols for that instance are displayed to the right.

   Note: For SQL Server 2005, you need to expand the SQL Server 2005 Network Configuration.

   Note: In the above screenshot the instance is called MSSQLSERVER.

6. Right-click the **TCP/IP** protocol, and then click **Enable**. The following Warning window will appear telling you that you will need to restart the SQL Server service.



7. Click **OK**. You enabled the TCP/IP protocol and now need to restart the SQL Server service for the change to become active.
8. Click **SQL Server Services**.
9. Right-click the **SQL Server (*<Bluespring Instance>*)** where *<Bluespring Instance>* is the SQL Server instance hosting your workspace and runtime database.

10. Click **Restart**. The service restarts and the TCP/IP protocol change is not active.

You completed the necessary server changes to allow the Bluespring services and applications to connect to a remote SQL Server.

Appendix C: Notification Test Mode

The Notification Service supports a "test mode" option, which can be helpful when you do not want to send emails to process participants until the solution is published to your production runtime environment. When enabled, the service sends emails to a comma-delimited set of email addresses set in the service's configuration file—not the values configured in the Send Email activity and Notification Messages.

You will know an email was sent using test mode, because the email contains a special header and footer. The header section displays the email addresses of the recipients that would have received the email had test mode been disabled. And the footer simply says Test.

Since test mode is enabled at the service level, the change applies to all emails sent by a specific service associated with a runtime environment.

IMPORTANT:

When you upgrade the Notification Service or reinstall the service, the Bluespring.NotificationService.exe.Config file is replaced with a new file. If you want the upgraded/reinstalled service to use test mode, then you will need to complete the Enabling Notification Test Mode steps again.

Enabling Notification Test Mode

1. Locate the *Bluespring.NotificationService.exe.Config* file on the server hosting the Notification Service.

   Note: By default, this file is located in C:\Program Files\Bluespring BPM 5\Notification.

2. Open the file in a text editor.
3. Locate the bluespring.notificationservice section in the XML, which will look similar to the following:

```
<bluespring.notificationservice>
        <administration url="http://localhost:9000/Bluespring" />
         <environment name="bpm5runtime" />
        <workspace serverName="localhost" port="9000" protocol="http" securityMode="Windows" />
        <testmode enabled="false" recipients=""/>
</bluespring.notificationservice>
```

4. Set the testmode element's enabled attribute to *true*.

   Note: By default, enabled is set to *false*.

5. In the recipients attribute value, enter the email address or email addresses of the test recipients. When finished, your testmode element will look similar to the following:

```
<testmode enabled="true"
recipients=”john @bluespringsoftware.com, jane@bluespringsoftware.com” />
```

Note: Separate multiple email addresses with a comma. A semi-colon will cause the service to throw an error while sending the email.

6. Save the text file.
7. Restart the Notification Service to activate the new settings. You enabled the Notification Test Mode.

Disabling Notification Test Mode

Disabling the Notification Test Mode will allow the process to utilize the attributes provided in the process. The notifications will no longer rely on the email addresses provided in the notification text file but those provided in the processes and their activities.

1. Locate the *Bluespring.NotificationService.exe.Config* file on the server hosting the Notification Service.

Note: By default, this file is located in C:\Program Files\Bluespring BPM 5\Notification.

2. Open the file in a text editor.
3. Locate the bluespring.notificationservice section in the XML, which will look similar to the following:

```
<bluespring.notificationservice>
        <administration url="http://localhost:9000/Bluespring" />
         <environment name="bpm5runtime" />
        <workspace serverName="localhost" port="9000" protocol="http" securityMode="Windows" />
        <testmode enabled="true" recipients="john@bluespringsoftware.com"/>
</bluespring.notificationservice>
```

4. Set the testmode element’s enabled attribute to *false*.

Note: You do not have to delete the email addresses in the recipients attribute value.

5. Save the text file.
6. Restart the Notification Service to activate the new settings. You disabled the Notification Test Mode.

Appendix D: Creating a Console with the Bluespring Admin Snap-in

Creating a custom console with the Bluespring BPM Admin snap-in will allow you to manage common Windows and Bluespring features from a single interface. Additionally, the Bluespring BPM Admin added to your custom console will remember the workspace, so you do not have to enter the workspace each time you open the console.

1. Click **Window Start** > **Run**. The **Run** window is displayed.
2. Type **MMC** in the **Open** field.
3. Click **OK**. The new console window is displayed.
4. From the **File** menu, click **Add/Remove Snap-in** from the drop-down list. The **Add or Remove Snap-ins** window is displayed.
5. Select **Bluespring BPM Admin** from the Available Snap-ins field.
6. Click **Add**. The **Workspace Connection** window is displayed.
7. Type the name of the server hosting your workspace in the **Workspace server name** field.
8. Type the appropriate port number in the **Port** field.
9. Select **HTTP** or **HTTPS** from the **Protocol** field.

   Note: Choose **HTTPS**, if they require secure connections
10. Click **OK**. You added the Bluespring BPM Admin snap-in to the console.

    Note: If you want to extend the options on the console, Bluespring recommends adding the Event Viewer and Server Manager snap-ins. The Event Viewer allows you to view the event logs for the Bluespring services and the standard Windows logs. The Server Manager is recommended, because it provides access to the Message Queues and other features installed on this server.
11. Click **OK.**
12. From the **File** menu, click **Options**. The **Options** window is displayed.
13. Type the new name in the **Console** field.
14. From the **Console mode** field, select **User mode - full access** to prevent a reoccurring window that will prompt you to save.
15. Select the **Do not save changes to this console** check box.
16. Click **OK**.
17. From the **File** menu, click **Save**. The **Save As** window is displayed.

18. Save the console to the location of your choice. You created a console that uses the Bluespring BPM Admin snap-in.

Appendix E: Activating your copy of BPM Designer

Bluespring Software will provide you with one of two types of licenses, *Trial* or *Full*. With the *Trial* license, you will have a designated number of days to use the software before the license expires. The trial period starts when the license is activated and the license cannot be used again once activated.

You can activate BPM Designer via the Internet or the activation website.

Activating through the Internet

To activate the BPM Designer Licensing, complete the following steps:

1. Open BPM Designer. The Activate BPM Designer 5.1 window is displayed when one of the following conditions is true:
    a. You open BPM Designer on your computer for the first time.
    b. You have been using a Trial license and you decide to activate Designer with a Full license.
    c. Your license file is invalid.
2. In the **User ID** field, enter the User ID from the license you received from Bluespring. The User ID will be a series of numbers (Example: 1234).
3. In the **Password** field, enter the password associated with the User ID you received from Bluespring.

    Note: By default, the **I want to activate the software over the internet** option is selected.
4. Click **Next**. The activation status page is displayed.
5. Click **Register Now** to register your copy of BPM Designer. The **Registration Information** window is displayed.

    Note: Registration is optional. If you do not want to register your copy of BPM Designer, skip to step 8.
6. Type the appropriate information into the corresponding fields.
7. Click **Register**. The **Registration** window is displayed, notifying you that the registration is complete.
8. Click **OK** to close the **Registration** window.
9. Click **Close** in the **Activate BPM Designer** window. BPM Designer automatically opens. You successfully activated BPM Designer through the internet.

Activating through the Activation Website

To activate the software through the activation website, complete the following steps:

1. Open BPM Designer. The Activate BPM Designer 5.1 window is displayed when one of the following conditions is true:
    a. You open BPM Designer on your computer for the first time.

b. You have been using a Trial License and you decide to activate Designer with a Full License.
c. Your license file is invalid.

2. Type the appropriate information into the **User ID** field, enter the User ID from the license you received from Bluespring. The User ID will be a series of numbers (Example: 1234).
3. In the **Password** field, enter the password associated with the User ID you received from Bluespring.
4. Select the **I want to activate the software through the activation website** option.
5. Click **Next**. The Activation Code retrieval steps are displayed.
6. Complete steps one and two provided on the page

Note: Ensure that your computer as internet access prior to the completion of these steps.

7. Click the link provided in step three. The website will appear in a new window.
8. Enter the verification number in the vacant fields of step two on the activation website.
9. Click **Submit**. A new page will appear displaying both the verification number entered and the activation code.

Note: Registration is optional. If you want to register click Register Now in the Activate BPM Designer 5.0 window.

10. Once you retrieve the Activation Code from the activation website, enter the code into the **Activate BPM Designer 5.0** window's vacant fields provided below step four.
11. Click **Next**. The activation status page is displayed.

Note: Registration is optional, if you want to register click Register Now in the Activate BPM Designer 5.0 window.

12. Click **Close**. BPM Designer 5 automatically opens. You successfully activated BPM Designer through the activation website.

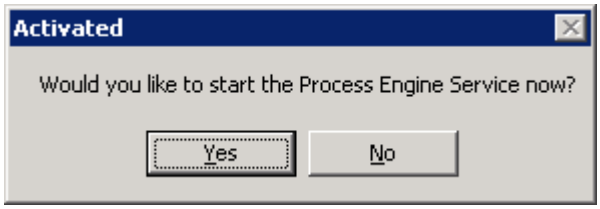
Appendix F: Activating your BPM Process Engine through the Activation Website

To activate your BPM Process Engine through the activation website, complete the following steps:

1. Type the appropriate information into the **User ID** field, enter the User ID from the license you received from Bluespring. The User ID will be a series of numbers (Example: 1234).
2. In the **Password** field, enter the password associated with the User ID you received from Bluespring.
3. Select the **I want to activate the software through the activation website** option.
4. Click **Next**. The Activation Code retrieval steps are displayed.
5. Complete steps one and two provided on the page

   Note: Ensure that your computer as internet access prior to the completion of these steps.
6. Click the link provided in step three. The website will appear in a new window.
7. Enter the verification number in the vacant fields of step two on the activation website.
8. Click **Submit**. A new page will appear displaying both the verification number entered and the activation code.

   Note: Registration is optional. If you want to register click **Register Now** in the Activate BPM5 Process Engine window.
9. Once you retrieve the Activation Code from the activation website, enter the code into the **Activate BPM Designer 5.0** window's vacant fields provided below step four.
10. Click **Next**. The activation status page is displayed.
6. Click **Close** in the **Activate BPM5 Process Engine** window. You successfully activated BPM5 Process Engine through the internet and now you want to start the service. The Activated window is displayed.



7. Click **Yes** to start the Process Engine Service. You started the Process Engine Service.

Appendix G: Manual Database Setup for Bluespring BPM5

BPM5 supports organizations that require databases and SQL accounts be created manually before executing the BPM5 installs. As documented in this install guide, you can create the accounts while setting up the Workspace install, and the runtime account can be created automatically with an auto-generated password during the runtime database install (runtimedb.exe).

If your organization requires that the databases and SQL accounts be created manually, this section documents the database and user requirements.

To create your BPM5 database objects (databases, roles, schemas, users) manually, complete the following steps:

1. Create your Workspace and Runtime databases using your company's naming conventions.

   Note: Common workspace and runtime database names are BluespringWorkspace and BluespringRuntime, respectively.

2. Create a database role named bluespring in your Workspace and Runtime database. The role should grant the receive permission to the QueryNotificationErrorsQueue Queue object.
3. In your Workspace database, create Workspace user and Client user schemas and set the owner to *dbo* temporarily.

   Note: Common workspace and client user schema names are BluespringWorkspaceUser and BluespringClientUser, respectively.

4. In your Runtime database, create a Runtime user schema and set the owner to *dbo* temporarily.

   Note: A Common runtime user schema name is BluespringRuntimeUser.

5. Create a Workspace SQL user account in the SQL instance using your company's naming conventions (example: BluespringWorkspaceUser) and configure the following User Mappings:
   a. Users mapped to this login: Workspace database from step 1 with workspace schema from step 3 as default schema.
   b. Database role membership:
      i. bluespring
      ii. db_datareader
      iii. db_datawriter
      iv. db_ddladmin
      v. db_owner
      vi. db_securityadmin
      vii. public
6. Create a Client SQL user account in the SQL instance using your company's naming conventions (example: BluespringClientUser) and configure the following User Mappings:
   a. Users mapped to this login: Workspace database from step 1 with client schema from step 3 as default schema.
   b. Database role membership:

a. bluespring
b. db_datareader
c. db_datawriter
d. public

7. Create a Runtime SQL user account in the SQL instance using your company's naming conventions (example: BluespringRuntimeUser) and configure the following User Mappings:
    a. Users mapped to this login: Runtime database from step 1 with runtime schema from step 4 as the default schema.
    b. Database role membership:
        i. bluespring
        ii. db_datareader
        iii. db_datawriter
        iv. db_owner
        v. public

Note: The db_owner role is required if you use the Runtime SQL user with the runtimedb.exe application.

Example Command:

```
runtimedb ADD BluespringRuntime -s (local)\BPM5 -cu
BluespringRuntimeUser -cp password -u
BluespringRuntimeUser -p password
```

---

8. In your Workspace database, update the default owner of the Workspace user and Client user schemas created in step 3 to the Workspace and Client users created in steps 5 and 6, respectively.
9. In your Runtime database, update the default owner of the Runtime user schema created in step 4 to the Runtime user created in step 7.
10. Open the properties of your Workspace database and complete the following steps:
    a. On the Permissions tab, search and add the *bluespring* role and grant the following permissions to the role:
        i. Create procedure
        ii. Create queue
        iii. Create service
        iv. Execute
        v. Select
        vi. Subscribe query notifications
        vii. View definition
    b. On the Options tab, change Recovery model to *Full* and Broker Enabled to *True*.
11. Open the properties of your Runtime database and complete the following steps:

a. On the Permissions tab, search and add the *bluespring* role and grant the following permissions to the role:
    i. Create procedure
    ii. Create queue
    iii. Create service
    iv. Execute
    v. Select
    vi. Subscribe query notifications
    vii. View definition
b. On the Options tab, change Recovery model to *Full* and Broker Enabled to *True*.

12. Install Bluespring BPM5 using the databases and SQL accounts created here.

Note:	When connecting to the SQL server for the Workspace install, you should be able to connect and perform the install with the Workspace user created in step 5.

Note:	Any runtime database steps need to be repeated for each runtime database you have in your BPM5 environment.