



INSTALL AND CONFIGURE BIZTALK SERVER 2013 IN A STANDALONE MACHINE

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1. BizTalk Server Installation scenario

This article explains how to install and configure Microsoft BizTalk Server 2013 on a single computer running Windows Server 2012. This information will help you plan the installation and configuration of BizTalk Server 2013, applications and components on which it depends focused on creating a development environment (you can also follow this tutorial to help you create production environments, however if this is the case you need to skip some steps)

We will assume that the machine already have installed the operating system: Windows Server 2012 and latest critical Windows updates from Microsoft.

In this scenario I will perform a full installation of Microsoft BizTalk Server, with the exception of the deprecated SharePoint Adapter (SharePoint Services Service Side Object Model (SSOM)). The following components will be installed:

- Enterprise Single Sign-On (SSO).
- BizTalk Group.
- BizTalk Runtime.
- Business Rule Engine.
- BAM Tools and Alerts.
- BAM Portal.
- BizTalk EDI/AS2 Runtime
- Microsoft BizTalk Adapters for Enterprise Applications (BizTalk Adapter Pack)
- Microsoft UDDI Services
- Microsoft BizTalk ESB Toolkit

2. Important considerations before set up the server

There are some important considerations or suggestions, since some of these operations are not mandatory, that we can set before starting the installation and configuration of the server.

One of the downsides of dealing with a new version of Windows Server is figuring out where things have moved in the new release.

2.1 Join the Local Administrators Group

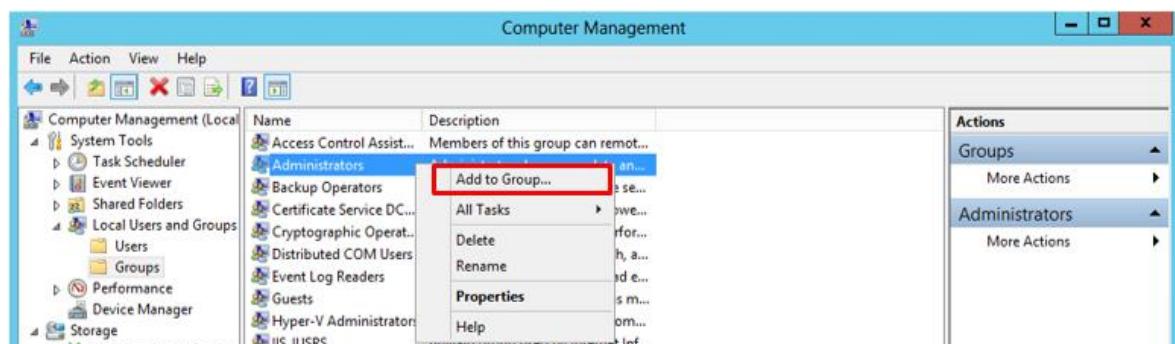
To be able to install and configure BizTalk Server 2013, you have to log on the server using an administrator account on the local computer.

To add a member to a local group using the Windows interface

- Press the “Windows key” to switch to start screen.
- Type “Computer Management” and click in “Computer Management” option on Apps menu.



- Right-click the group to which you want to add a member, click “Add to Group”, and then click “Add”.



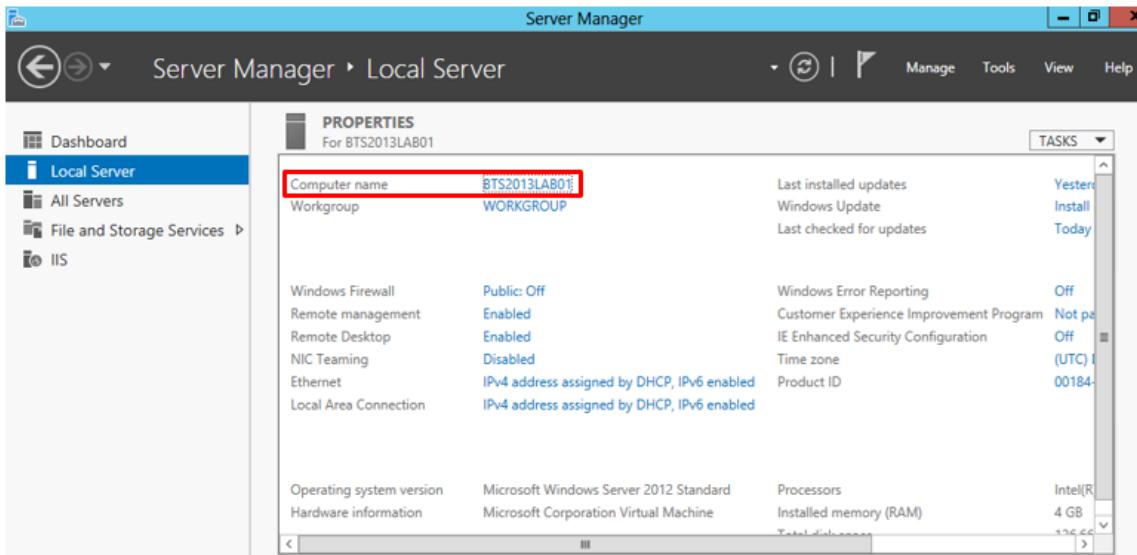
- In the Select Users, Computers, or Groups dialog box, do the following:
 - To add a user account or group account to this group, under “Enter the object names to select”, type the name of the user account or group account that you want to add to the group, and then click “OK”.
 - To add a computer account to this group, click “Object Types”, select the “Computers” check box, and then click “OK”. Under “Enter the object names to select”, type the name of the computer account that you want to add to the group, and then click “OK”.

NOTE: If you are planning to create a production environment you can see the list Windows user (or service accounts) and group affiliations used by BizTalk Server and some best practices of naming convention here: [User and Service Accounts Used in BizTalk Server](#)

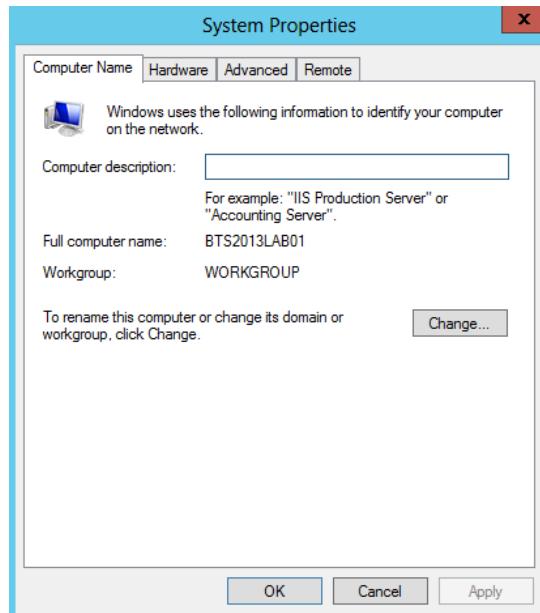
2.2 Change the Machine name

An important consideration that you take into consideration is: if your computer name is longer than 15 characters, BizTalk Server Configuration will not work.

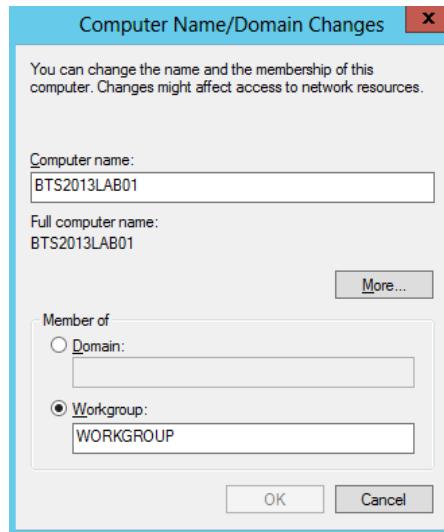
- Start by running the “Server Manager” from either the “Start Screen” or the Desktop.
- In the Server Manager Dashboard, click on “Local Server” on the left side.



- In the Server Properties for the “Local Server”, click in the “Computer name” property to be able to change it



- Click on the “Change” button to edit computer name and domain information, which will pop up this dialog:

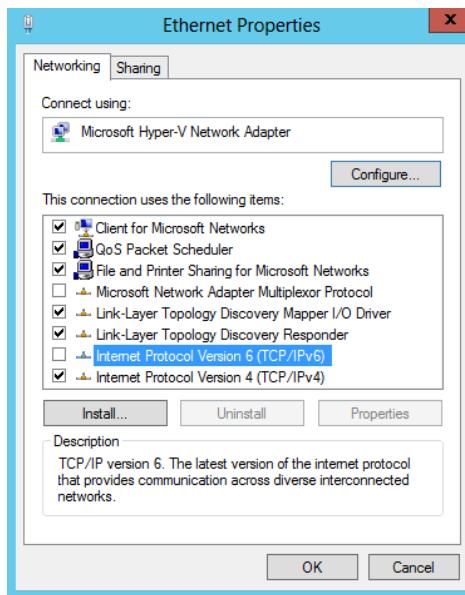


Now you can finally change the name of the computer. You'll have to reboot after you make this change.

2.3 Disable IPv6

IPv6 is the latest address protocol that will eventually replace IPv4. Windows Server 2012 kept this protocol enabled by default, but it is also a fact that IPv6 is not yet common and many software, routers, modems, and other network equipment do not support it yet. So it may be a wise approach to disable it for now. Also by turning off it will facilitate the process of detecting which port certain application are listening.

IPv6 can be disabled either through the “DisabledComponents” registry value or through the check box for the Internet Protocol Version 6 (TCP/IPv6) component in the list of items on the Networking tab for the properties of connections in the Network Connections folder. The following figure shows an example:



2.4 Turn off Internet Explorer Enhanced Security Configuration (optional)

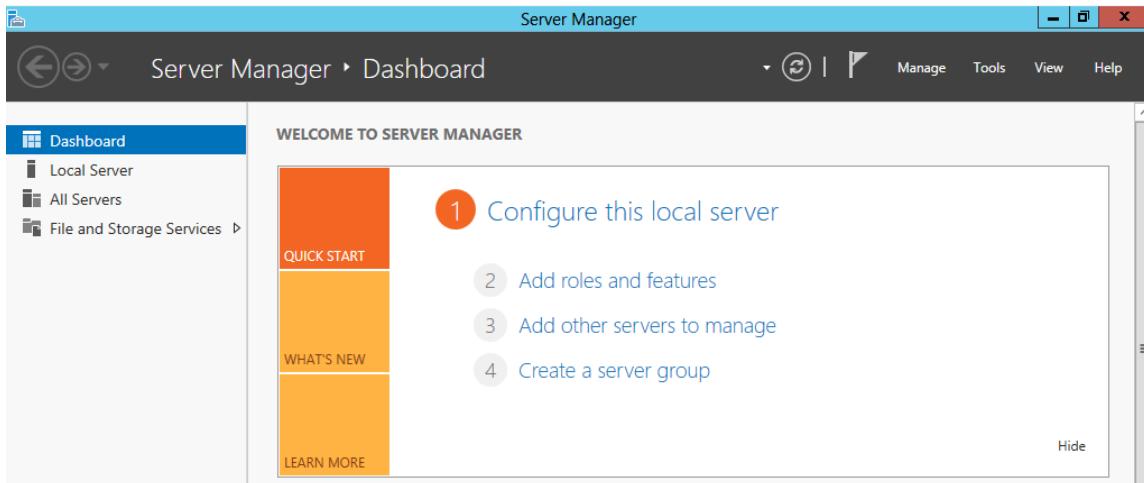
Internet Explorer Enhanced Security Configuration established a configuration for your server and for Microsoft Internet Explorer that decreases the exposure of your server to potential attacks that can occur through Web content and application scripts. As a result, some Web sites may not display or perform as expected.

IMPORTANT NOTE: This step is optional and I only suggest to do this in development environments. For some clients in production environments this feature can be very important and don't want to disable.

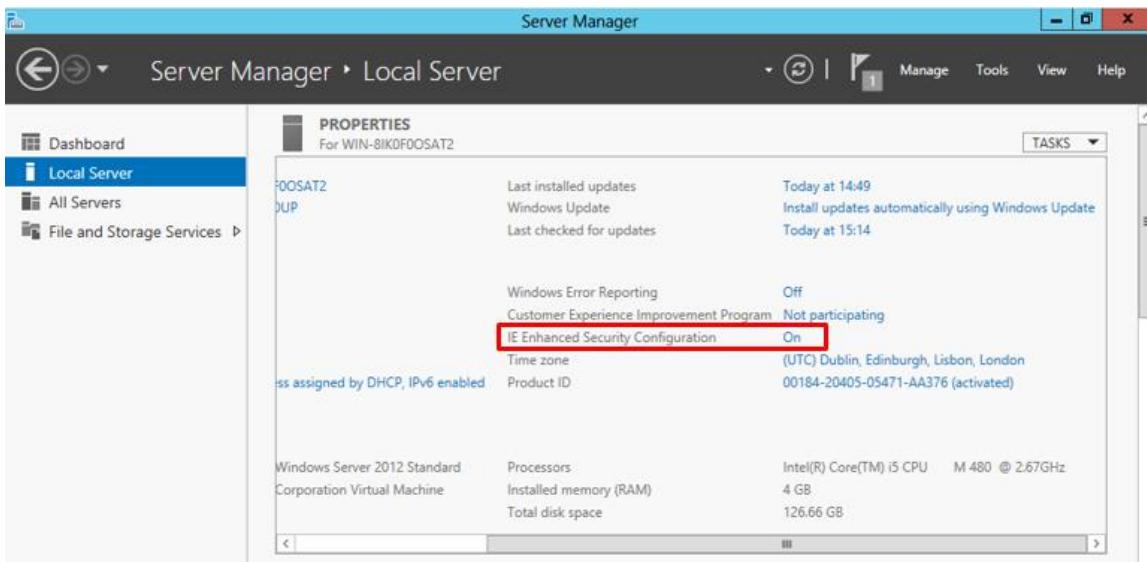
By default, Internet Explorer Enhanced Security Configuration is enabled on Windows Server 2012 and can be configured through Server Manager.

To disable Internet Explorer Enhanced Security Configuration (IE ESC) in Windows Server 2012

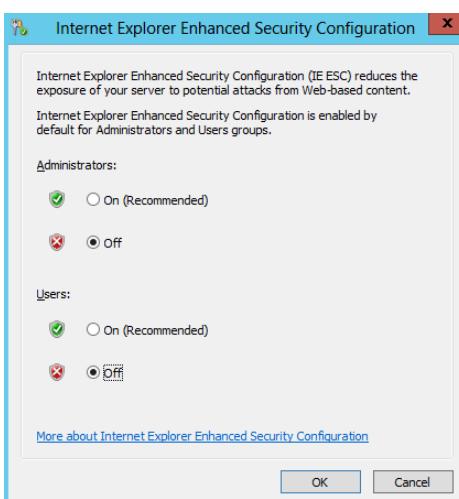
- Start by running the “Server Manager” from either the “Start Screen” or the Desktop.



- In the Server Manager Dashboard, click on “Local Server” on the left side.



- In the Server Properties for the “Local Server”, you’ll see the option for “IE Enhanced Security Configuration”. Click “On” to change the option.



- A dialog box appears, letting Internet Explorer Enhanced Security Configuration be enabled/disable separately for normal users and administrators, turn off both. After disable both options, click “OK”.
- Click the Refresh button at the top of the Server Manager and the “IE Enhanced Security Configuration” should now show as “Off”

2.5 Disable User Account Control (optional)

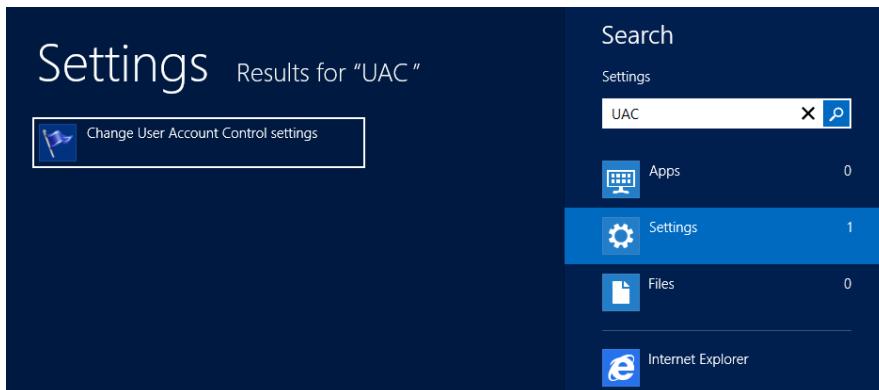
User Account Control (UAC) is a security component that allows an administrator to enter credentials during a non-administrator's user session to perform occasional administrative tasks.

IMPORTANT NOTE: This step is optional and I only suggest to do this in development environments. For some clients in production environments this feature can be very important and don't want to disable.

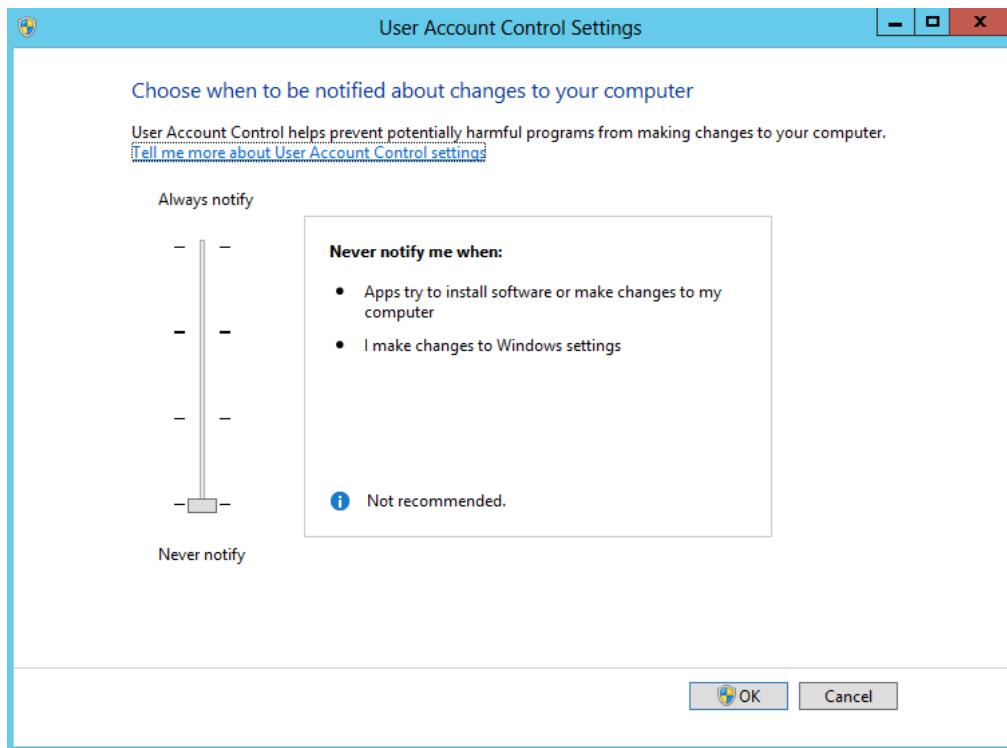
Whenever you need to configure a Windows Server 2012 setting, even if you are logged on as the administrator - you need elevated privileges. This is by design, and part of the fierce security initiative in Windows Server 2012. Before you can complete any administrative task, the User Account Control manager pops-up with a 'Continue' message.

To Disable User Account Control (UAC):

- Press the “Windows key” to switch to Start screen.
- Type “Change User Account Control Settings” or “UAC” and click in “Change User Account Control Settings” option on Settings menu.



- Select "Never notify me when..." to disable UAC.



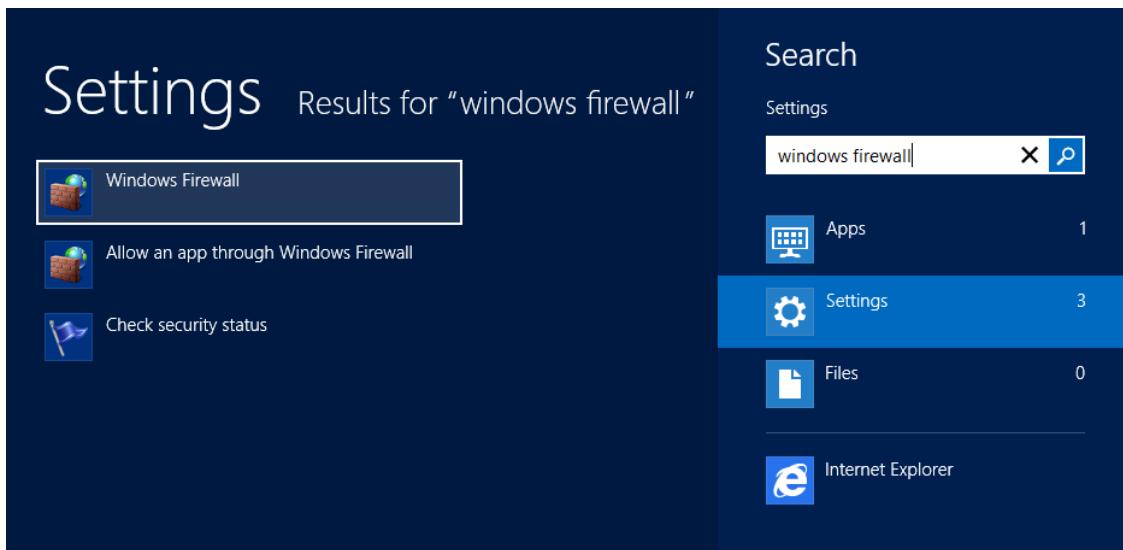
2.6 Turn Windows Firewall off (optional)

I always advise you to turn Windows Firewall on BizTalk Server development environments unless there are specific reasons for not doing that.

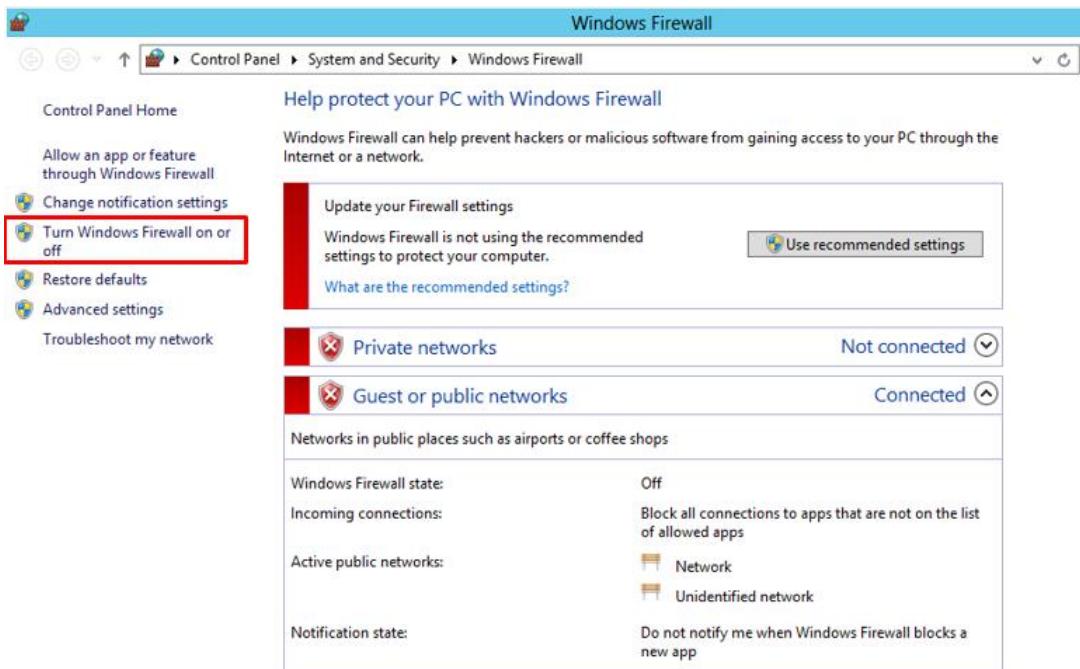
IMPORTANT NOTE: This step is optional and I only suggest to do this in development environments. For some clients in production environments this feature can be very important and don't want to turn off. However, in many scenarios, these machines are not exposed to the outside and even if this occurs, they can be "protected" by the own network infrastructure, and in such cases may not require that the Windows Firewall be turned on.

To turn Windows Firewall off:

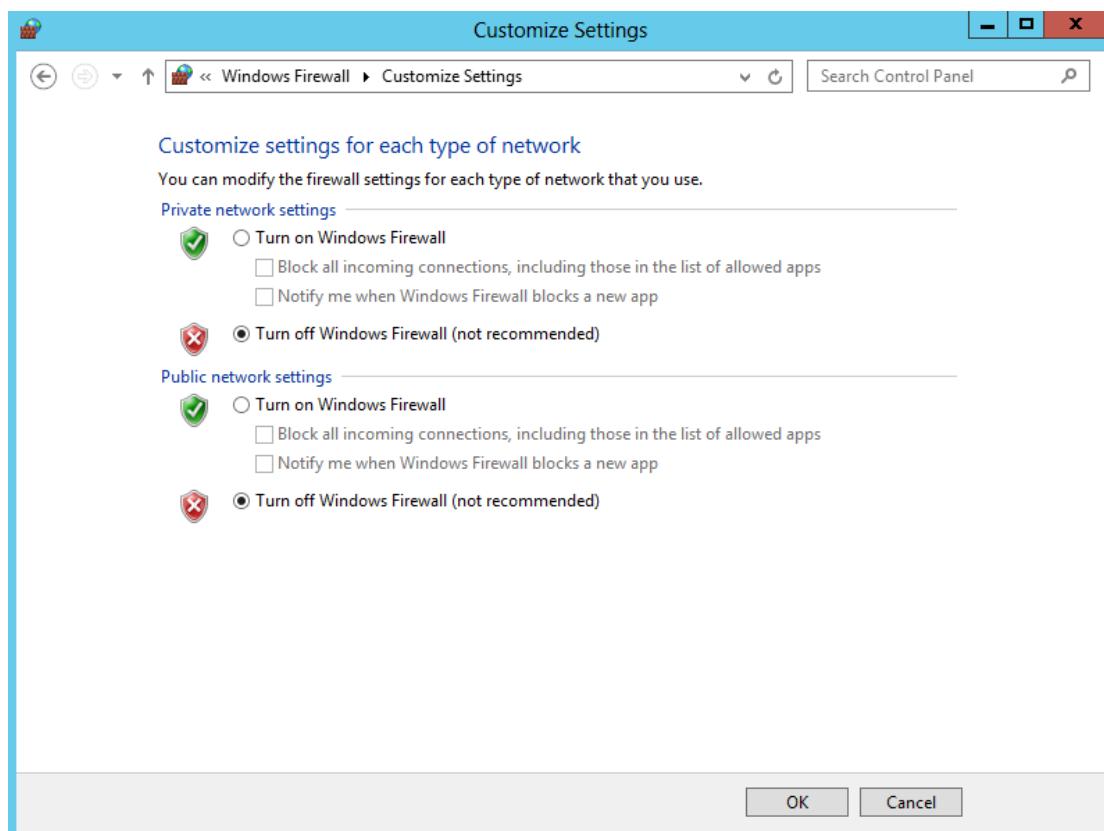
- Press the "Windows key" to switch to Start screen.
- Type "Windows Firewall" and click in "Windows Firewall" option on Settings menu.



- Select "Turn Windows Firewall on or off" option



- And select the option “Turn off Windows Firewall (not recommended)” in both settings

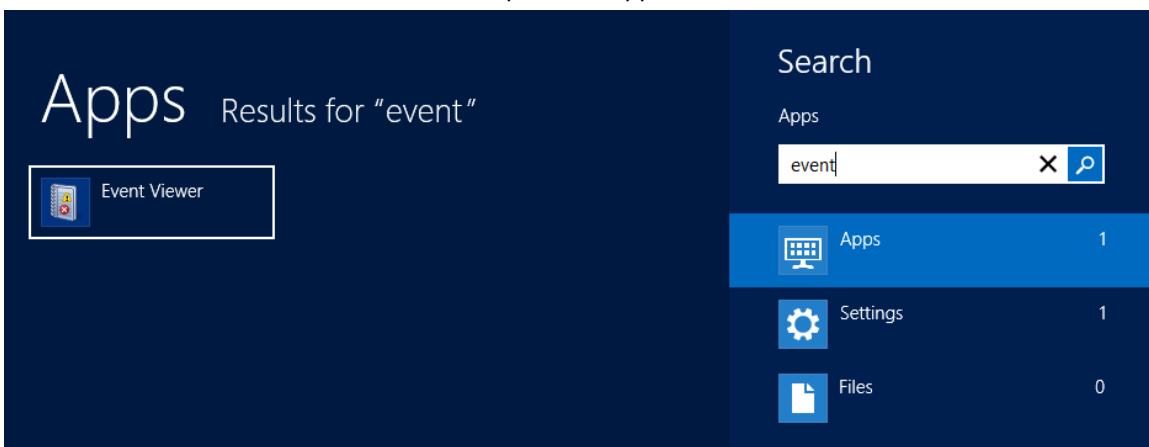


2.7 Configure the Application Event Log

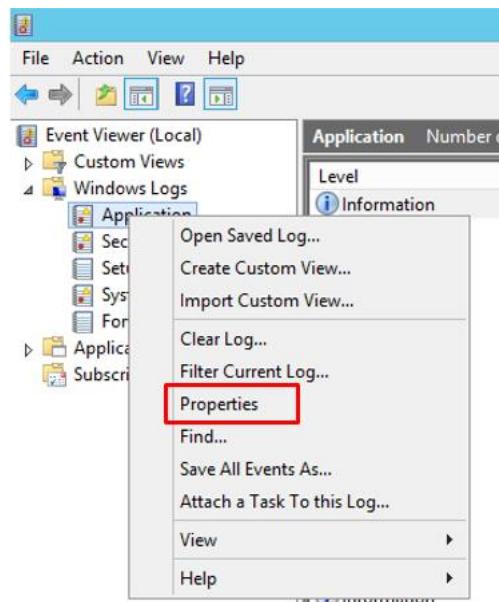
BizTalk Server setup keeps a record of events in the Application Event Log. Depending on the BizTalk Server features installed, the amount of space required in the log may exceed its limit. If the application event log runs out of space during BizTalk Server setup, the installation will fail. To prevent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

To change settings in the Application Event Log:

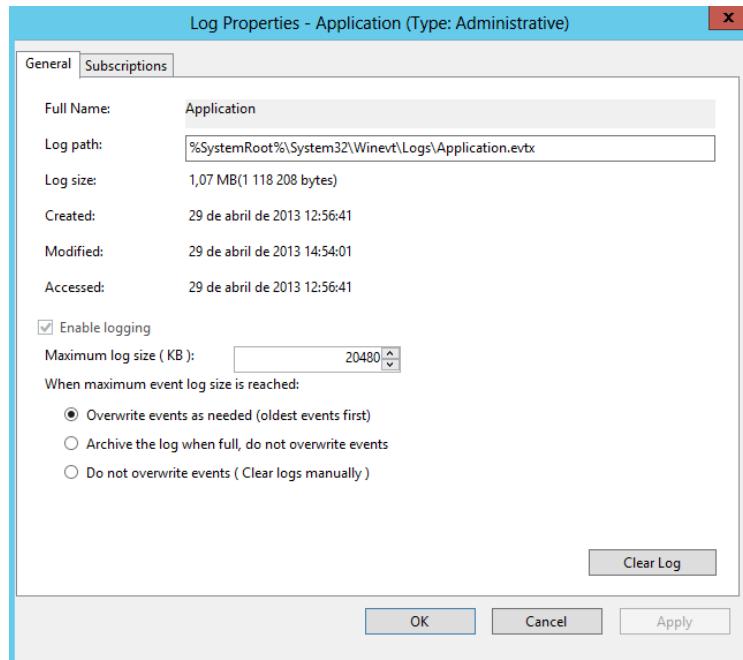
- Press the “Windows key” to switch to Start screen.
- Type “Event Viewer” and click in “Event Viewer” option on Apps menu.



- In the Event Viewer, expand Windows Logs.
- Right-click “Application”, and then click “Properties”. This opens the Log Properties dialog box.



- To see how much available space your log has, compare the Log Size field with the Maximum log size field.
- To provide more space in the event log, enter a higher number in the Maximum log size field.
- To enable overwriting of old events when the log becomes full, select Overwrite events as needed.
- To clear the log events, click “Clear Log”.
- I recommended that:
 - You leave the default value of the maximum log size (KB): 20480
 - And ensure that the option “Overwrite events as needed (oldest events first)” is selected



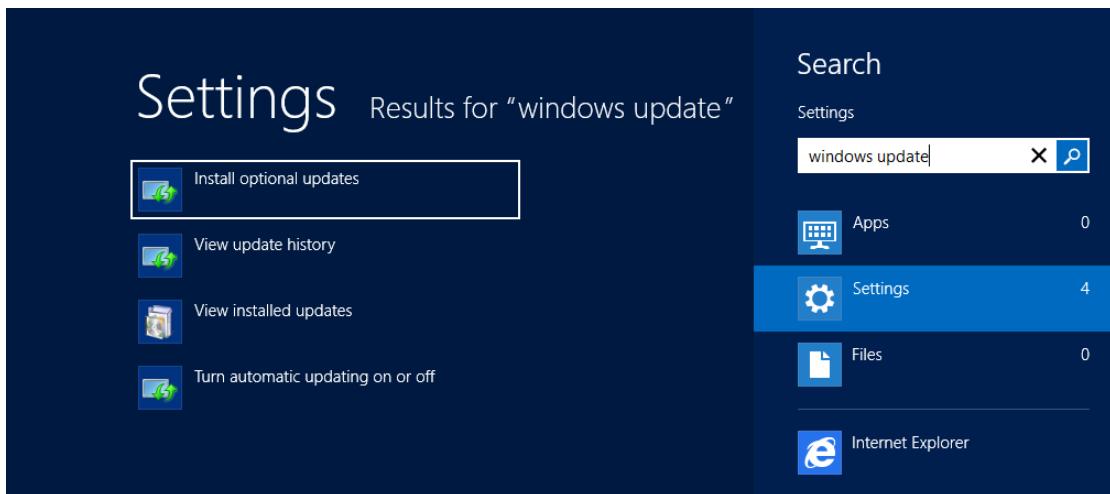
- Click “OK”, to close the Event Viewer.

2.8 Install Critical Windows Updates

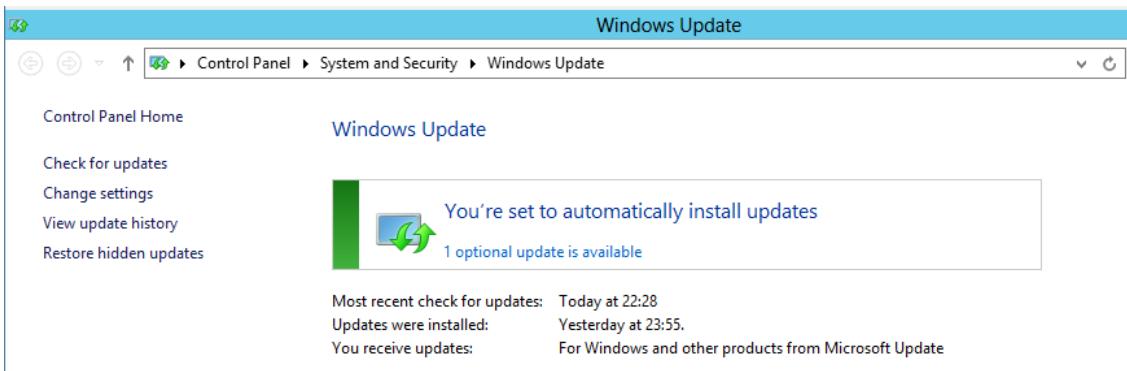
Before installing BizTalk Server or its prerequisites, make sure you have installed the latest critical Windows updates from Microsoft. As a best practices, you also should run Microsoft Baseline Security Analyzer that will provide a streamlined method to identify missing security updates and common security misconfigurations.

To install Windows updates:

- Press the “Windows key” to switch to Start screen.
- Type “Windows Update” and click in “Install optional updates” option on Settings menu.



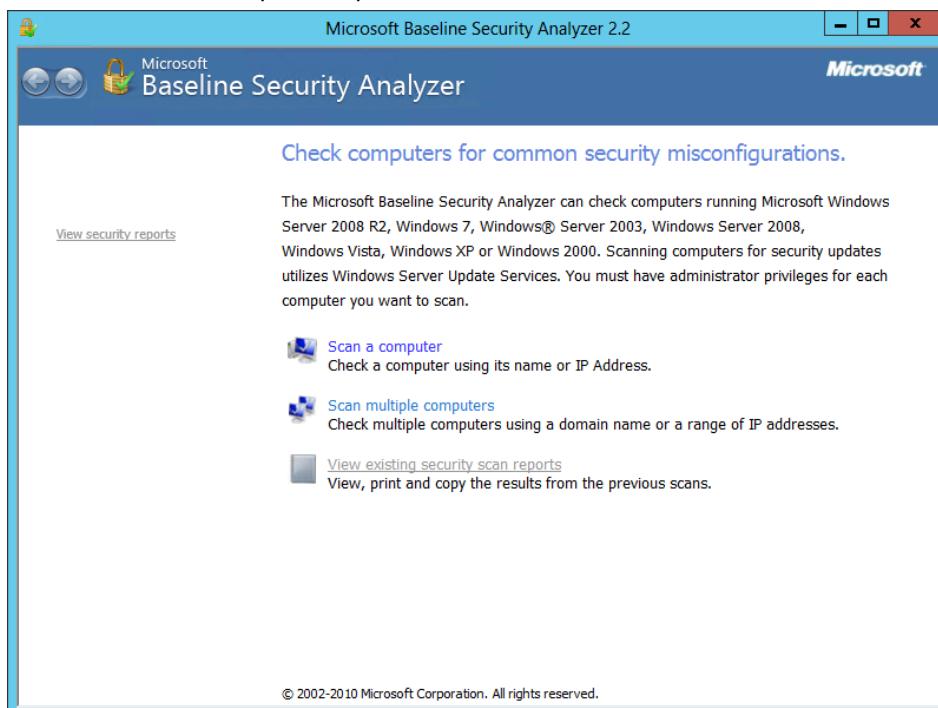
- Click “Check for updates” and if exist new updates available, install them



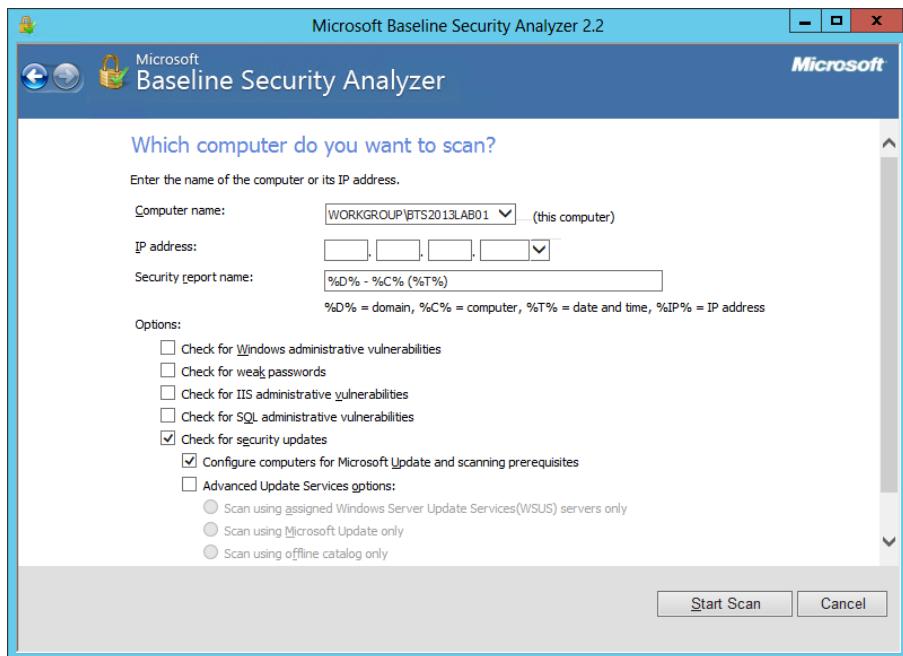
- If prompted, restart your computer

To use the Microsoft Baseline Security Analyzer to scan for updates and patches

- Download MBSA from the [Microsoft Download center](#), and then install it to the default directory
- Press the “Windows key” to switch to Start screen.
- Type “Microsoft Baseline Security Analyzer” and click in “Microsoft Baseline Security Analyzer” option on Apps menu.
- On the main screen click “Scan a computer” option



- On the “Which computer do you want to scan?” screen, make sure that the following options are not selected, and then click “Start scan”.
 - Check for Windows administrative vulnerabilities
 - Check for weak passwords
 - Check for IIS administrative vulnerabilities
 - Check for SQL administrative vulnerabilities



3. Preparing and install prerequisites for BizTalk Server 2013

This part of the article will focus on installing the BizTalk prerequisites and operate the necessary configuration on BizTalk Server machine.

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

3.1 Important considerations before set up the server

Check if all the considerations described above are implemented:

- Join the Local Administrators Group
- Change the Machine name
- Disable IPv6
- Turn off Internet Explorer Enhanced Security Configuration
- Disable User Account Control
- Turn Windows Firewall off
- Configure the Application Event Log
- Install Critical Windows Updates

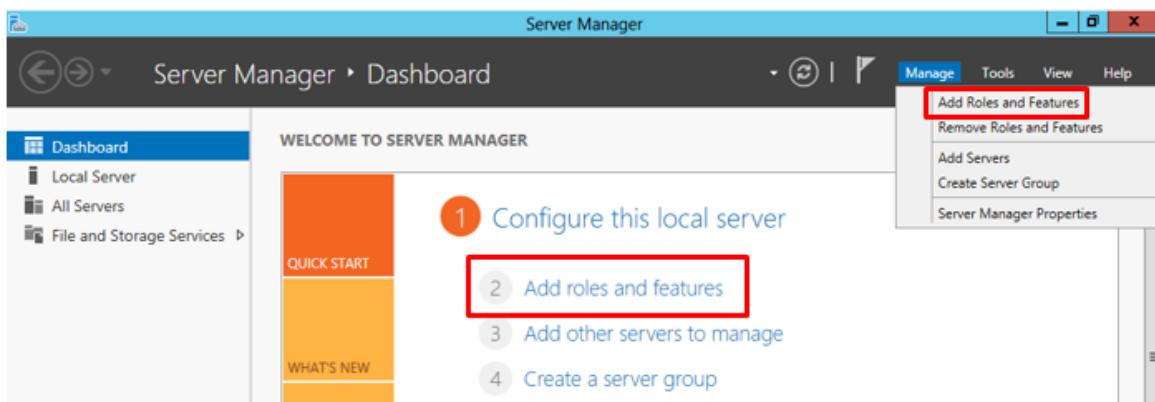
3.2 Enable Internet Information Services

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

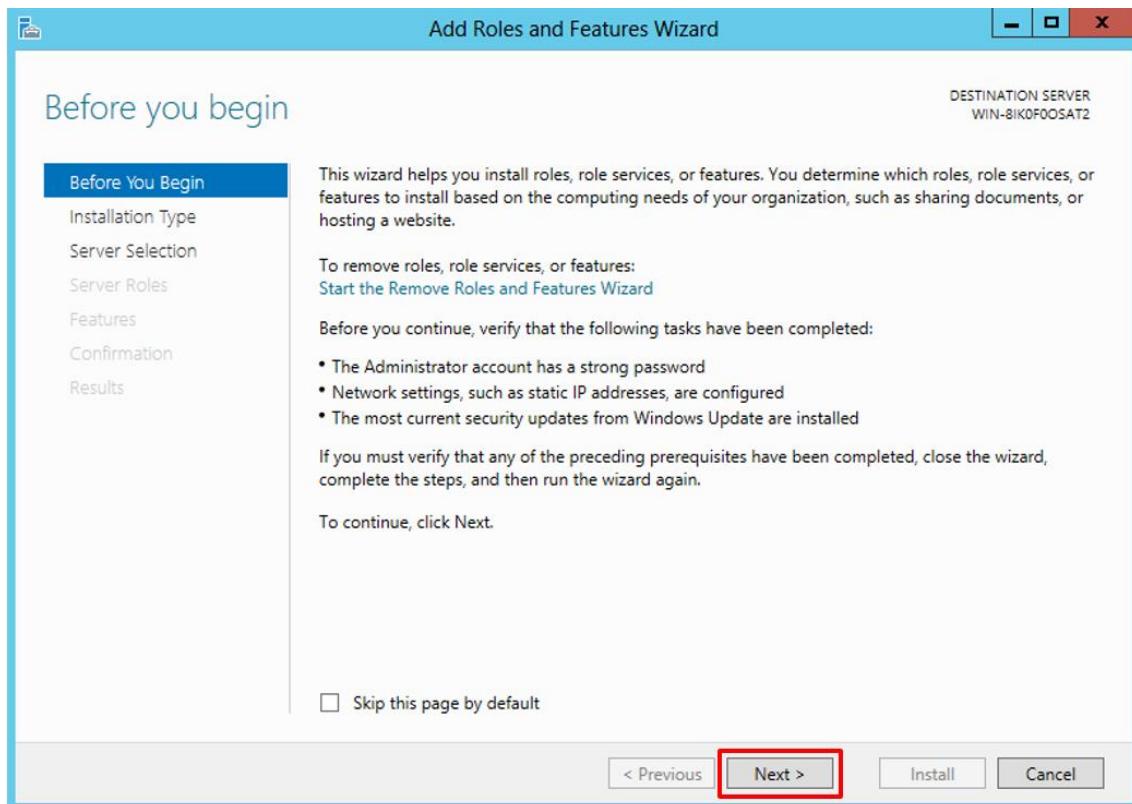
- HTTP adapter
- SOAP adapter
- Windows SharePoint Services adapter
- Secure Sockets Layer (SSL) encryption
- BAM Portal

To install IIS 8, use the following steps:

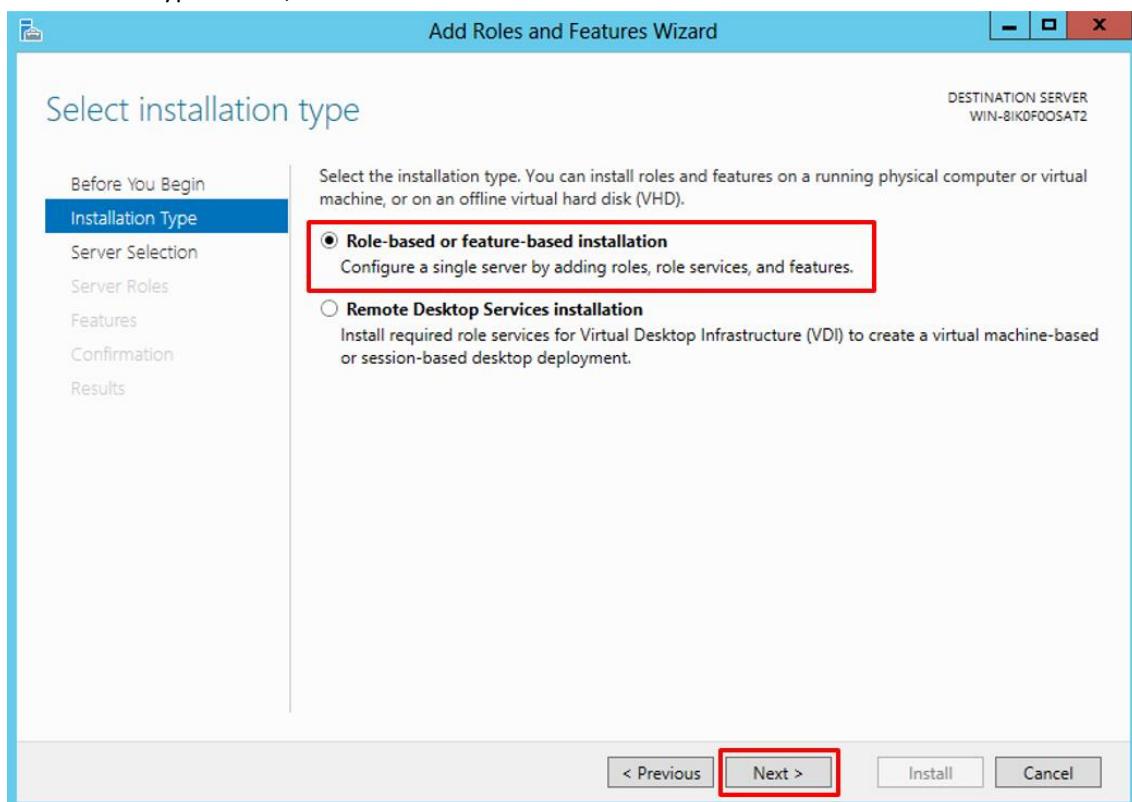
- Open “Server Manager”.
- Under “Manage” menu, select “Add Roles and Features” (or press “Add roles and features” under the Dashboard panel)



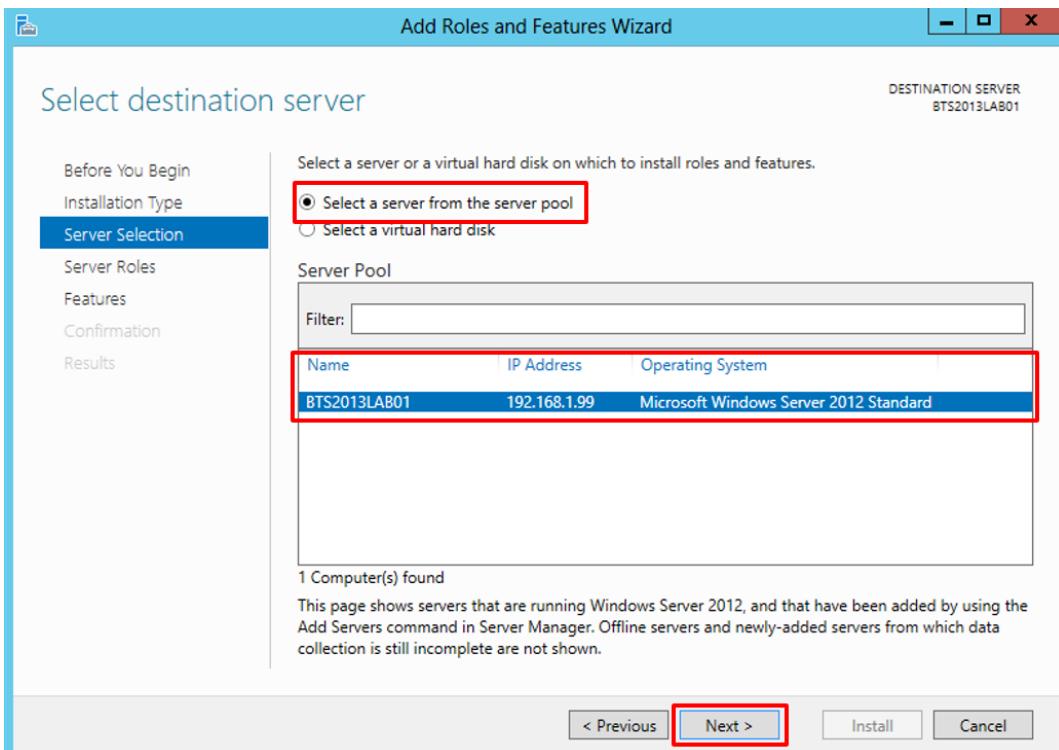
- On the Before You Begin screen, click “Next”



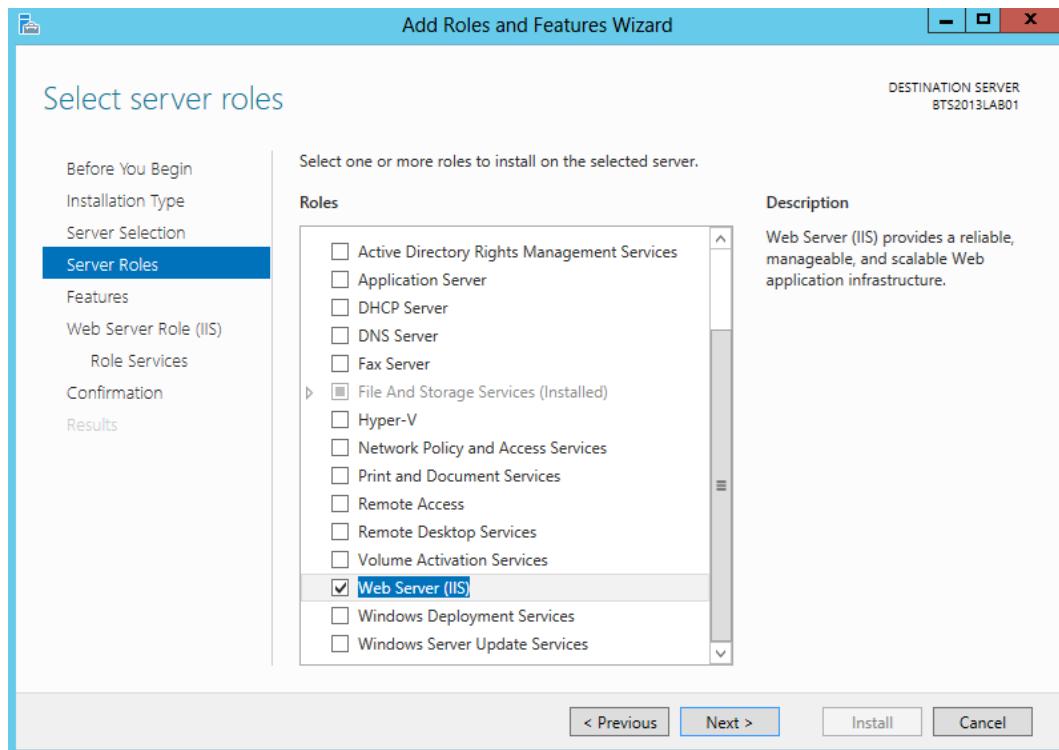
- On the Installation Type screen, select “Role-based or feature-based installation” and click “Next”



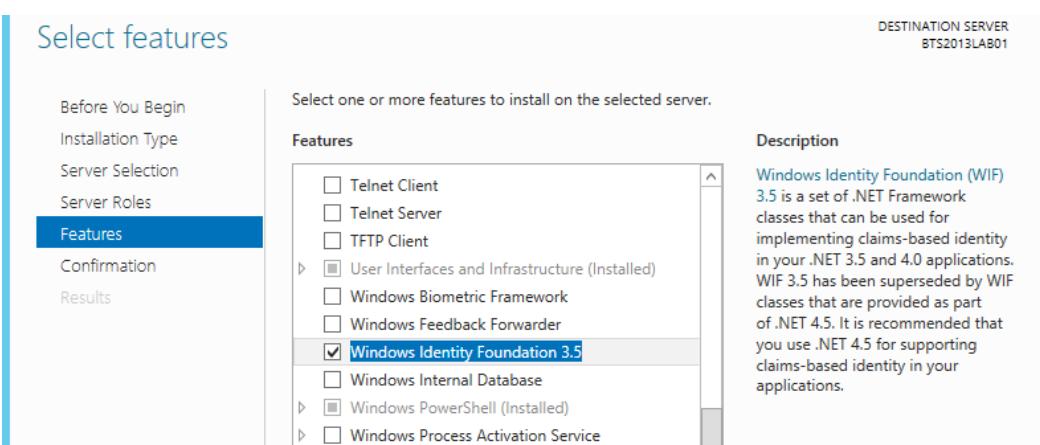
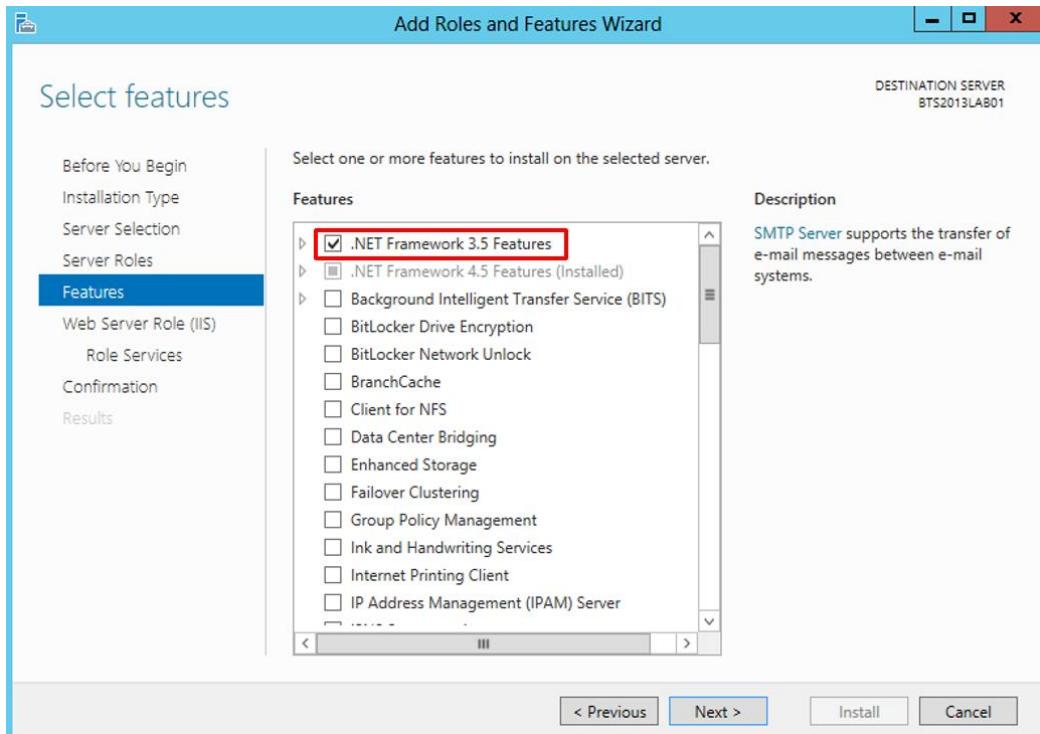
- On the Server Selection screen, select the appropriate server, leave the default options and click “Next”
 - Select a server from the server pool
 - local is selected by default



- On the Server Roles screen, select “Web Server (IIS)” option
 - If prompted, click "Add Features", and then click “Next”

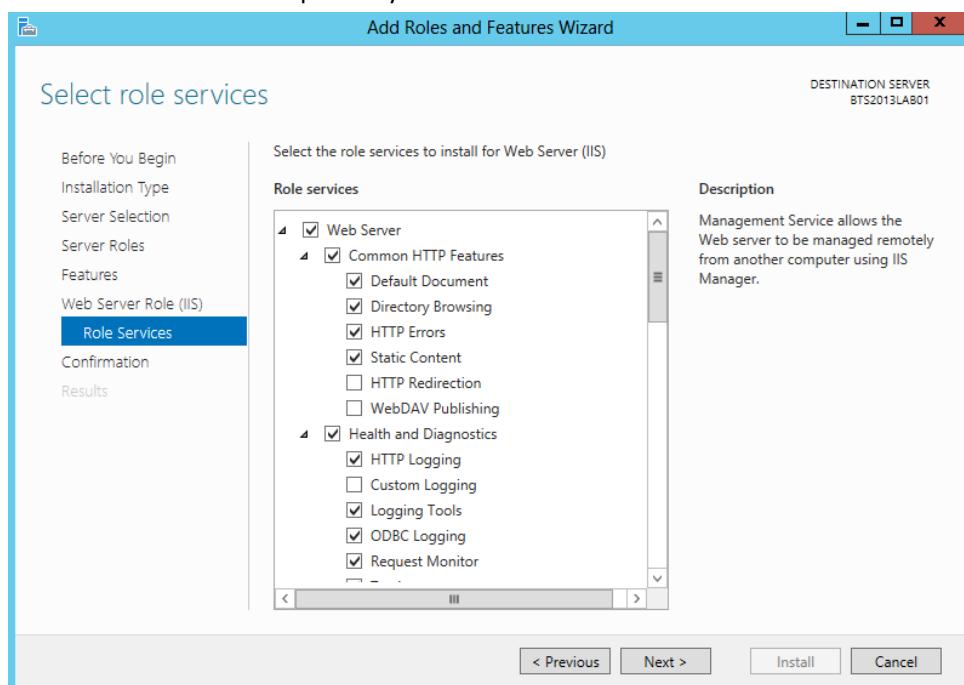


- On the Features screen, no additional features are needed for IIS, however, in addition to the default values, we will need or should select the following options:
 - .Net Framework 3.5 Features
 - SMTP Server (If prompted, click "Add Features") – optional
 - Windows Identity Foundation 3.5 – optional: Windows Identity Foundation (WIF) is required for the SharePoint Services adapter or SharePoint Online when used with SharePoint Services Client Side Object Model (CSOM).

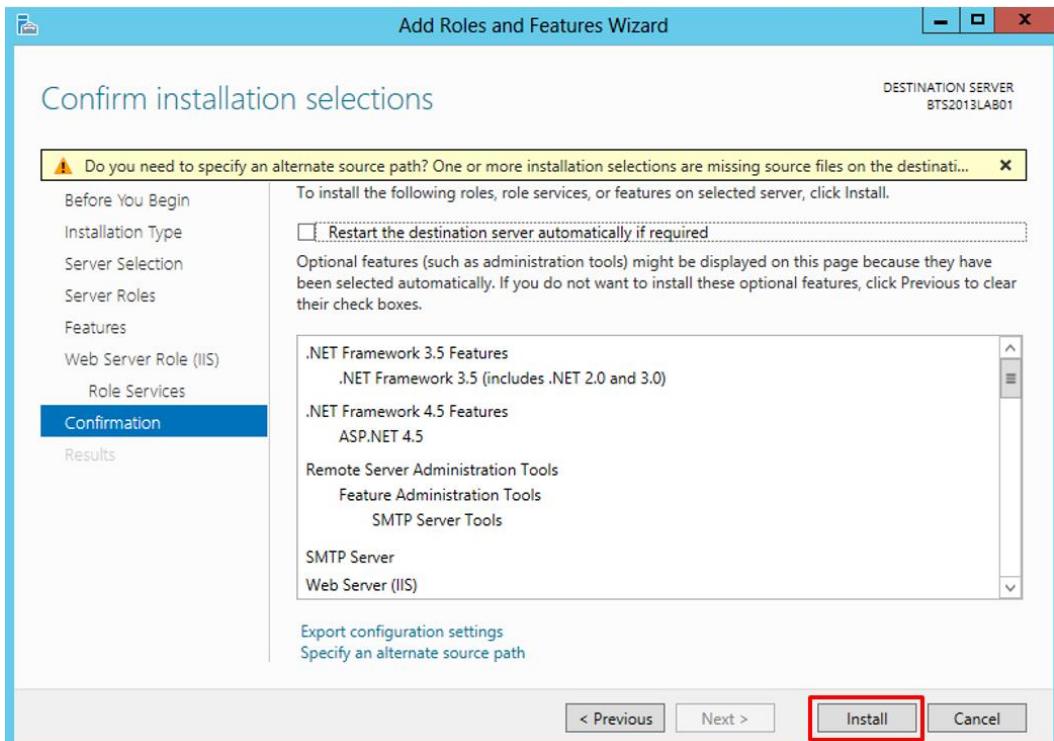


- Then click “Next”
- On the Web Server Role (IIS) screen, click “Next”
- On the Role Services screen under Web Server Role (IIS), we will customize our installation of IIS with the following options:
 - Common HTTP Features
 - Default Document
 - Directory Browsing
 - HTTP Errors
 - Static Content
 - Health and Diagnostics
 - Http Logging
 - Logging Tools
 - ODBC Logging
 - Request Monitor
 - Tracking
 - Performance
 - Static Content Compression
 - Dynamic Content Compression

- Security
 - Request Filtering
 - Basic Authentication
 - Digest Authentication
 - Windows Authentication
- Application Development
 - Select all options
- Management Tools
 - IIS Management Console
 - IIS 6 Management Compatibility
 - IIS 6 Metabase Compatibility
 - IIS 6 Management Console
 - IIS 6 Scripting Tools
 - IIS 6 WMI Compatibility



- Then click “Next”
- On the Confirmation screen, click “Install”



- When the IIS installation completes, the wizard reflects the installation status on the Results screen
- Click "Close" to exit the wizard.

3.2.1 Running the BAM Portal in a 64-bit Environment

BAM Portal runs only runs on a 32-bit mode. If you are using Internet Information Services (IIS) in a 64-bit environment, you must set IIS to 32-bit mode to run the BAM portal. To do this, follow these steps:

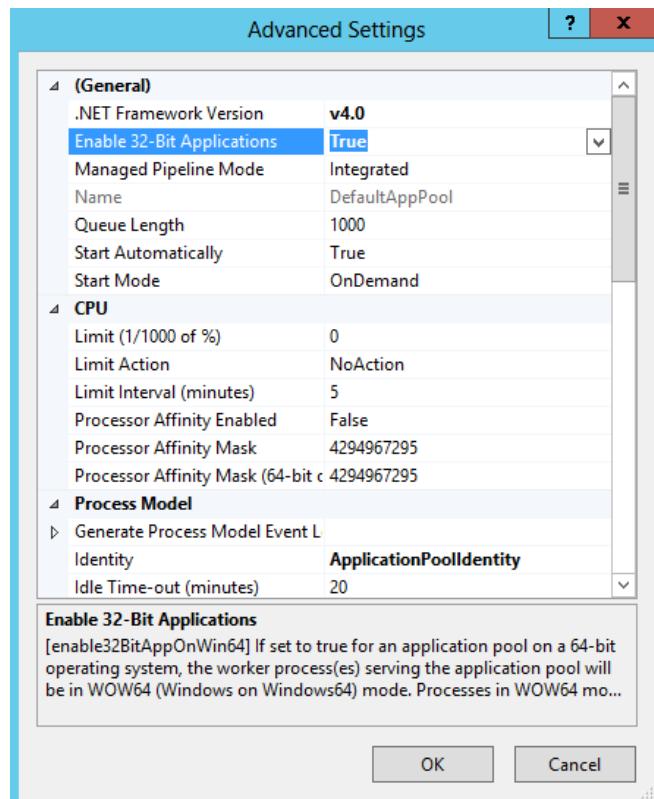
- Open a command prompt and run the adsutil command. To do this, Press the "Windows key" to switch to Start screen and type "cmd" and click in "Command Prompt" option on Apps menu.
- Type the following at the command prompt: cscript c:\inetpub\adminscripts\adsutil.vbs SET W3SVC/AppPools/Enable32bitAppOnWin64 1
- Close the command prompt.

Or:

- Press the "Windows key" to switch to Start screen.
- Type "Internet Information Services (IIS) Manager" or "IIS" and click in "Internet Information Services (IIS) Manager" option on Apps menu.
- Expand the server and click on "Application Pools" to display available application pools in center panel.
- Right-click on 'DefaultAppPool' and select "Advanced Settings".

Name	Status	.NET Fram...	Managed Pipel...	Identity	Applications
.NET v2.0	Started	v2.0	Integrated	ApplicationPoolId...	0
.NET v2.0 Classic	Started	v2.0	Classic	ApplicationPoolId...	0
.NET v4.5	Started	v4.0	Integrated	ApplicationPoolId...	0
.NET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolId...	0
Classic .NET Ap...	Started	v2.0	Classic	ApplicationPoolId...	0
DefaultAppPool	Started	v4.0	Integrated	ApplicationPoolId...	1

- Change the value of 'Enable 32-bit Applications' from False to True. Click "OK".



3.3 Install Windows Identity Foundation (WIF)

In the previous step “Enable Internet Information Services” I mentioned that we should install the Windows Identity Foundation 3.5 feature, why?

If we plan to use/configure SharePoint Services adapter or SharePoint Online when used with SharePoint Services Client Side Object Model (CSOM), then Windows Identity Foundation (WIF) feature is required.

WIF is required if you are planning to use:

- SharePoint Services Adapter with CSOM
- SharePoint Online with CSOM

WIF is not required if you are planning to use:

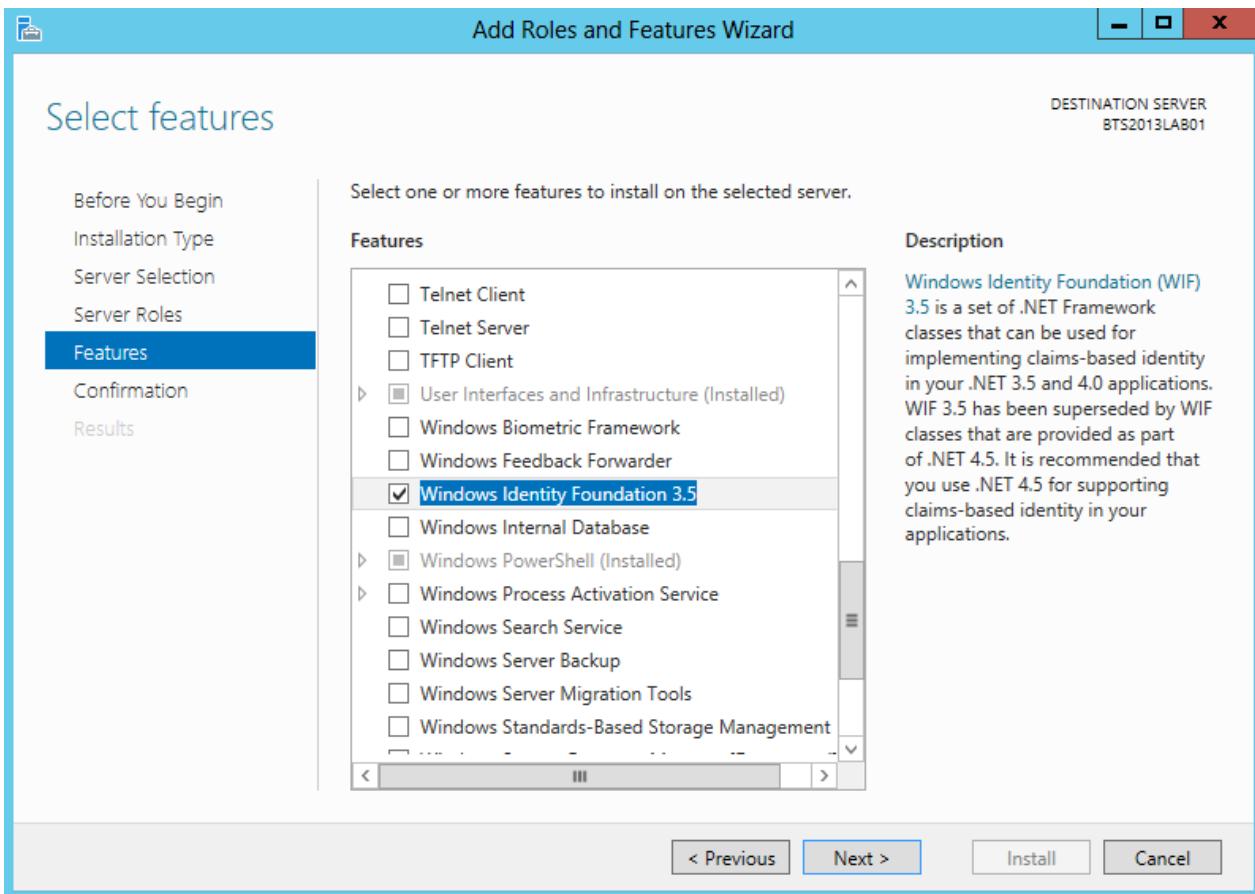
- SharePoint Services Adapter Web Service (deprecated)
- No plan to use SharePoint

Windows Identity Foundation is included with the operating system (Windows 8 and Windows Server 2012) as a Feature in Turn Windows features on or off. (if you plan to use Windows 7 and Windows Server 2008 R2 the download is available here [Windows Identity Foundation](#)):

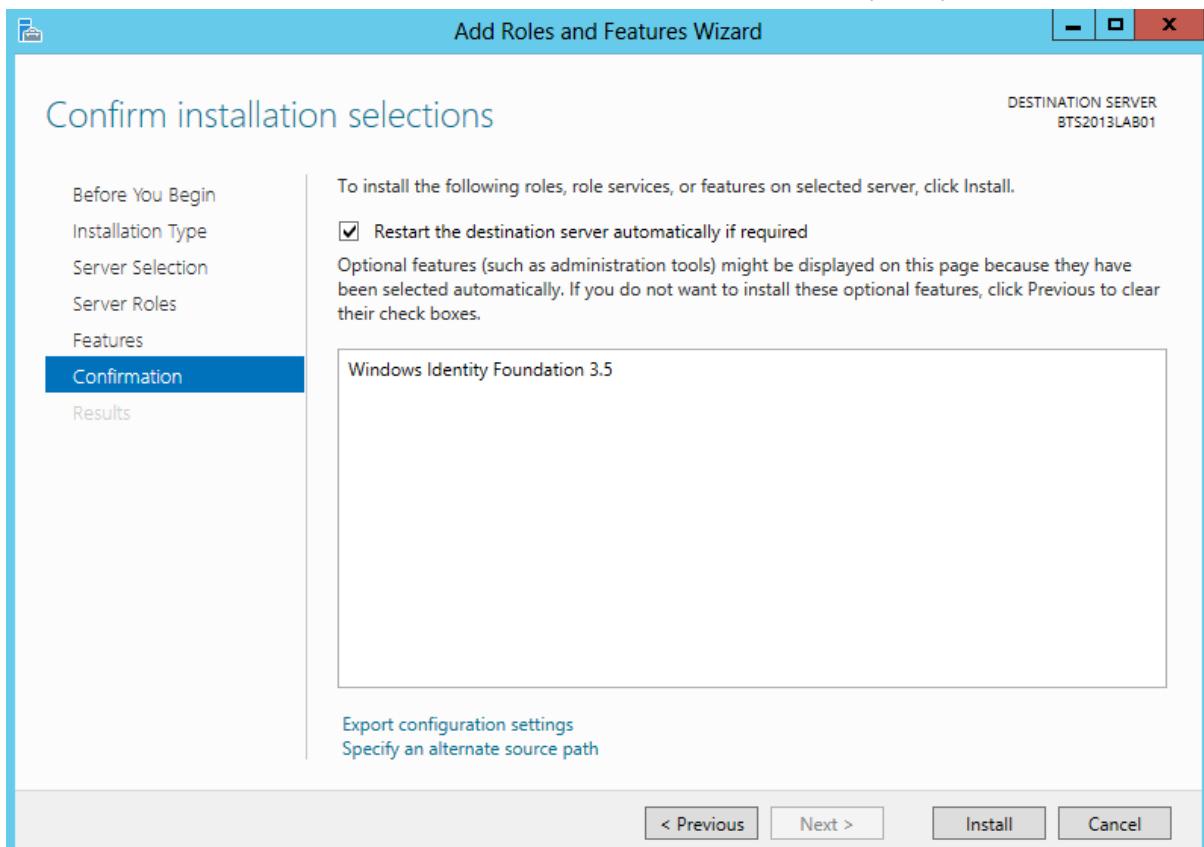
If you didn't previous install WIF then you should following this steps:

- Open “Server Manager”.
- Under “Manage” menu, select “Add Roles and Features” (or press “Add roles and features” under the Dashboard panel)
- On the Before You Begin screen, click “Next”
- On the Installation Type screen, select “Role-based or Feature-based Installation” and click “Next”
- On the Server Selection screen, select the appropriate server, leave the default options and click “Next”

- On the Server Roles screen, click “Next”
- On the Features screen, select “Windows Identity Foundation 3.5” and click “Next”



- On the Confirmation screen, select “Restart the destination server automatically if required” and click “Install”:



- When the installation completes, the wizard reflects the installation status on the Results screen
- Click “Close” to exit the wizard.

3.4 Install and configure SMTP Server Feature

Again in the previous step “Enable Internet Information Services” I mentioned that we should install the SMTP Server feature, why?

If you wish to configure BAM Alerts, you must have configured SQL Server Database Mail feature (we will see how to accomplish that afterwards) and I will intend to configure this features using your local SMTP Server.

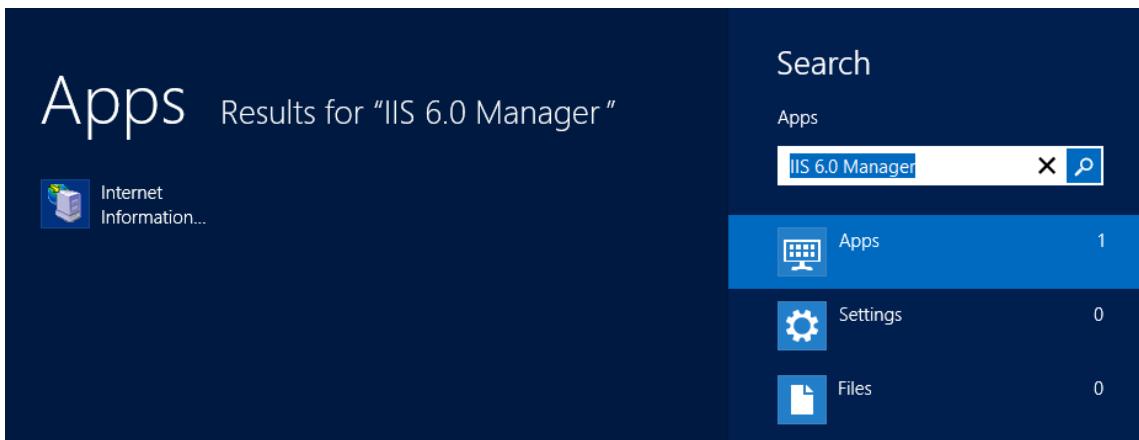
NOTE: This type of configuration is optional and you don't need to install the local SMTP Server, you can configured SQL Server Database Mail feature using an external SMTP.

If you didn't previous install SMTP Server then you should following this steps:

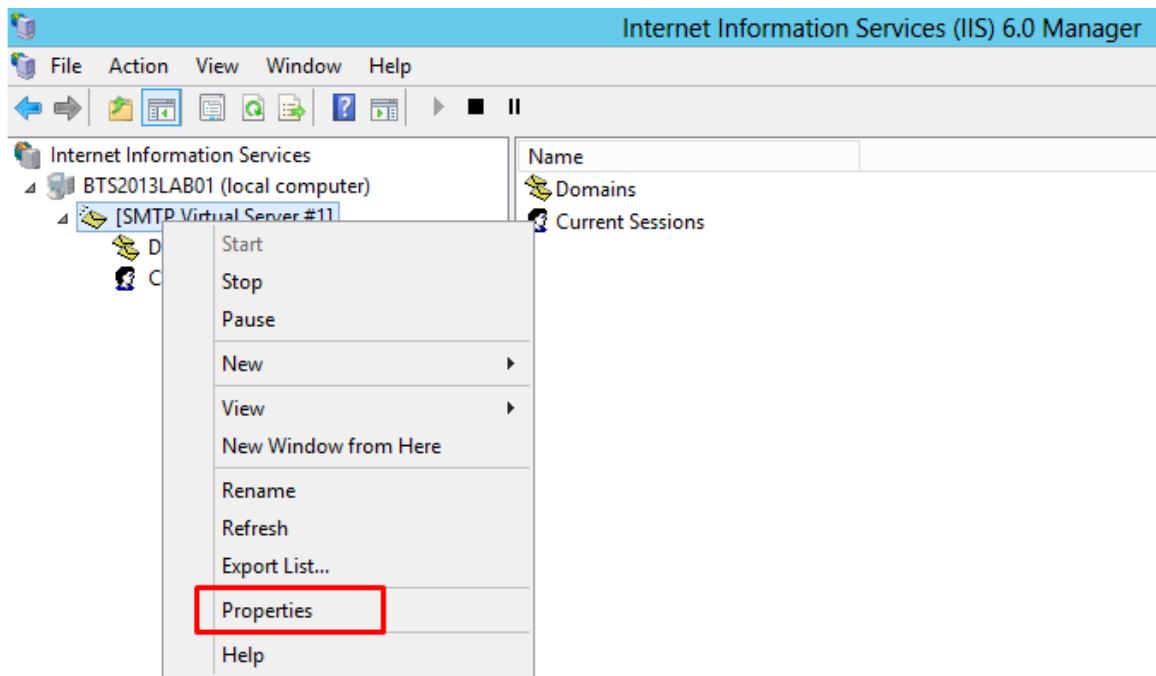
- Open “Server Manager”.
- Under “Manage” menu, select “Add Roles and Features” (or press “Add roles and features” under the Dashboard panel)
- On the Before You Begin screen, click “Next”
- On the Installation Type screen, select “Role-based or Feature-based Installation” and click “Next”
- On the Server Selection screen, select the appropriate server, leave the default options and click “Next”
- On the Server Roles screen, click “Next”
- On the Features screen, select "SMTP Server" and click “Next”
 - If prompted, click "Add Features", and then click “Next”
- On the Confirmation screen, select “Restart the destination server automatically if required” and click “Install”:
- When the installation completes, the wizard reflects the installation status on the Results screen
- Click “Close” to exit the wizard.

To configure the SMTP Server you should following this steps:

- Press the “Windows key” to switch to Start screen and type “IIS 6.0 Manager” and click in “Internet information Services (IIS) 6.0 Manager” option on Apps menu.

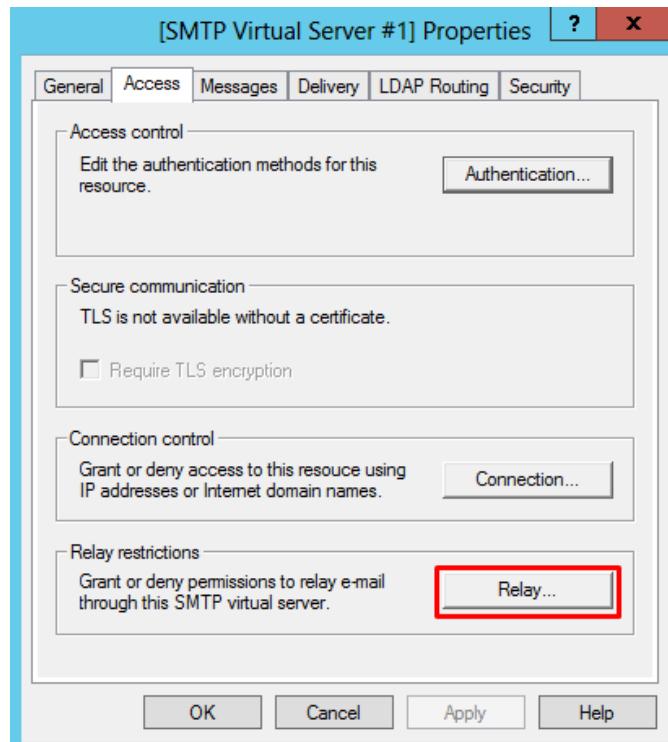


- Right click on the SMTP Server ([SMTP Virtual Server #1]) and select “Properties” to open the properties window

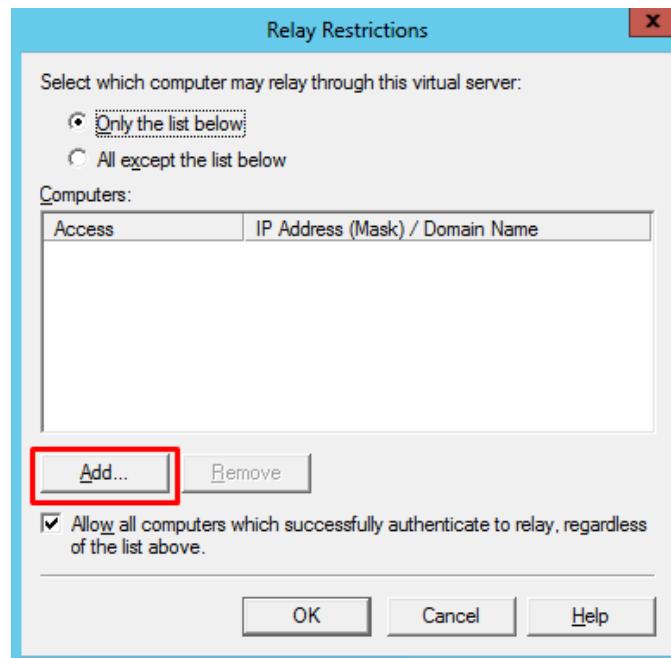


NOTE: For the purpose of this installation, we will assume that email only can be generated from this machine. If the application that generates the email runs on a separate server, you need to grant relaying access for that server in IIS SMTP.

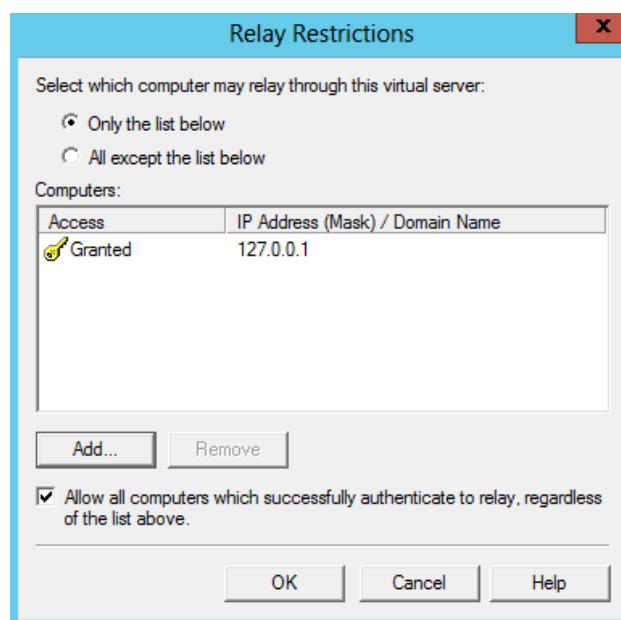
- On the Properties windows, click on the “Access” tab and click “Relay...” under “Relay restrictions”



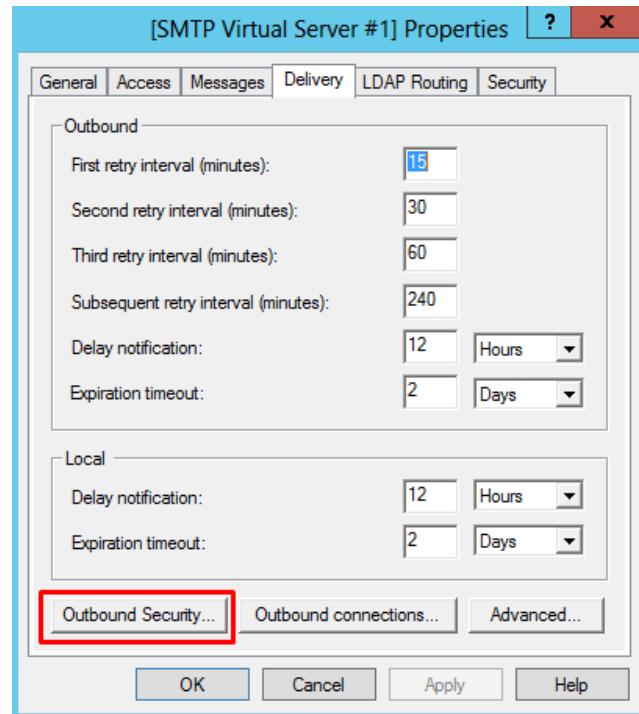
- On Rely Restrictions windows, click “Add...”



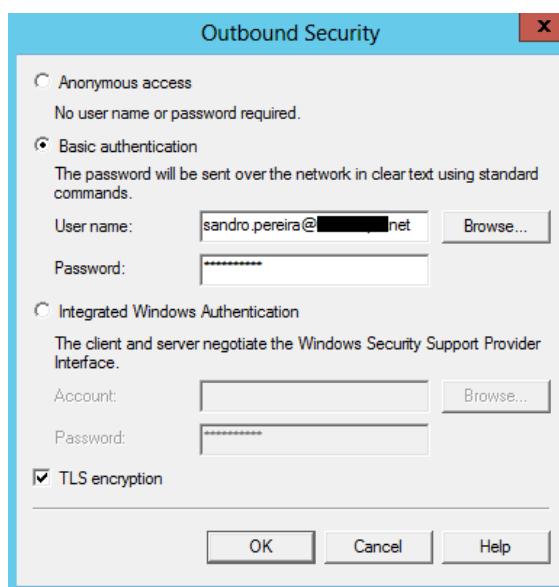
- On Computer window, enter 127.0.0.1 for the address and then click “OK”
 - The Connection setting controls which computers can connect to the SMTP server and send mail. By granting only localhost (127.0.0.1) access limits only the server itself the ability to connect to the SMTP server. This is a requirement for security, it prevents the SMTP server from being an open relay and being used to send unsolicited spam email by other computers on the internet, which could lead to the SMTP server being blacklisted.



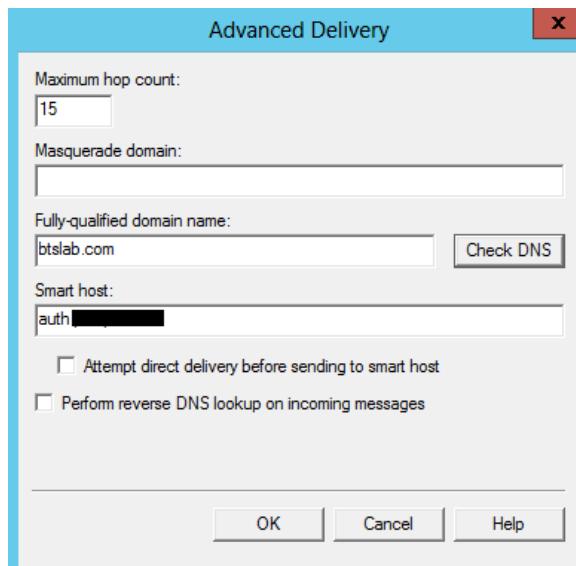
- On the Properties windows, click on the “Delivery” tab and click “Outbound Security...”



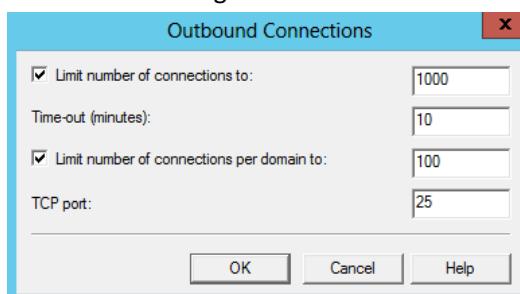
- On the Outbound Security windows, select “Basic authentication” and enter the login credentials you use for your Exchange or personal account (Gmail, Live and so on). Click “OK” to continue.
 - If required, enable “TLS encryption”
 - This will be the account that will transmitted the emails.



- On the Outbound Security windows, click “Advanced...” Enter the SMTP server URL you got in the previous step in the Smart host edit box and then click “OK” to continue.



- On the Outbound Security windows, click on “Outgoing connections...” and set the port of your server
 - Limit number of connections to: When the check box is selected, this option specifies the total number of simultaneous outbound connections to all remote domains that can exist at one time. The default is 1,000 connections. The minimum is 1.
 - Time-out (minutes): Specifies the time allowed before an inactive connection is closed. The default is 10 minutes.
 - Limit number of connections per domain to: When the check box is selected, this option limits connections to any single remote domain. The default is 100 connections. This number should be less than or equal to the value for the Limit number of connections to option.
 - TCP port: Designates the TCP port used for outgoing transmissions. The default is port 25. The outgoing port setting can be the same as that for incoming transmissions or it can be different.



- Click “Ok” twice to apply the settings on the SMTP local server
- Right-click **SMTP Virtual Server #1** again, and then restart the service to pick up the new configuration.

3.4.1 Verify Your Installation

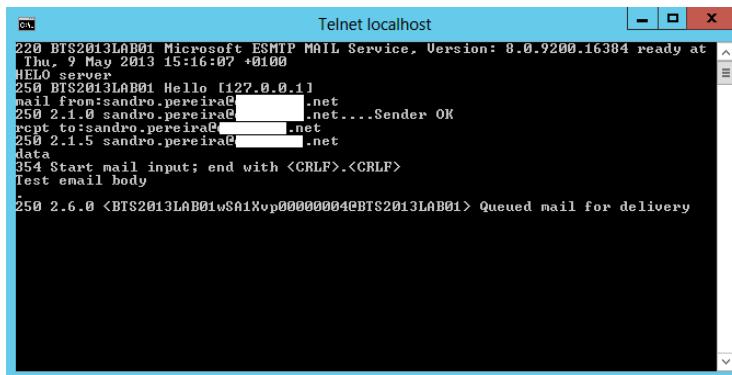
The next step is to verify if the SMTP is successful configured by using the simple Telnet Client, however Telnet Client is not installed by default on Windows Server 2012.

To install Telnet Client by using a command line

- Open a command prompt window., Press the “Windows key” to switch to Start screen and type “cmd” and click in “Command Prompt” option on Apps menu.
- Type the following command:
 - `pkgmgr /iu:"TelnetClient"`
 - If the User Account Control dialog box appears, confirm that the action it displays is what you want, and then click Continue.

To send a test email:

- Open a command prompt window. , Press the “Windows key” to switch to Start screen and type “cmd” and click in “Command Prompt” option on Apps menu.
- Type the following sequence of command:
 - *telnet localhost 25*
 - *Hello serevr*
 - *mail from:email*
 - *rcpt to:email*
 - *data*
 - *put the body of the email message*



```
220 BTS2013LAB01 Microsoft ESMTP MAIL Service, Version: 8.0.9200.16384 ready at
Thu, 9 May 2013 15:16:07 +0100
HELO server
250 BTS2013LAB01 Hello [127.0.0.1]
mail from:sandro.pereira@[REDACTED].net
250 2.1.0 sandro.pereira@[REDACTED].net...Sender OK
rcpt to:sandro.pereira@[REDACTED].net
250 2.1.5 sandro.pereira@[REDACTED].net
data
354 Start mail input; end with <CRLF>.<CRLF>
Test email body
250 2.6.0 <BTS2013LAB01wSA1Xvp00000004@BTS2013LAB01> Queued mail for delivery
```

3.5 Install Microsoft Office Excel 2013

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

NOTE: BizTalk Server 2013 supports only 32-bit version of Microsoft Office.

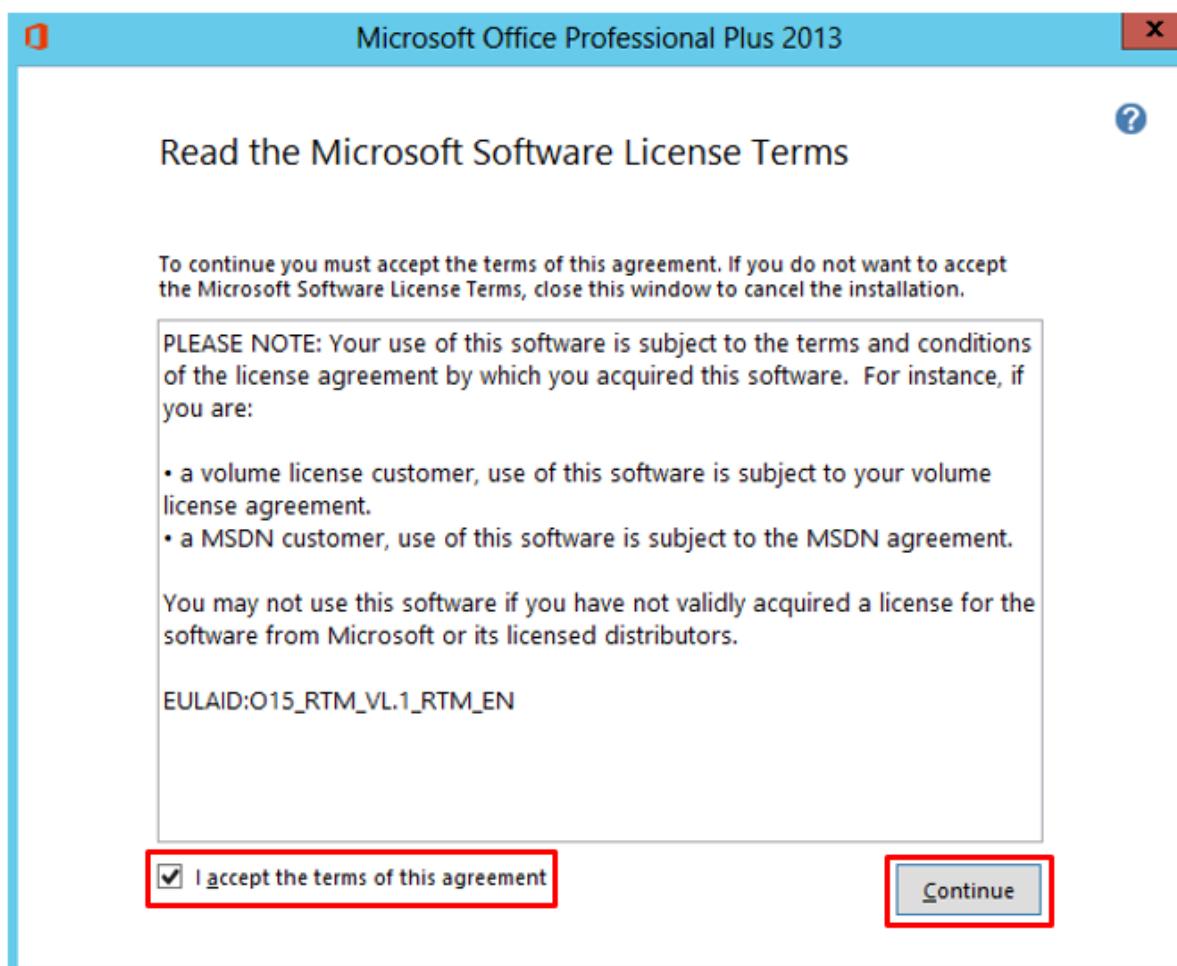
NOTE: if you are not considering to use BAM features, then you don't need to install Microsoft Office Excel.

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

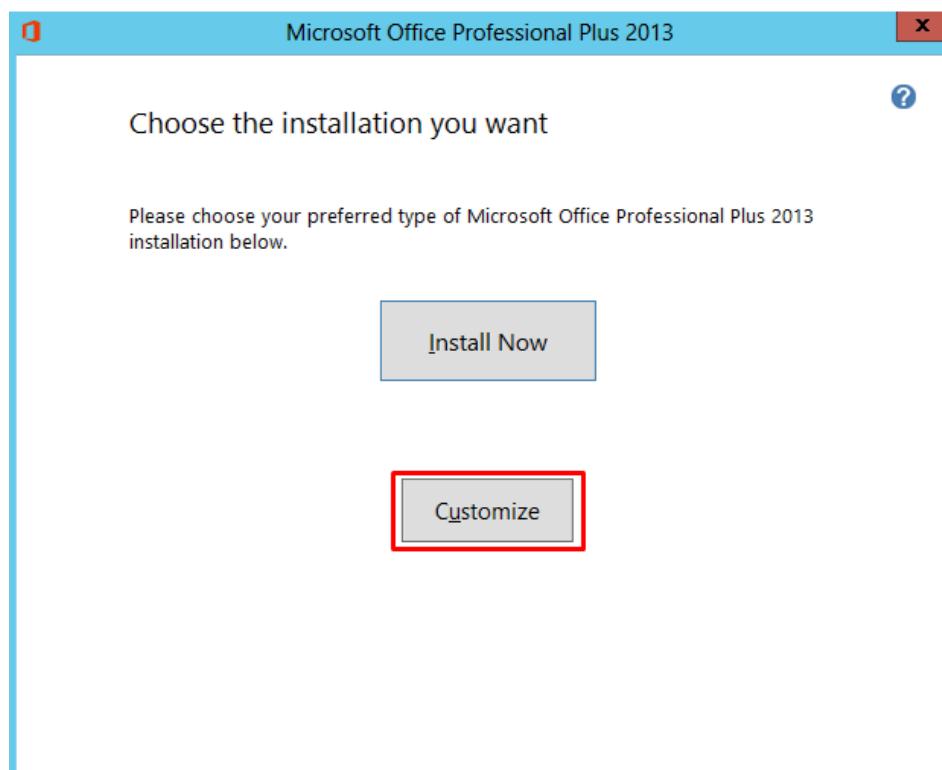
NOTE: To successfully load BAM.xla into Excel, install the “**VISUAL BASIC FOR APPLICATIONS**” option under “**OFFICE SHARED FEATURES**”. Otherwise, you may get the error “This workbook has lost its VBA project, ActiveX controls and any other programmability-related features.”

To install Microsoft Office Excel:

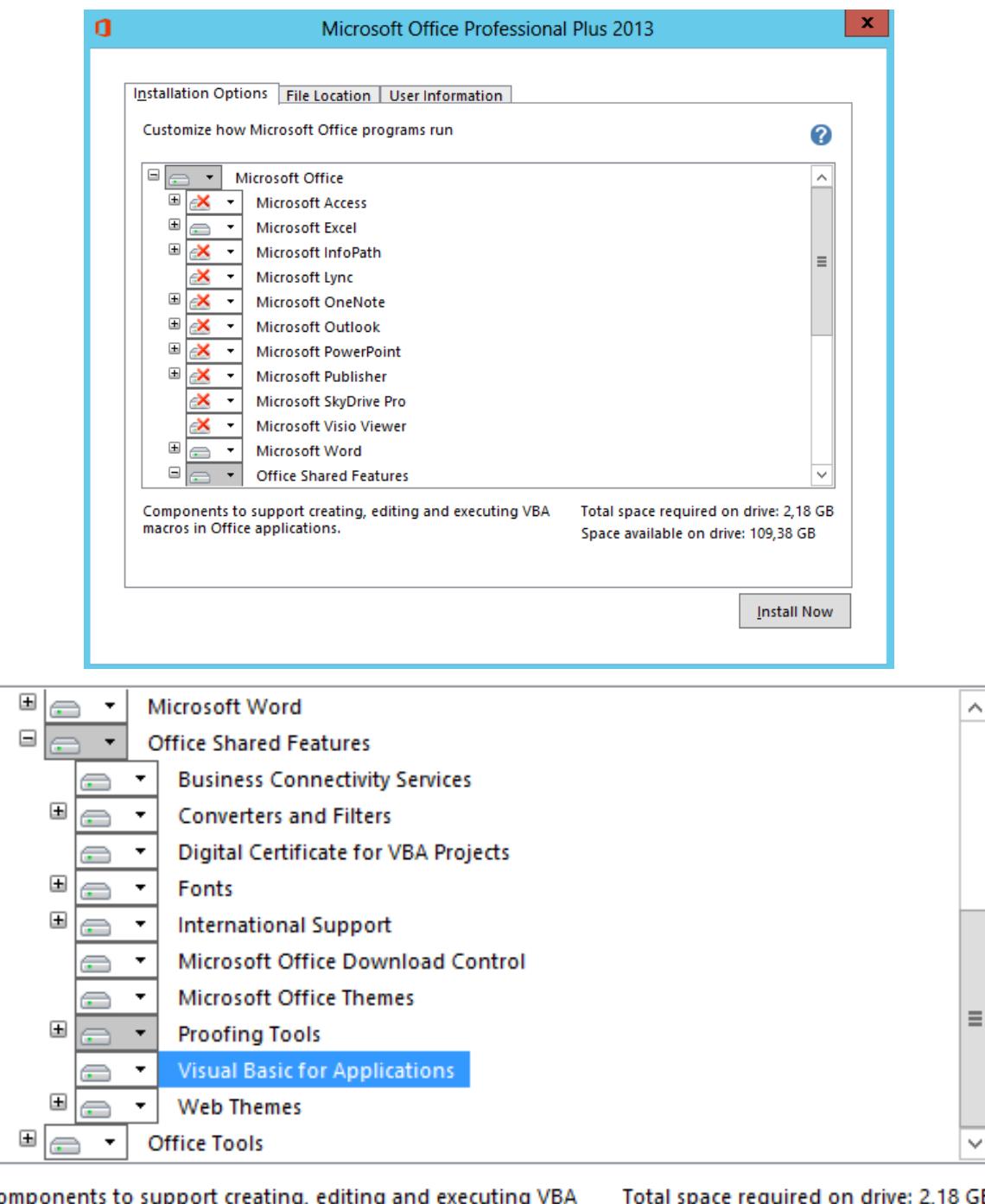
- Insert the Microsoft Office installation disk into the DVD-ROM drive.
- On Read the Microsoft Software License Terms screen, select “I accept the terms of this agreement” and click “Continue”



- On the Type of Installation screen, select Custom Install, and then click "Next".



- On the Custom Setup screen, ensure that:
 - Microsoft Excel option is selected.
 - And "Visual Basic for Applications" option under Office Shared Features is selected.



- And then click "Install Now".

- On the Setup Completed screen, click "Finish".

After installing the office Excel and tools I like to do a Windows update, this step is not necessary.

3.6 Install Visual Studio 2012

The BizTalk Server development tools are based on Visual Studio. And like previous versions, at a minimum, you must have the Microsoft Visual C#® .NET component of Visual Studio installed on your computer if you wish to install the BizTalk Server Developer Tools and SDK component.

NOTE: Visual Studio 2012 is not required if you are installing BizTalk Server on a production computer (runtime only), on which no application development or debugging is required to be done.

The BizTalk Server runtime components require .NET Framework 4.5. In addition, the .NET Framework 3.0 is required if the Windows Communication Foundation (WCF) adapter or WCF Interceptor is installed.

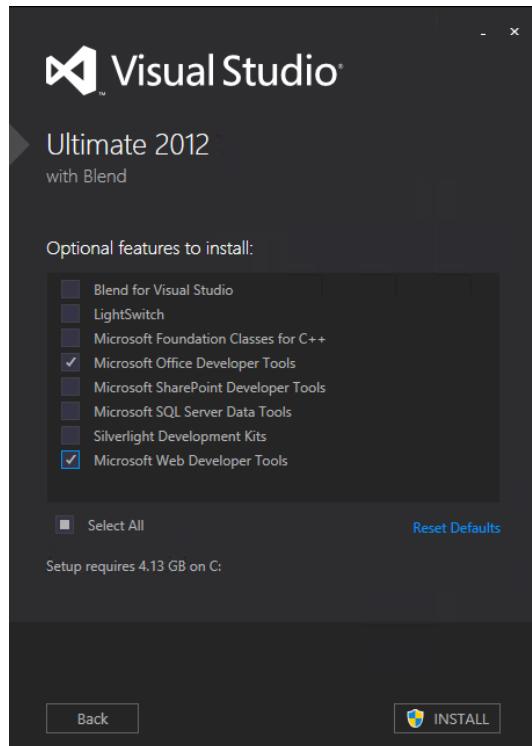
However, unlike previous versions of Visual Studio and the official documentation, with Visual Studio 2012 you cannot customize the features to install to the point of only install Visual C#, at least that I know of.

To install Visual Studio 2012:

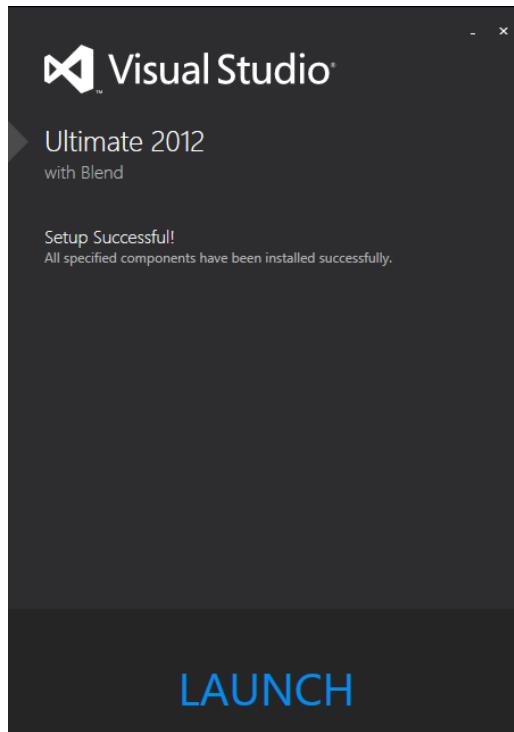
- Insert the Visual Studio 2012 installation disk into the DVD-ROM drive.
- On the Start page, accept the license agreement by selecting “I agree to the License terms and conditions” and then click “Next”.



- On the Optional features to install page, you can clear all features, however I think that is important at least to install “Microsoft Web Developer Tools”. Add the following features to your installation:
 - Microsoft Web Developer Tools
 - Microsoft Office Developer Tools (not required)



- And then click “Install”
- On the Finish page, close the window or click “Launch”.



IMPORTANT NOTE: Your version of Visual Studio **WILL INCLUDE MICROSOFT SQL SERVER EXPRESS OR COMPACT** as an optional feature. This feature it may cause BizTalk Server setup to fail and should not be installed but as we cannot customize the Visual Studio 2012 installation, we should remove this features afterwards.

3.6.1 Remove Microsoft SQL Server Express

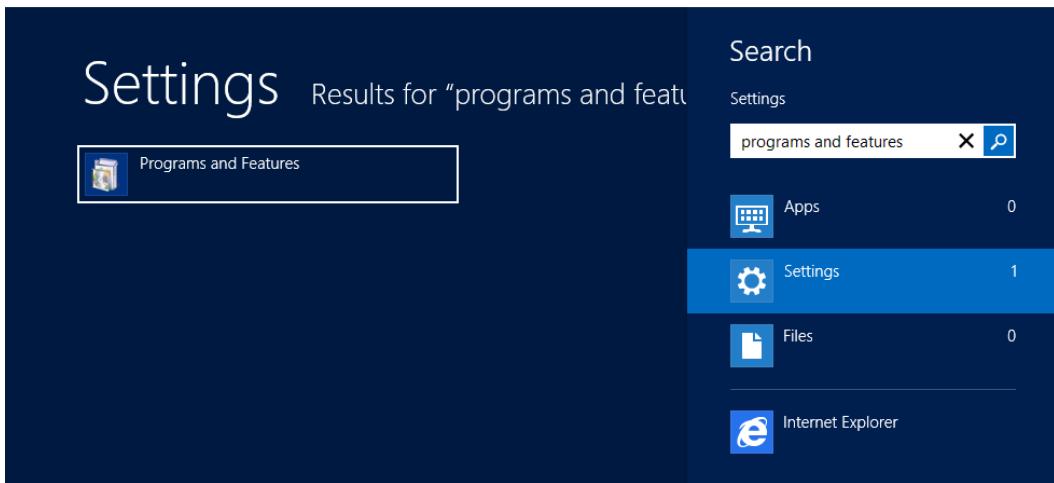
As I say previous your version of Visual Studio **WILL INCLUDE MICROSOFT SQL SERVER EXPRESS OR COMPACT AS** an optional feature. This feature it may cause BizTalk Server setup to fail and should not be installed but as we cannot customize the Visual Studio 2012 installation, it's very important that we remove this features.

To avoid futures complications I choose to uninstall this two features:

- Microsoft SQL Server 2012 Express LocalBd
- Microsoft SQL Server Compact 4.0 SP1 x4 ENU: Microsoft SQL Server Compact 4.0 is a free, embedded database that software developers can use for building ASP.NET websites and Windows desktop applications. SQL Server Compact 4.0 has a small footprint and supports private deployment of its binaries within the application folder, easy application development in Visual Studio and WebMatrix, and seamless migration of schema and data to SQL Server

To uninstall this features:

- Press the “Windows key” to switch to Start screen.
- Type “Programs and Features” and click in “Programs and Features” option on Settings menu.



- Select “Microsoft SQL Server 2012 Express LocalBd” and click “Uninstall”.

Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

Organize	Uninstall	Change	Repair	
Name	Publisher	Installed On	Size	Version
Microsoft ASP.NET Web Pages	Microsoft Corporation	30/04/2013	2,08 MB	1.0.20105.0
Microsoft Help Viewer 2.0	Microsoft Corporation	30/04/2013	12,1 MB	2.0.50727
Microsoft Office Professional Plus 2013	Microsoft Corporation	29/04/2013		15.0.4420.1017
Microsoft Silverlight	Microsoft Corporation	30/04/2013	35,4 MB	5.1.10411.0
Microsoft SQL Server 2012 Command Line Utilities	Microsoft Corporation	30/04/2013	2,38 MB	11.0.2100.60
Microsoft SQL Server 2012 Data-Tier App Framework	Microsoft Corporation	30/04/2013	23,5 MB	11.0.2316.0
Microsoft SQL Server 2012 Data-Tier App Framework	Microsoft Corporation	30/04/2013	23,5 MB	11.0.2316.0
Microsoft SQL Server 2012 Express LocalDB	Microsoft Corporation	30/04/2013	157 MB	11.0.2100.60
Microsoft SQL Server 2012 Management Objects	Microsoft Corporation	30/04/2013	24,9 MB	11.0.2100.60
Microsoft SQL Server 2012 M...			18,2 MB	11.0.2100.60
Microsoft SQL Server 2012 N...			9,70 MB	11.0.2100.60
Microsoft SQL Server 2012 T...			87,4 MB	11.0.2100.60
Microsoft SQL Server 2012 T...			4,52 MB	11.0.2100.60
Microsoft SQL Server 2012 T...			6,13 MB	11.0.2100.60
Microsoft SQL Server Data T...			14,4 MB	11.1.20627.00
Microsoft SQL Server Data T...			1,32 MB	11.1.20627.00
Microsoft SQL Server System			2,53 MB	10.50.1600.1
Microsoft SQL Server System CLR Types (x64)	Microsoft Corporation	30/04/2013	3,13 MB	10.50.1600.1
Microsoft System CLR Types for SQL Server 2012	Microsoft Corporation	30/04/2013	2,30 MB	11.0.2100.60
Microsoft System CLR Types for SQL Server 2012 (x64)	Microsoft Corporation	30/04/2013	2,76 MB	11.0.2100.60
Microsoft Visual Studio 2010 Tools for Office Runtime...	Microsoft Corporation	30/04/2013		10.0.31125
Microsoft Visual Studio Premium 2012	Microsoft Corporation	30/04/2013	5,12 GB	11.0.50727.1
Microsoft Visual Studio Ultimate 2012	Microsoft Corporation	30/04/2013	5,20 GB	11.0.50727.1
Microsoft Web Deploy 3.0	Microsoft Corporation	30/04/2013	16,1 MB	3.1236.1631
Microsoft Web Deploy dbSqlPackaqe Provider - enu	Microsoft Corporation	30/04/2013	32,0 KB	10.3.20225.0

- Repeat the process, select “Microsoft SQL Server Compact 4.0 SP1 x4 ENU” and click “Uninstall”.

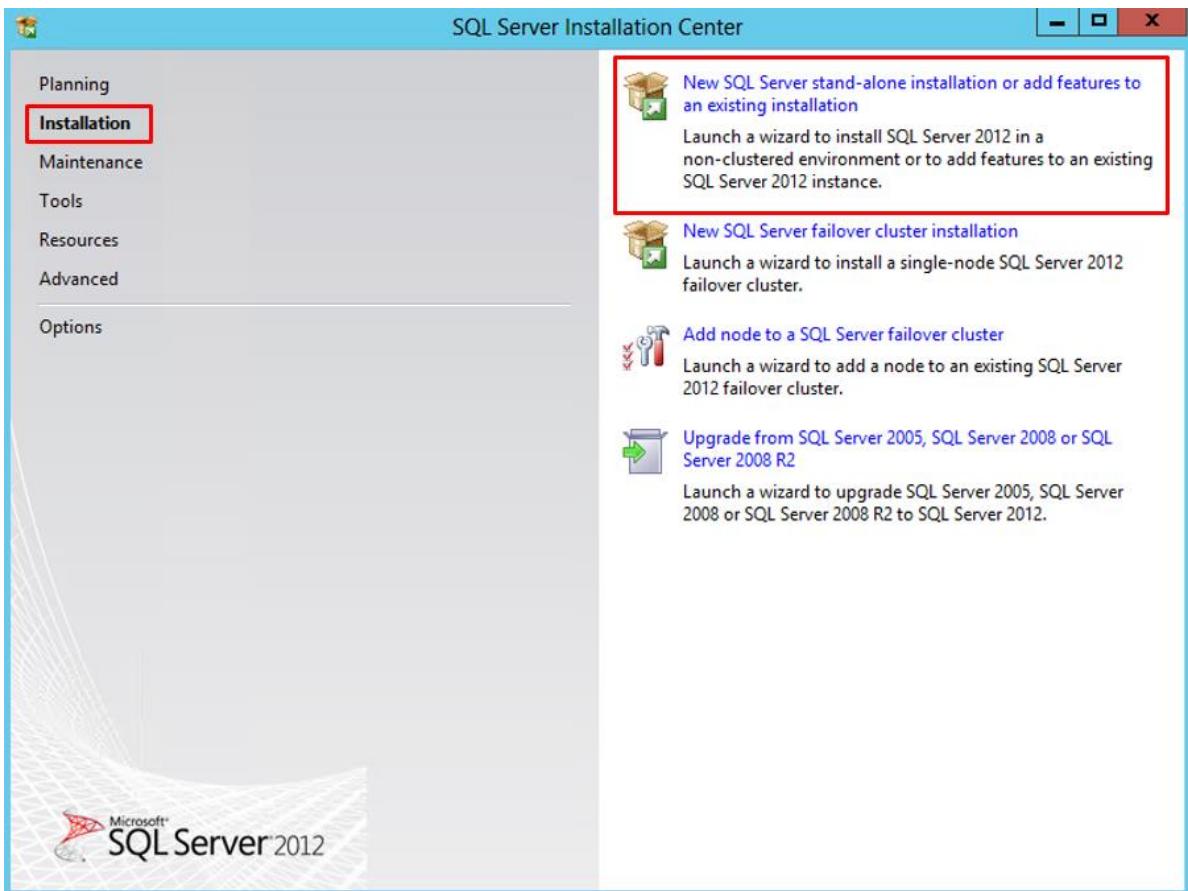
3.7 Install SQL Server 2012

BizTalk Server provides the capability to specify a business process and also a mechanism by which the applications used in that business process can communicate with each other. SQL Server is the main repository for this communication mechanism. For optimal performance, Microsoft recommends using the Enterprise Edition of SQL Server.

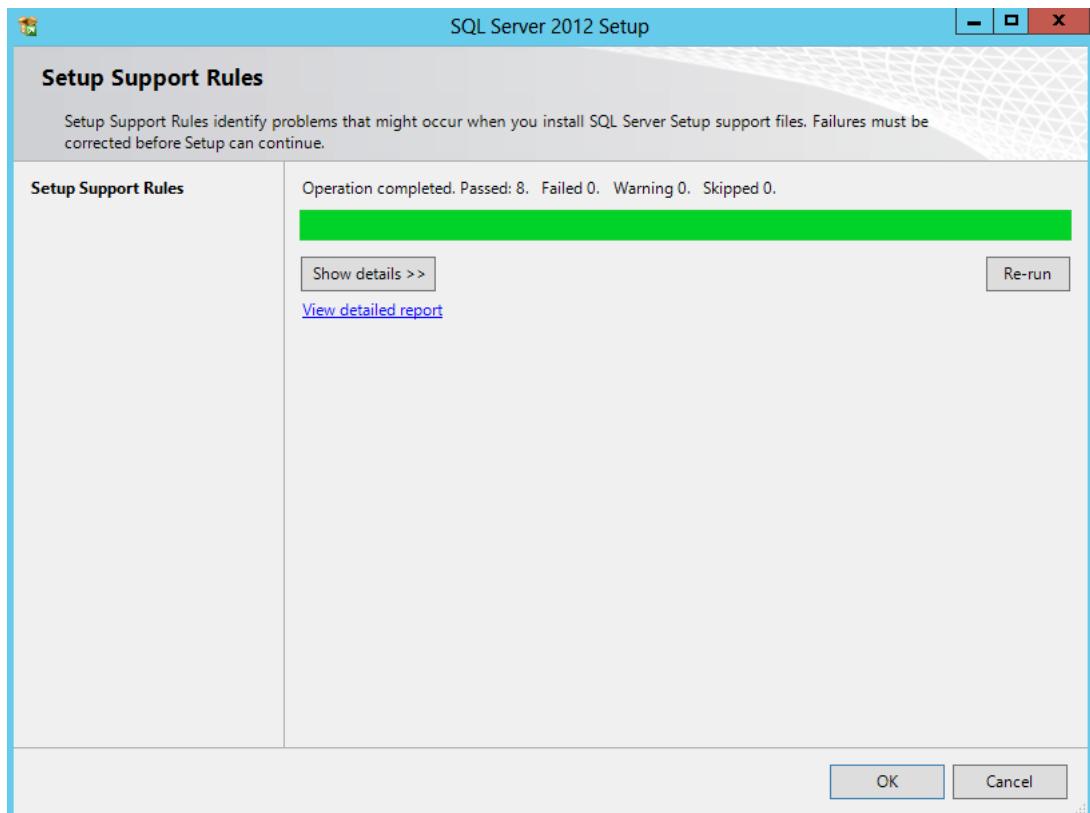
Note: Using SQL Server Express Edition is not recommended or supported. The Express edition does not include certain features needed by BizTalk Server.

To install SQL Server 2012:

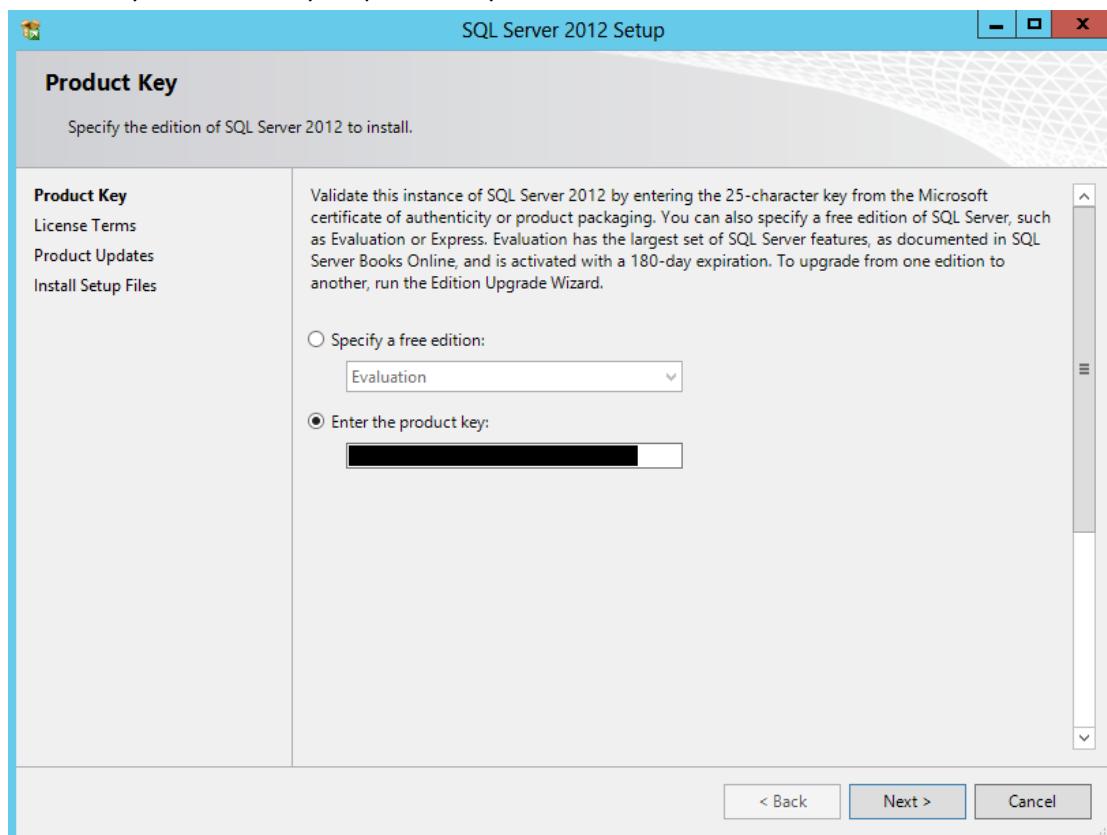
- Insert the SQL Server installation disk into the DVD-ROM drive. The setup program will begin automatically. If prompted for automatic installation of prerequisite software, click “OK”
- On the SQL Server Installation Center, click “Installation” and then click “New SQL Server stand-alone or add features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



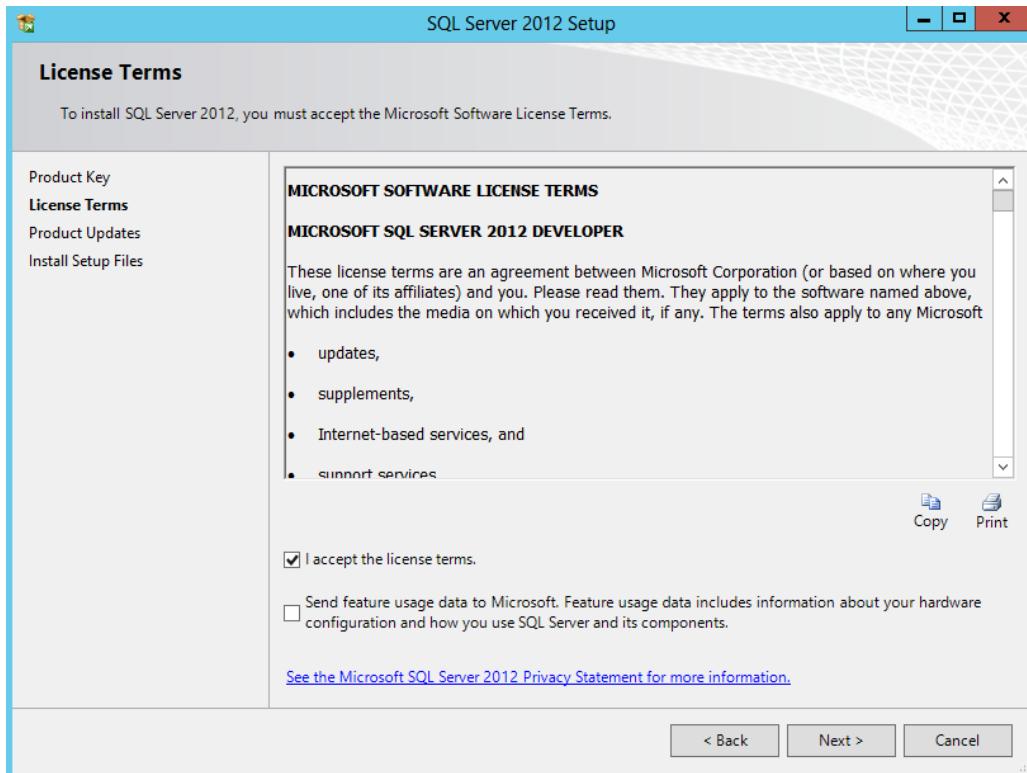
- On the Setup Support Rules screen, review the information and then click “OK”



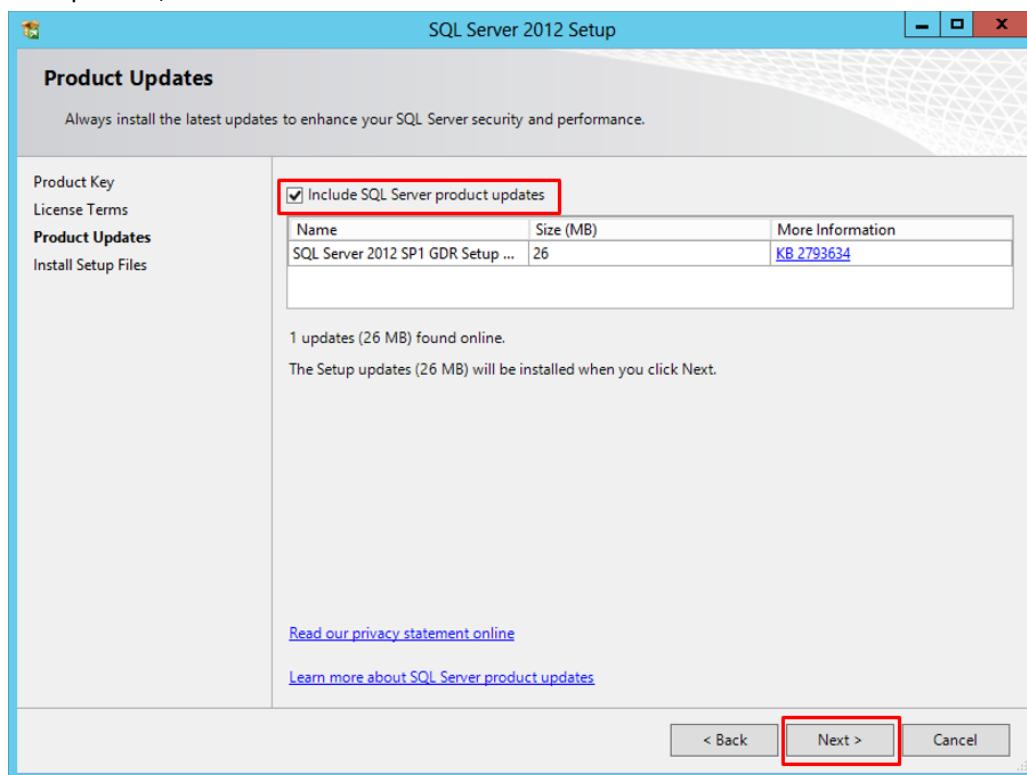
- On the Product Key screen, enter your product key and click “Next”



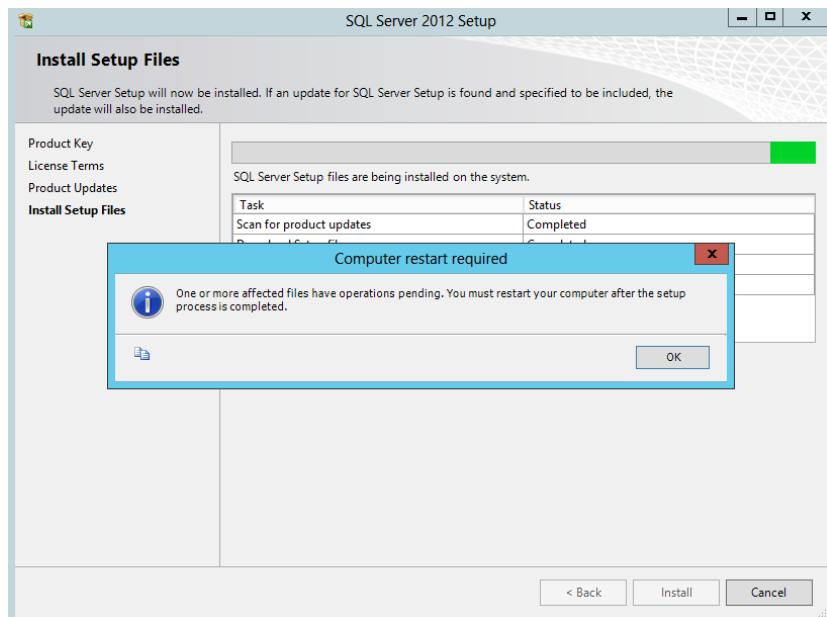
- On the License Terms screen, select “I accept the license terms”, and then click “Next”



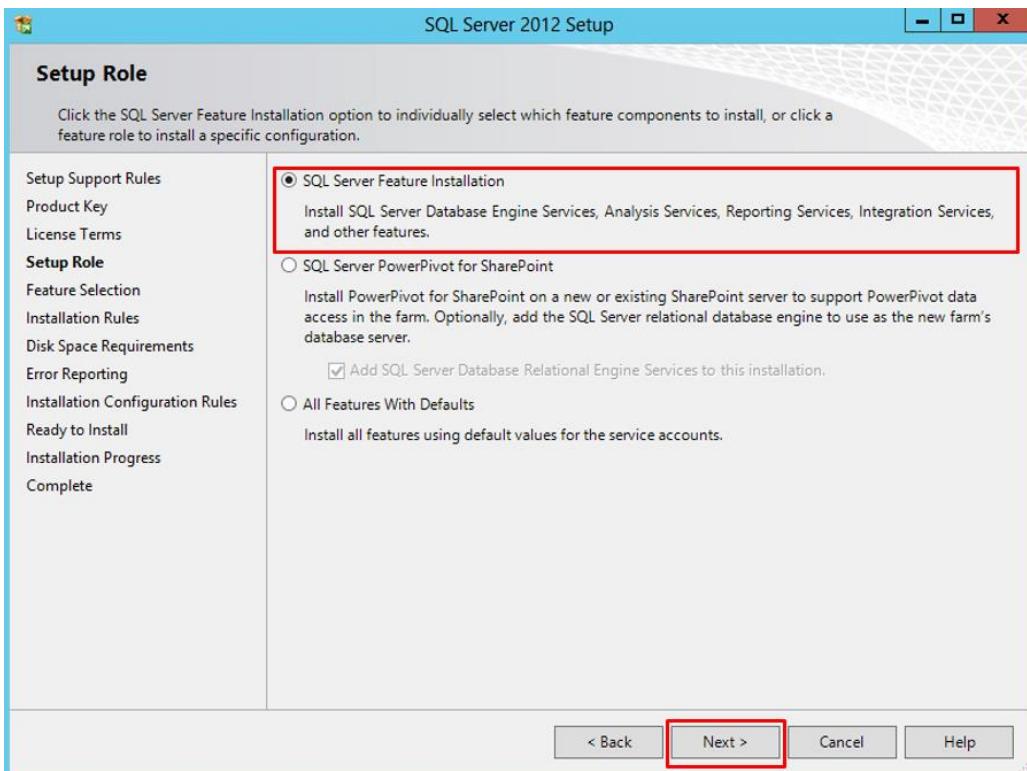
- On the Product Updates page, the latest available SQL Server product updates are displayed. Select “Include SQL Server product updates”, and then click “Next”



- On the Install Setup files page, Setup provides the progress of downloading, extracting, and installing the Setup files. If an update for SQL Server Setup is found, and is specified to be included, that update will also be installed. Click “Install”
 - The System Configuration Checker verifies the system state of your computer before Setup continues.
 - If prompted to restart the computer, click “OK”

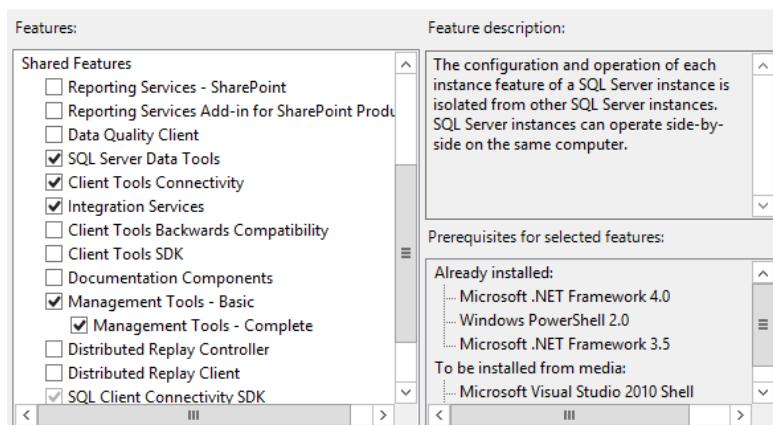
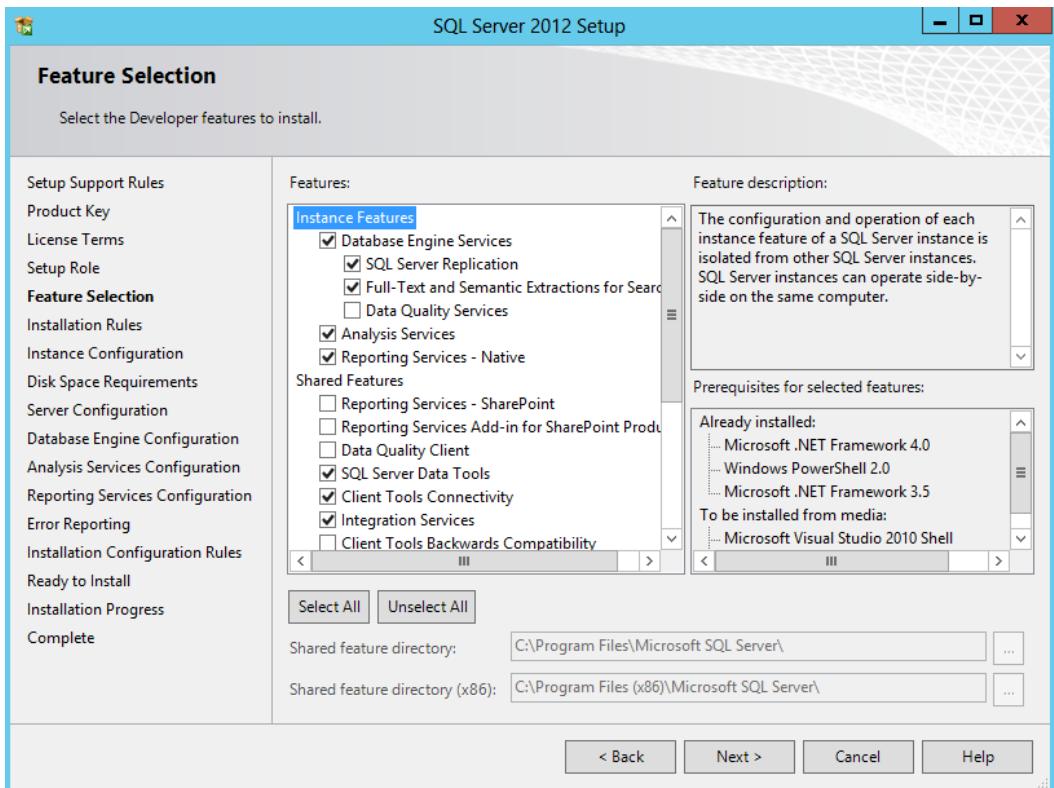


- On the Setup Role page, select “SQL Server Feature Installation”, and then click “Next” to continue to the Feature Selection page.

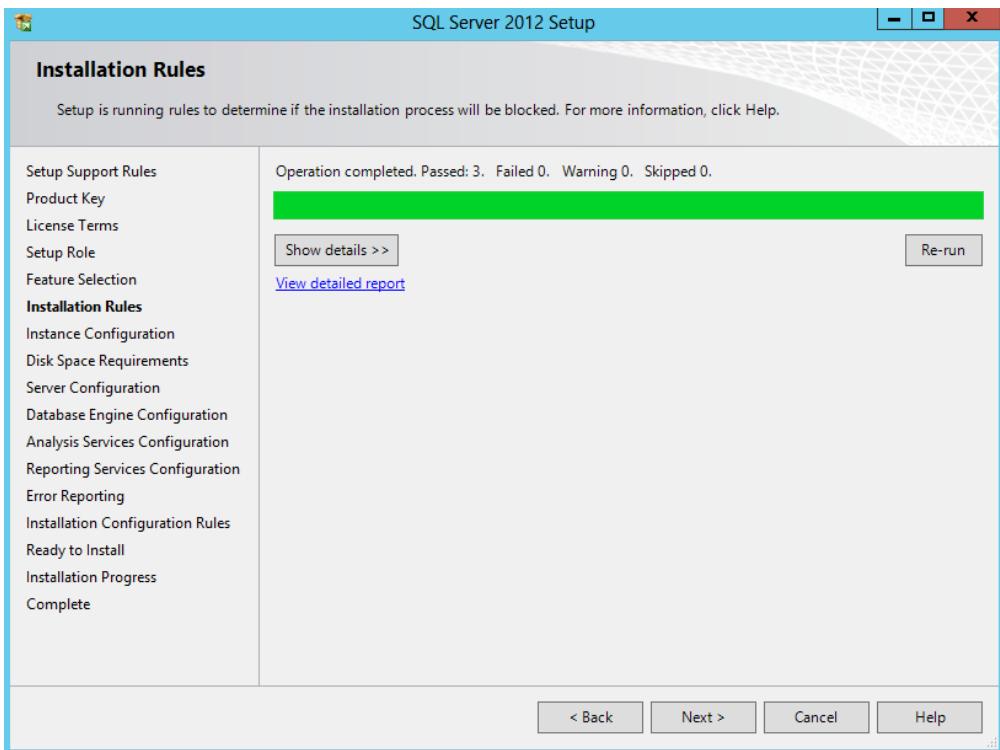


- On the Feature Selection screen, select the following features, and then click “Next”
 - Database Engine Services
 - SQL Server Replication
 - Full-Text and Semantic Extractions for Search
 - Analysis Services
 - Reporting Services – Native (**This component is optional**. But you can install this if you are considering for example integrate BAM with SQL Server Reporting Services)
 - Shared Features
 - SQL Server Data Tools
 - Client Tools Connectivity
 - Integration Services

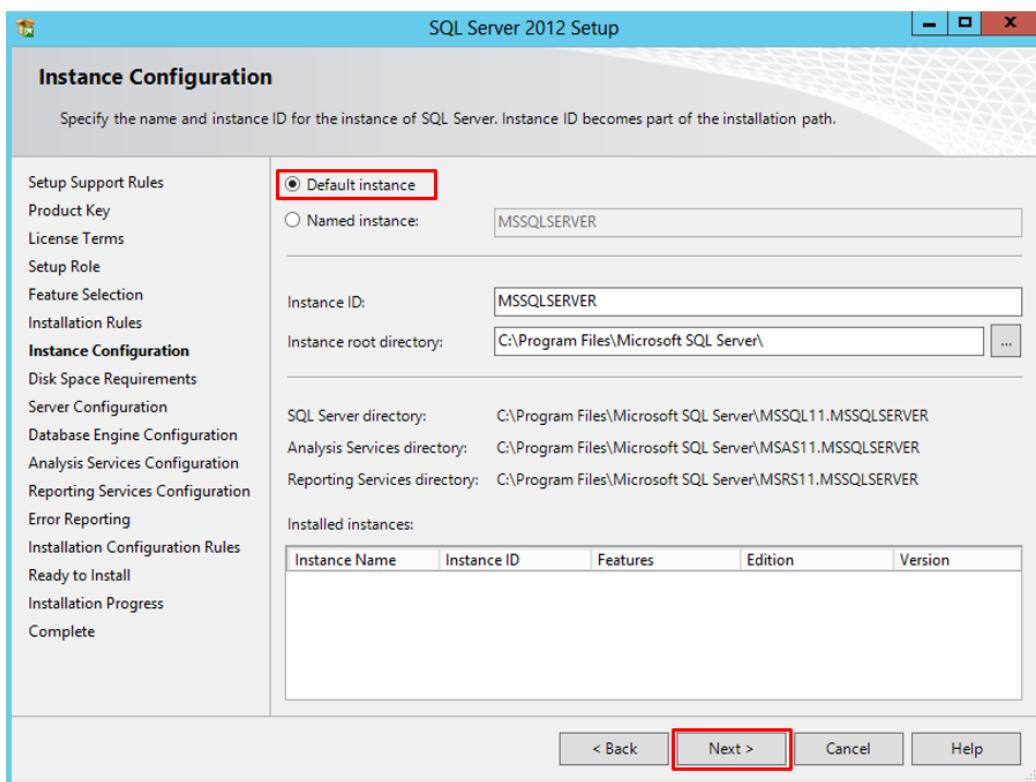
- Management Tools - Basic
 - Management Tools - Complete



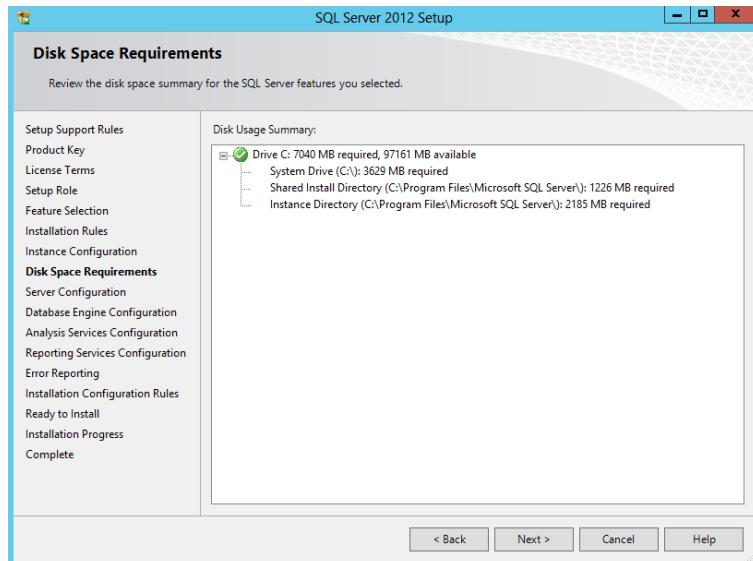
- On the Installation Rules page, Setup verifies the system state of your computer before Setup continues, and then click "Next"



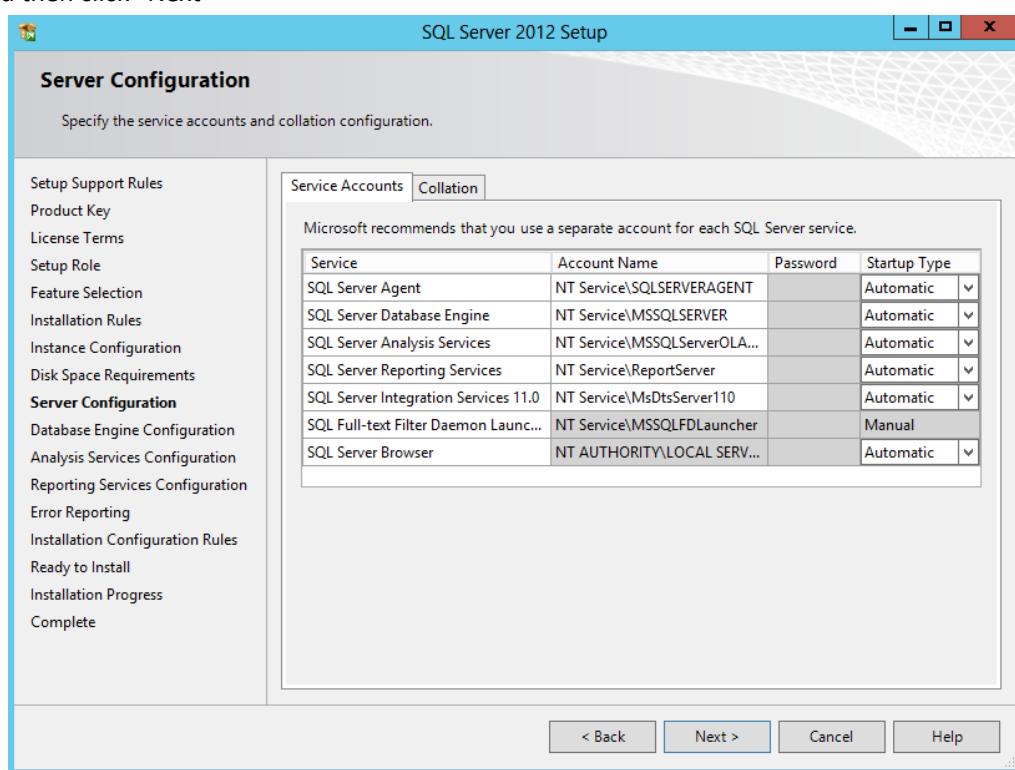
- On the Instance Configuration screen, select “Default instance”, leave the rest of the default values, and then click “Next” to continue.



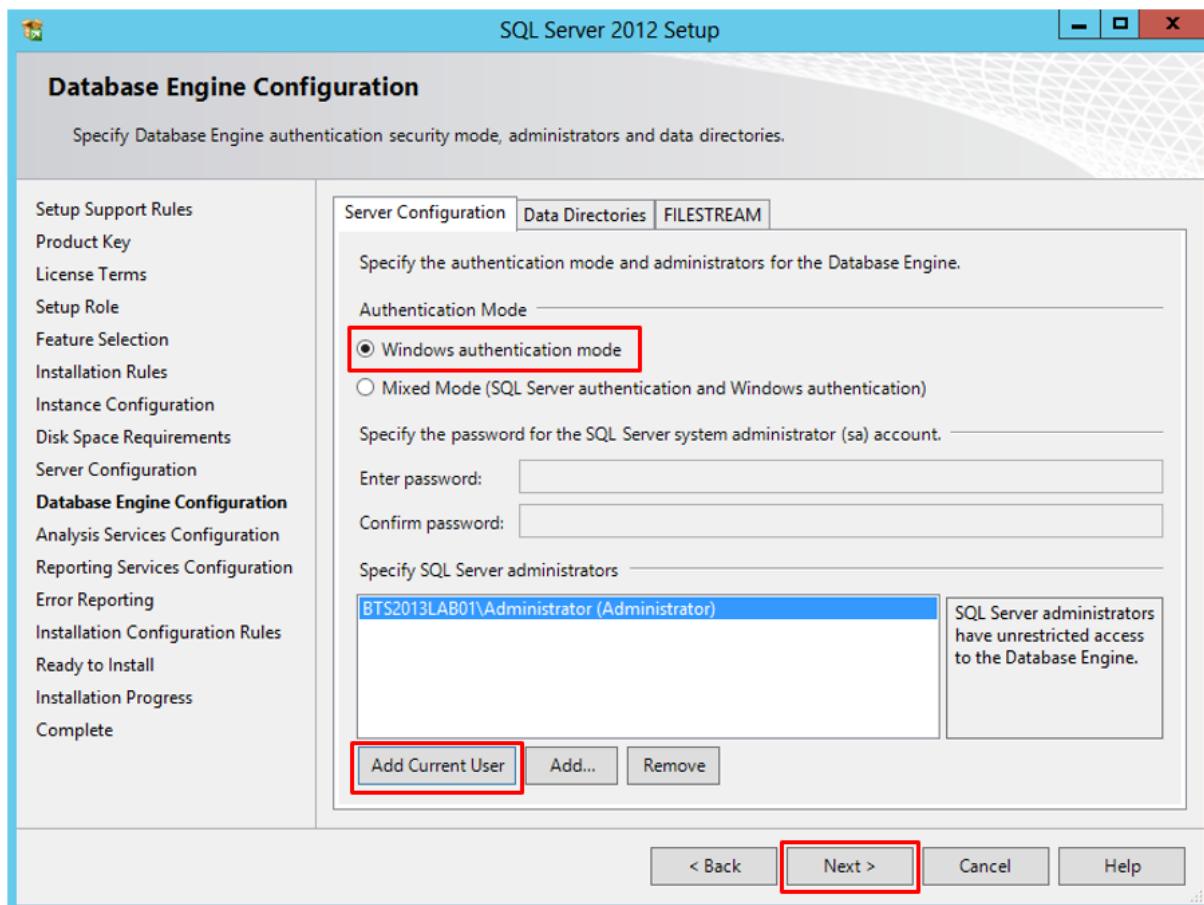
- Review the information on the Disk Space Requirements screen, this page calculates the required disk space for the features that you specify and compares with available disk space. Click “Next” to continue.



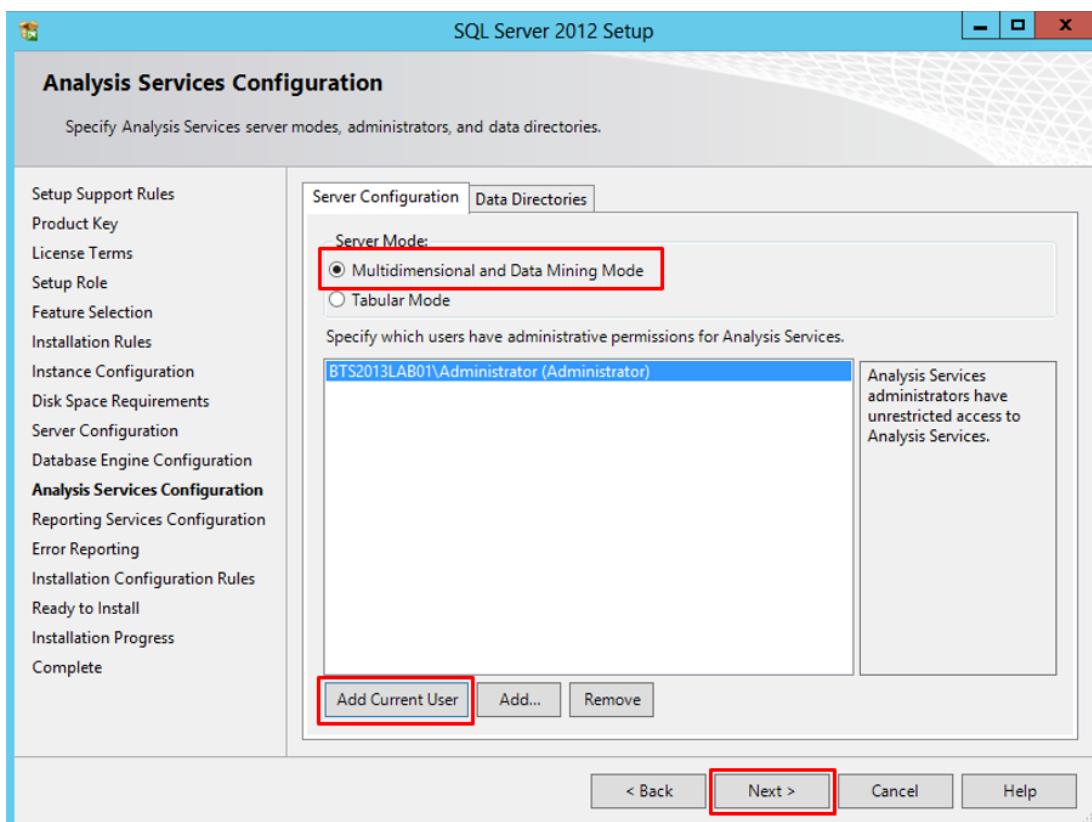
- On the Server Configuration screen, you can specify login accounts for each SQL Server services. You can assign the same login account to all SQL Server services, or you can configure each service account individually. You can also specify whether services start automatically, are started manually, or are disabled (Microsoft recommends that you configure service accounts individually to provide least privileges for each service).
 - Leave the default login account to all SQL Server services
 - Configure all of them with the startup type: "Automatic"
 - And then click "Next"



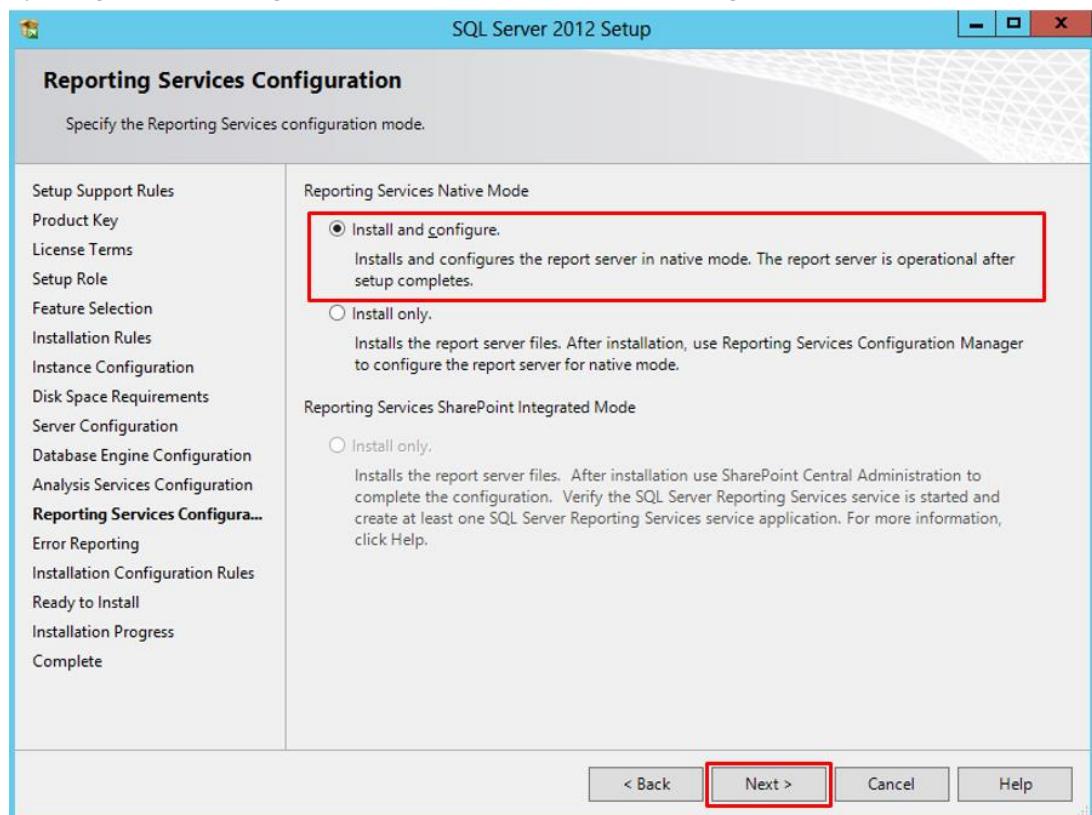
- On the Database Engine Configuration screen, select "Windows authentication mode", click "Add Current User", and then click "Next"
 - Authentication Mode: Select "Windows authentication mode". If you select Mixed Mode Authentication, you must provide a strong password for the built-in SQL Server system administrator account.
 - Specify SQL Server administrators: You must specify at least one system administrator for the instance of SQL Server. To add the account under which SQL Server Setup is running, click "Add Current User"



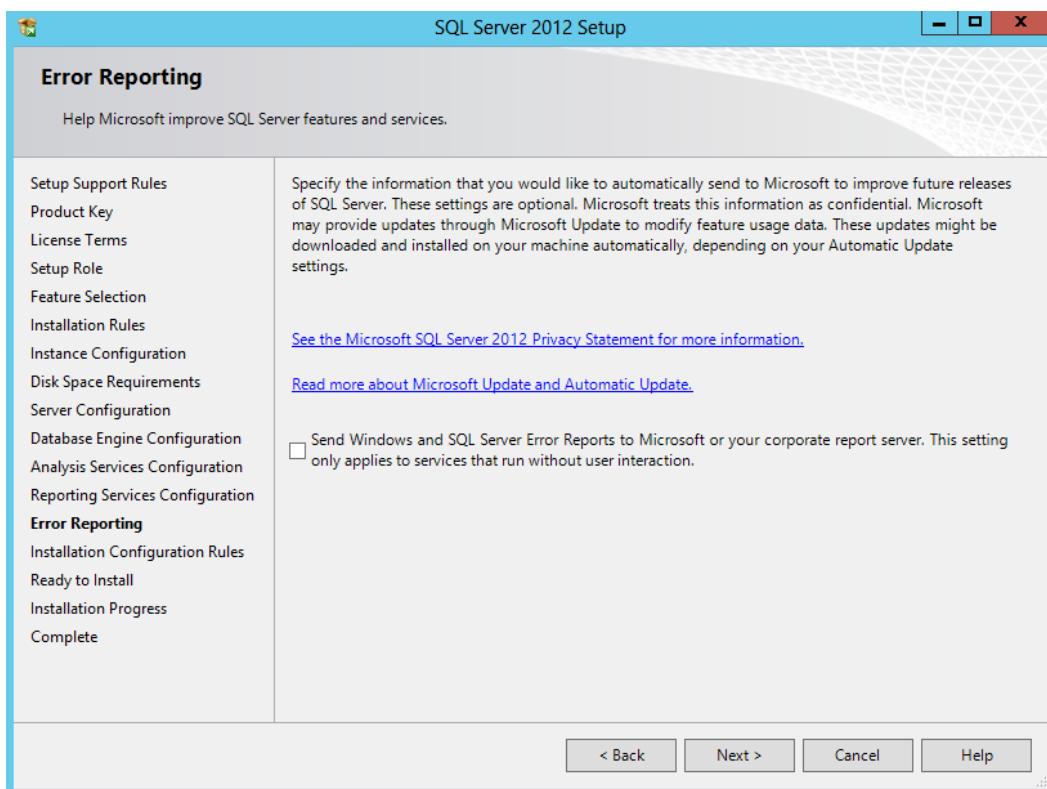
- On the Analysis Services Configuration screen, select “Multidimensional and Data mining Mode”, click “Add Current User”, and then click “Next”
 - Server Mode: Select “Multidimensional and Data mining Mode”. Server mode determines which memory and storage subsystems are used on the server. If you plan to run multidimensional cube databases on the server, choose the default option, Multidimensional and Data Mining server mode.
 - Specify which users have administrative permissions for Analysis Services: you must specify at least one system administrator for Analysis Services. To add the account under which SQL Server Setup is running, click Add Current User.



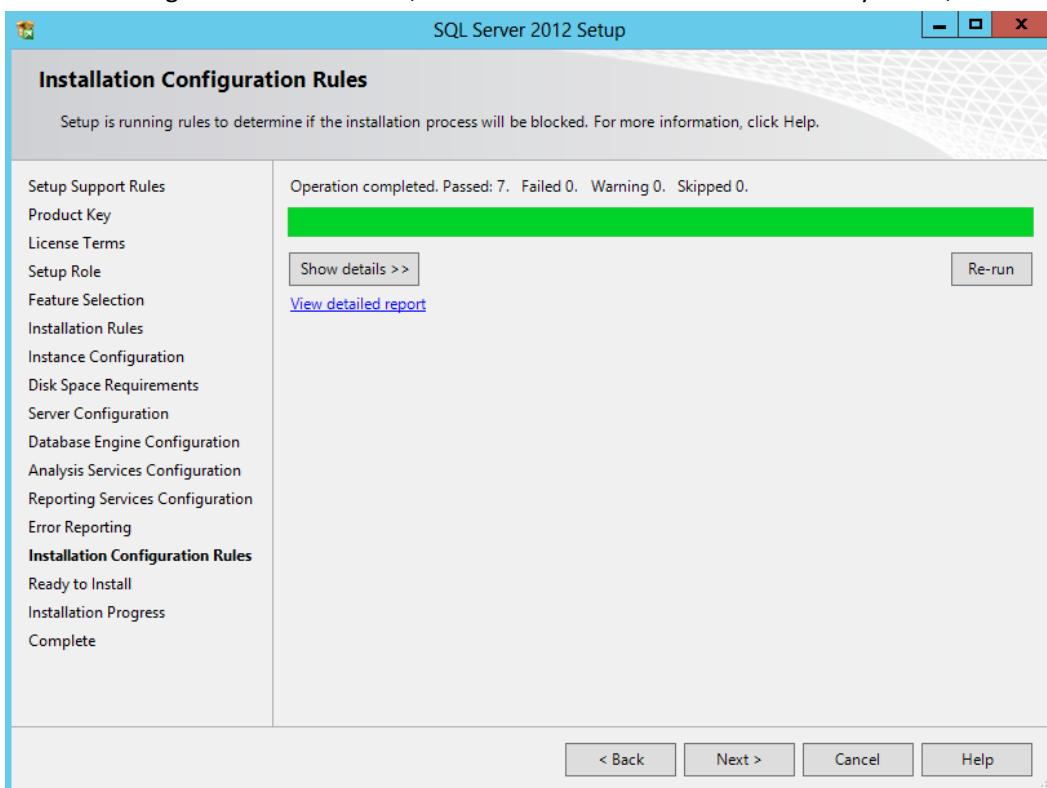
- On the Reporting Services Configuration screen, select “Install and configure”, and then click “Next” to continue.



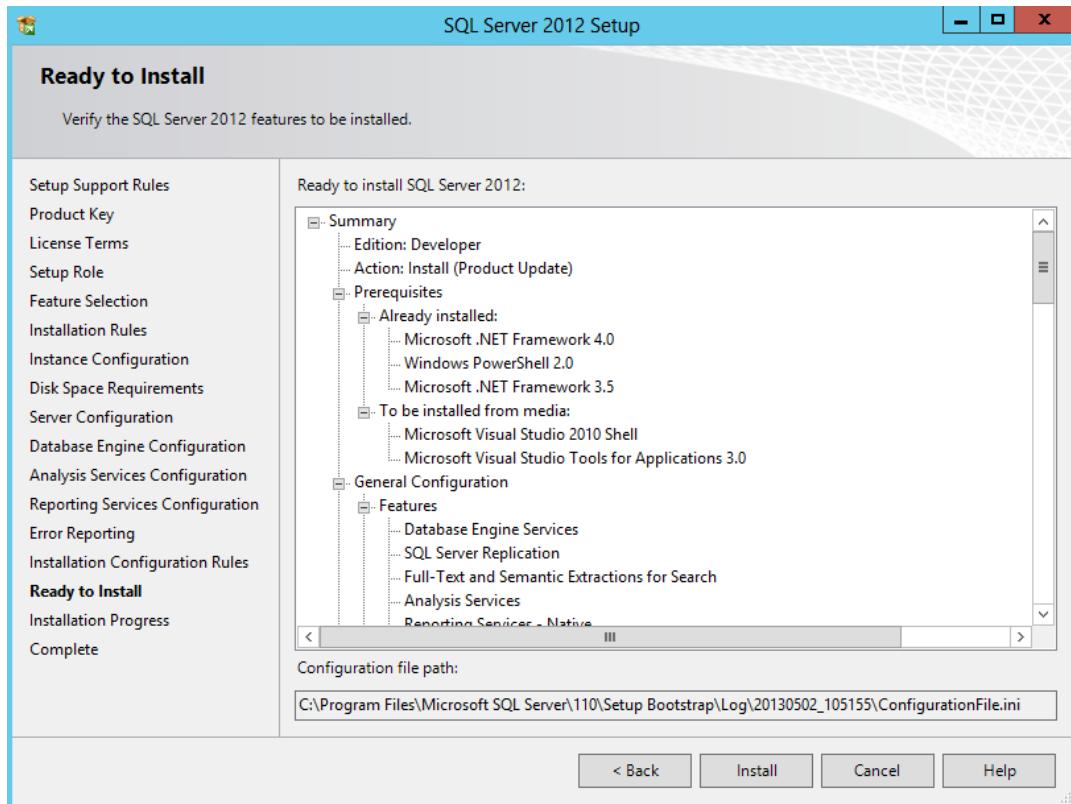
- On the Error and Usage Reporting screen, leave the default values, and then click “Next”



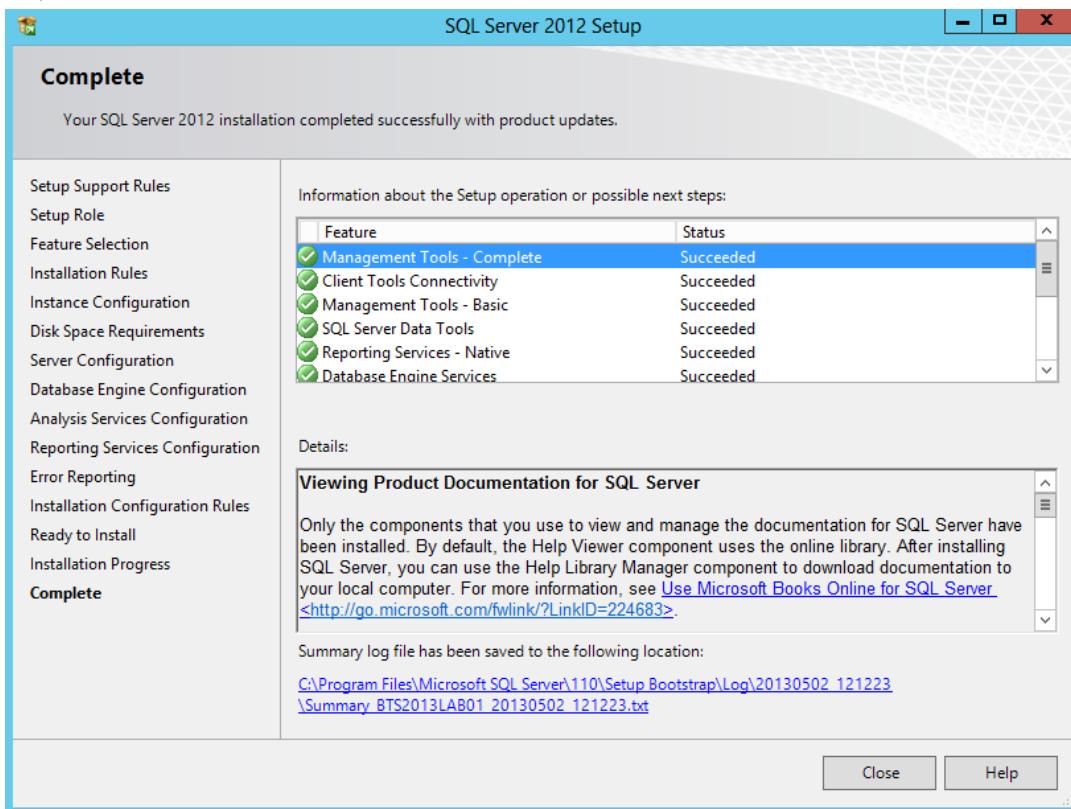
- On the Installation Configuration Rules screen, review the information and resolve any issues, and then click “Next”



- On the Ready to Install screen, review the information, and then click “Install”



- On the Complete screen, click "Close"



Note: Once again, after this installation, I like to do a Windows update, this step is not necessary.

3.8 Configure SQL Server Database Mail feature

If your BizTalk Server environment uses SQL Server 2012 and you wish to configure BAM Alerts, you must have already configured SQL Server Database Mail feature before you try to configure BAM Alerts, otherwise the BizTalk Basic configuration will ignore this feature (BAM Alerts).

Database Mail is an enterprise solution for sending e-mail messages from the SQL Server Database Engine. Using Database Mail, your database applications can send e-mail messages to users. The messages can contain query results, and can also include files from any resource on your network. You can read more here: <http://msdn.microsoft.com/en-us/library/ms189635.aspx>

NOTE: You still can have BAM Portal with activities and aggregations without alerts, this is mandatory if you want alerts.

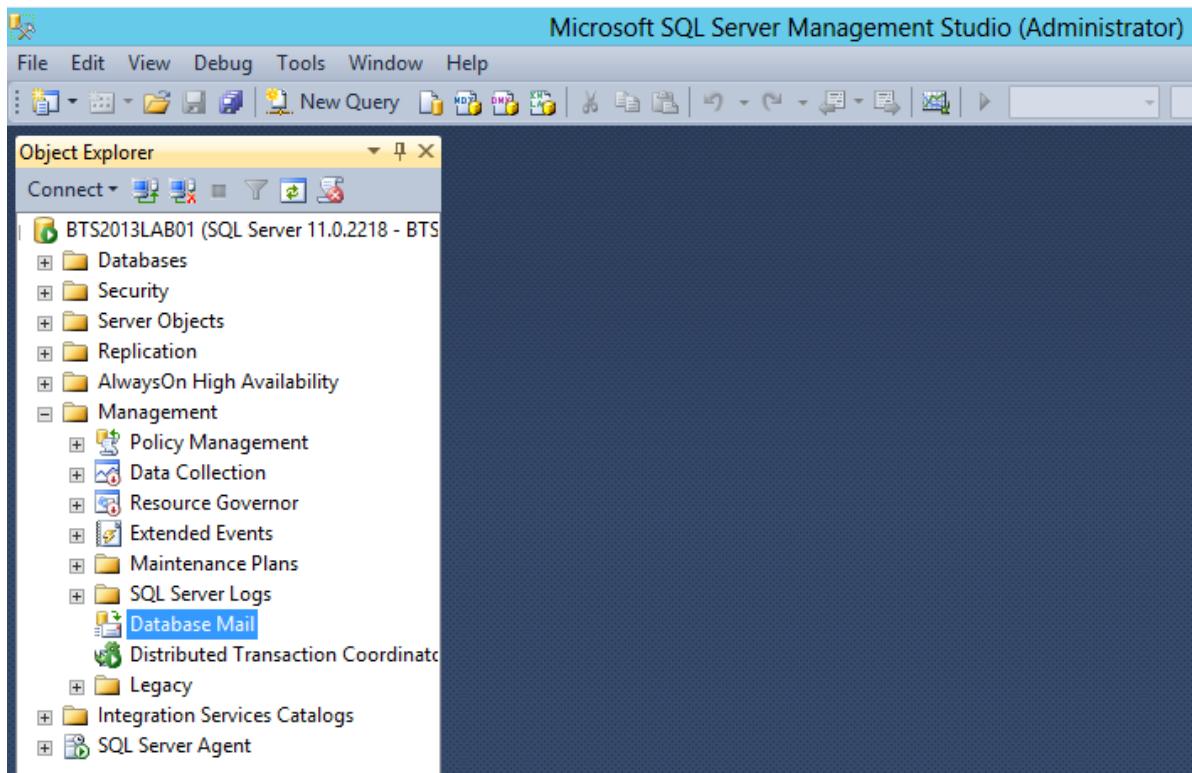
Before we begin, we need to determine the server name and port number for the Simple Mail Transfer Protocol (SMTP) server that we will use to send e-mail (If the SMTP server requires authentication, determine the user name and password for the SMTP server). In our case will be the local SMTP Server that we previous install and configure.

To Configure SQL Server Database Mail Account:

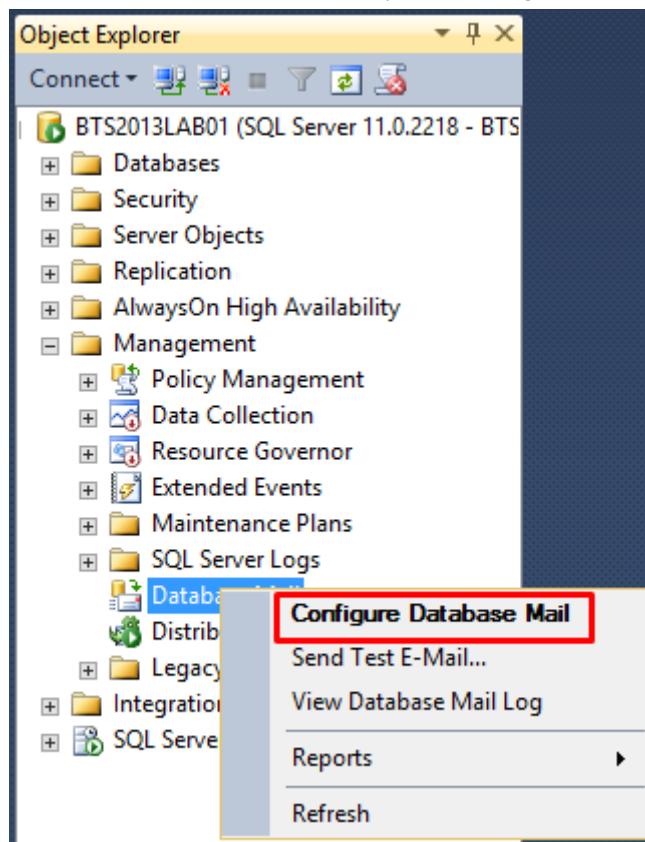
- Press the “Windows key” to switch to Start screen and type “SQL Management” or “SQL” and click in “SQL Server Management Studio” option on Apps menu.



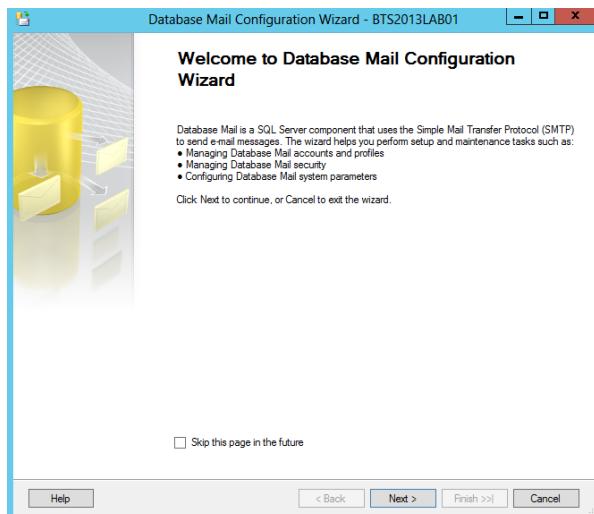
- In Object Explorer panel, connect to the SQL Server instance you want to configure Database Mail on, and expand the server tree.
 - Expand the “Management” node



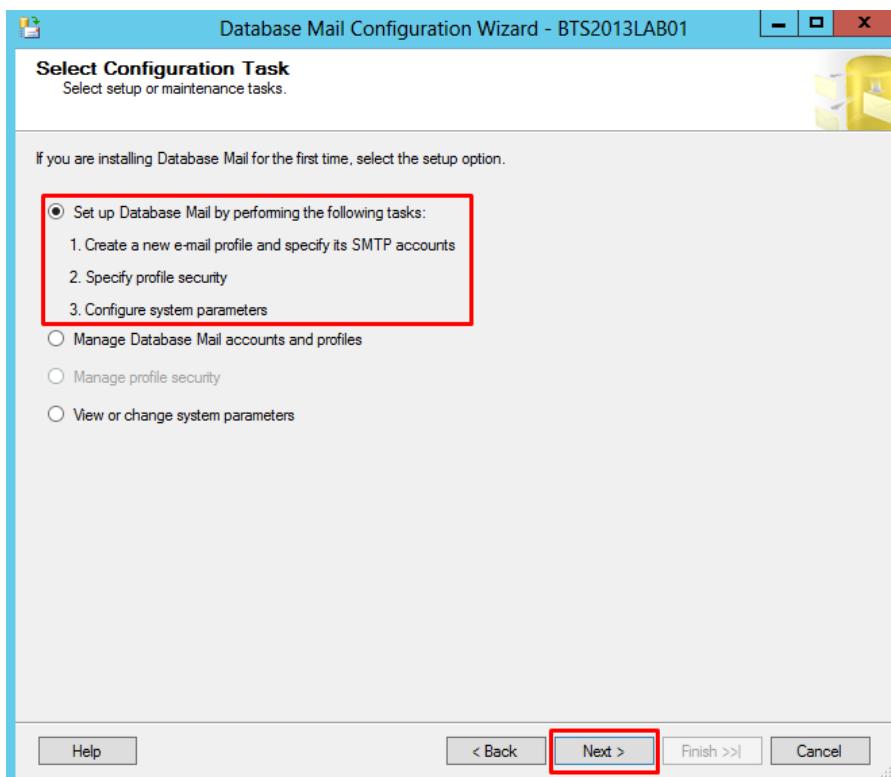
- Double click “Database Mail” to open the Database Mail Configuration Wizard.
 - Or right click under “Database Mail” and select the option “Configure Database Mail”



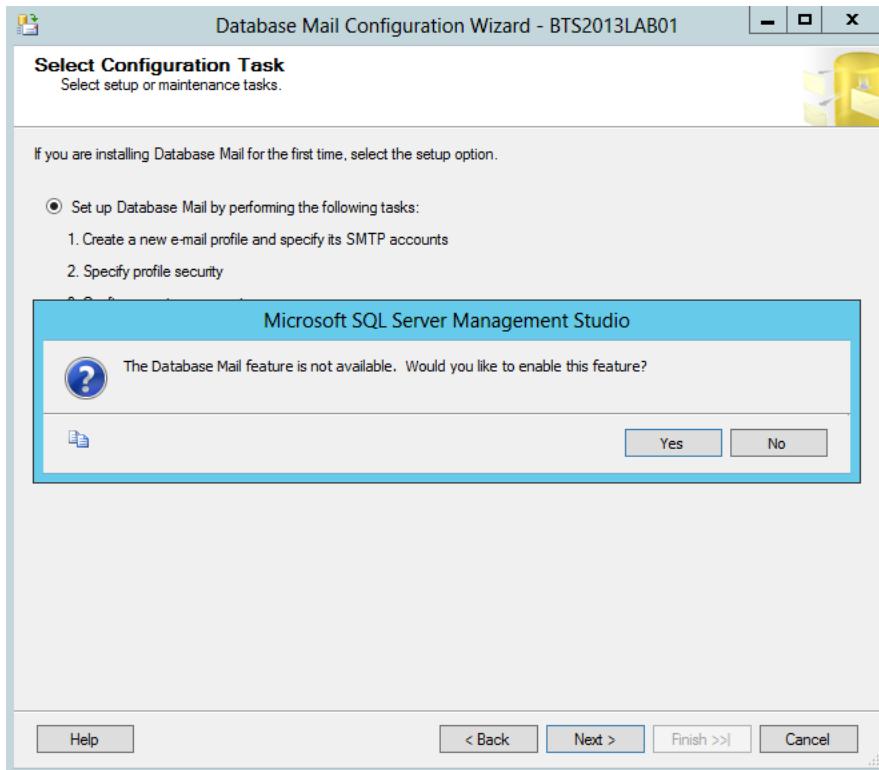
- On the Welcome to Database Mail Configuration Wizard page, click “Next” to continue



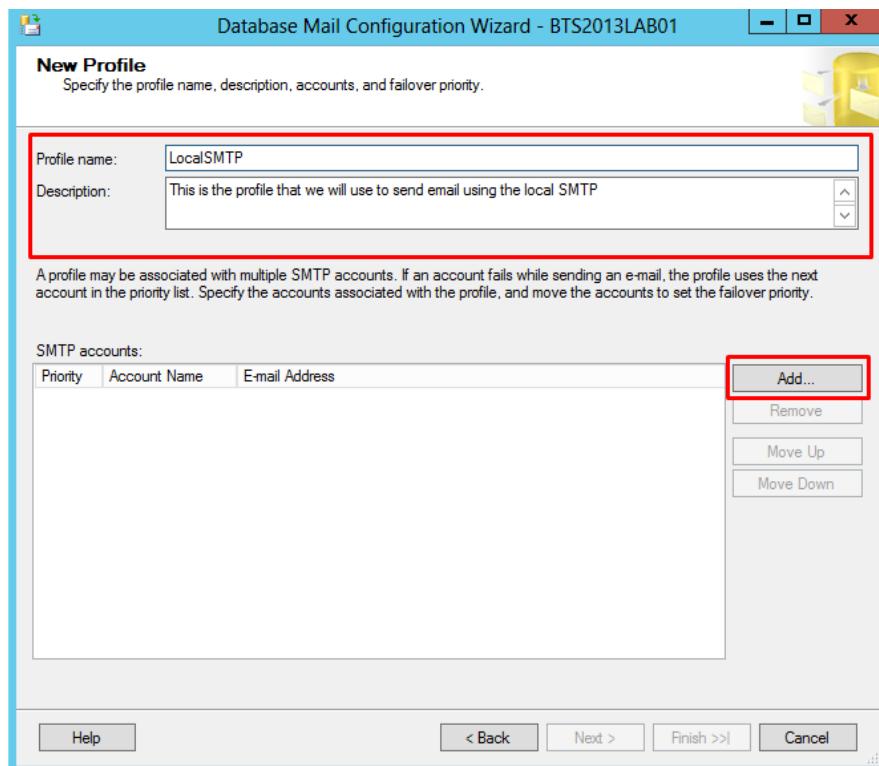
- On the Select Configuration Task page, select “Set up Database Mail by performing the following tasks:” and click “Next” to continue.
 - Set up Database Mail by performing the following tasks:** Perform all of the tasks required to set up Database Mail for the first time. This option includes all of the other three options.
 - Manage Database Mail accounts and profiles:** Create new Database Mail accounts and profiles or to view, change, or delete existing Database Mail accounts and profiles.
 - Manage profile security:** Configure which users have access to Database Mail profiles.
 - View or change system parameters:** Configure Database Mail system parameters such as the maximum file size for attachments.



- If Database Mail has not been enabled, you will receive the message: “The Database Mail feature is not available. Would you like to enable this feature?” Click “Yes” to continue.



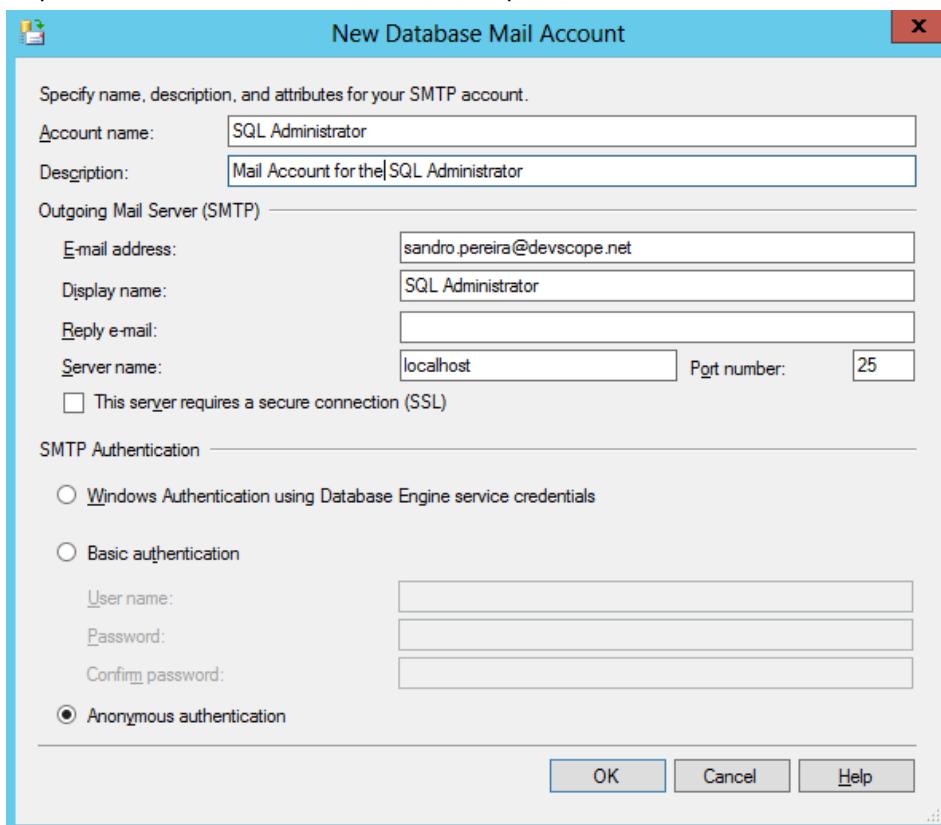
- On the New Profile page, specify the “Profile name” and “Description” to be included in the profile, and click “Add...” to specify an account



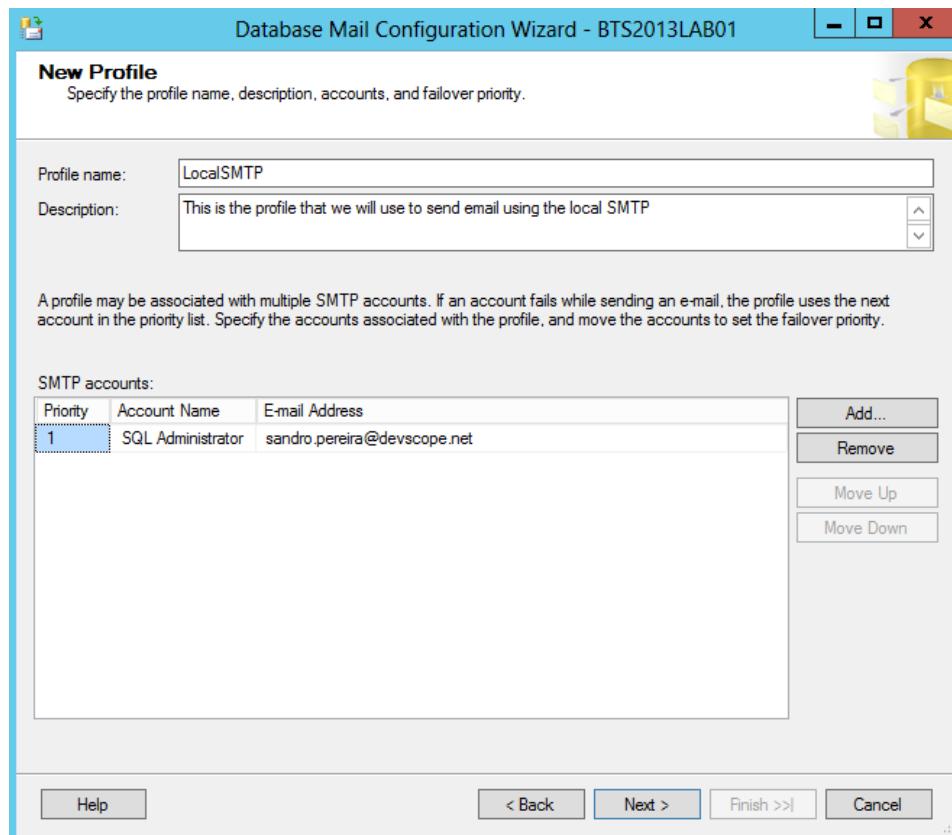
- On the New Database Mail Account page, specify the account name, description, mail server information, and authentication type. Click “OK”

- A Database Mail account contains the information that SQL Server uses to send e-mail messages to an SMTP server. Each account contains information for one e-mail server and doesn't correspond to a SQL Server account or a Microsoft Windows account. Database Mail can be sent using the credentials of the SQL Server Database Engine, using other credentials that you supply, or anonymously. When using basic authentication, the user name and password in a Database Mail account are only used for authentication with the e-mail server. An account need not correspond to a SQL Server user or a user on the computer running SQL Server.

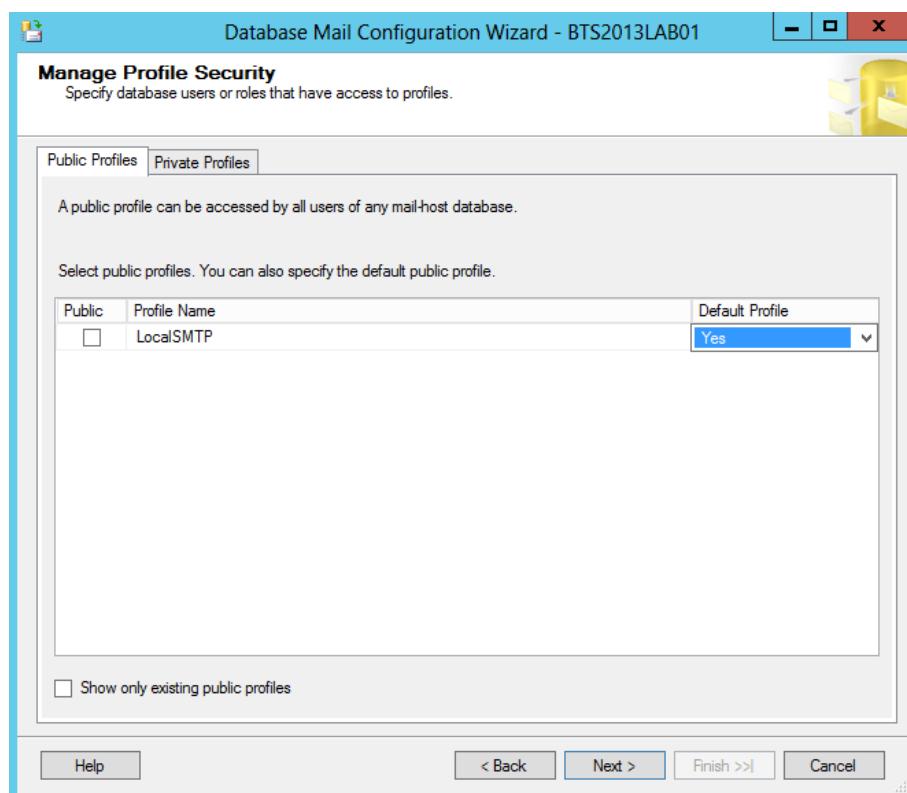
- **Account name:** Type the name of the new account.
- **Description:** Type a description of the account. The description is optional.
- **E-mail address:** Type the name of the e-mail address for the account. This is the e-mail address that e-mail is sent from. For example, an account for SQL Server Agent may send e-mail from the address SqlAgent@Adventure-Works.com.
- **Display name:** Type the name to show on e-mail messages sent from this account. The display name is optional. This is the name displayed on messages sent from this account. For example, an account for SQL Server Agent may display the name "SQL Server Agent Automated Mailer" on e-mail messages.
- **Reply e-mail:** Type the e-mail address that will be used for replies to e-mail messages sent from this account. The reply e-mail is optional. For example, replies to an account for SQL Server Agent may go to the database administrator, danw@Adventure-Works.com.
- **Server name:** Type the name or IP address of the SMTP server the account uses to send e-mail. Typically this is in a format similar to smtp.<your_company>.com. For help with this, consult your mail administrator. As I say early we will use our local SMTP Server, so the server name will be "localhost"
- **Port number:** Type the port number of the SMTP server for this account. Most SMTP servers use port 25.
- **This server requires a secure connection (SSL):** Encrypts communication using Secure Sockets Layer.
- **Windows Authentication using Database Engine service credentials:** Connection is made to the SMTP server using the credentials configured for the SQL Server Database Engine service.
- **Basic Authentication:** Specify the user name and password required by the SMTP server.
- **Anonymous authentication:** Mail is sent to the SMTP server without login credentials. Use this option when the SMTP server does not require authentication.



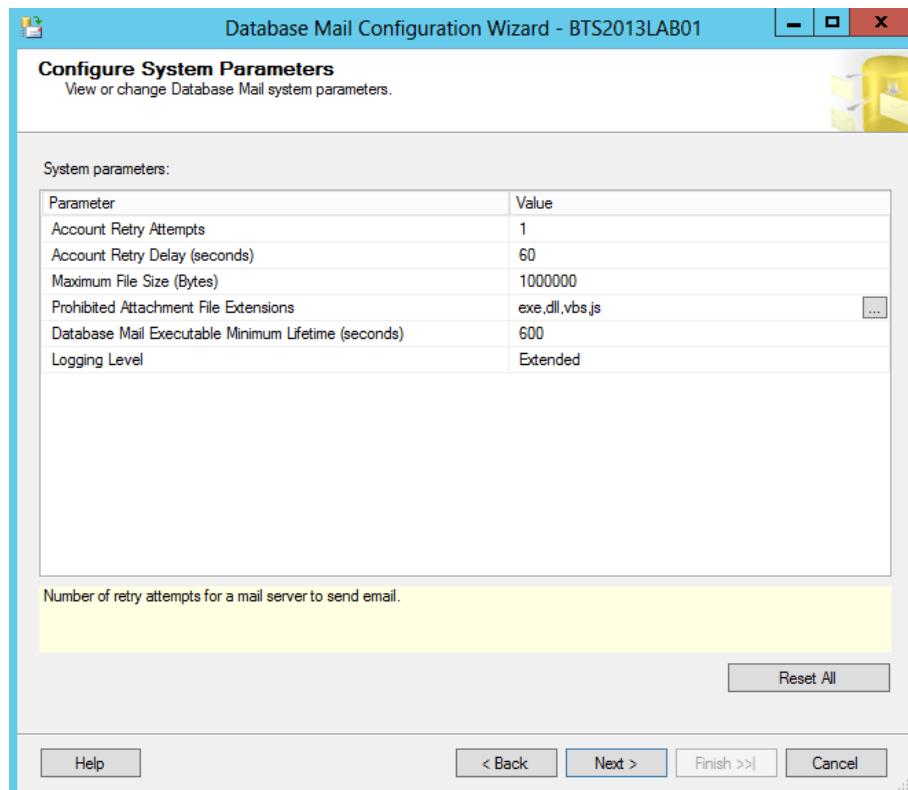
- Back on the New Profile page, click "Next" to continue



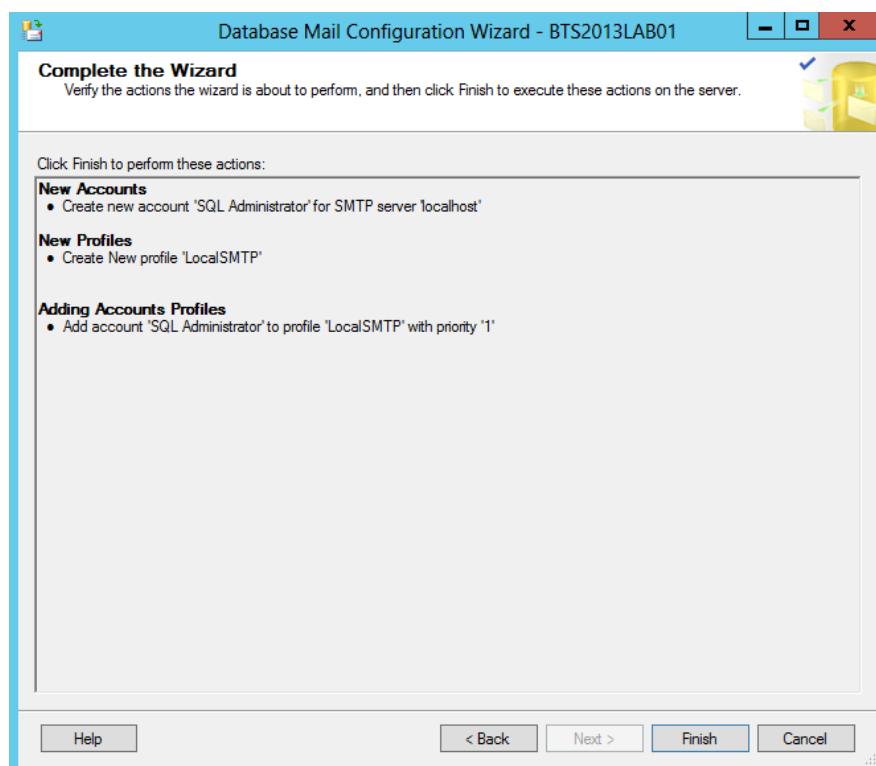
- On the Manage Profile Security page, you will be able to set the Public, Private and Default Profiles, select our profile as public and default and click “Next”.



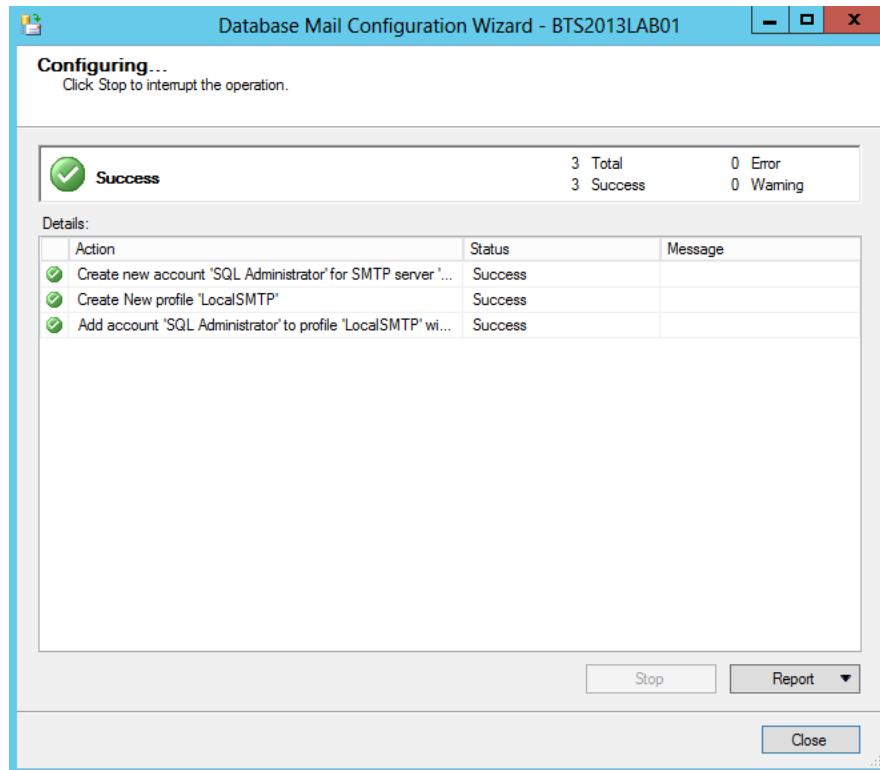
- On the Configure System Parameters page, leave the default values and click “Next”



- On the Complete the Wizard page, review the actions to be performed and click “Finish” to complete creating the new account.

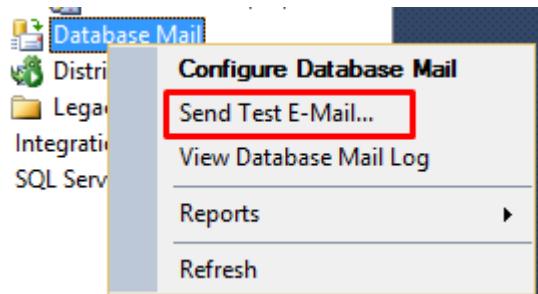


- On the “Configuring...” page, ensure that all actions succeed and then click “Close”

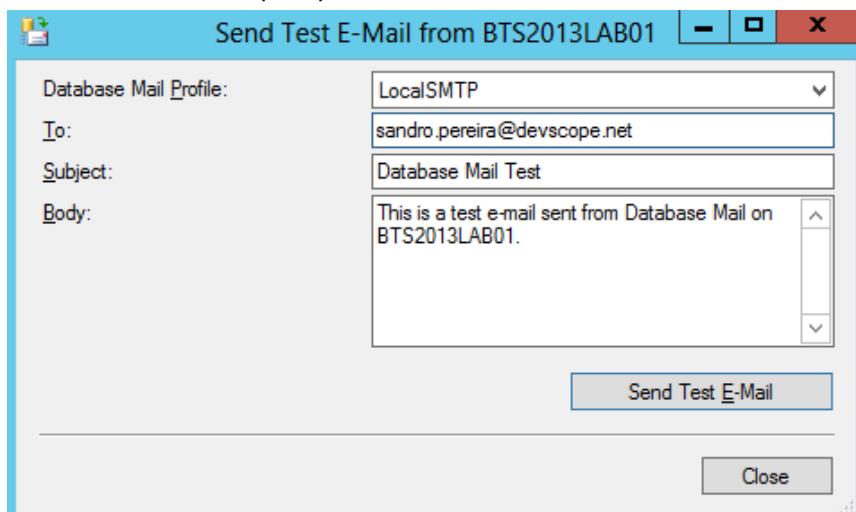


The Database Mail should now be configured successfully and all should be correctly setup to send emails, but we must make sure by testing it. So we will send a test email and confirm the reception. To do that:

- Right-click on Database Mail and select “Send Test E-Mail...”



- On the Send Test E-mail from windows, specify a “To:” email and click “Send Test E-Mail”



If all goes well you should receive the email in a few seconds. If you have received the email, you have been able to configure Database Mail successfully.

4. Install and configure BizTalk Server 2013

This part of the article will focus on installing and configuring BizTalk Server 2013 and additional components.

4.1 Install BizTalk Server 2013

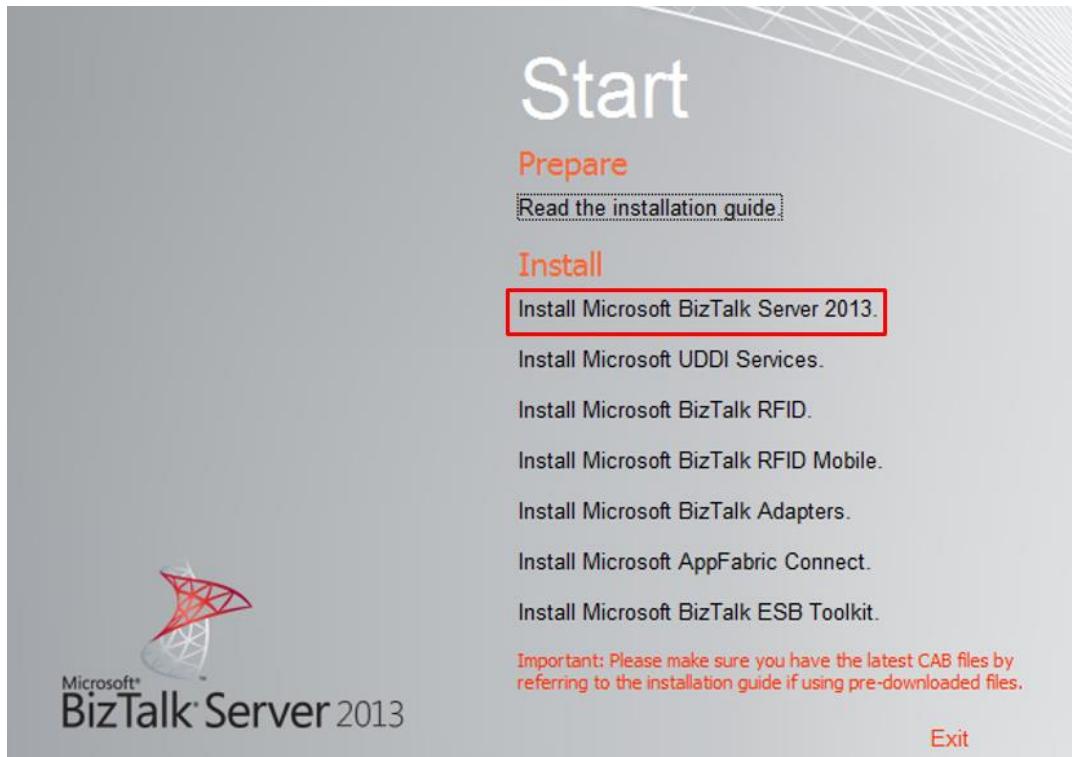
In this section you'll install BizTalk Server, confirm that the installation succeeded, and then configure BizTalk Server.

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

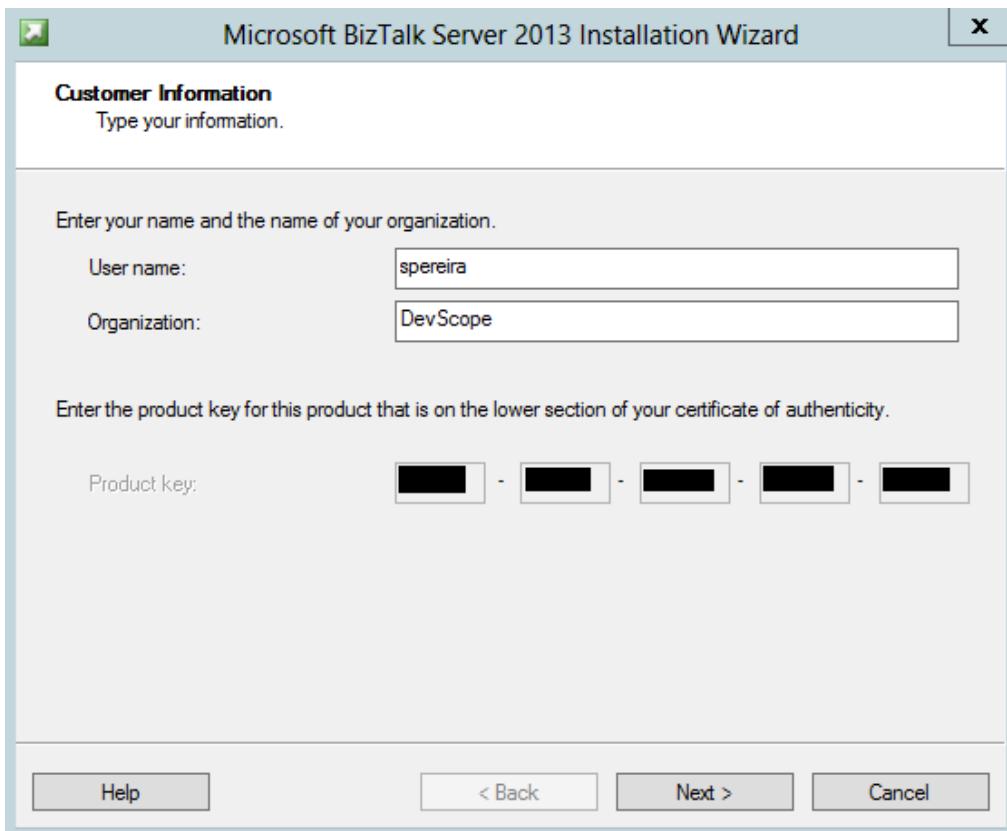
- Use the same account you used when you installed SQL Server.
- Or make sure the account you're using now also has Database Administrator rights and is also local administrator.

To install BizTalk Server 2013

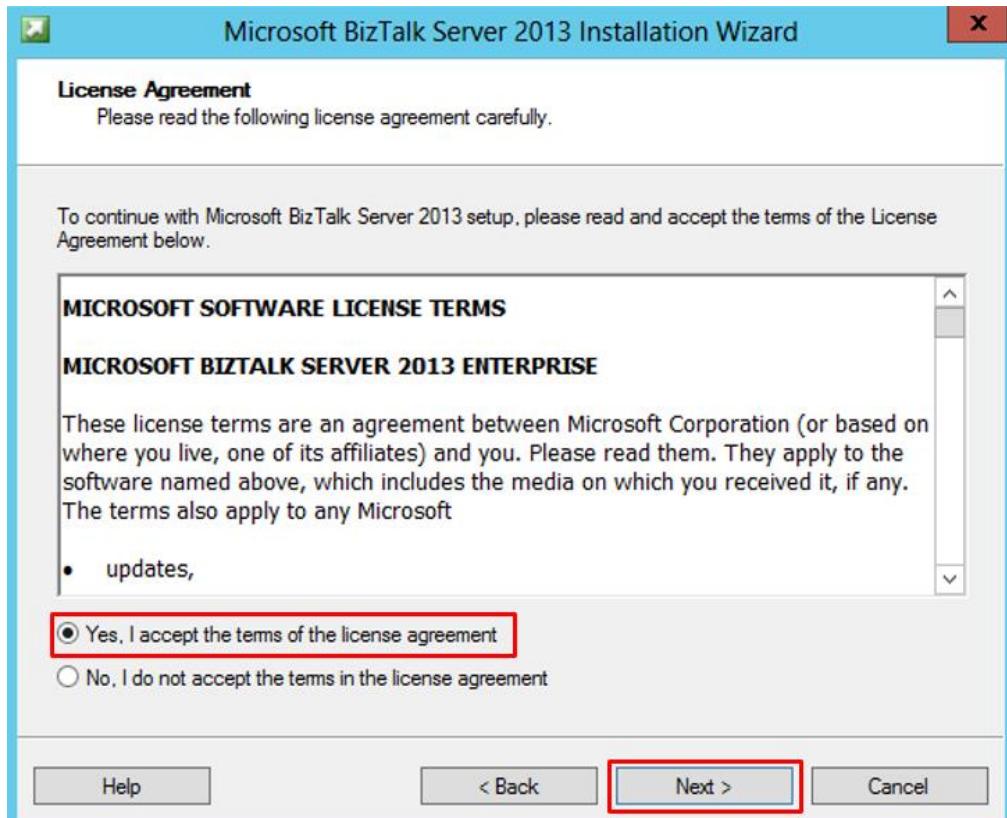
- Close any programs you have open. Run the BizTalk Server 2013 installer as Administrator.
- On the Start screen, click "Install Microsoft BizTalk Server 2013"



- On the Customer Information screen, type your user name and organization, enter your product key, and then click "Next"



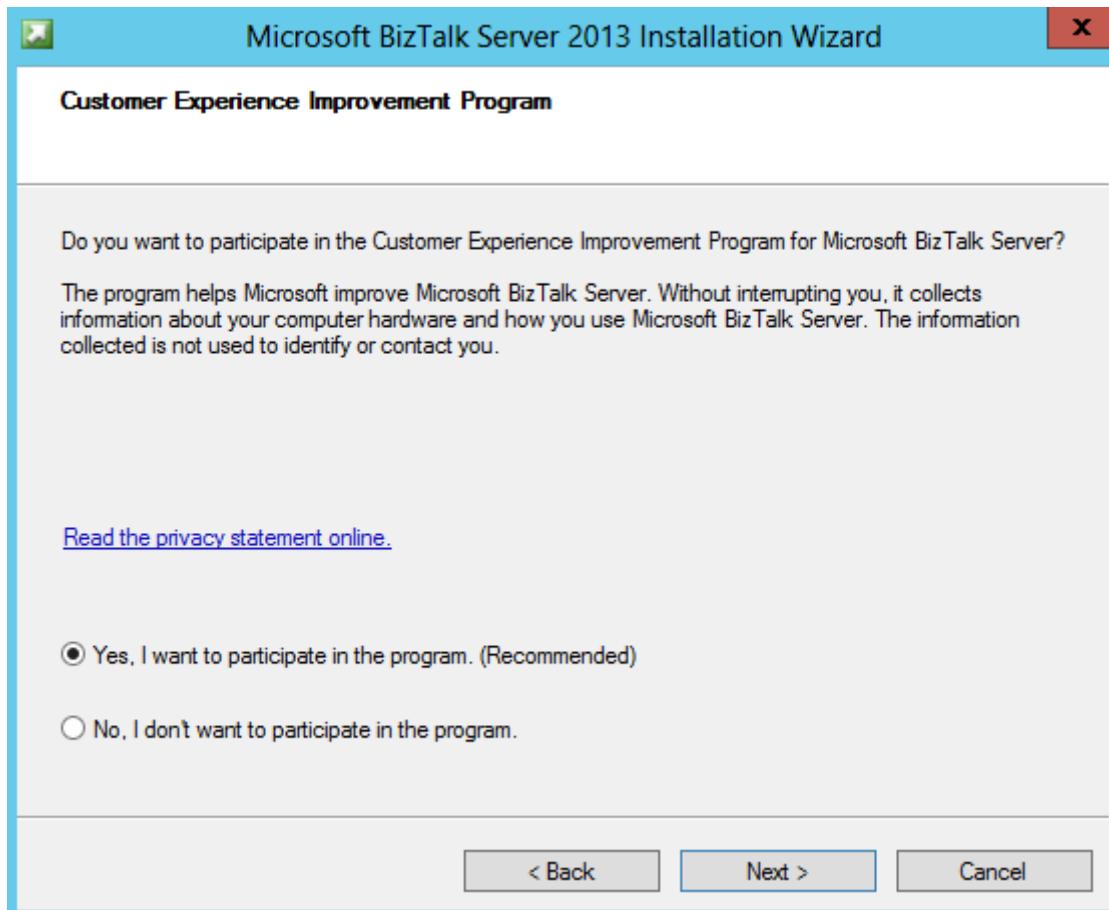
- On the License Agreement screen, accept the license agreement, and then click “Next”



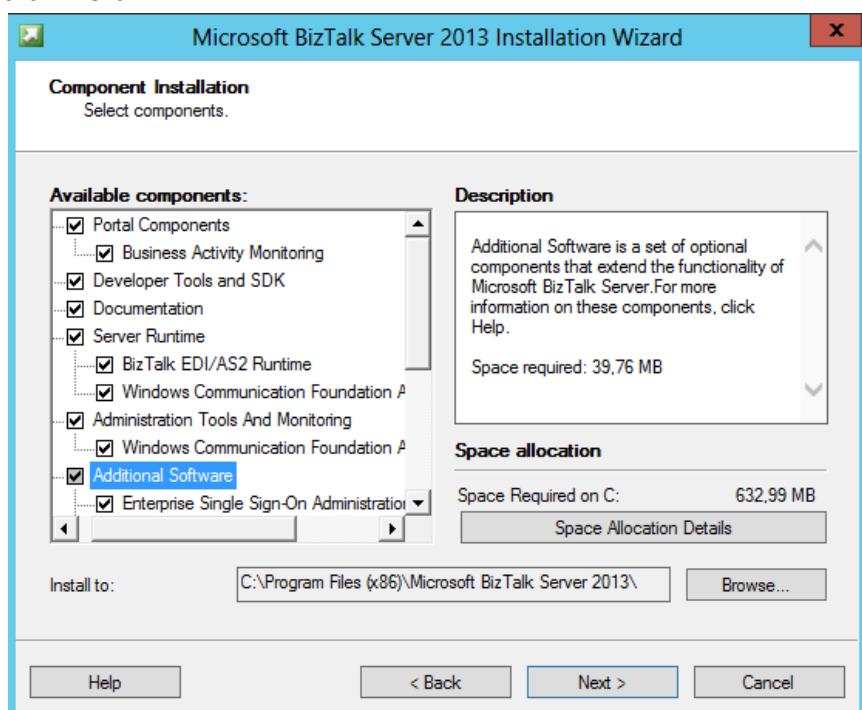
- On the Customer Experience Improvement Program screen, specify whether you want to participate in the program, and then click “Next”

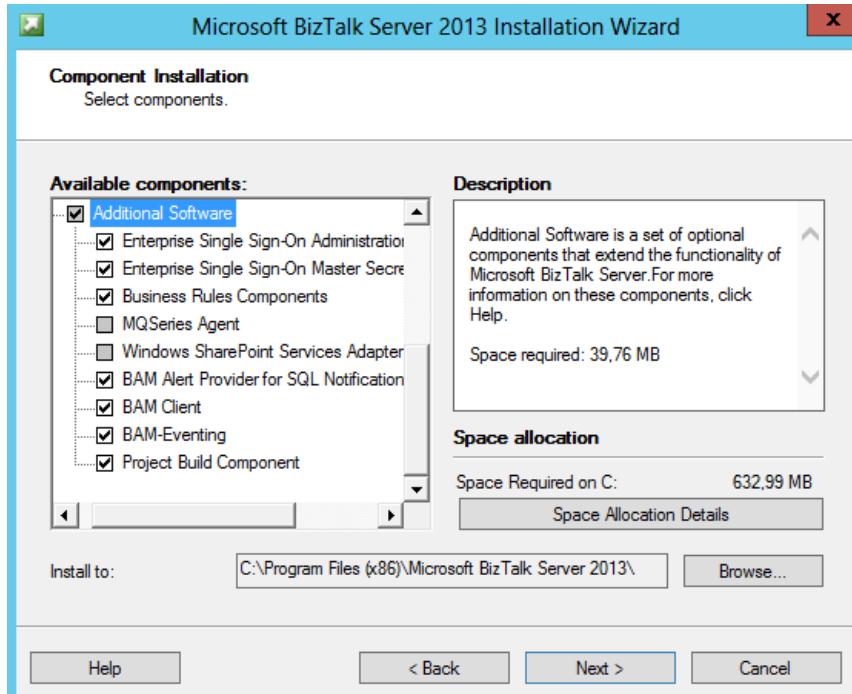
- BizTalk Server 2013 participates in the Customer Experience Improvement Program. As part of this support, you can choose to provide useful feedback to Microsoft regarding feature usage reporting functionality of BizTalk Server. The data collected from you is anonymous and cannot be used to identify you. Microsoft collects feature usage statistics as part of this program. By participating in this program, you can help improve

the reliability and performance of various features of BizTalk Server. For more information about this program and its privacy policy, see Microsoft BizTalk Server CEIP Privacy Policy (<http://go.microsoft.com/fwlink/?LinkId=188553>).



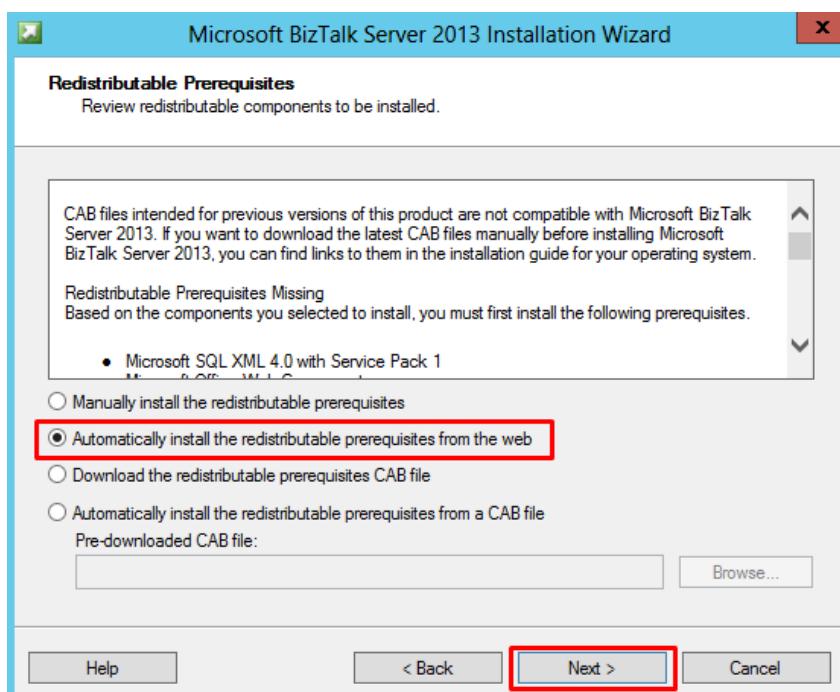
- On the Component Installation screen, review the available components and select the ones you want to install.
 - Choose all possible components
 - Accept the default installation location or click Browse to move to the location where you want to install BizTalk Server 2013.
 - And then click "Next"





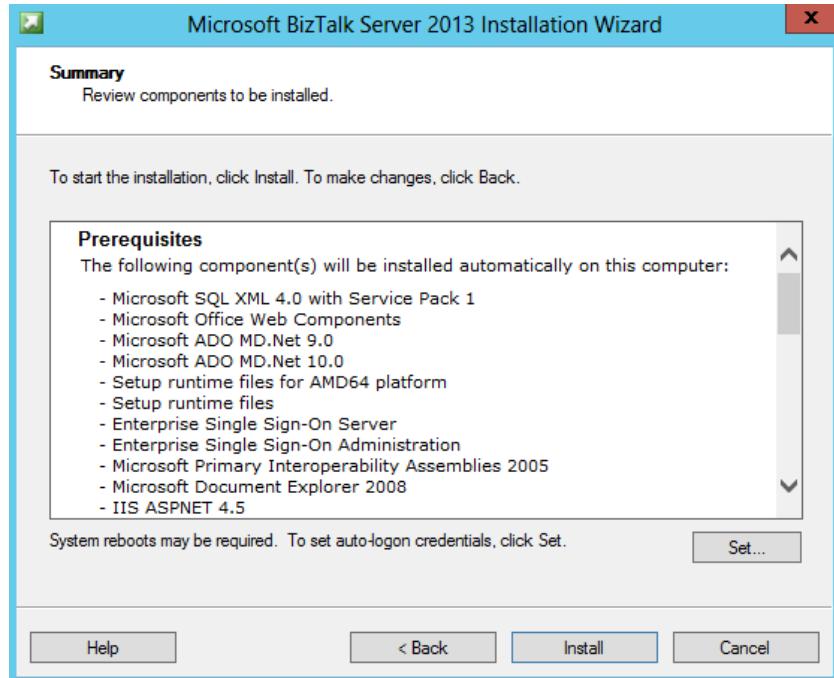
- If your computer is missing a prerequisite component such as ADOMD.NET, Setup can install the redistributable prerequisites. You can either:
 - Select “Automatically install the redistributable prerequisites from the web”
 - Or if you prefer you can select “Automatically install the redistributable prerequisites from a CAB file” if you have already downloaded the CAB file. If you select this, you can then browse to the location of the CAB file and select it.
 - And then click “Next” to continue.

NOTE: To understand all options and where to find the Redistributable CAB Files, see: Appendix B: Redistributable CAB Files

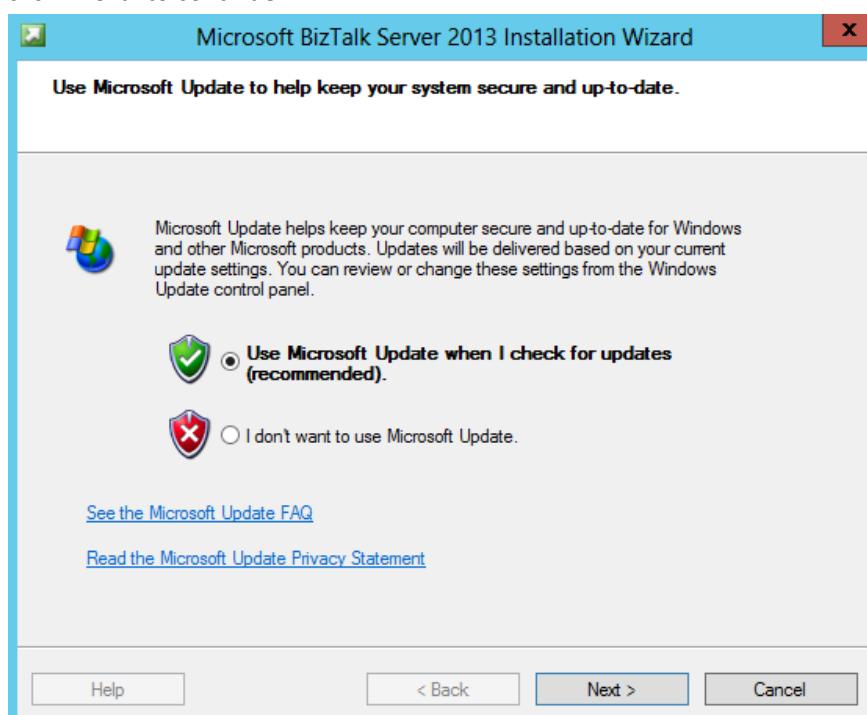


- On the Summary screen, verify that the components that you select to install are correct.

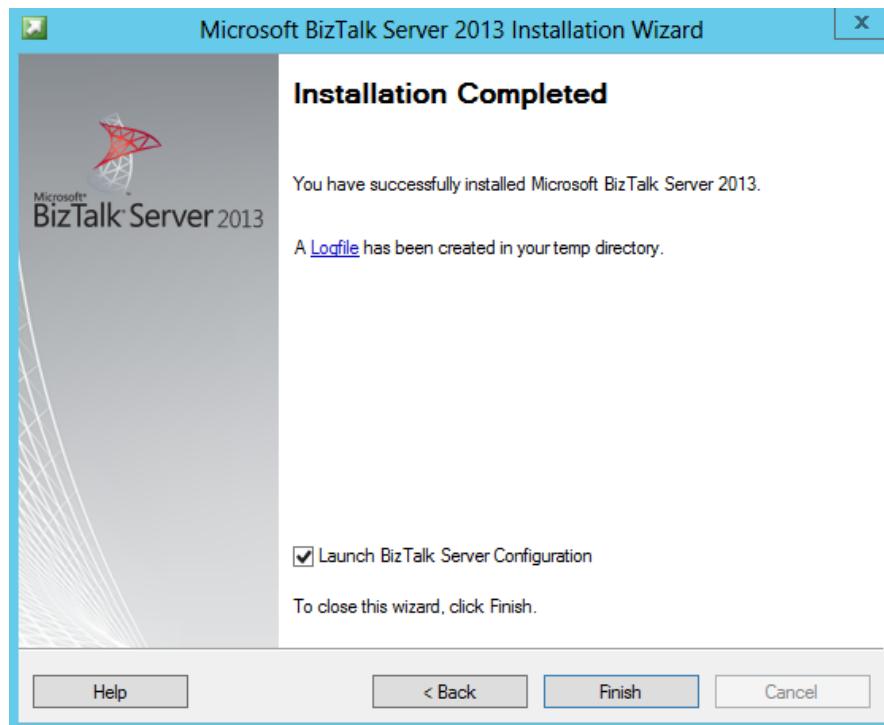
- To enable auto-logon after a system reboot, click “Set” and provide your logon information. Auto-logon is enabled only for reboots during setup, and is disabled when setup is complete.
- Click “Install” to start the installation process.



- On the Microsoft Update Setup screen, specify whether you want to use Microsoft Update for checking for regular updates from Microsoft:
 - Select “Use Microsoft Update when I check for updates (recommended)”
 - And then click “Next” to continue.



- On the Installation Completed screen, clear the “Launch BizTalk Server Configuration” check box, and then click “Finish”

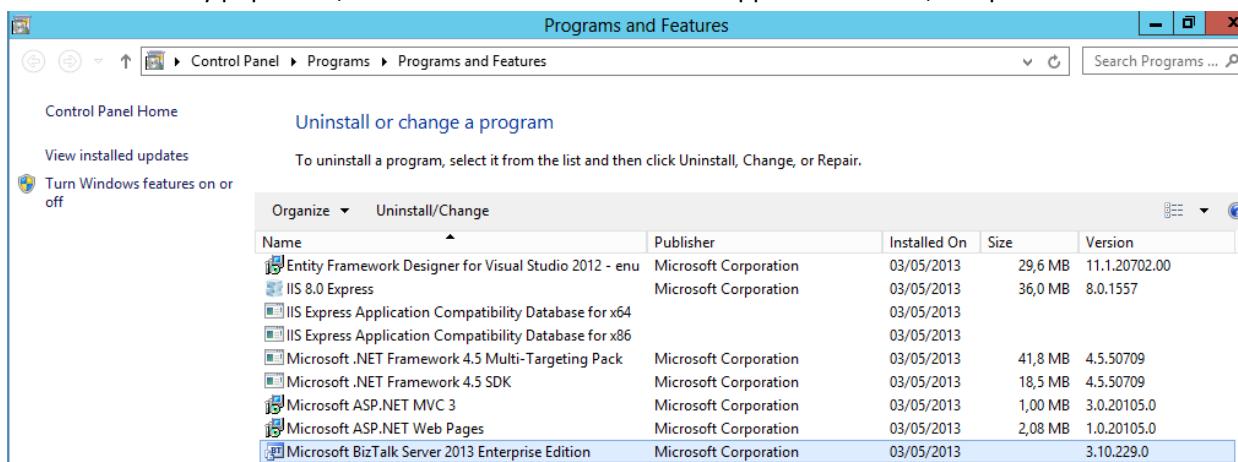


4.1.1 Verify Your Installation

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

To verify installation using Programs and Features

- Press the “Windows key” to switch to Start screen.
- Type “Programs and Features” and click in “Programs and Features” option on Settings menu.
- When the list is fully populated, look for BizTalk Server 2013. If it appears in the list, setup succeeded.

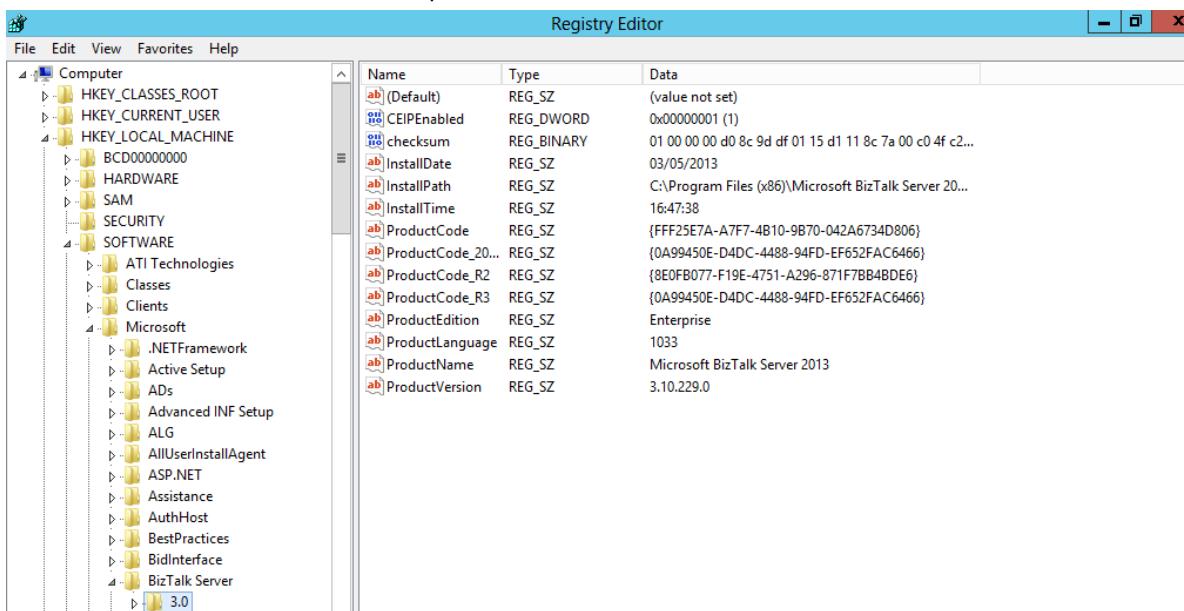


To verify installation using the Registry:

- Press the “Windows key” to switch to Start screen and type “regedit” and click in “regedit” option on Apps menu.



- When the Registry opens, browse to HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\BizTalk Server\3.0
 - If files exist in the 3.0 folder, setup succeeded.



- Close the Registry, and then close the command prompt.

4.2 Configure BizTalk Server

Use the following procedure to complete a basic configuration of BizTalk Server. For information on customizing your configuration, see [Custom Configuration](#).

NOTE: If your BizTalk Server environment uses SQL Server 2012 and you wish to configure BAM Alerts, you must have already configured SQL Server Database Mail feature.

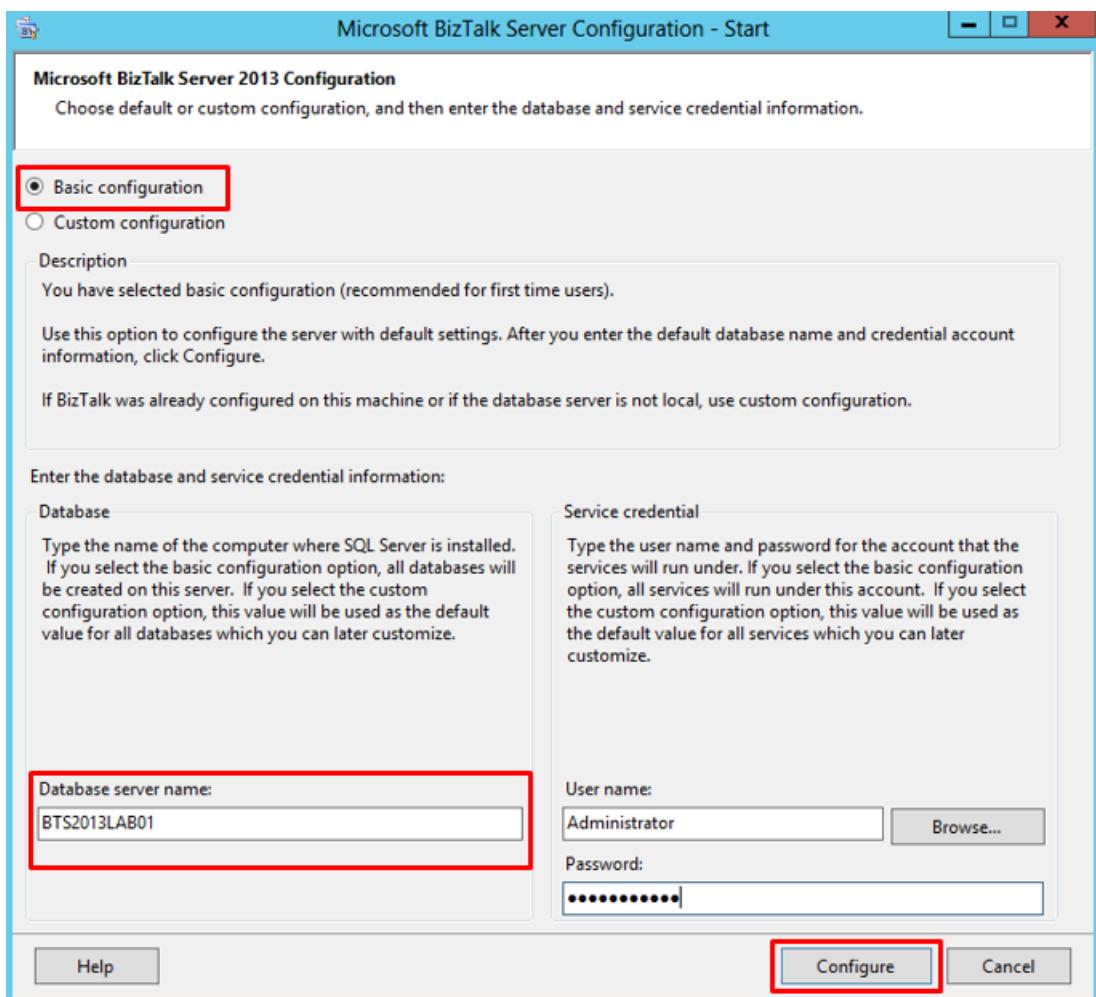
To configure BizTalk Server 2013 using Basic Configuration:

- Press the “Windows key” to switch to Start screen and type “BizTalk Server Configuration” or “BizTalk”, right-click “BizTalk Server Configuration” option on Apps menu, and then click Run as Administrator.

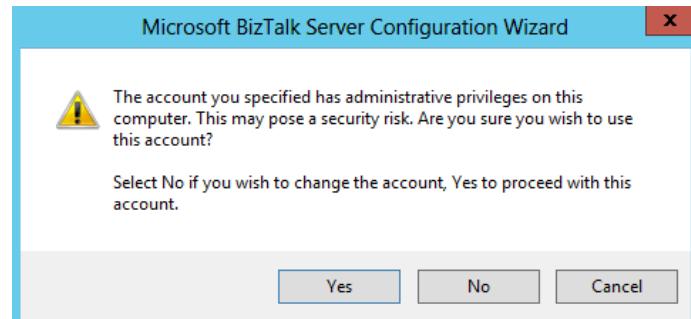


- On the Microsoft BizTalk Server 2013 Configuration screen, apply the following configurations and then click “Configure” to continue:
 - Select “Basic configuration” option
 - In the “Database server name” field under “Database” properties, enter the name of the local computer.
 - In the “Service credential” properties, type the User name and Password for the account that the BizTalk services will run under.

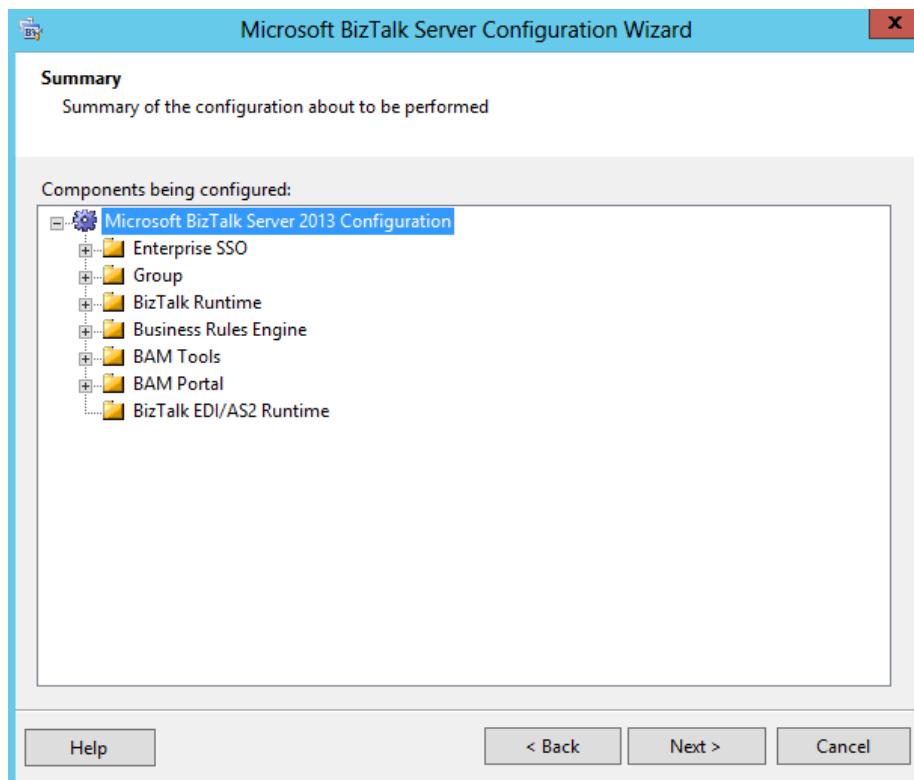
NOTE: If you are installing a multi-server BizTalk environment you should use “Custom configuration”. For helping you decide what kind of configuration you should use, see [APPENDIX C: BASIC CONFIGURATION VS. CUSTOM CONFIGURATION](#)



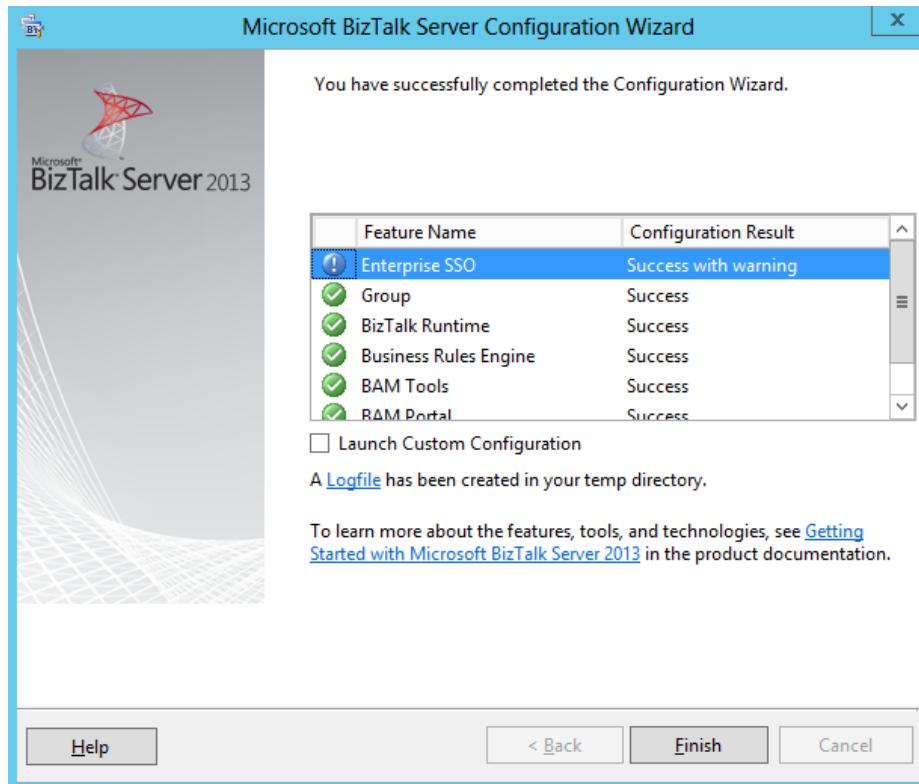
- Note: You may receive a warning if you enter a user name with administrative credentials on this computer. Click “Yes” to continue.



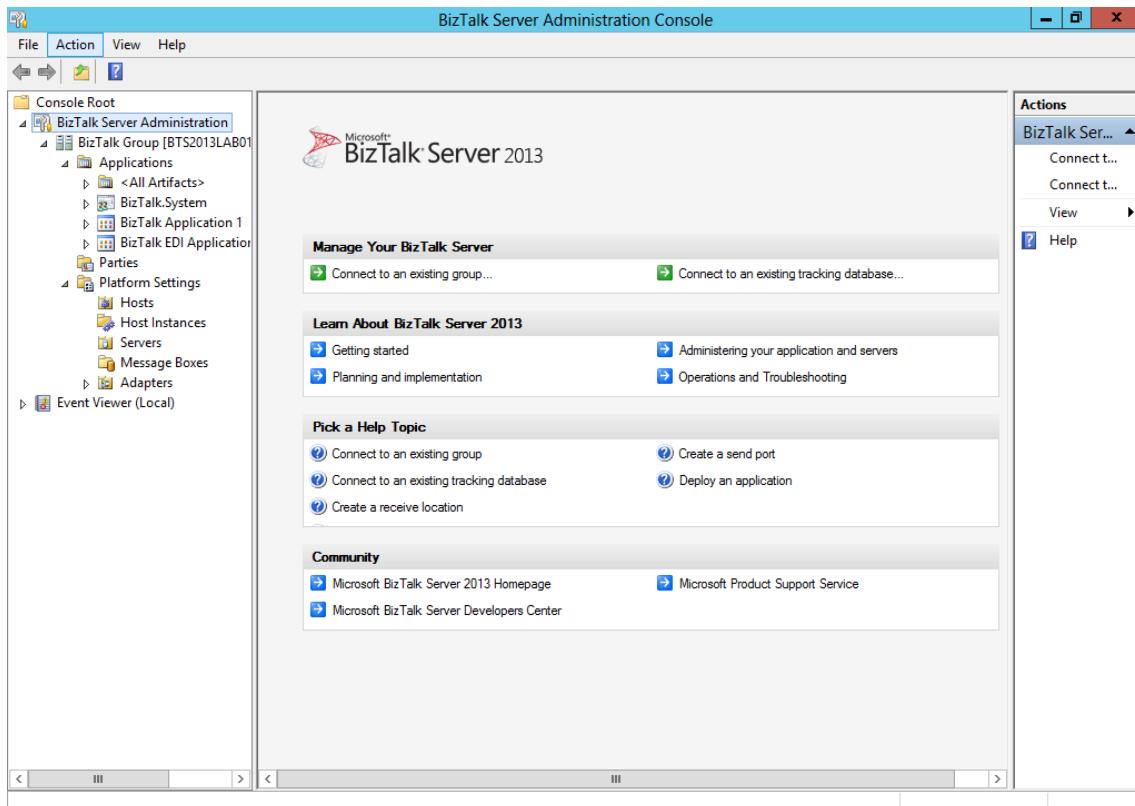
- On the Summary screen, review the configuration about to be performed, and then click "Next"



- On the Completion screen, click "Finish"



We now have BizTalk Server 2013 Installed and Configured!!!



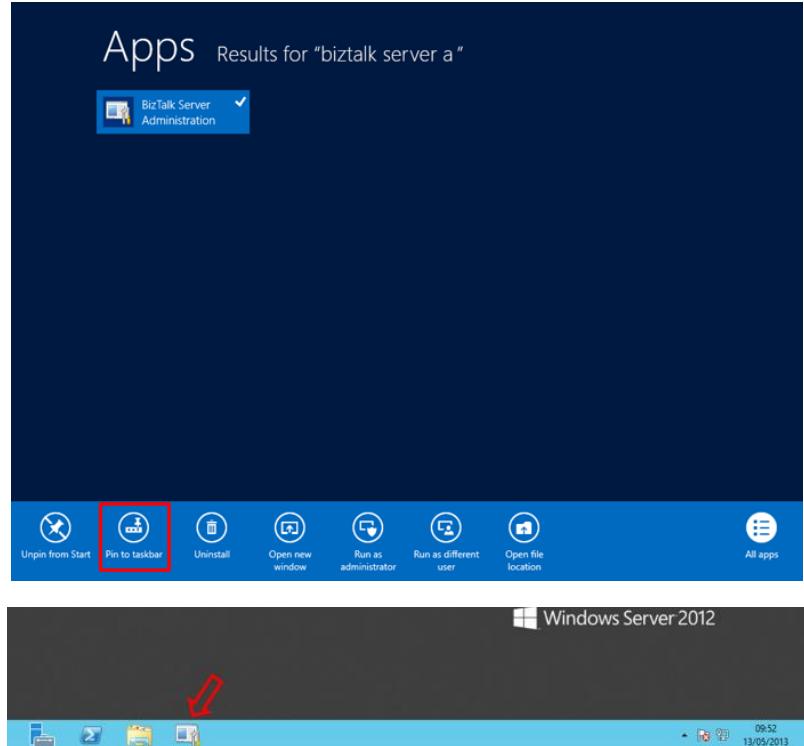
4.2.1 Pin BizTalk Server Administration to taskbar

Everybody knows that BizTalk Server Administration Console is the most important tool, it's a Microsoft Management Console (MMC) that you can use to manage and monitor BizTalk Server, and that you can use to deploy and manage your BizTalk Server applications.

With the new UI in Windows Server 2013, almost all programs are “hidden” and can be easily be accessed through context search from the Start screen. However be constantly doing this type of operation eventually becomes annoying.

So to be able to quickly and easily access BizTalk Server Administration Console you can pin the console to the taskbar, to accomplish that you need:

- Press the “Windows key” to switch to Start screen and type “BizTalk Server Administration” or “BizTalk” and right click in “BizTalk Server Administration” option on Apps menu to open the option bar at the bottom of the window.
- In the option bar, select “Pin to taskbar” option to add “BizTalk Server Administration” to your desktop taskbar.

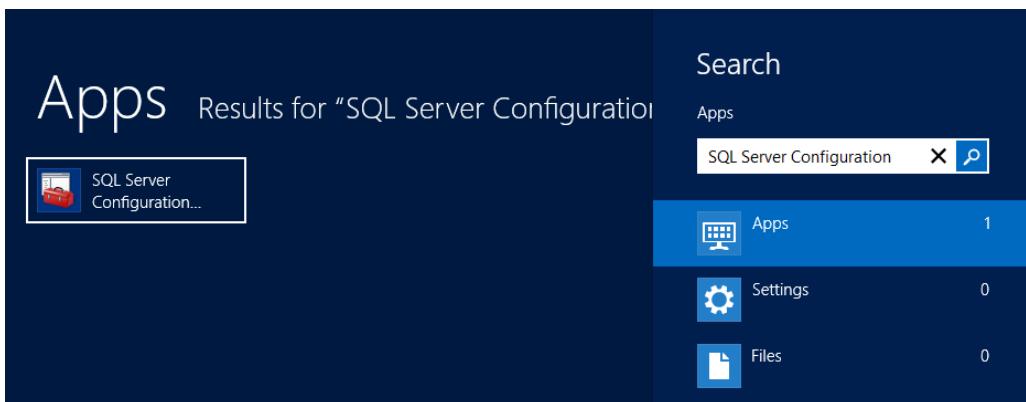


4.3 Configure SQL Server Network Configuration protocols

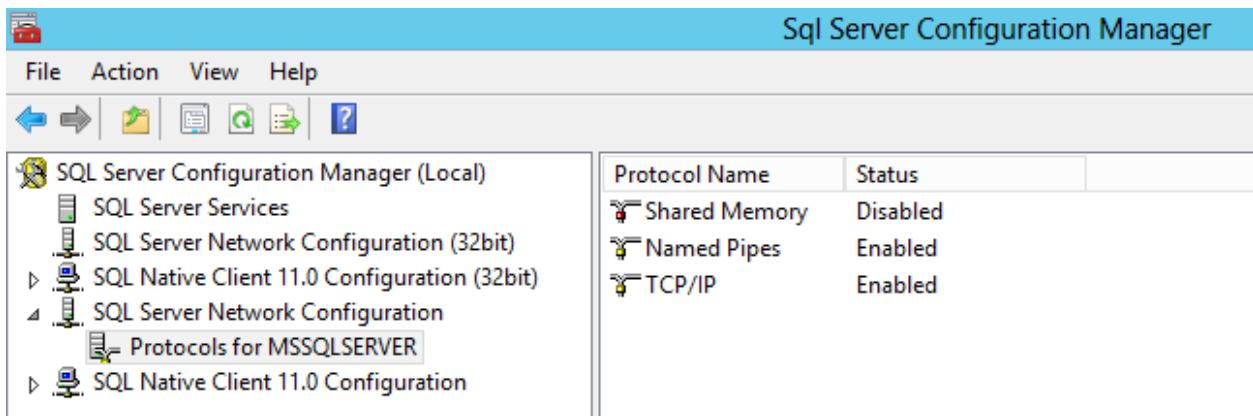
Under certain stress conditions (such as clients accessing SQL Server from the same computer), the SQL Server Shared Memory protocol may lower BizTalk Server performance. You can resolve this problem by disabling the use of the Shared Memory network protocol in SQL Server Network Configuration. Also, to facilitate transactions between SQL Server and BizTalk Server, you must enable TCP/IP and Named Pipes in SQL Server.

To configure the protocols for SQL Server:

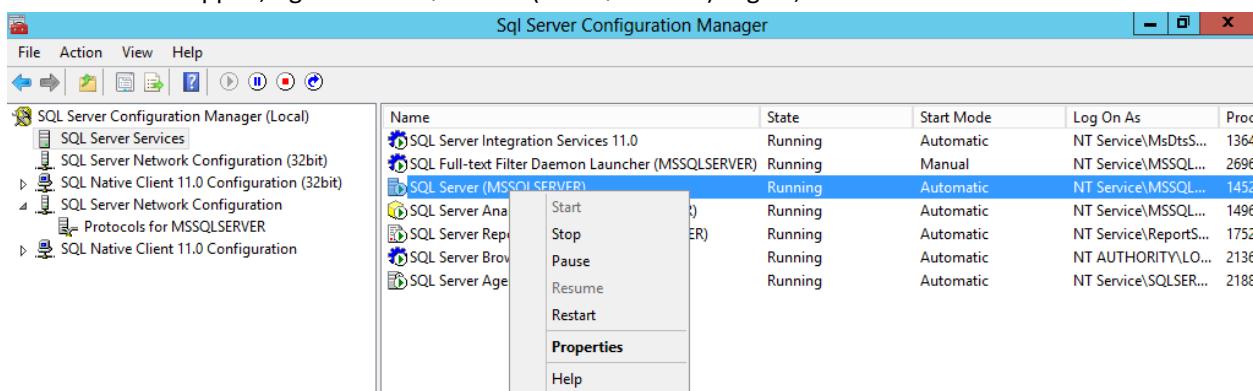
- Press the “Windows key” to switch to Start screen and type “SQL Server Configuration Manager” and click in “SQL Server Configuration Manager” option on Apps menu.



- In SQL Server Configuration Manager windows, from the left-hand pane expand “SQL Server Network Configuration” option and then click “Protocols for MSSQLSERVER”
 - Verify that both “TCP/IP” and “Named Pipes” are enabled;
 - If not, right-click in the protocol, and then click “Enable”
 - Repeat to enable the other protocol if necessary.
 - Verify that “Shared Memory” is Disable.
 - If not, right-click Shared Memory, and then click “Disable”



- In the left-hand pane, click “SQL Server Services”, right-click “SQL Server (MSSQLSERVER)”, and then click “Stop”. After the service has stopped, right-click “SQL Server (MSSQLSERVER)” again, and then click “Start”.



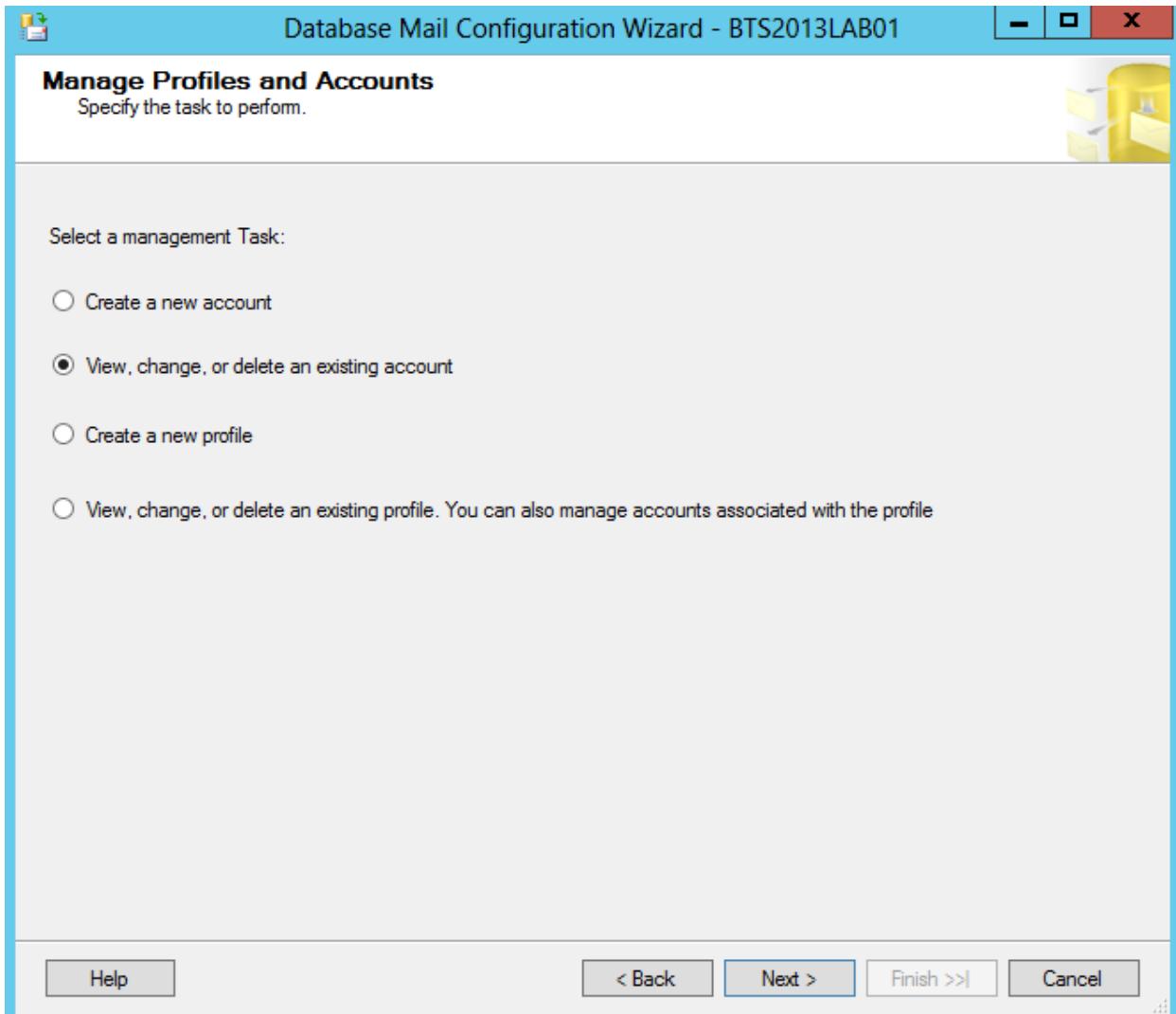
- Close SQL Server Configuration Manager.

4.4 Validate Mail account used by BizTalk to send BAM Alerts

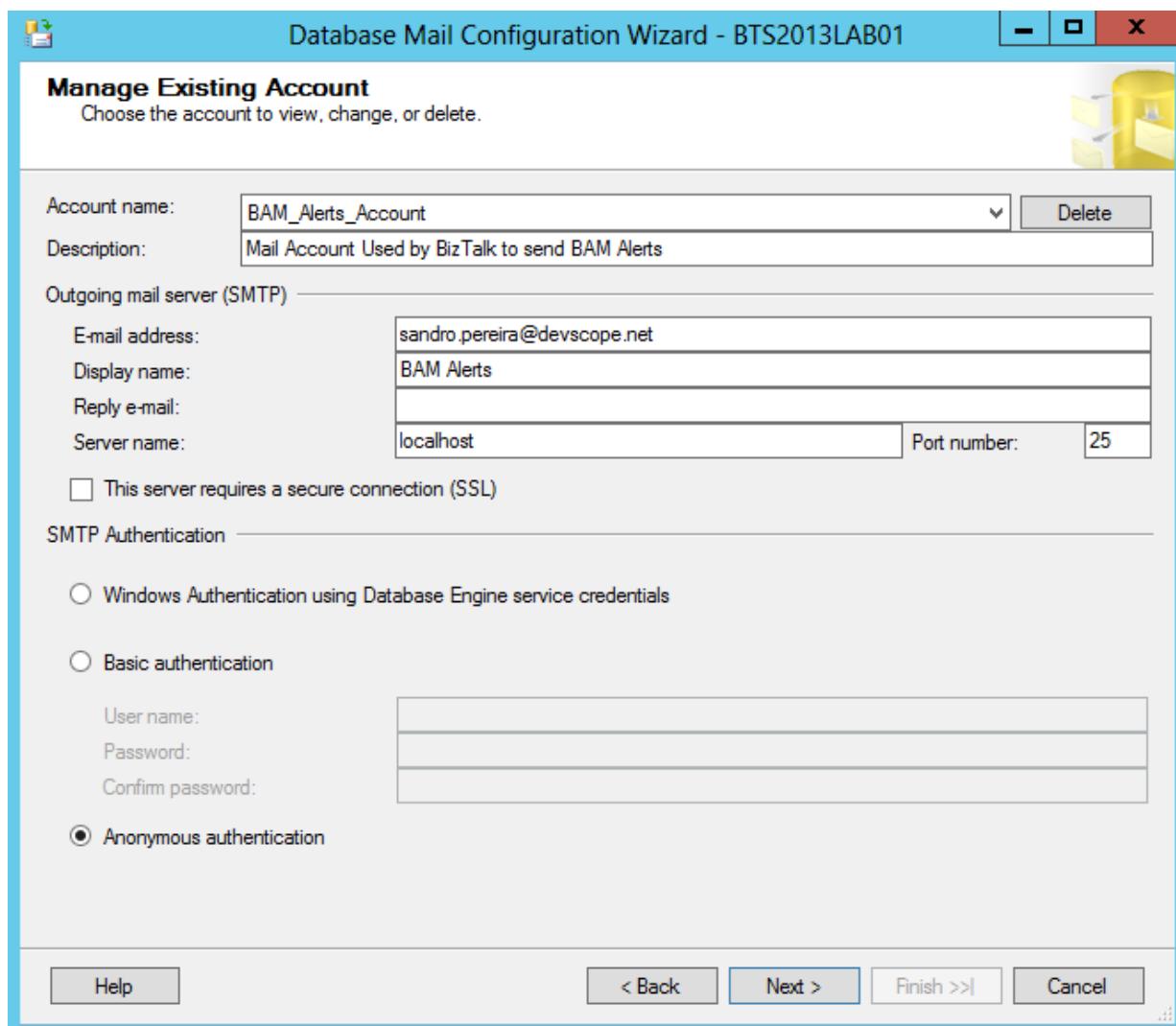
After you configure with success BizTalk Server 2013 BAM Alerts, the configurator will create a new Database Mail Account called “BAM_Alerts_Account” that will be used by BizTalk to send BAM Alerts.

To Validate Mail account used by BizTalk to send BAM Alerts:

- Press the “Windows key” to switch to Start screen and type “SQL Management” or “SQL” and click in “SQL Server Management Studio” option on Apps menu.
- In Object Explorer panel, connect to the SQL Server instance you want to configure Database Mail on, and expand the server tree.
- Expand the “Management” node and double click “Database Mail” to open the Database Mail Configuration Wizard.
- On the Welcome to Database Mail Configuration Wizard page, click “Next” to continue
- On the Select Configuration Task page, select “Manage Database Mail accounts and profiles” option and click “Next”
- On the Manage Profiles and Accounts page, select “View, change or delete an existent account” option, and click “Next”

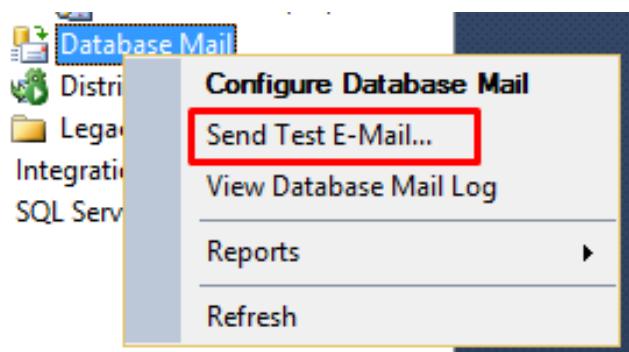


- On the Manage Existing Account page, select “BAM_Alerts_Account” option under “Account name” and validate the configuration. After that click “Next” to make any change or “Cancel” to exit.

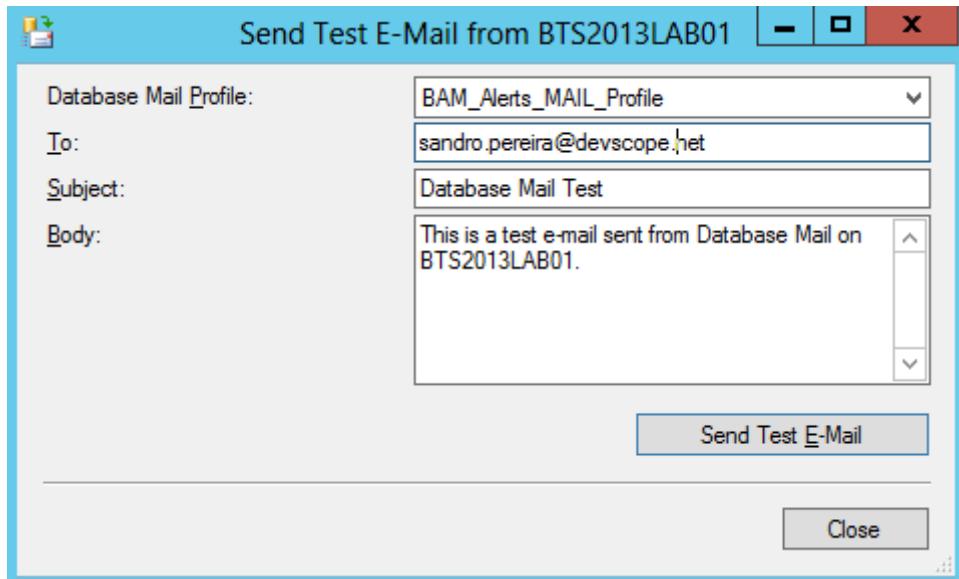


Finally you should test sending an email with this Database Mail Account, to do that:

- Right-click on Database Mail and select “Send Test E-Mail...”



- On the Send Test E-mail from windows, specify a “To:” email and click “Send Test E-Mail”



If all goes well you should receive the email in a few seconds. If you have received the email, you have been able to configure Database Mail successfully.

4.5 Install BizTalk Adapter Pack

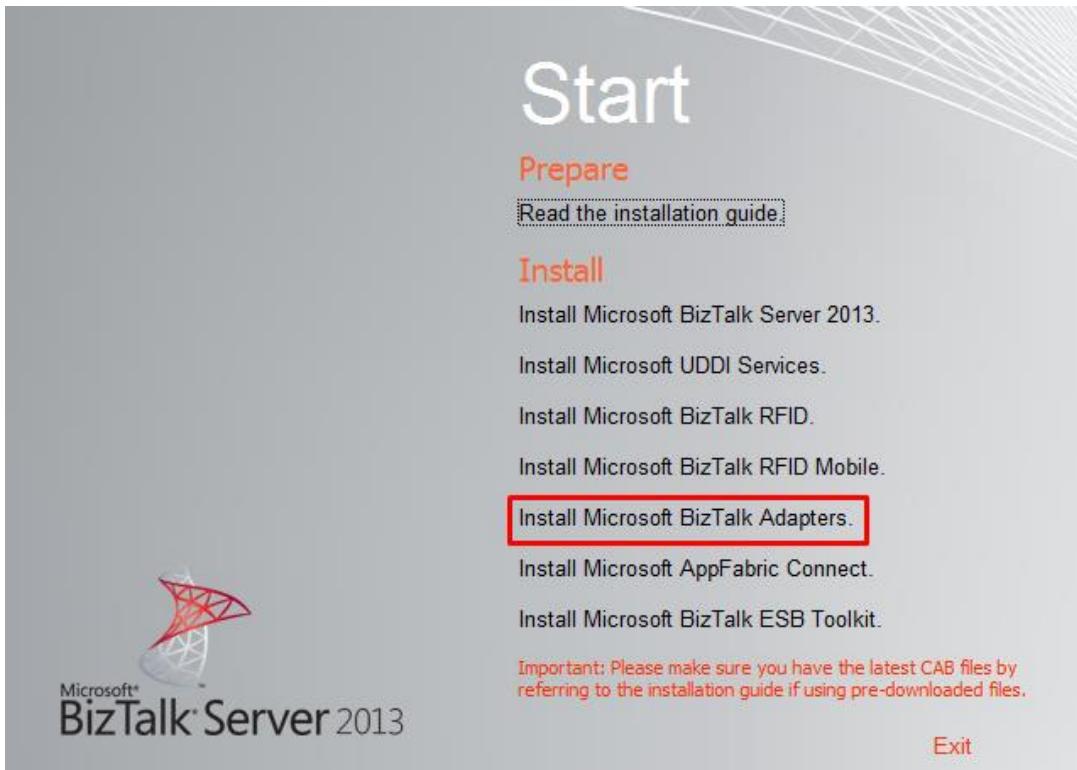
BizTalk Adapter Pack along with BizTalk AppFabric Connect, RFID features, UDDI services and ESB Toolkit are not automatically installed with the default installation process, instead you have to additional install this features

The Microsoft BizTalk Adapter Pack contains adapters that enable enterprise applications and databases to interface with each other by implementing a common adapter framework. Similar to programming to Web services, adapters enable clients to program to different enterprise applications. Technically, adapters are a binding to Windows Communication Framework (WCF). The BizTalk Adapter Pack consists of the following adapters:

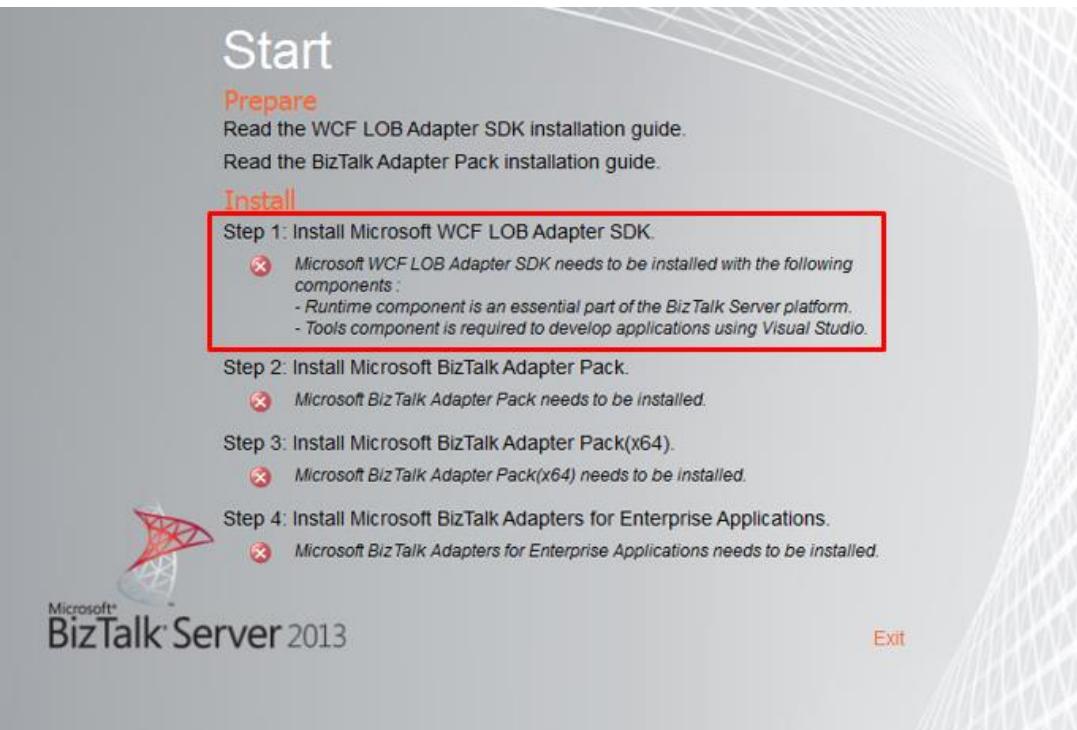
- Microsoft BizTalk Adapter for Oracle Database (Oracle Database adapter).
- Microsoft BizTalk Adapter for Oracle E-Business Suite (Oracle E-Business adapter).
- Microsoft BizTalk Adapter for mySAP Business Suite (SAP adapter). This also includes the .NET Framework Data Provider for mySAP Business Suite (Data Provider for SAP).
- Microsoft BizTalk Adapter for Siebel eBusiness Applications (Siebel adapter). This also includes the .NET Framework Data Provider for Siebel eBusiness Applications (Data Provider for Siebel).
- Microsoft BizTalk Adapter for SQL Server (SQL adapter).

To install BizTalk Adapter Pack:

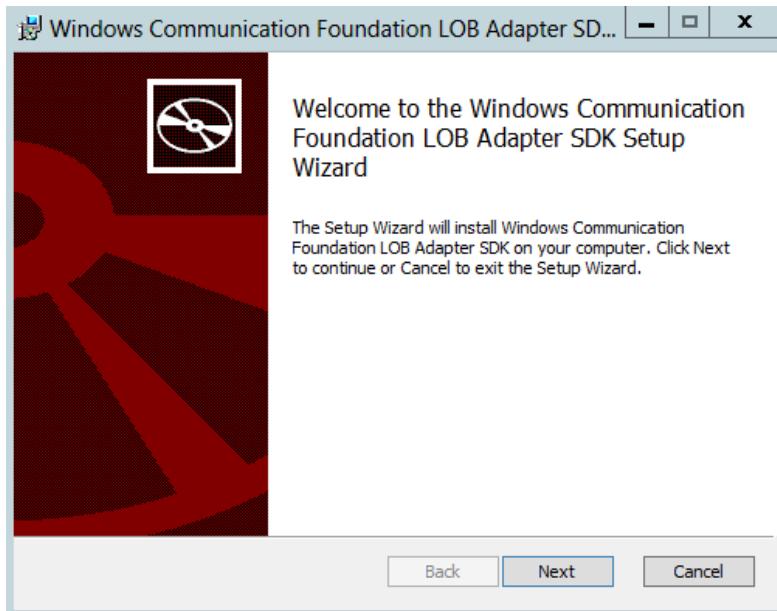
- Close any programs you have open. Run the BizTalk Server 2013 installer as Administrator.
- On the Start screen, click “Install Microsoft BizTalk Adapters”



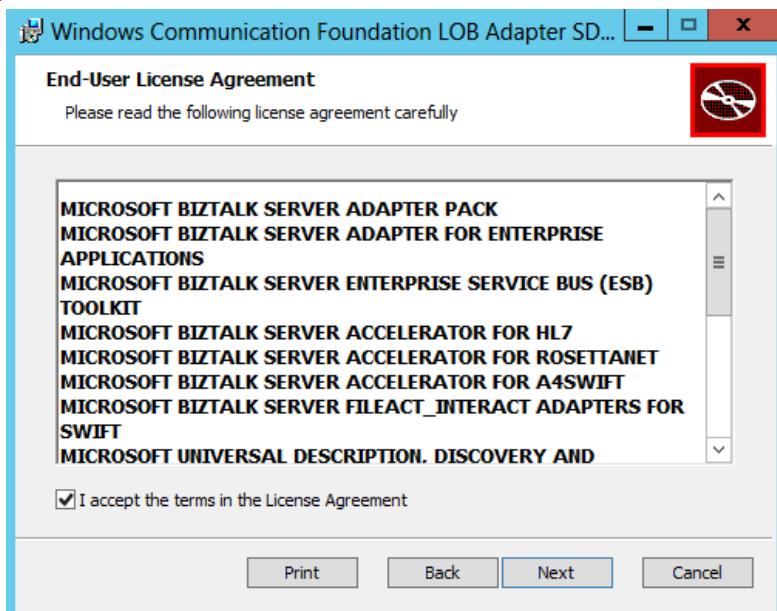
- In the next Start screen, the first step is to install WCF LOB Adapter SDK, select the “Step 1. Install Microsoft WCF LOB Adapter SDK”. An installer of SDK is launched.



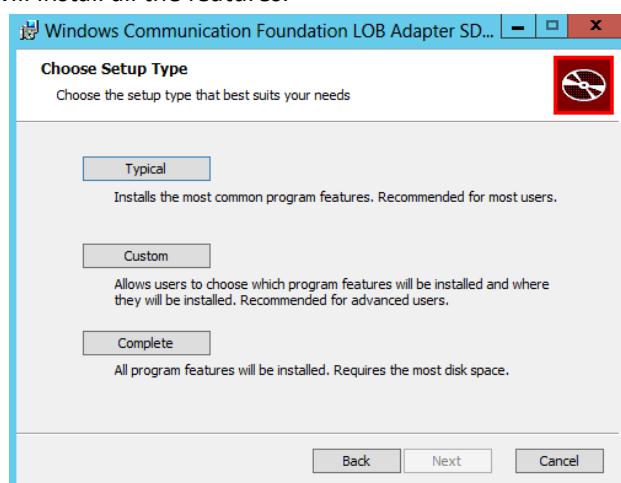
- The WCF LOB Adapter SDK is a collection of a run-time engine and tools that help adapter developers create service-oriented interfaces to existing LOB systems by using WCF. The goal of the SDK is to facilitate uniform development of reusable, metadata-oriented, WCF-based adapters that enable enterprise applications, databases, and messaging platforms to integrate with each other.
- On the Welcome to the Windows Communication Foundation LOB adapter SDK Setup Wizard screen, click “Next”



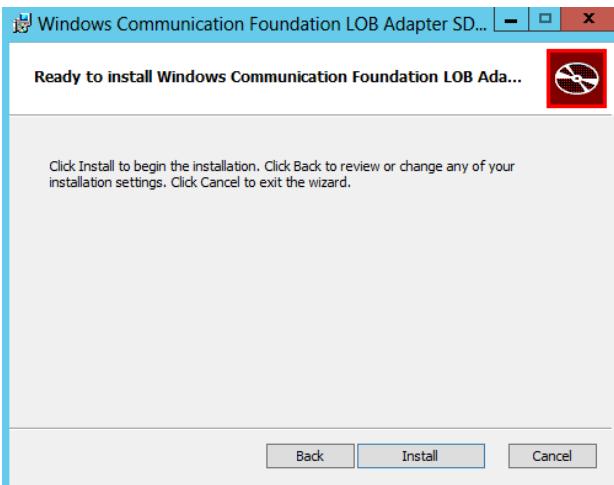
- On the End-User License Agreement screen, select “I accept the terms in the License Agreement” to accept the license agreement and click “Next”



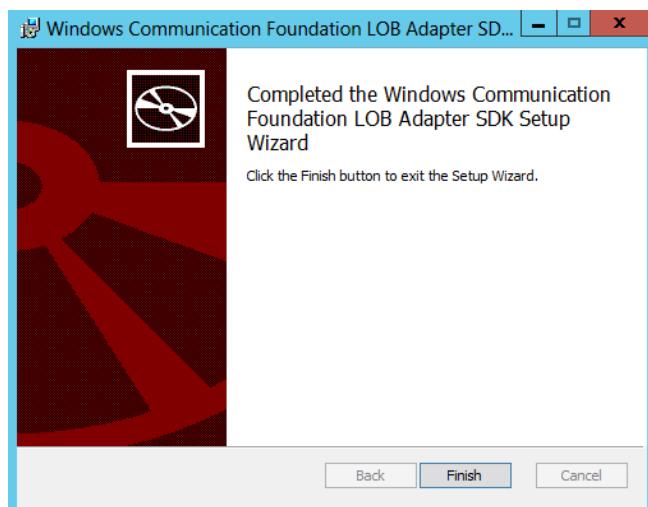
- In the Choose Setup Type screen, select the installation type “Complete”:
 - Typical: will install the common run time and tools,
 - Custom: will allow you to select the features that you want to install and the installation location.
 - Complete: will install all the features.



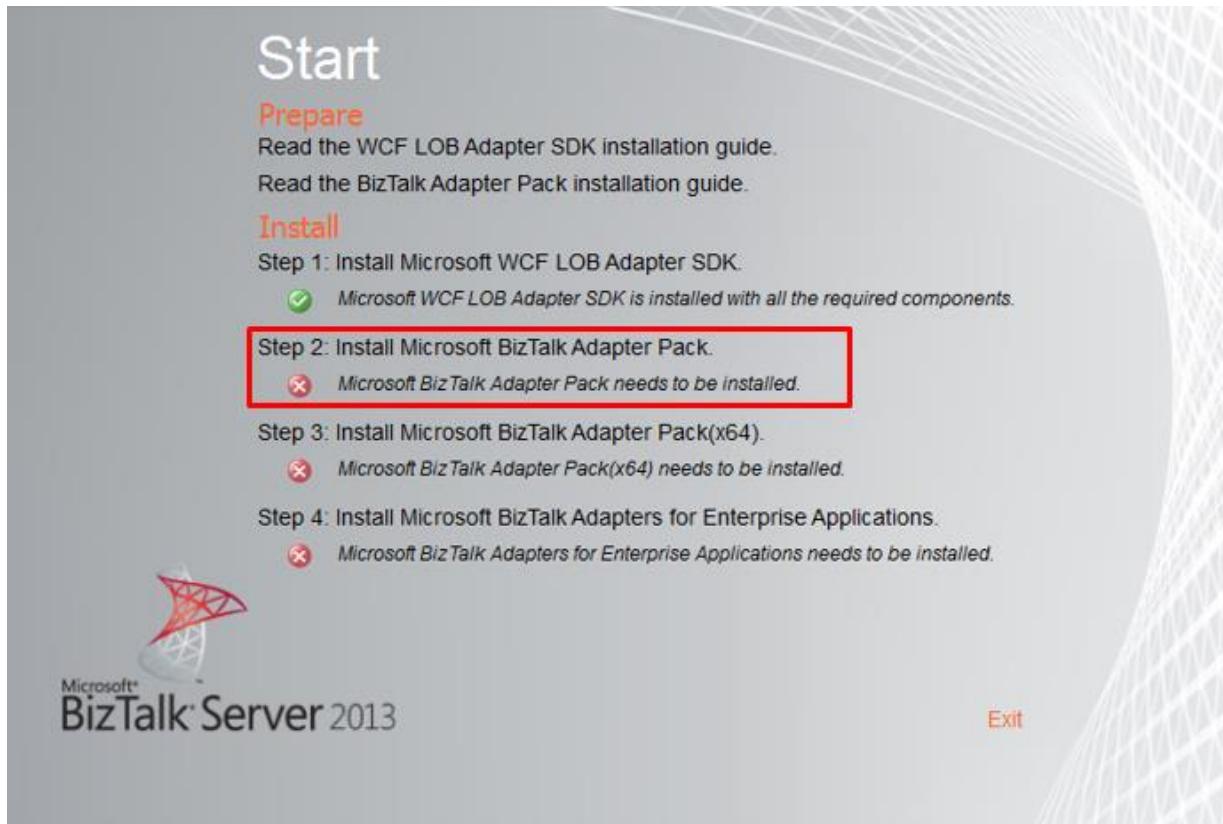
- On the Ready to install WCF LOB adapter SDK screen, click “Install”



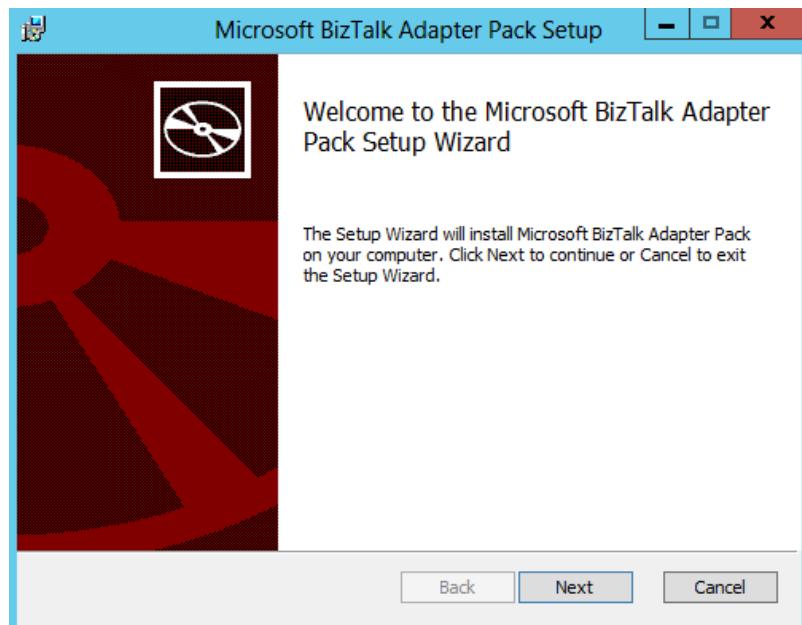
- On the Completed the Windows Communication Foundation LOB Adapter SDK Setup Wizard screen, click “Finish”



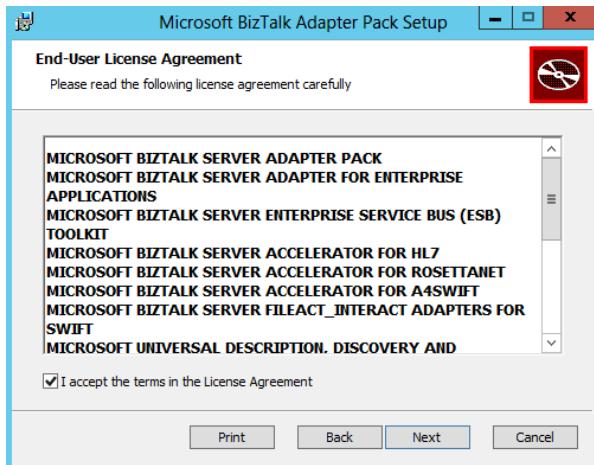
- Back to the Start screen, the second step is installation of the Adapter Pack (x86), select the “Step 2. Install Microsoft BizTalk Adapter Pack”. An installer of SDK is launched.



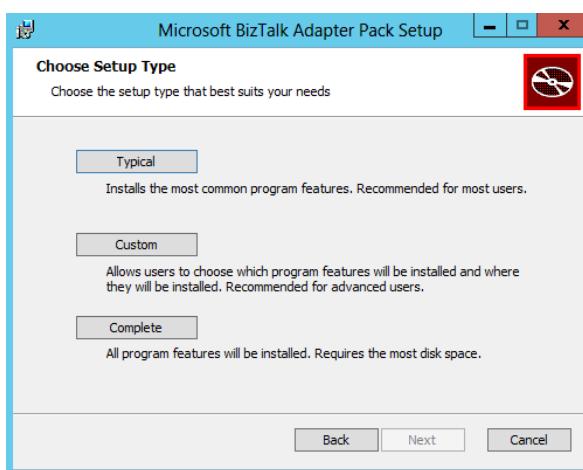
- On the Welcome to the Microsoft BizTalk Adapter Pack Setup Wizard screen, click "Next"



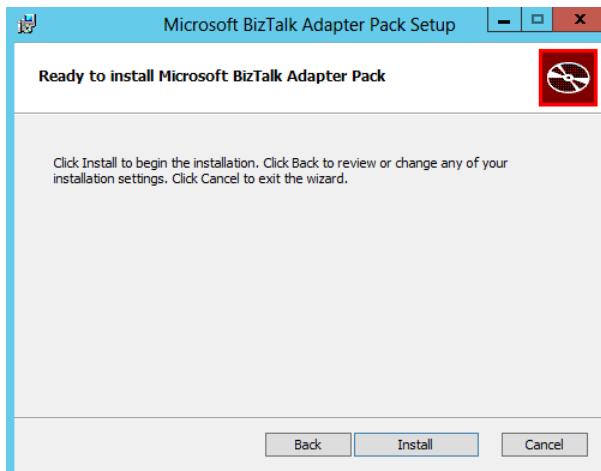
- On the End-User License Agreement screen, select "I accept the terms in the License Agreement" to accept the license agreement and click "Next"



- In the Choose Setup Type screen, select the installation type “Complete”:
 - Typical: will install the common run time and tools,
 - Custom: will allow you to select the features that you want to install and the installation location.
 - Complete: will install all the features.



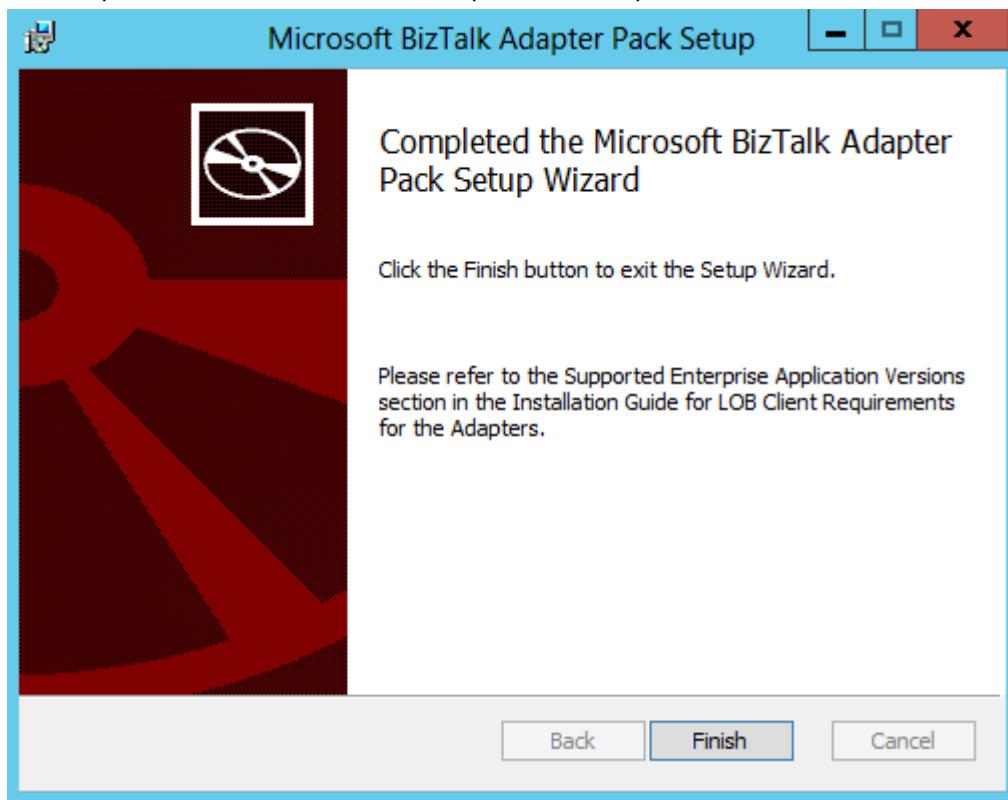
- On the Ready to install Microsoft BizTalk Adapter Pack screen, click “Install”



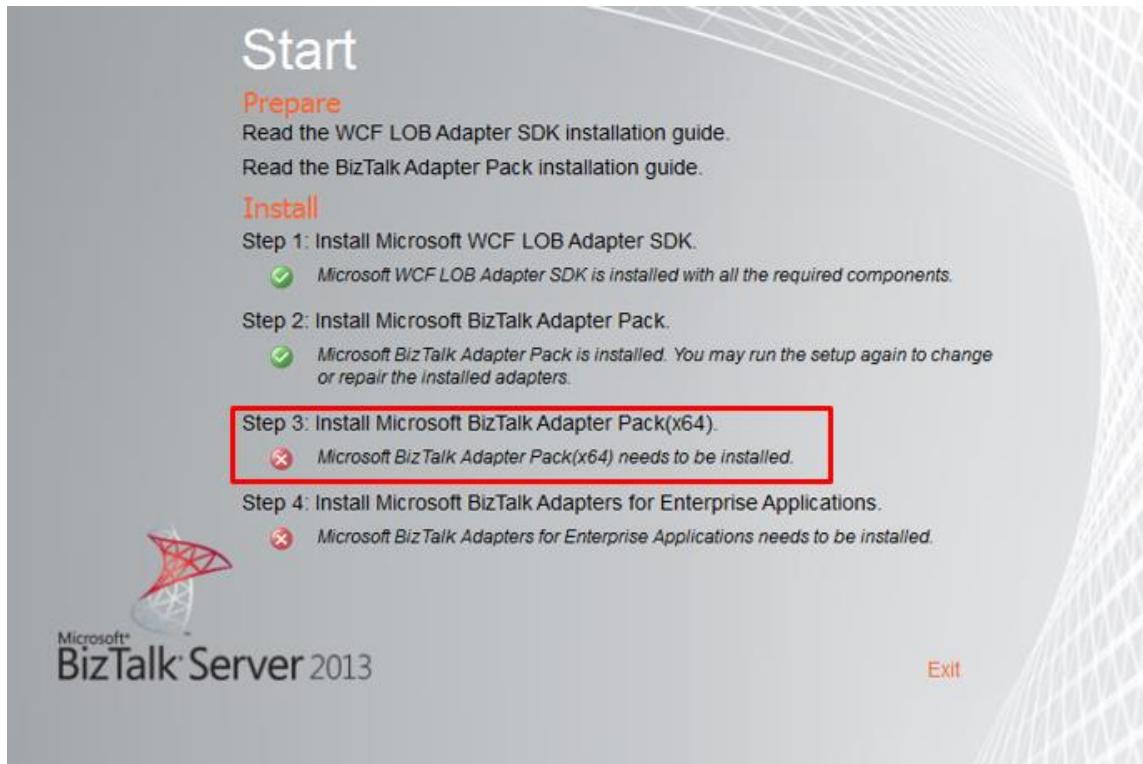
- On the Customer Experience Improvement Program screen, select if you want to join the customer experience improvement program or not and click “OK”



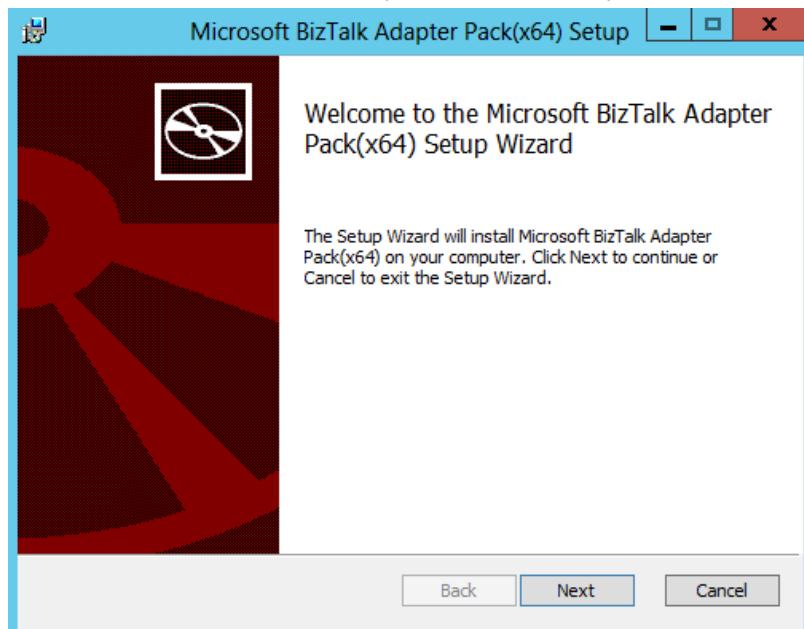
- On the Completed the Microsoft BizTalk Adapter Pack Setup Wizard screen, click "Finish"



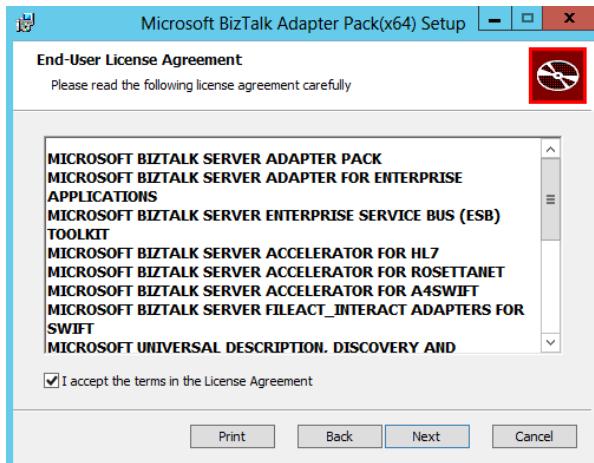
- Back to the Start screen, the next step is installing the Microsoft BizTalk Adapter Pack (x64) - note that before you install this pack you have to install x86 first - select the "Step 3. Install Microsoft BizTalk Adapter Pack(x64)". An installer of SDK is launched.



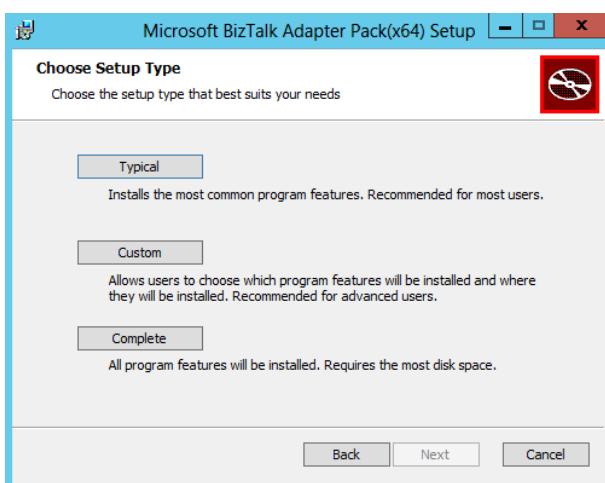
- On the Welcome to the Microsoft BizTalk Adapter Pack(x64) Setup Wizard screen, click "Next"



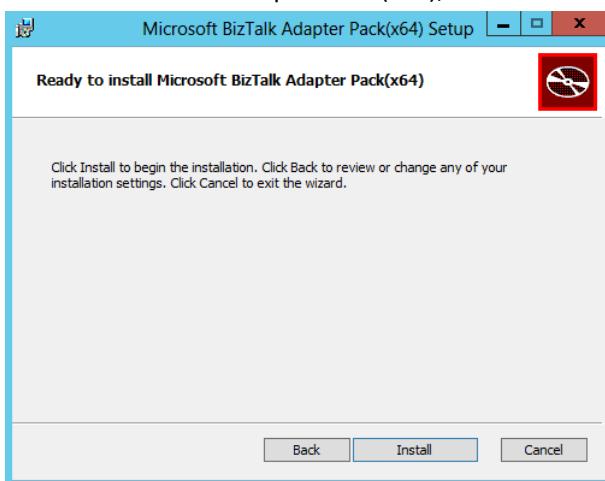
- On the End-User License Agreement screen, select "I accept the terms in the License Agreement" to accept the license agreement and click "Next"



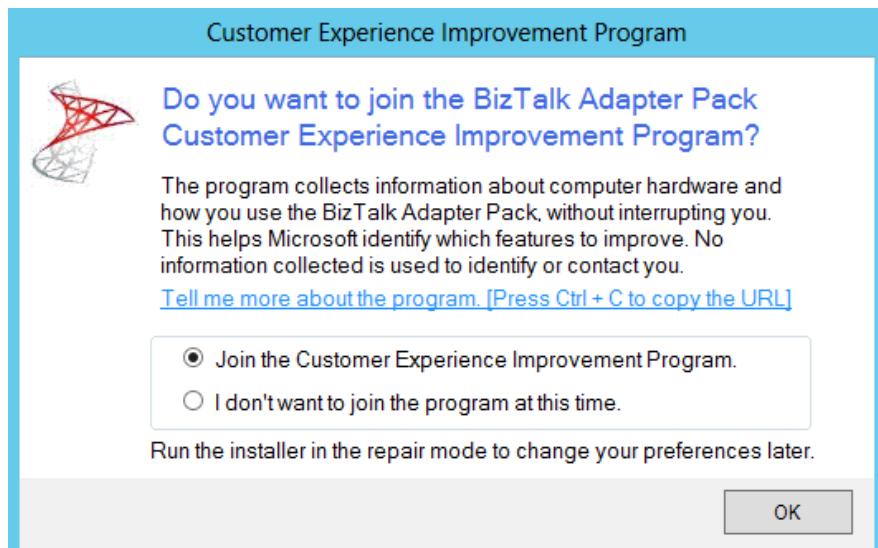
- In the Choose Setup Type screen, select the installation type “Complete”:
 - Typical: will install the common run time and tools,
 - Custom: will allow you to select the features that you want to install and the installation location.
 - Complete: will install all the features.



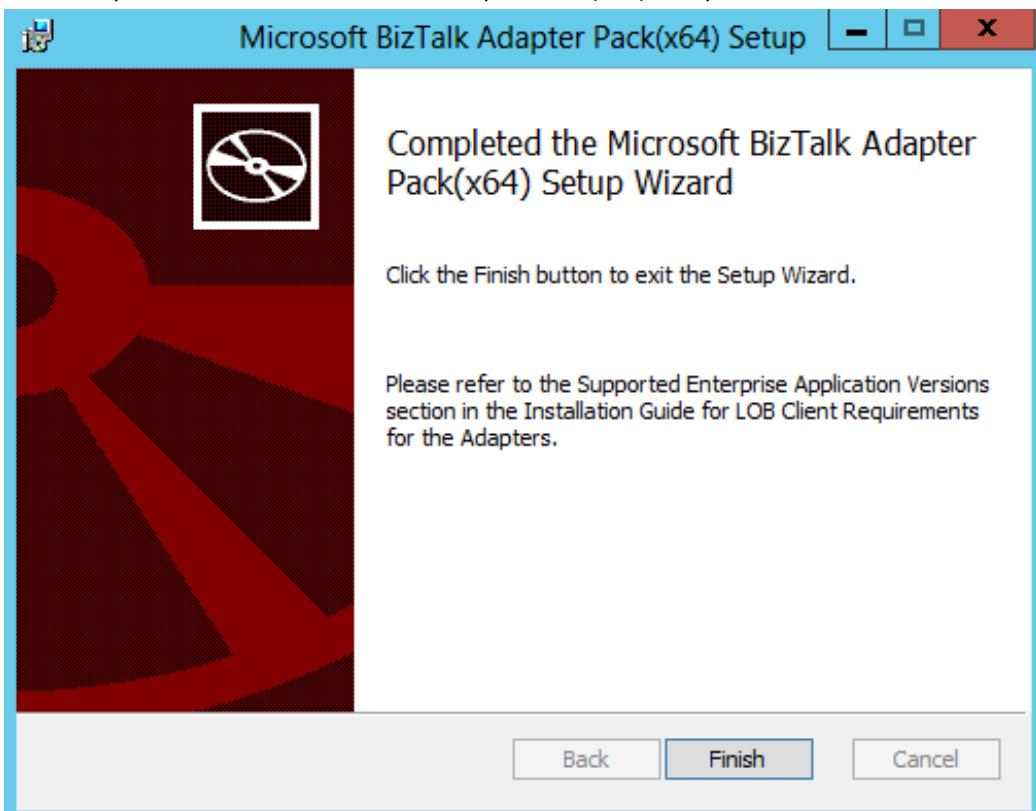
- On the Ready to install Microsoft BizTalk Adapter Pack(x64), click “Install”



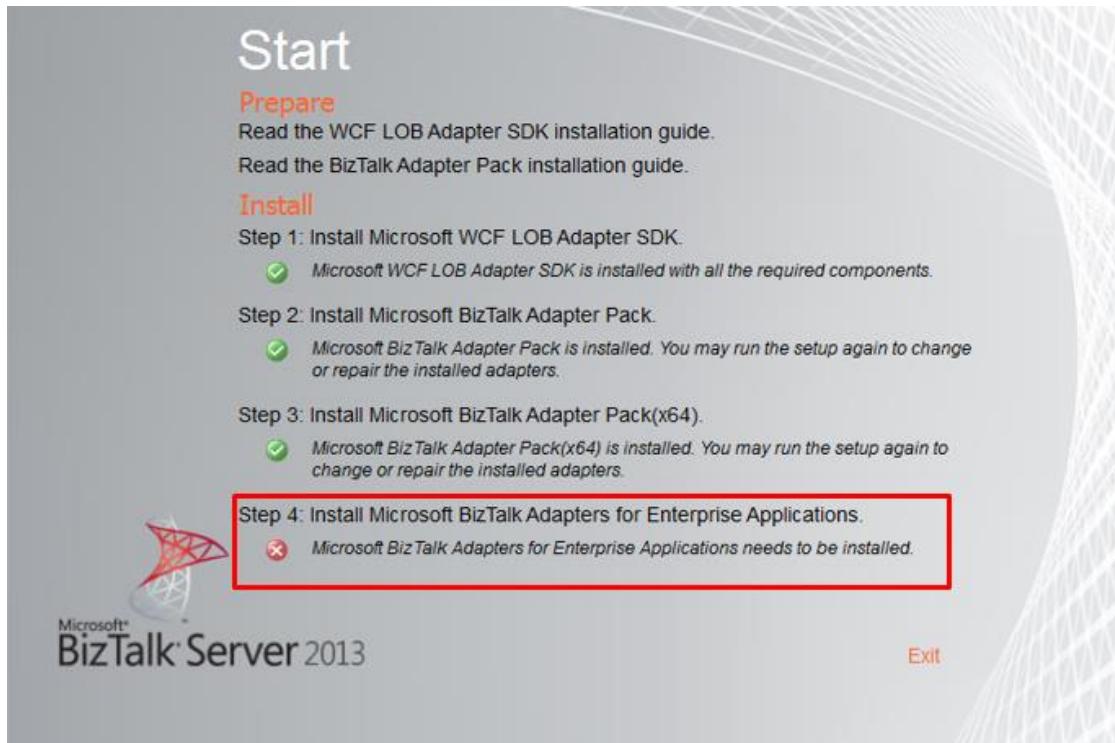
- On the Customer Experience Improvement Program screen, select if you want to join the customer experience improvement program or not and click “OK”



- On the Completed the Microsoft BizTalk Adapter Pack(x64) Setup Wizard screen, click "Finish"



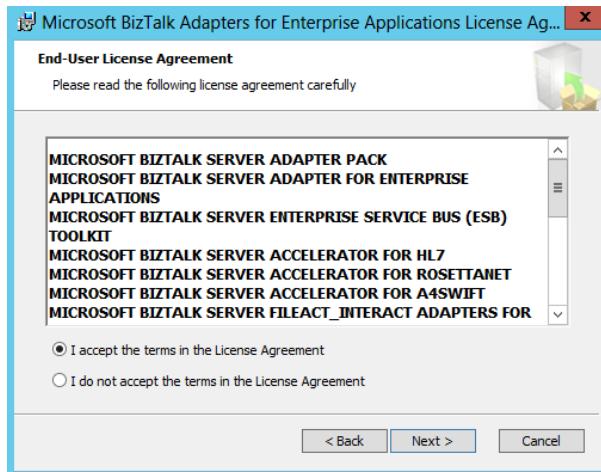
- Back to the Start screen, the final step is installing the Microsoft BizTalk Adapters for Enterprise Applications, select the "Step 4. Install Microsoft BizTalk Adapters for Enterprise Applications". An installer of SDK is launched.



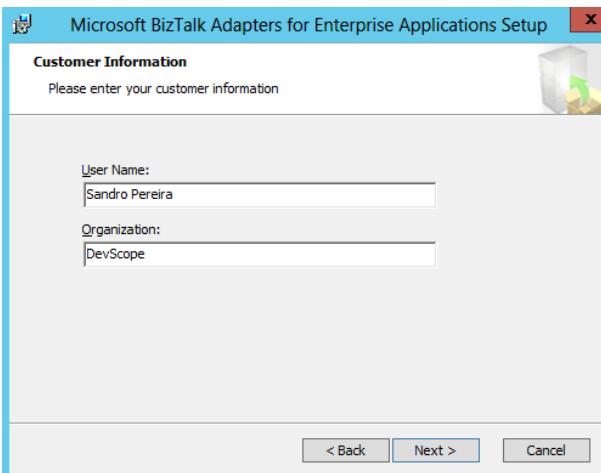
- On the Welcome to the Microsoft BizTalk Adapters for Enterprise Applications Setup Wizard screen, click “Next”



- On the End-User License Agreement screen, select “I accept the terms in the License Agreement” to accept the license agreement and click “Next”

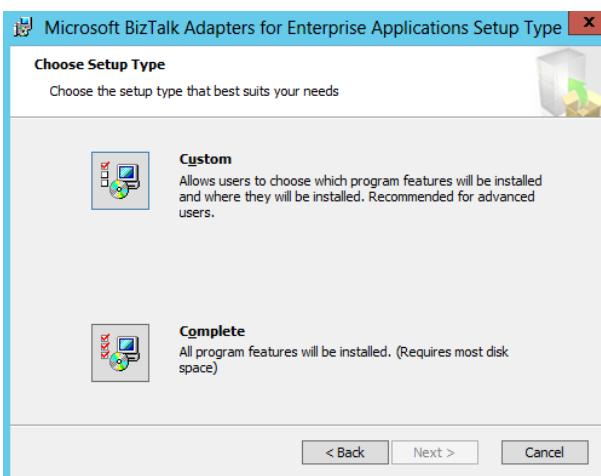


- In the Customer Information screen, type your User Name and Organization and click “Next” to continue.

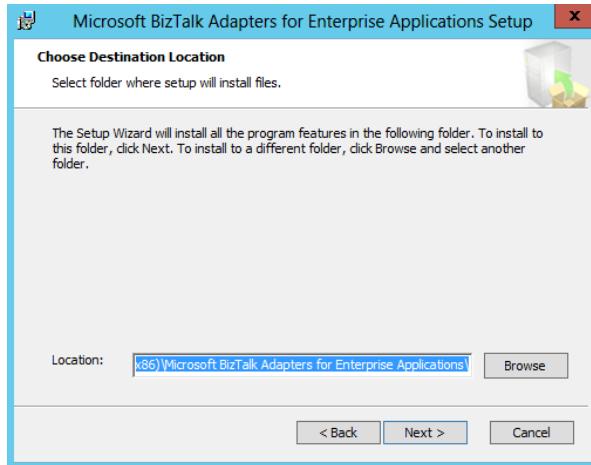


- In the Choose Setup Type screen, select the installation type “Complete”:

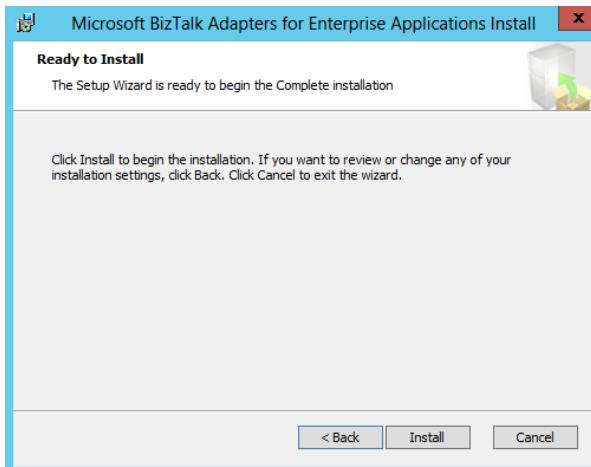
- Custom: will allow you to select the features that you want to install and the installation location.
- Complete: will install all the features.



- On the Choose Destination Location screen, choose the folder location that to want to install this features and click “Next”



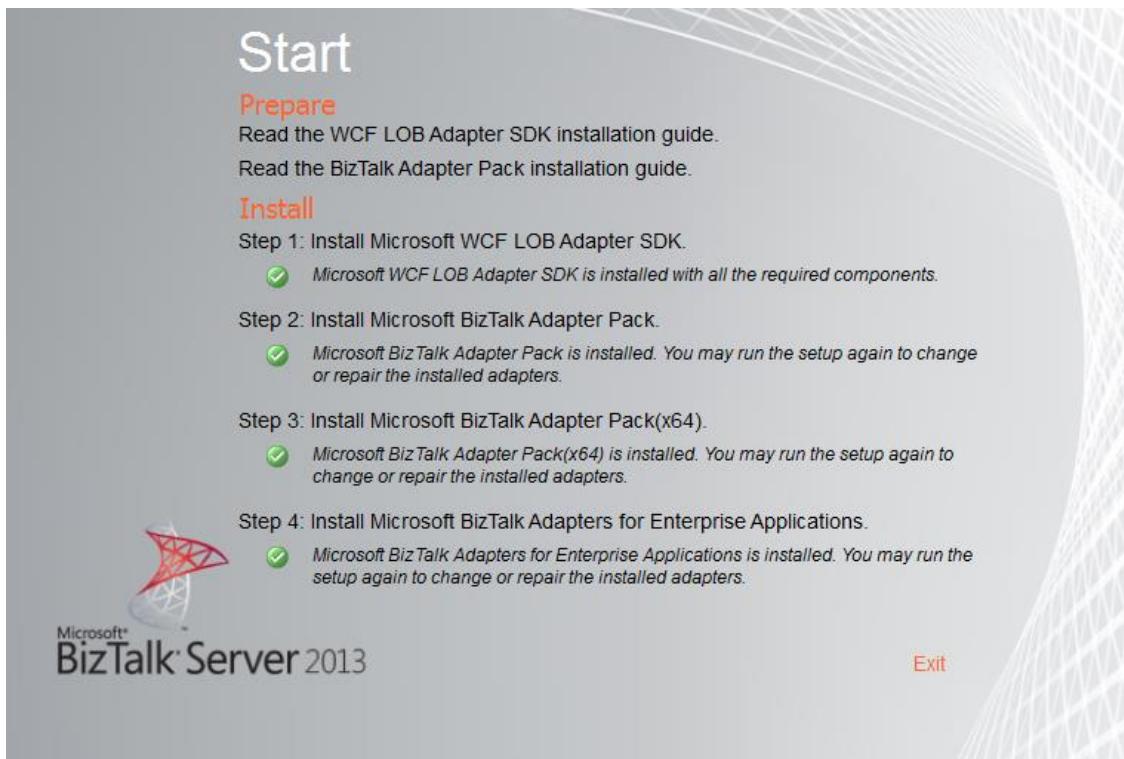
- On the Ready to install screen, click "Install"



- On the Completed the Microsoft BizTalk Adapters for Enterprise Applications Setup Wizard screen, click "Finish"



- Close the Start screen, click "Exit".



4.5.1 Microsoft BizTalk Adapter Pack and Microsoft BizTalk Adapter Pack (x64)

If I'm preparing an x64 environment machine why do I need to install both x86 and x64 Microsoft BizTalk Adapter Pack and not only x64 pack?

On any computer where you want to perform design-time tasks using either Visual Studio or BizTalk MMC, you must install the 32-bit adapter because:

- BizTalk Server Administration console runs as a 32-bit Microsoft Management Console (MMC) application.
- Visual Studio is also a 32-bit application (and there isn't any 64-bit version of Visual Studio)

However for BizTalk run time perspective:

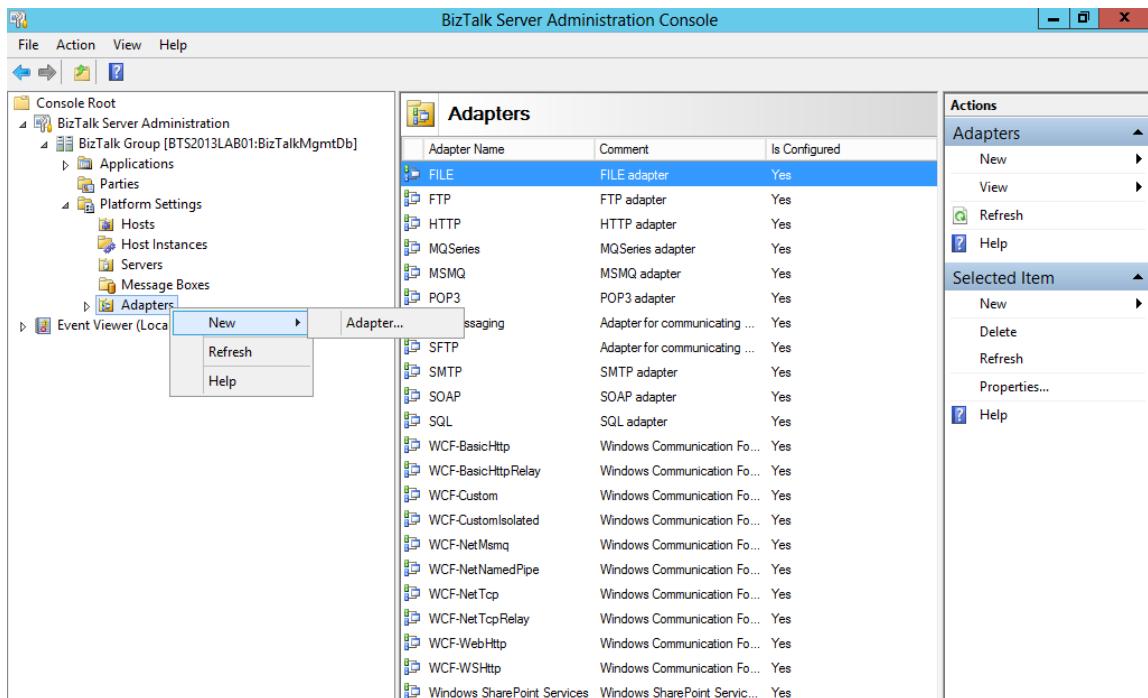
- If you want to run the adapters under a 32-bit BizTalk process (Host Instance): you need to install Microsoft BizTalk Adapter Pack.
- If you want to run the adapters under a 64-bit BizTalk process (Host Instance): you need to install Microsoft BizTalk Adapter Pack (x64).

So you always have to install Microsoft BizTalk Adapter Pack, or in other cases, you always need to install the 32-bit adapter if you want to perform any operation at design-time, especially, configuring the adapters in the administrative console.

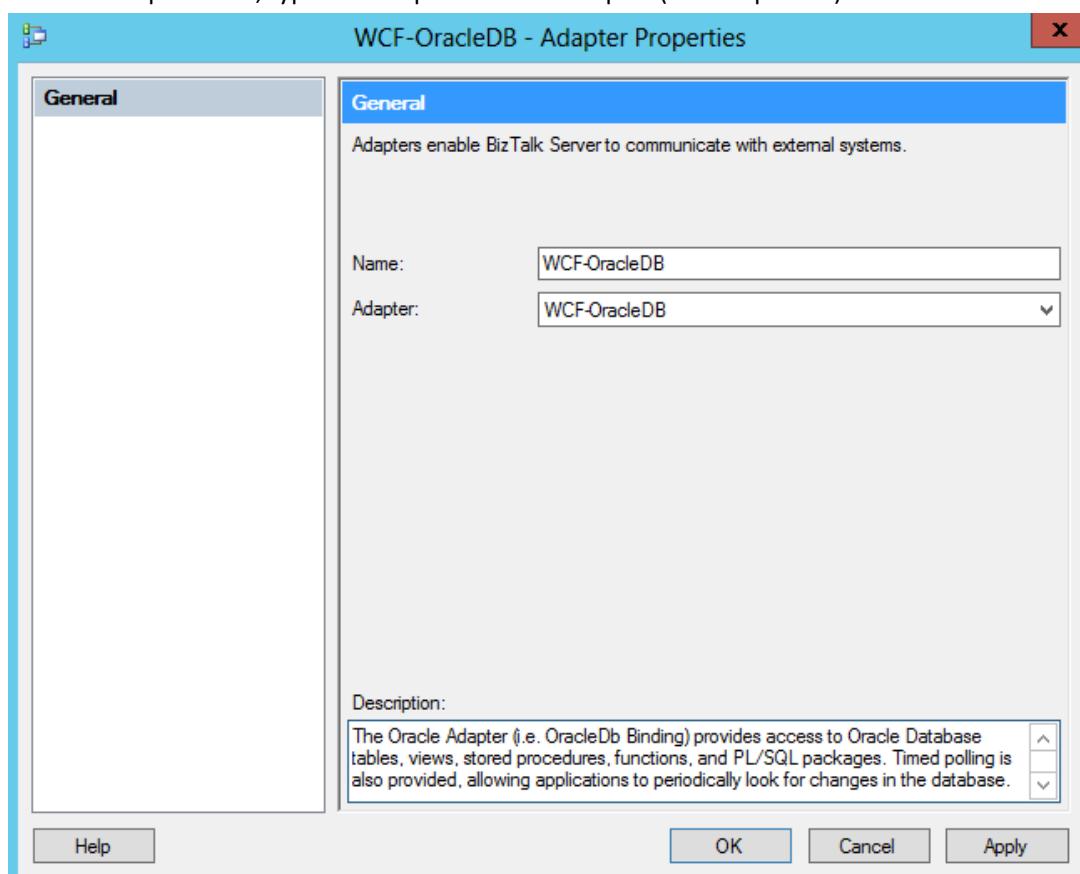
4.5.2 Add adapters to BizTalk Administration Console

As it happens with all adapters that we installed on our BizTalk Servers before we can begin to use it we need to register or add the adapter. So the next step is adding the appropriate adapters in BizTalk Administration Console. To accomplish that we need to:

- Open BizTalk Administration Console by pressing the "Windows key" to switch to Start screen and type "BizTalk Server Administration" or "BizTalk", right-click "BizTalk Server Administration" option on Apps menu
- In the console left tree, expand "BizTalk Server Administration → BizTalk Group → Platform Settings" and then "Adapters"
- Right-click on "Adapters" and add a new adapter by selecting the option "New → Adapter"



- In the “Adapter Properties” window
 - In the Name box, type a descriptive name for this adapter.
 - In the Adapter combo box, select the adapter from the drop-down that you want to add.
 - In the Description box, type a description for the adapter (this is optional).



- Click “OK” to complete the process of adding the adapter.
- Repeat steps to add the other adapters.

NOTE: This configurations requires that you restart the host instance associated with the adapter.

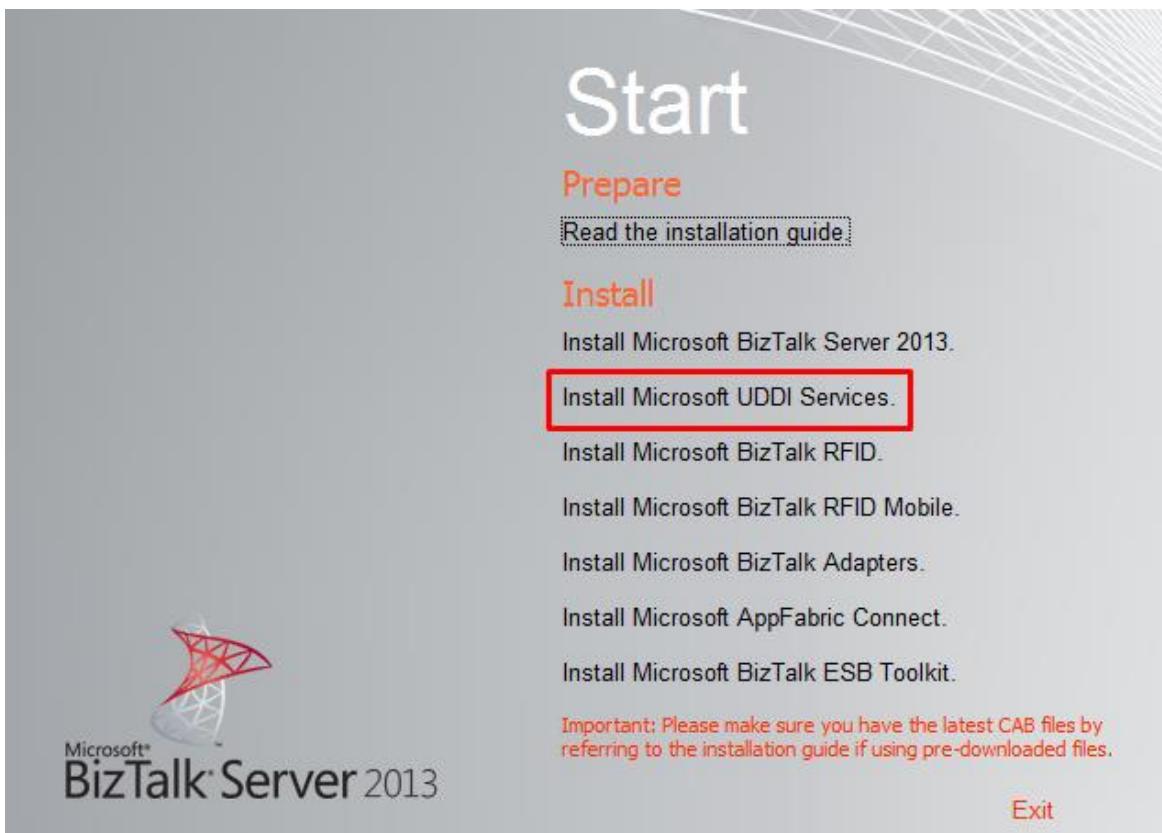
4.6 Install and Configure Microsoft UDDI Services

UDDI Services provides Universal Description, Discovery, and Integration (UDDI) capabilities for sharing information about Web services within an organization's intranet, between business partners on an extranet, or on the Internet. UDDI Services can help improve the productivity of developers and information technology (IT) professionals with more reliable and manageable applications. With UDDI Services you can prevent duplication of effort by promoting reuse of existing development work.

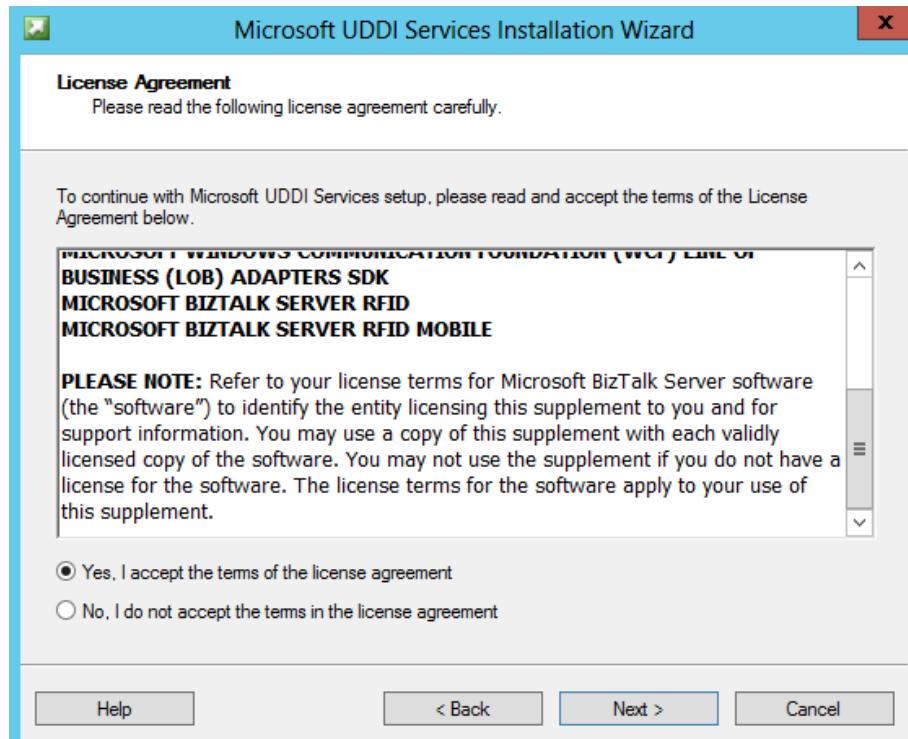
In a stand-alone installation, all default and optional components are installed on a single server. An instance of SQL Server must be installed before installing UDDI Services. When installing UDDI Services, the local instance of SQL Server is used to host the UDDI Services Database. UDDI Services Web Application and Notification Service are then configured to use the local UDDI Services Database.

To install Microsoft UDDI Services:

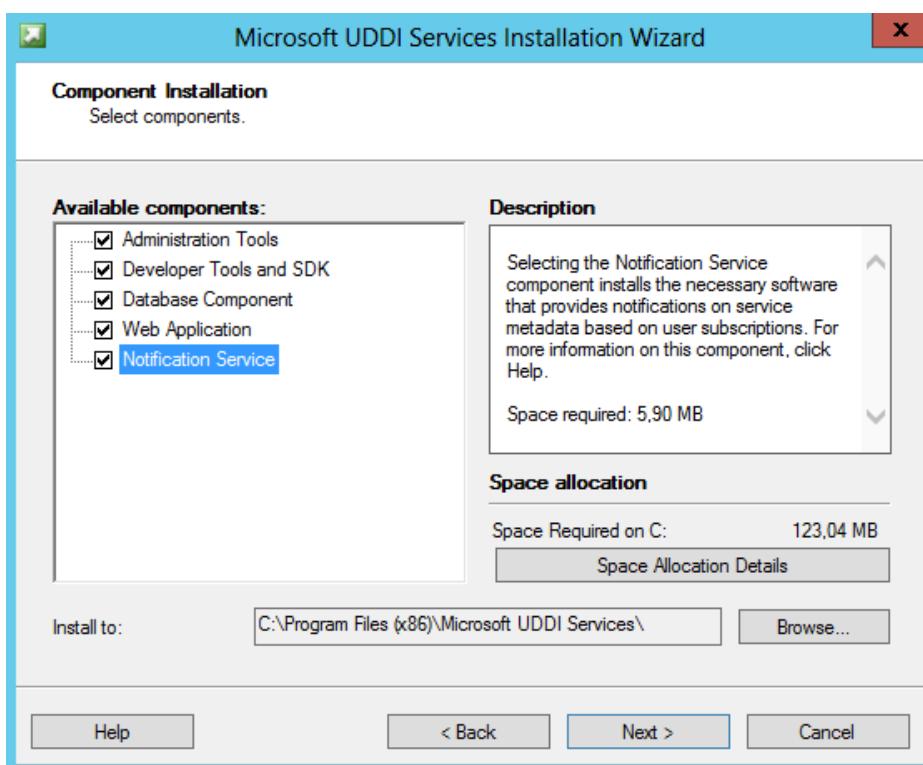
- Close all applications before running setup. Run the BizTalk Server 2013 installer as Administrator.
- On the Start screen, click “Install Microsoft UDDI Services”



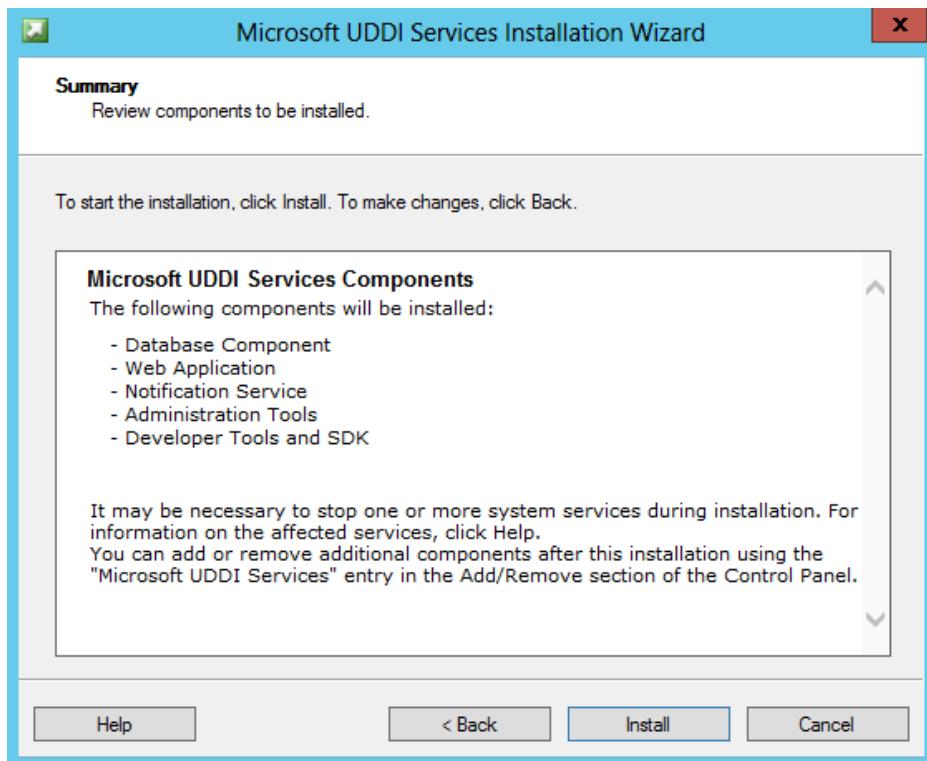
- On the License Agreement screen, select “Yes, I accept the terms in the license agreement” to accept the license agreement and click “Next”



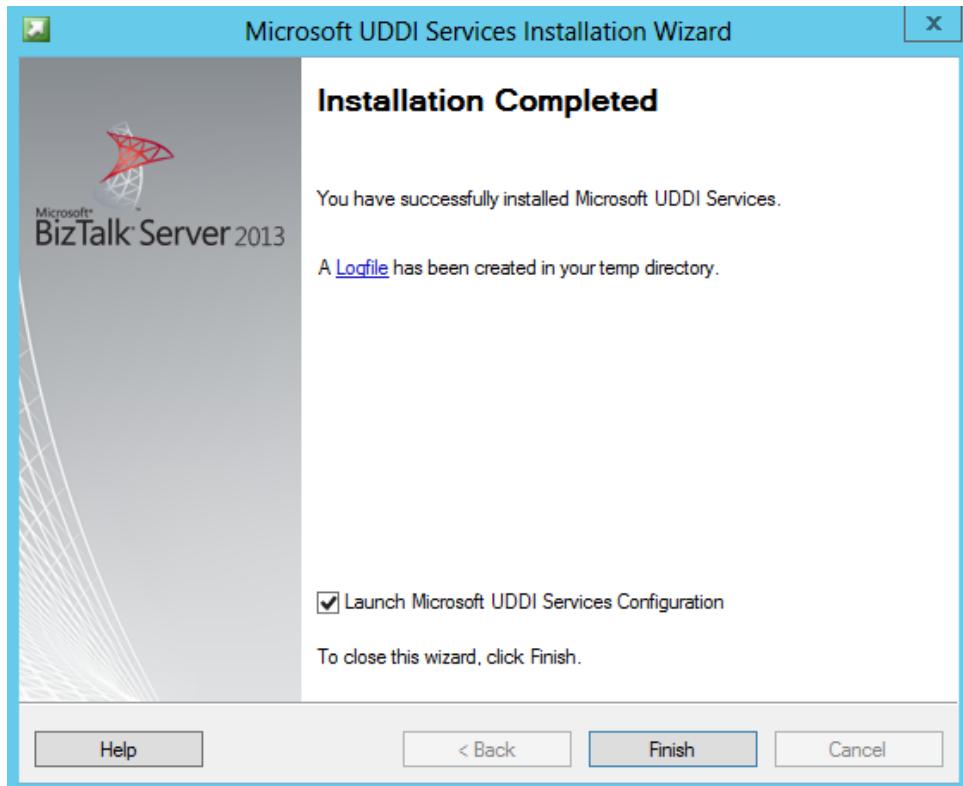
- On the Component Installation screen:
 - In "Available Components": select and click from the available components you want to install
 - In "Install To": specify a location to install UDDI Services components
 - And then click "Next" to continue



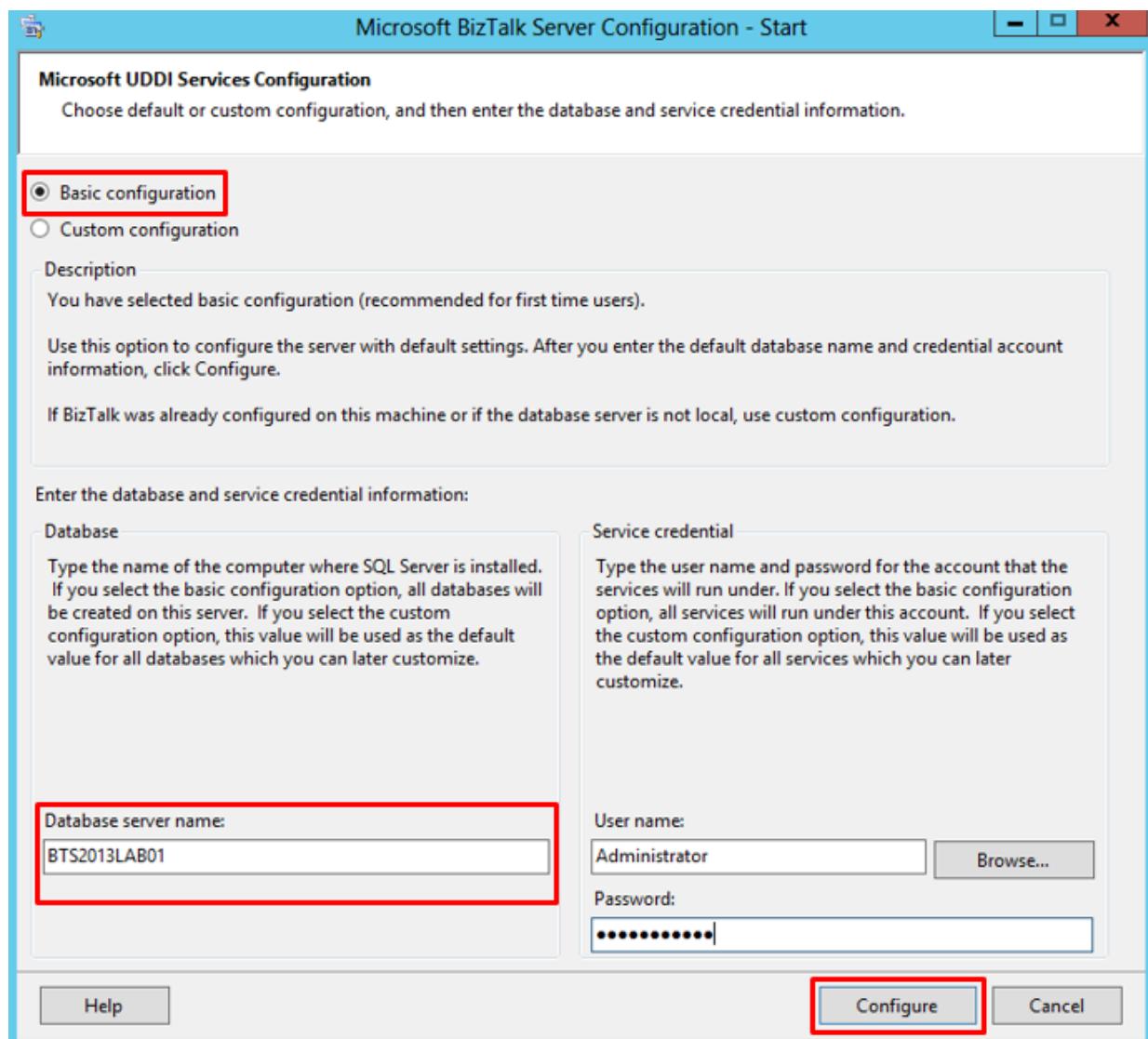
- On the Summary screen, review installation details and then click Install.



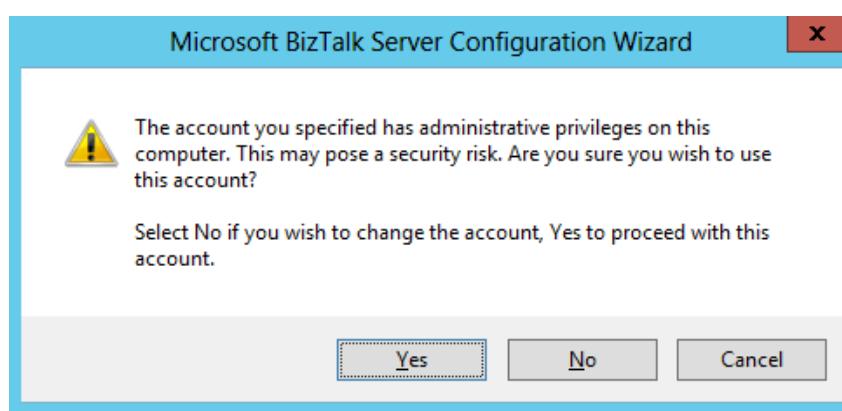
- On the Installation Completed screen, select "Launch Microsoft UDDI Services Configuration" option and then click "Finish" to start the UDDI Services configuration.



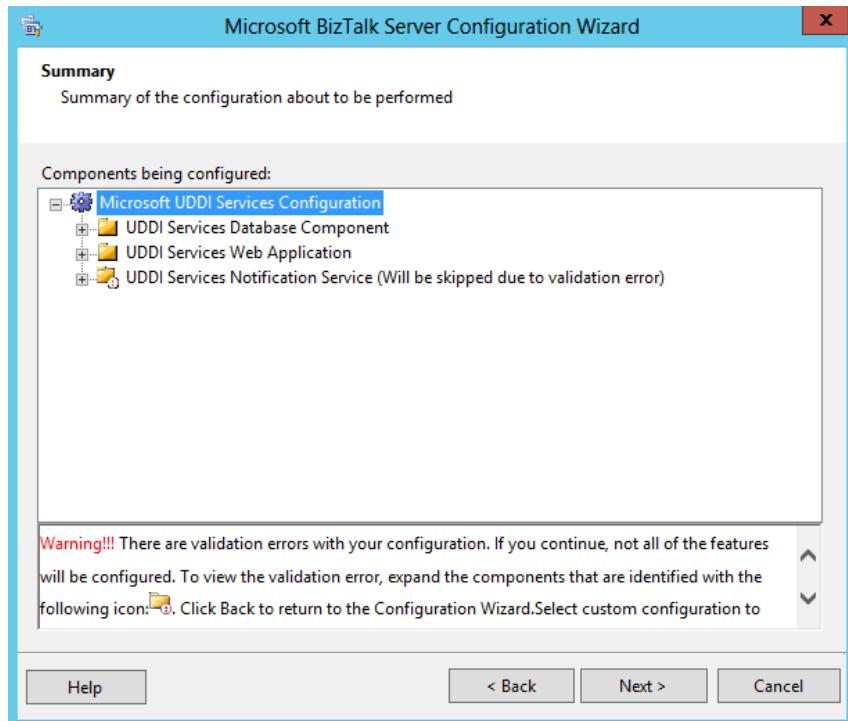
- On the Microsoft UDDI Services Configuration screen, apply the following configurations and then click "Configure" to continue:
 - Select "Basic configuration" option
 - In the "Database server name" field under "Database" properties, enter the name of the local computer that will hosts the UDDI database.
 - In the "Service credential" properties, type the User name and Password for the account that the UDDI services will run under.



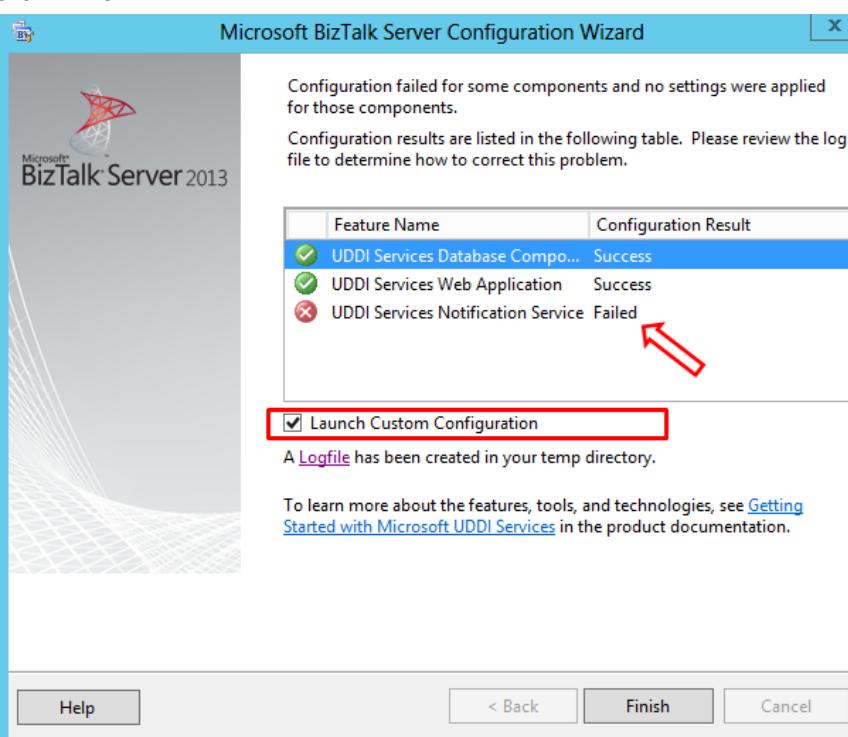
- Note: You may receive a warning if you enter a user name with administrative credentials on this computer. Click "Yes" to continue.



- On the Summary screen, review configuration information, and then click "Next"
 - You may receive an warning on the UDDI Services Notification Service, don't worry, we'll deal with that later

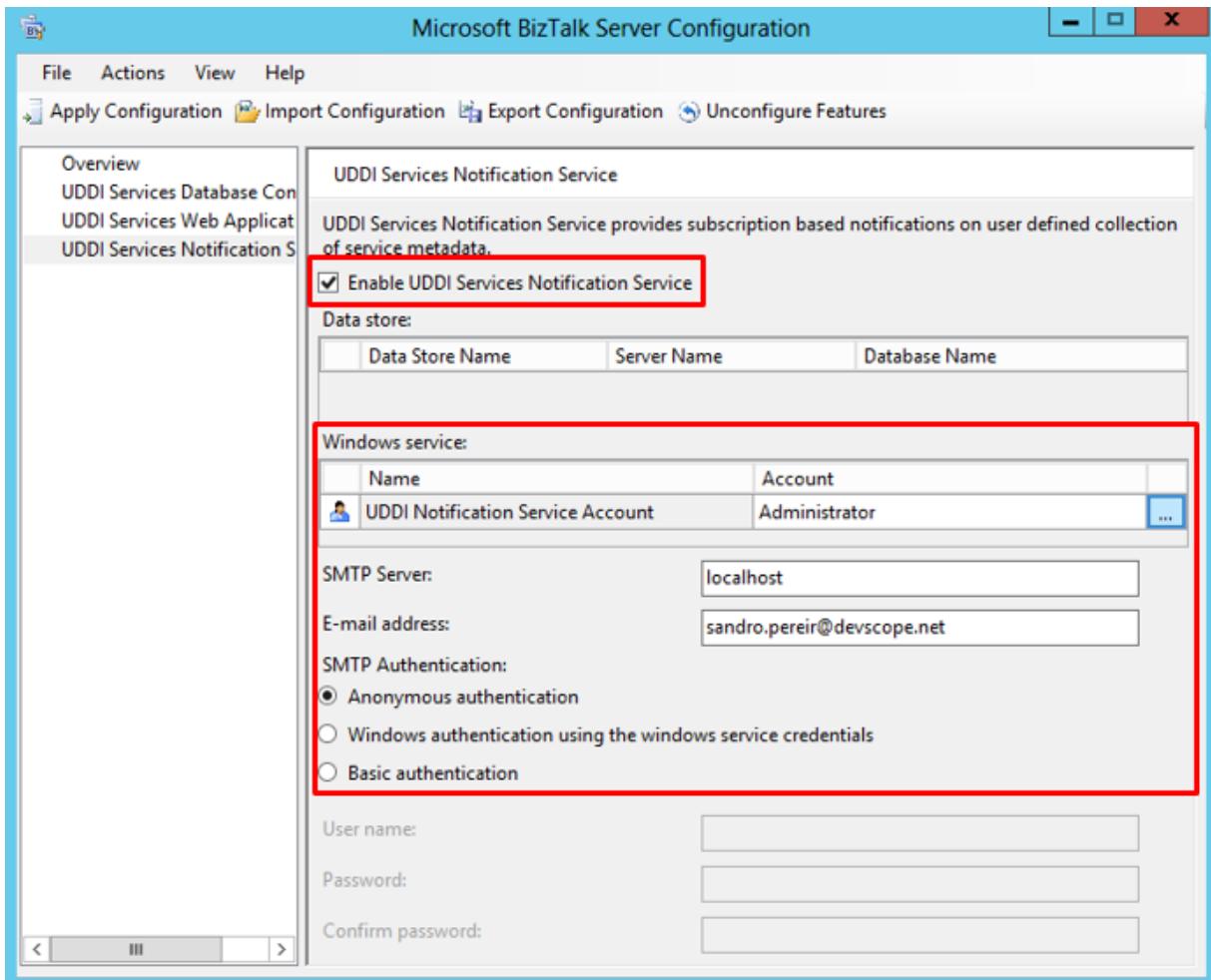


- On the Completed screen, review configuration information:
 - If UDDI Services Notification Service is failed, which is the case
 - Select “Launch Custom Configuration” option
 - And then click “Finish”

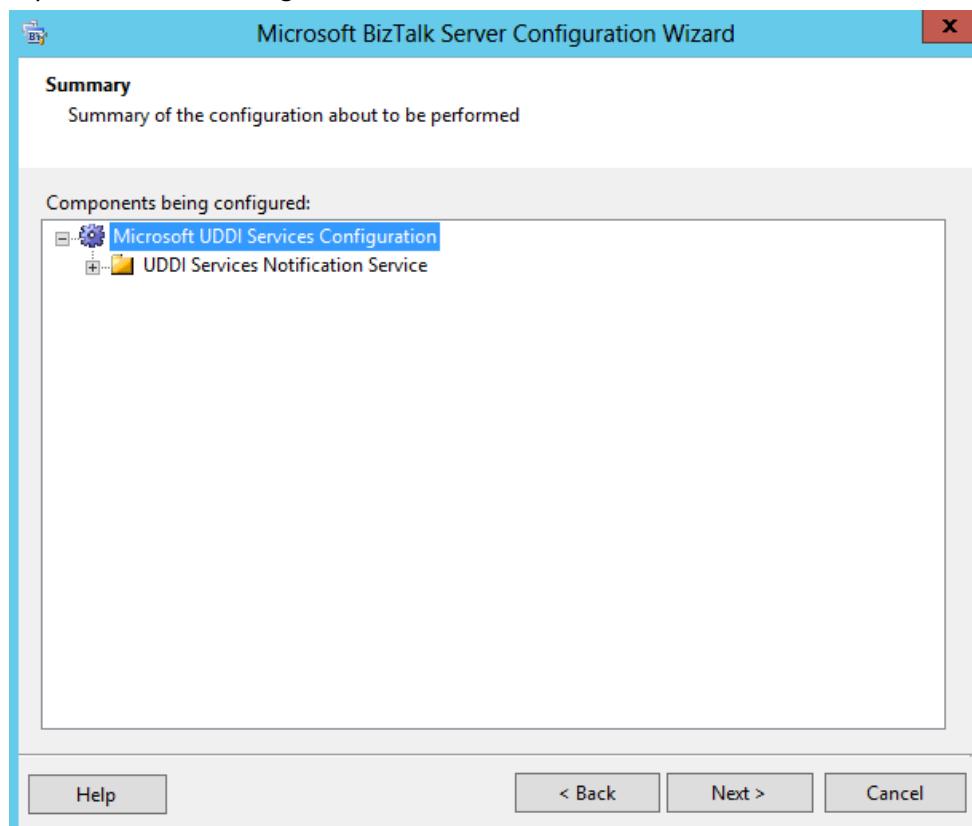


- On the Microsoft BizTalk Server Configuration (UDDI) screen, from the left pane, select “UDDI Services Notification Service” option and configure the following settings:
 - Select “Enable UDDI Services Notification Service” option
 - Under “Windows Service”, set the service account under which the UDDI Notification Service runs.
 - Under “SMTP”, type the SMTP server for sending e-mail notifications.
 - Under “E-mail address”, type the address of the e-mail account used for sending e-mail notifications.
 - Under “SMTP Authentication”, specify the type of authentication used when authenticating with the SMTP server.

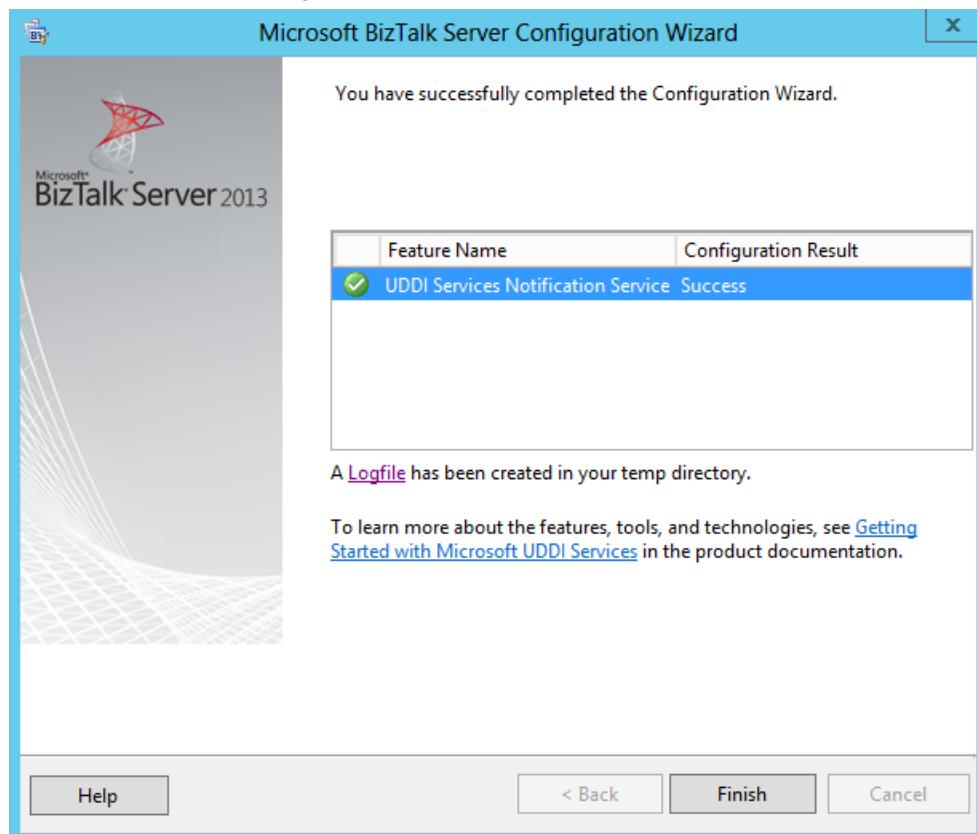
- When finish, click “Apply Configuration”



- Click “Apply Configuration” to apply the configuration that you made.
- On the Summary screen, review configuration information, and then click “Next”



- On the Completed screen, review configuration information and then click “Finish”



4.6.1 Verify Your Installation

To verify that Microsoft UDDI Services is installed correctly:

- Open Internet Explorer and type <http://localhost/uddi>, and then hit Enter
 - If UDDI Services is installed correctly, you will see the Welcome to Microsoft UDDI Services page.

User: BTS2013LAB01\Administrator
Role: Administrator

Welcome to Microsoft UDDI Services

uddi Services

Home Search Publish Subscribe Coordinate Quick Help UDDI Services Help Go

Getting Started

Before you publish a service, we strongly recommend reading the Step-by-Step guide listed below. For an overview of basic concepts and terminology, or for help with searching, view the Quick Help options above. Visit Additional Resources on the Web for more information about planning, deployment, troubleshooting, or UDDI specifications.

Step-by-Step Guide

View a step-by-step guide to publishing a Web service in UDDI Services.

Additional UDDI Resources on the Web

View additional resources for planning, deploying, publishing, and troubleshooting with UDDI Services.

Version: 6.10.229.0

4.7 Install and Configure the Microsoft BizTalk ESB Toolkit

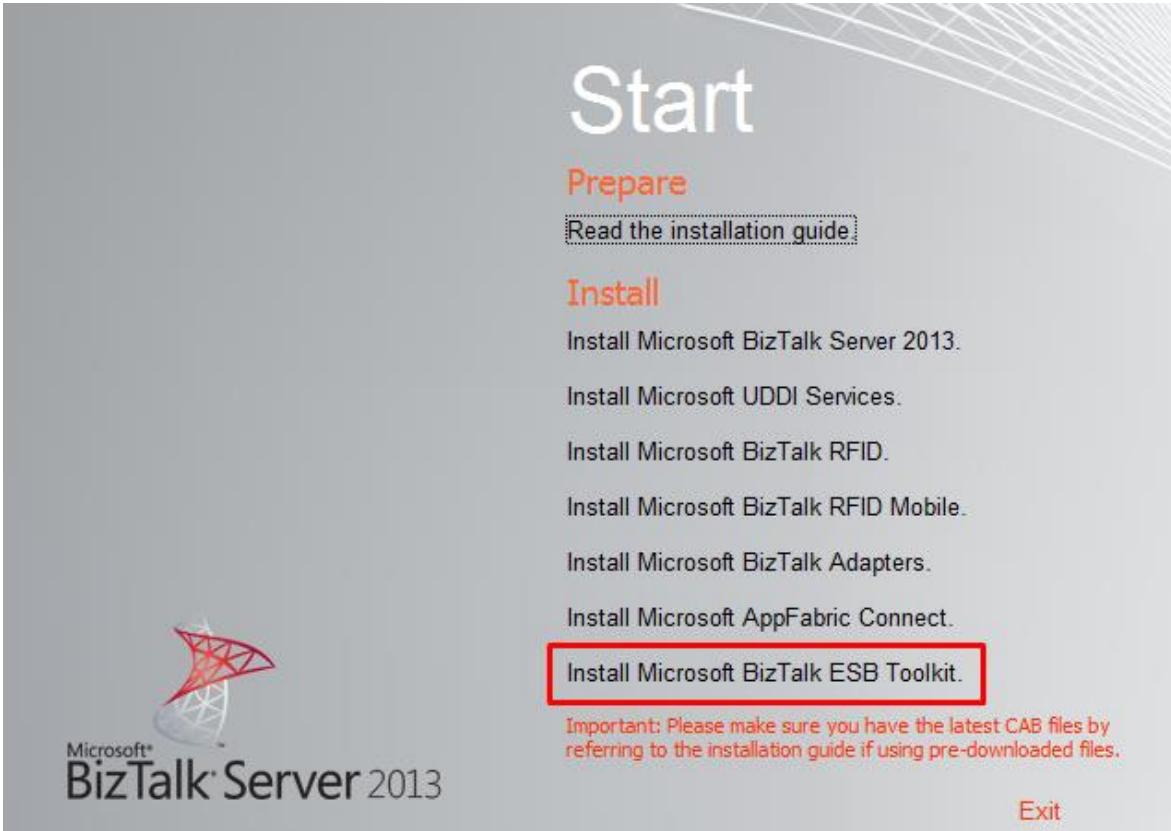
BizTalk Server includes a powerful publish/subscribe mechanism for messaging applications that works by creating and filling subscriptions, which provides a highly efficient and scalable platform for service-oriented architecture (SOA)

applications. The BizTalk ESB Toolkit extends the functionality of BizTalk Server to provide a range of new capabilities focused on building robust, connected, service-oriented applications that incorporate itinerary-based service invocation for lightweight service composition, dynamic resolution of endpoints and maps, Web service and WS-* integration, fault management and reporting, and integration with third-party SOA governance solutions.

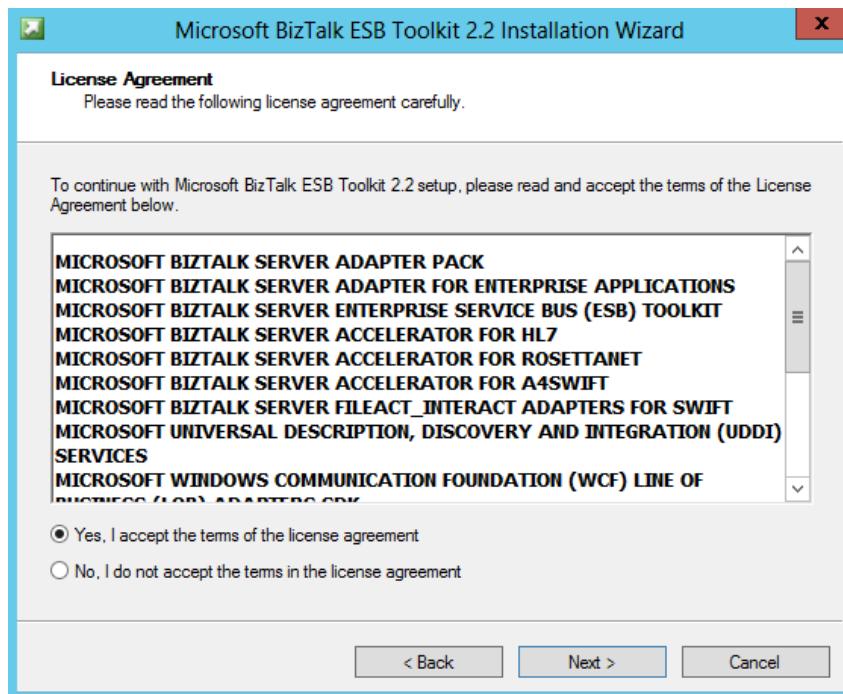
The good news is that with BizTalk Server 2013, Microsoft BizTalk ESB Toolkit is integrated with the BizTalk Server setup.

To install the Microsoft BizTalk ESB Toolkit

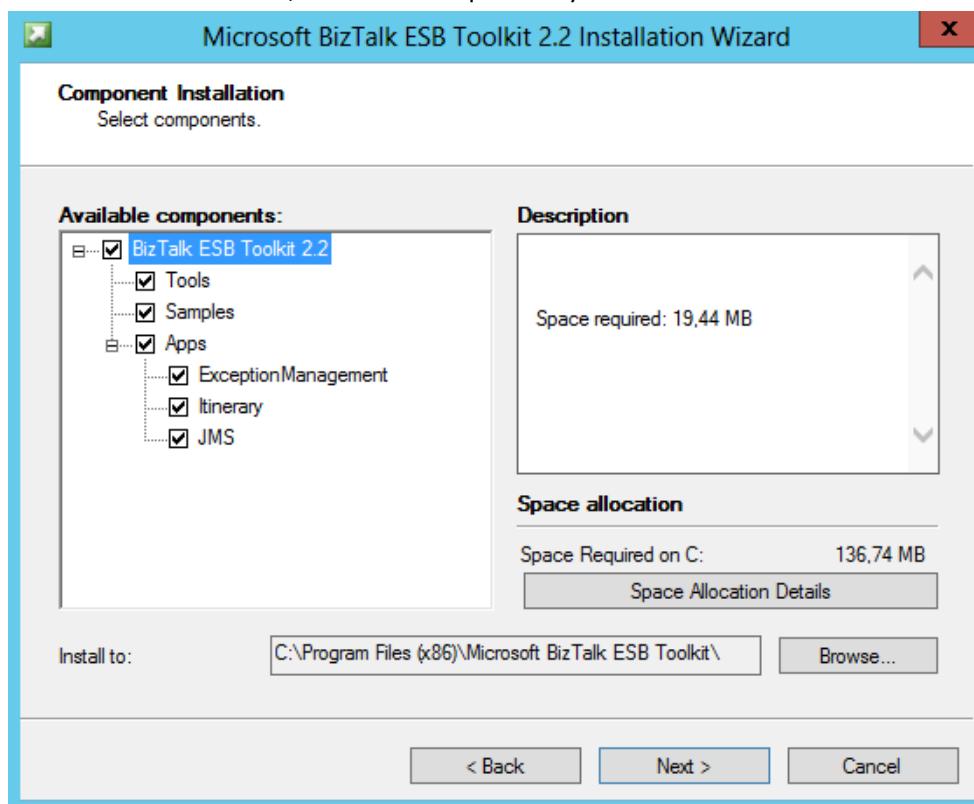
- Close any programs you have open. Run the BizTalk Server 2013 installer as Administrator.
- On the BizTalk Server installation Start screen, click “Install Microsoft BizTalk ESB Toolkit”.



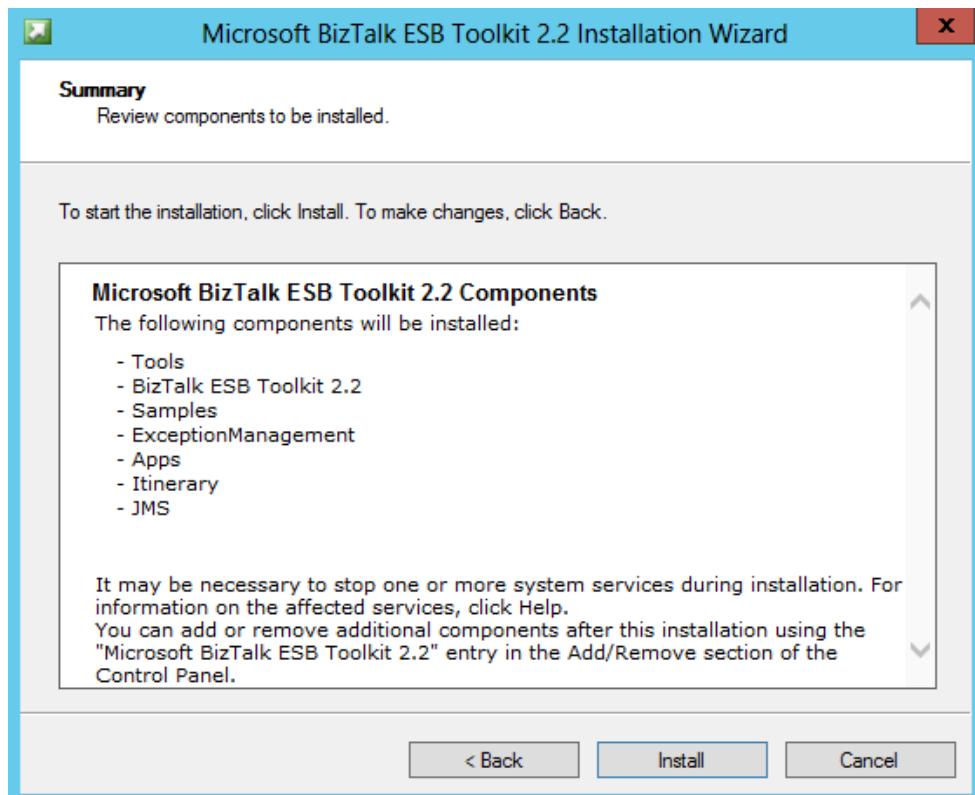
- On the License Agreement screen, select “Yes, I accept the terms of the license agreement” to accept the license agreement and click “Next”



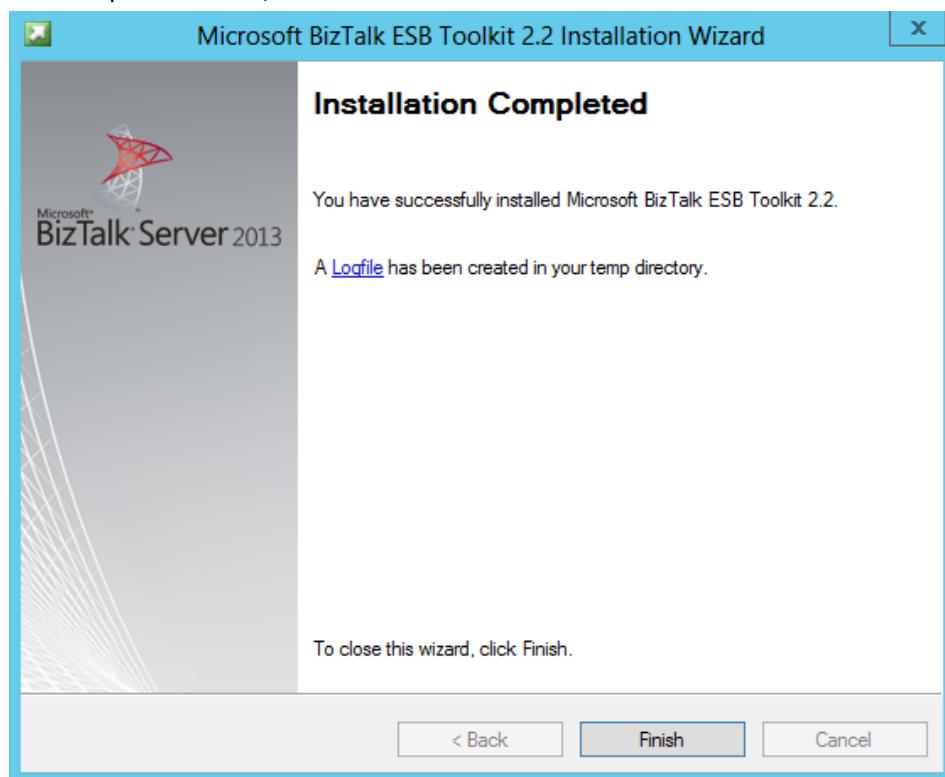
- On the Component Installation screen, select the components you want to install and then click "Next"



- On the Summary screen, review installation details and then click Install.



- On the Installation Completed screen, click “Finish” to close the installation wizard.

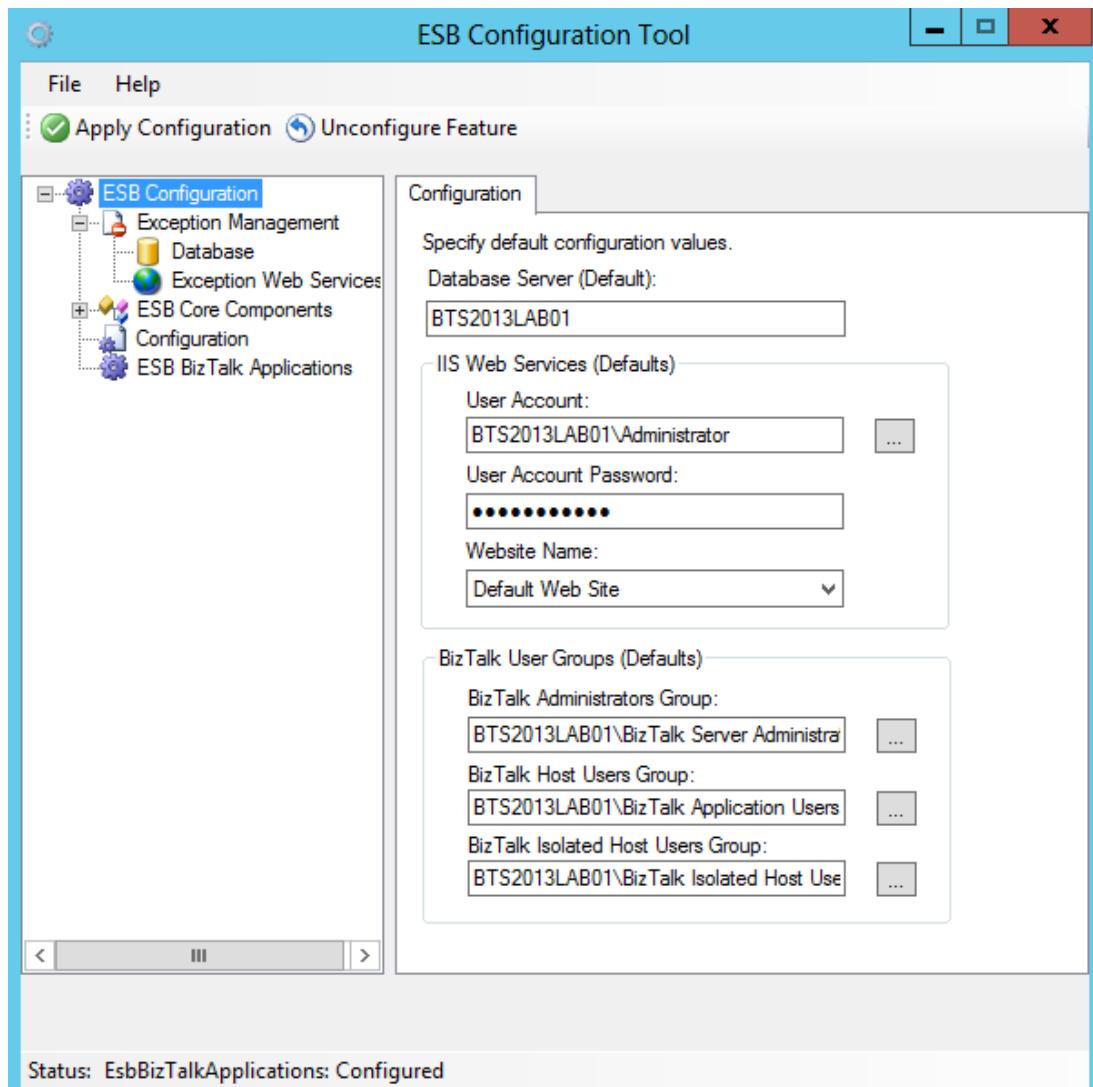


To configure the Microsoft BizTalk ESB Toolkit

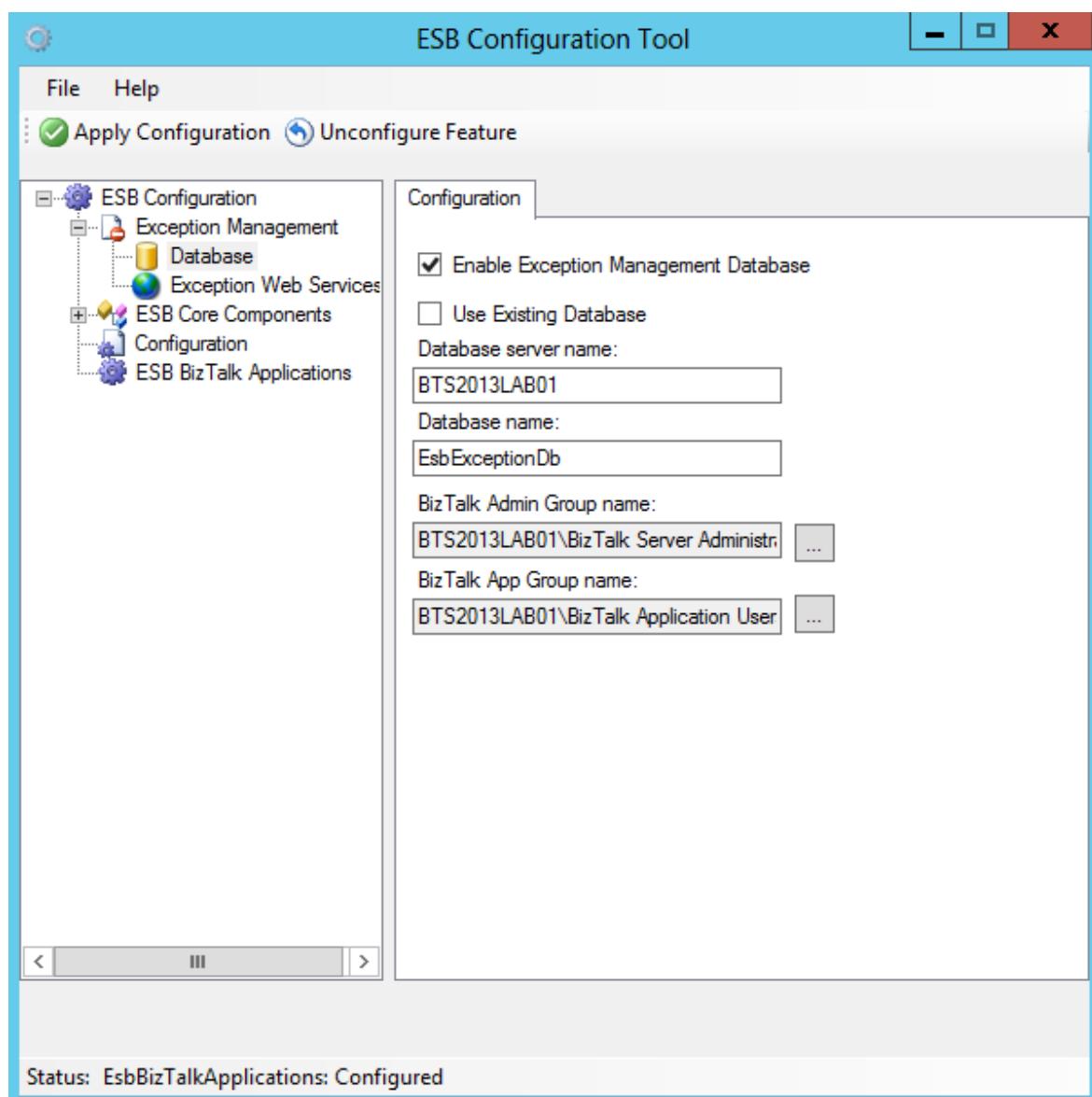
- Press the “Windows key” to switch to Start screen and type “ESB Configuration tool” or “ESB”, right-click “ESB Configuration tool” option on Apps menu, and then click “Run as Administrator”.
 - Note: You must run the ESB Configuration Tool as an administrator.



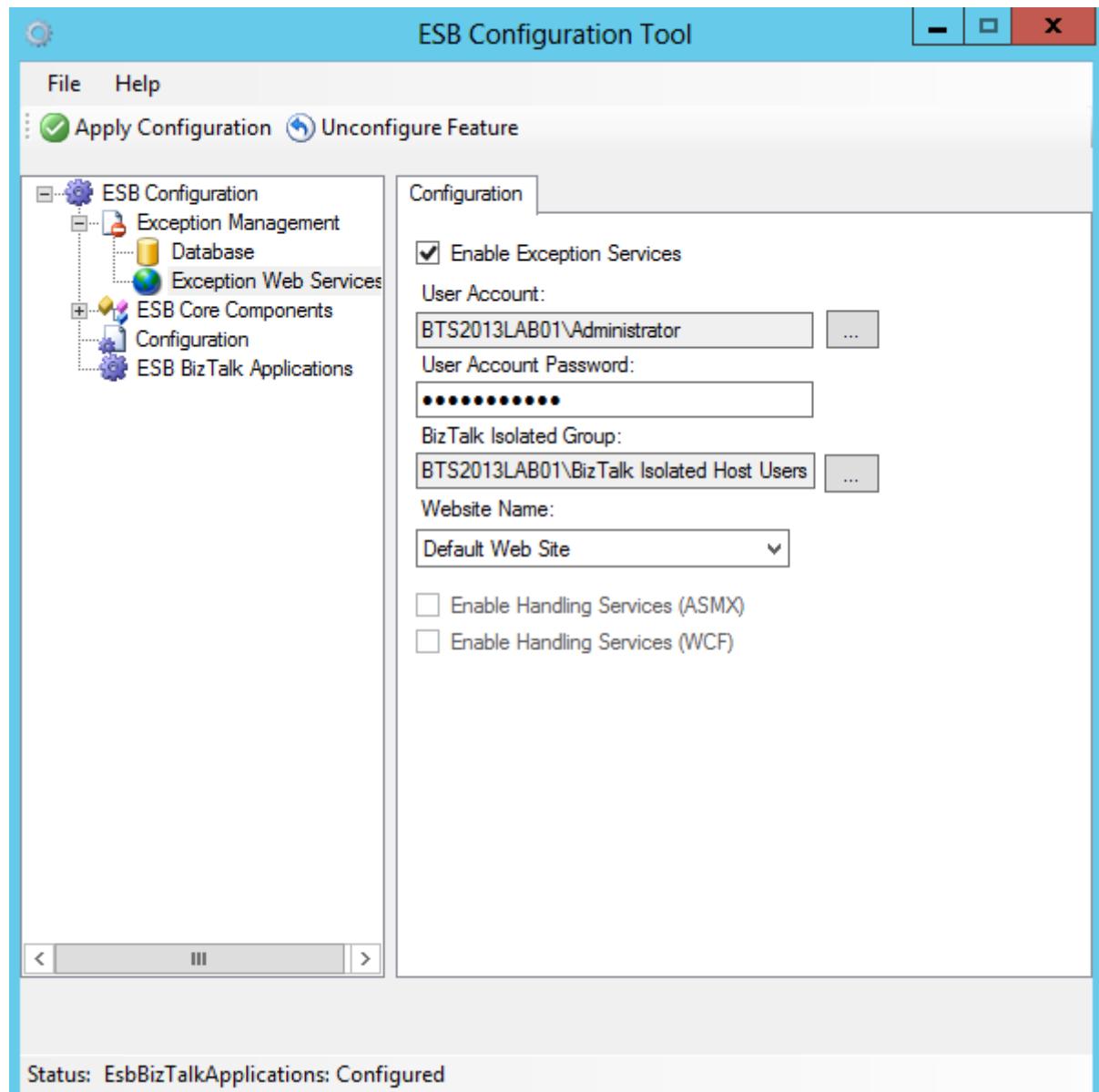
- In the ESB Configuration Tool screen, from the left pane, select “ESB Configuration” and on the right pane:
 - For “Database Server (Defaults)”: specify the database server name where the databases required for BizTalk ESB Toolkit will be created.
 - In the “IIS Web Services (Defaults)” box:
 - Specify the user credentials under which the applications required for BizTalk ESB Toolkit will be created.
 - Also specify the name of the website in IIS under which the applications will be created.
 - The “BizTalk User Groups (Defaults)” box lists the default user groups available for ESB configuration.
 - Leave the default values
 - Important: At this stage, you can click “Apply Configuration” towards the top of the ESB Configuration Tool to configure the Microsoft BizTalk ESB Toolkit with the default settings. However, we will continue to configure the remains steps for a custom configuration.



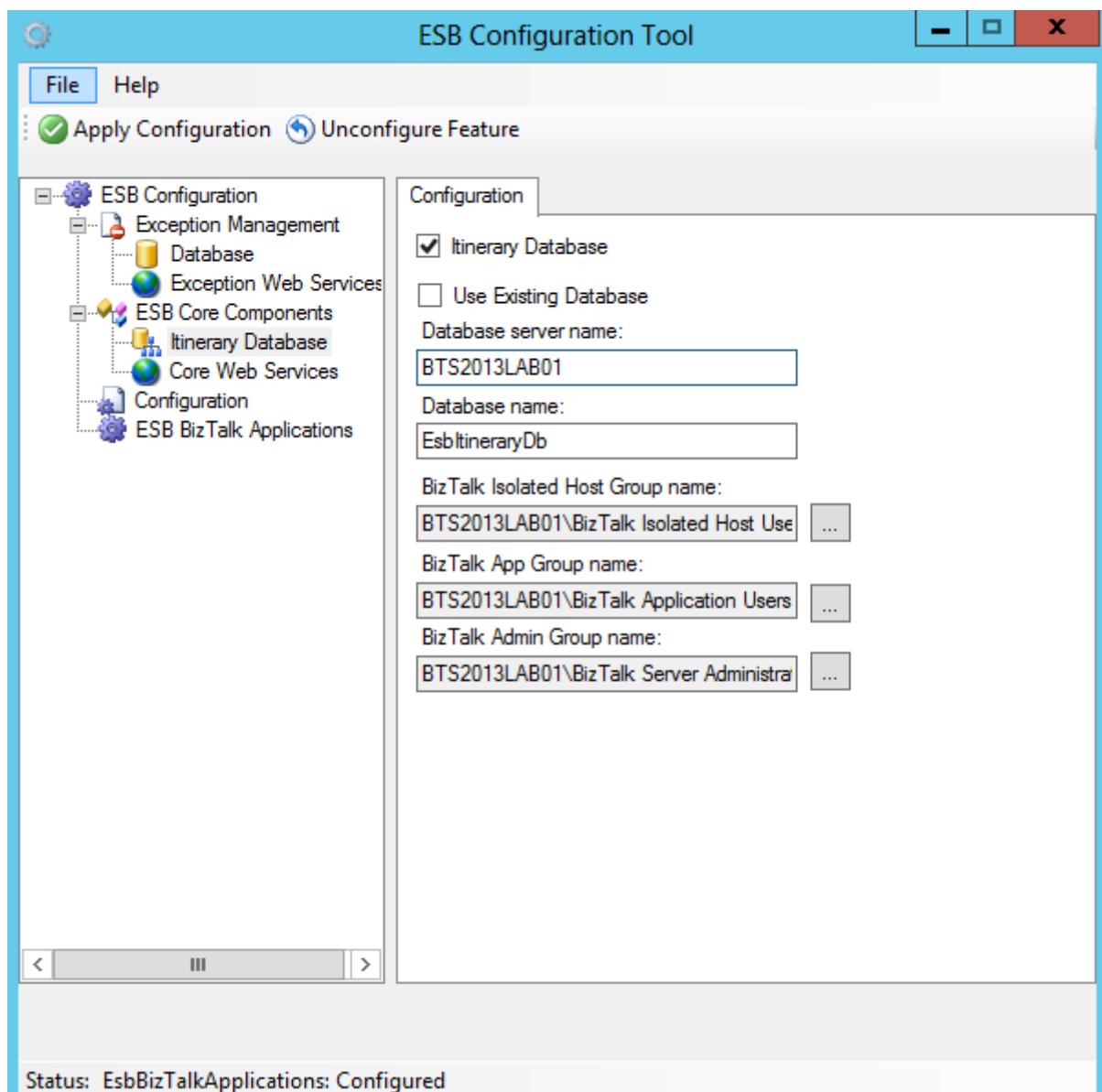
- From the left pane, expand “Exception Management” and do the following:
 - Click in the “Database” option and on the right pane:
 - Select “Enable Exception Management Database” check box to configure an exception management database.
 - In “Database server name”: specify the database server name where you want to create this database (specify the same database server name that you specify in the ESB Configuration panel under Database Server (Default) option)
 - In “Database name”: leave the default name “EsbExceptionDb”.
 - Leave the default groups



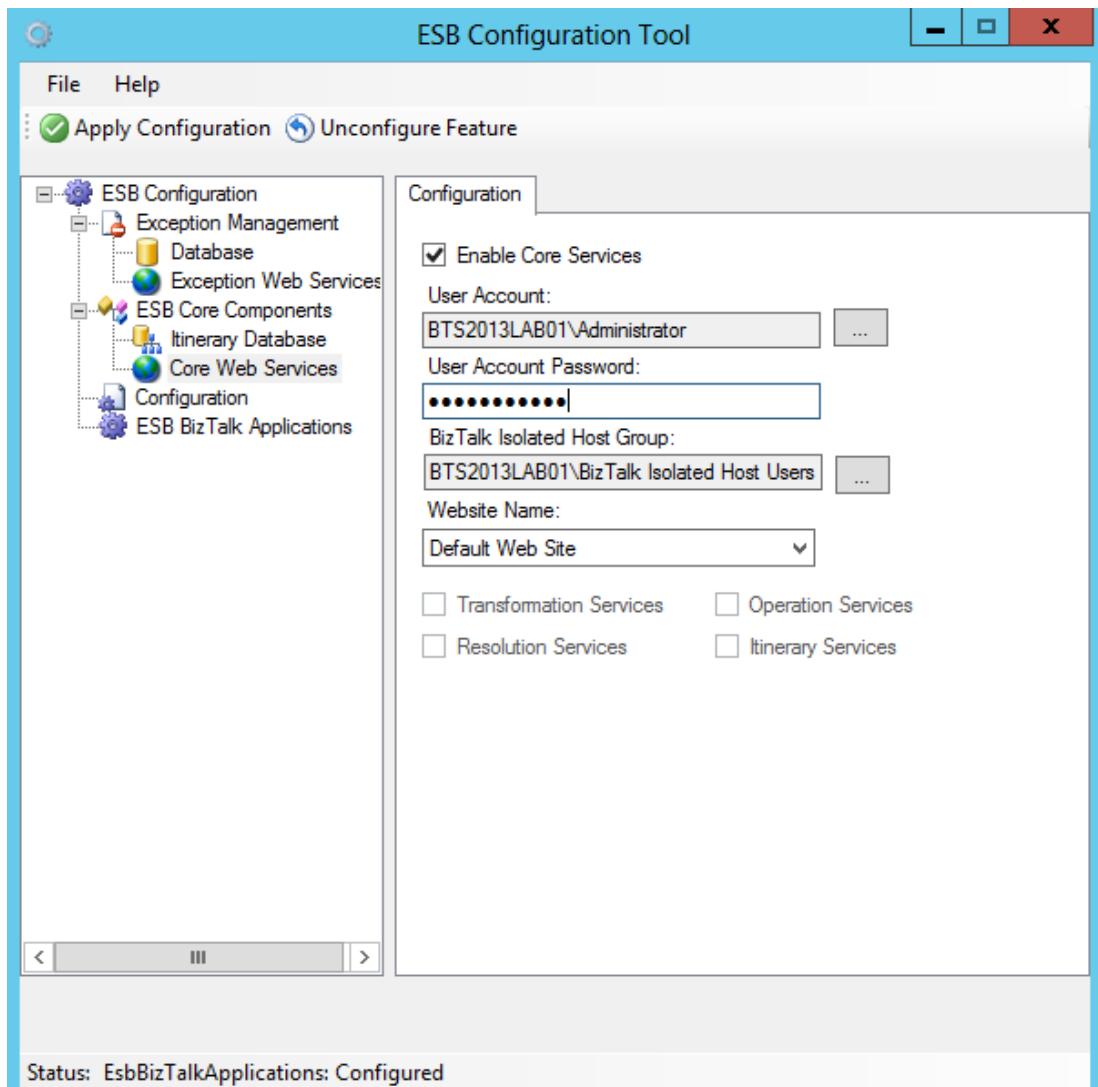
- Click on the “Exception Web Services” option from the left pane and on the right pane:
 - Select “Enable Exception Services” check box to configure these services.
 - In “User Account” and “user Account Password”: specify the user account and password under which this services will run.
 - In “BizTalk Isolated Group” – Leave the default value “BizTalk isolated Host Users”
 - In “Website Name”: specify the website where you want to run these services.



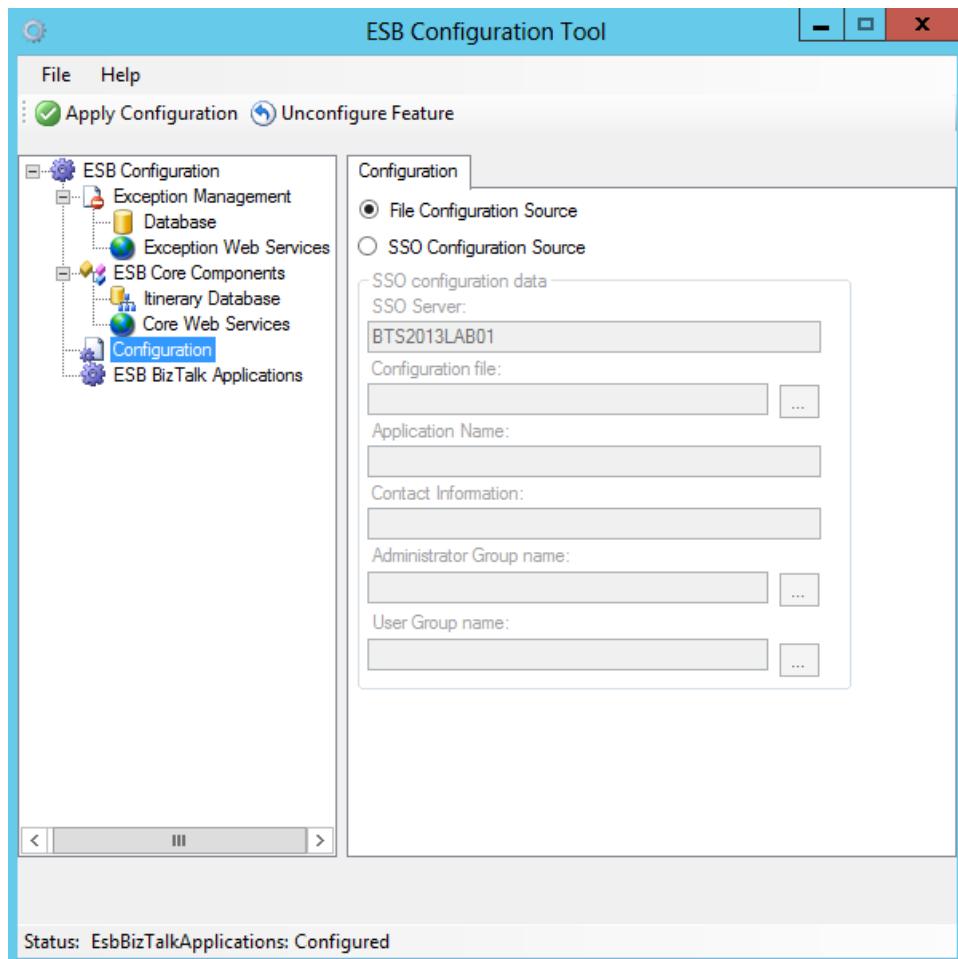
- From the left pane, expand “ESB Core Components”, and do the following:
 - Click the “Itinerary Database” option and on the right pane:
 - Select the “Itinerary Database” check box to configure an itinerary database.
 - In “Database server name”: specify the database server name where you want to create this database (specify the same database server name that you specify in the ESB Configuration panel under Database Server (Default) option)
 - In “Database name”: leave the default name “EsbItineraryDb”.
 - Leave the default groups



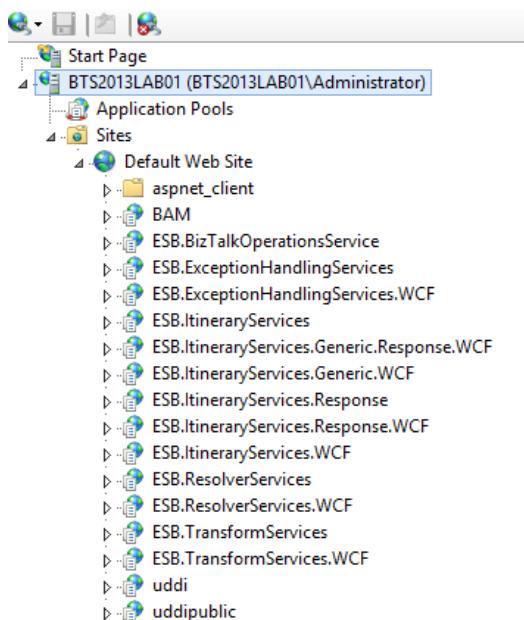
- Click on the “Core Web Services” option from the left pane and on the right pane:
 - Select the “Enable Core Services” check box to configure these services.
 - In “User Account” and “user Account Password”: specify the user account and password under which this services will run.
 - In “BizTalk Isolated Host Group” – Leave the default value “BizTalk isolated Host Users”
 - In “Website Name”: specify the website where you want to run these services.



- From the left pane, click “Configuration” to specify the SSO configuration.
 - If you are installing and configuring the Microsoft BizTalk ESB Toolkit in a single server environment, you should select “File Configuration Source”, which is the default selection. However, if you are setting up a multiple-machine deployment, you must select the “SSO Configuration Source”, and then provide the following values.
 - SSO Server: Name of the SSO server.
 - Configuration file: Click the ellipsis button (...), and then browse to the Esb.config file, which is included in the Microsoft BizTalk ESB Toolkit
 - Application Name: Type a name for the SSO application. For example, ESB Toolkit.
 - Contact Information: Type the appropriate contact information in the following format: someone@example.com.
 - Administrator Group Name: Click the ellipsis button (...), and then browse to the appropriate name
 - User Group Name: Click the ellipsis button (...), and then browse to the appropriate name
 - Select “File Configuration Source”

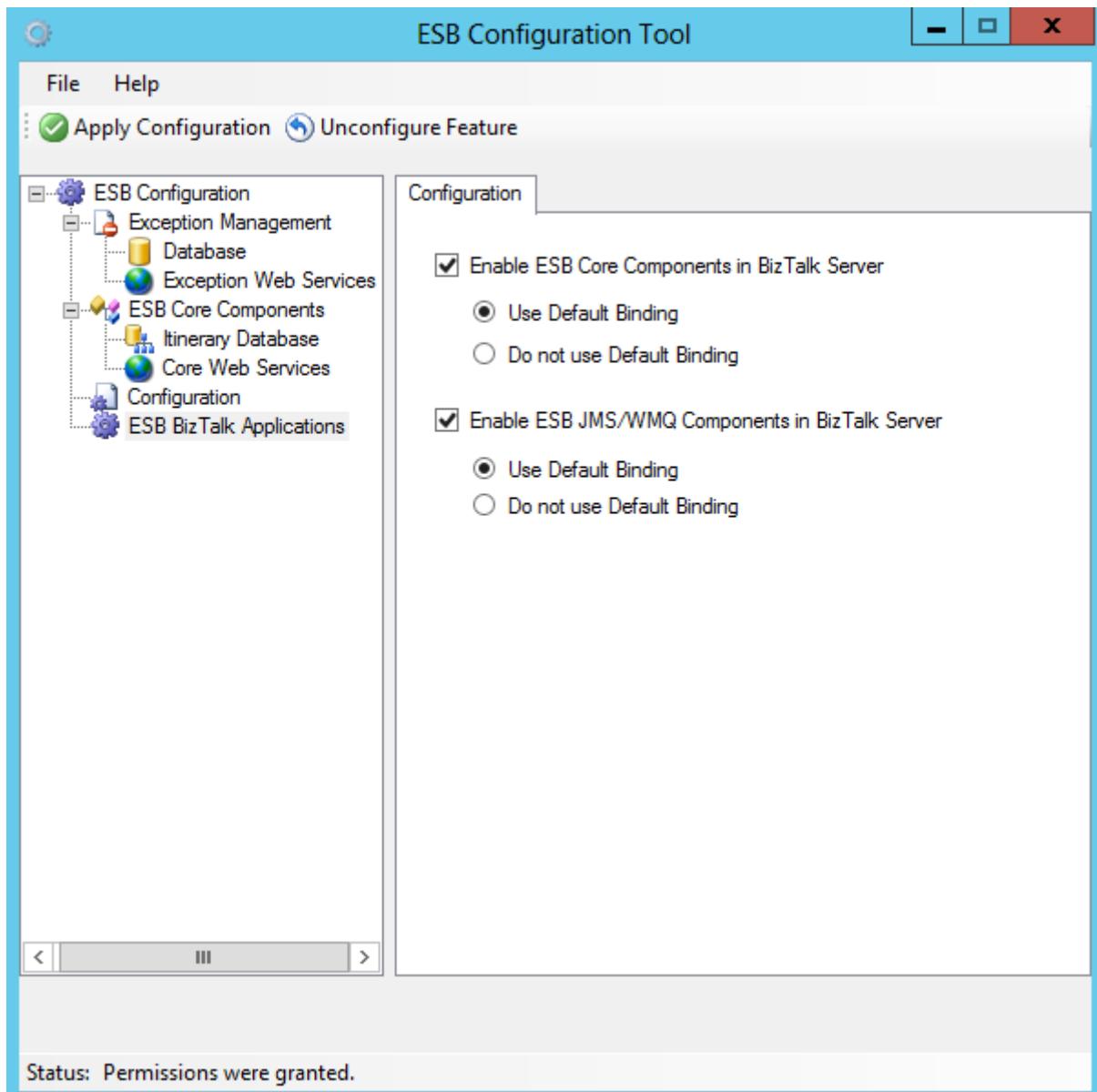


- Click “Apply Configuration” on the top of the ESB Configuration Tool to configure the Microsoft BizTalk ESB Toolkit. Open IIS and notice that the applications required for Microsoft BizTalk ESB Toolkit are now created under the website you specified.

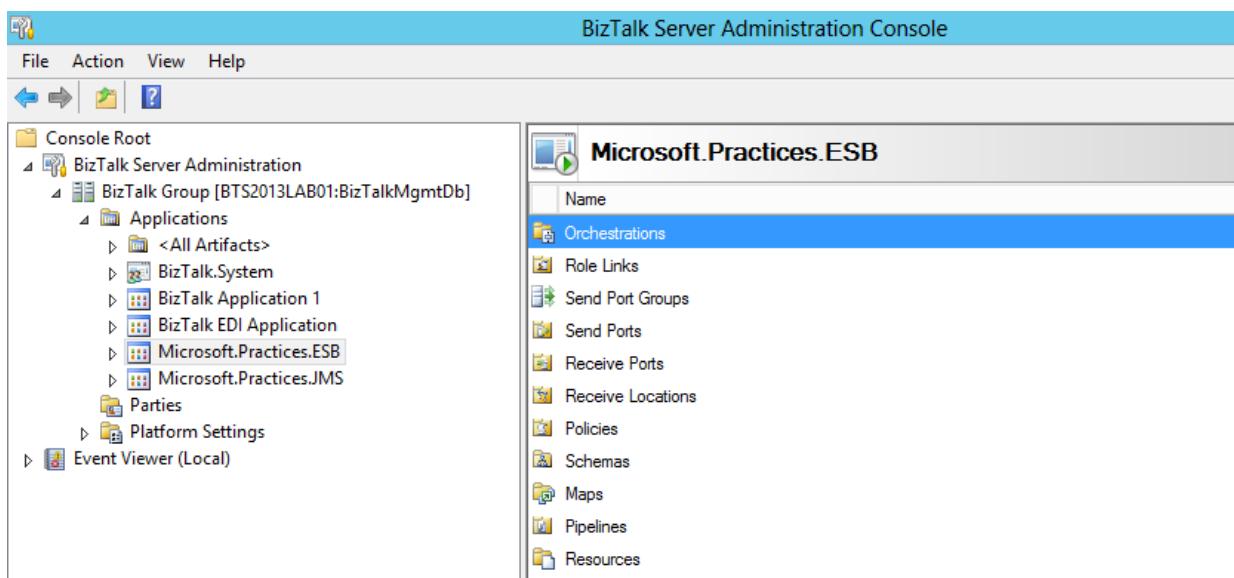


- Back to the “ESB Configuration Tool”, from the left pane, click “ESB BizTalk Applications” option, from the right pane, do the following:
 - Select the “Enable ESB Core Components in BizTalk Server” check box to create the application in the BizTalk Server Administration console.
 - Select the “Use Default Binding” to bind this application to the default host.

- Optional you can select the “Do not use Default Binding” if you do not want to bind the application to the default host. In such a case, you must explicitly bind the application to a host, once the application is created.
- Select the “Enable ESB JMS/WMQ Components in BizTalk Server” check box to create the application in the BizTalk Server Administration console.
 - Select the “Use Default Binding” to bind this application to the default host.
 - Optional you select the “Do not use Default Binding” if you do not want to bind the application to the default host. In such a case, you must explicitly bind the application to a host, once the application is created.



- Click “Apply Configuration” on the top of the ESB Configuration Tool to create the applications you selected. Verify that the applications are created in the BizTalk Server Administration console.



4.8 Install Critical Windows Updates and BizTalk Server Cumulative Update Package

Once again, after all of this installations, I like to do a Windows update and if necessary restart the server, this step is not necessary.

However I will like to mention that until this date there's already one Cumulative Update for BizTalk Server 2013 ([Cumulative update package 1 for BizTalk Server 2013](#)) that you should install to solve or fix minor problems that were detected.

Another great news in BizTalk Server 2013 is that cumulative packages for BizTalk Server will be available and delivery using Microsoft Update:

- Check for windows update
- Notice available fixes for BizTalk Server under optional updates
- Select the update and install

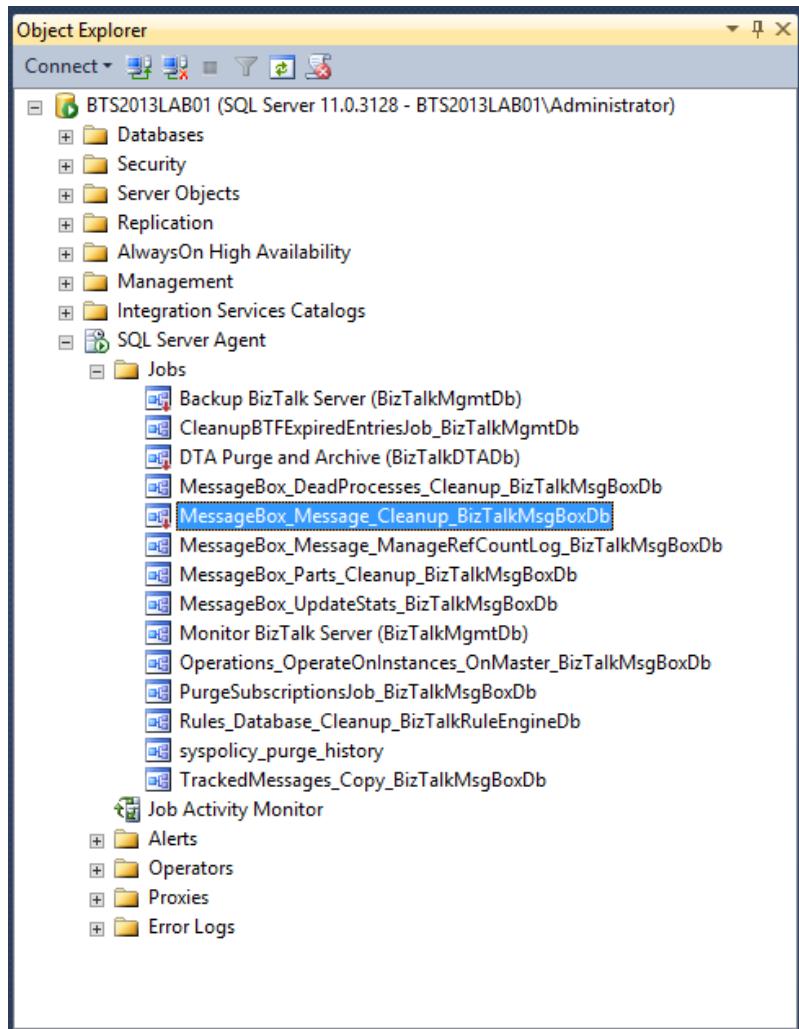
The CU will also be available through the hotfix download as well.

4.9 Configure BizTalk Server SQL Jobs

BizTalk Server databases and their health are very important for a successful BizTalk Server database messaging environment. BizTalk is shipped out with a total of 13 SQL Agent jobs. By default, the following BizTalk jobs aren't configured and enabled upon installation.

- Backup BizTalk Server (BizTalkMgmtDb)
- DTA Purge and Archive (BizTalkDTAdb)
- MessageBox_Message_Cleanup_BizTalkMsgBoxDb

The two jobs that needs configuration are the two most important jobs: the "**Backup BizTalk Server**" and the "**DTA Purge and Archive**". If you want these functionalities you must configure and enabled them.



4.9.1 How to configure Backup BizTalk Server (BizTalkMgmtDb)

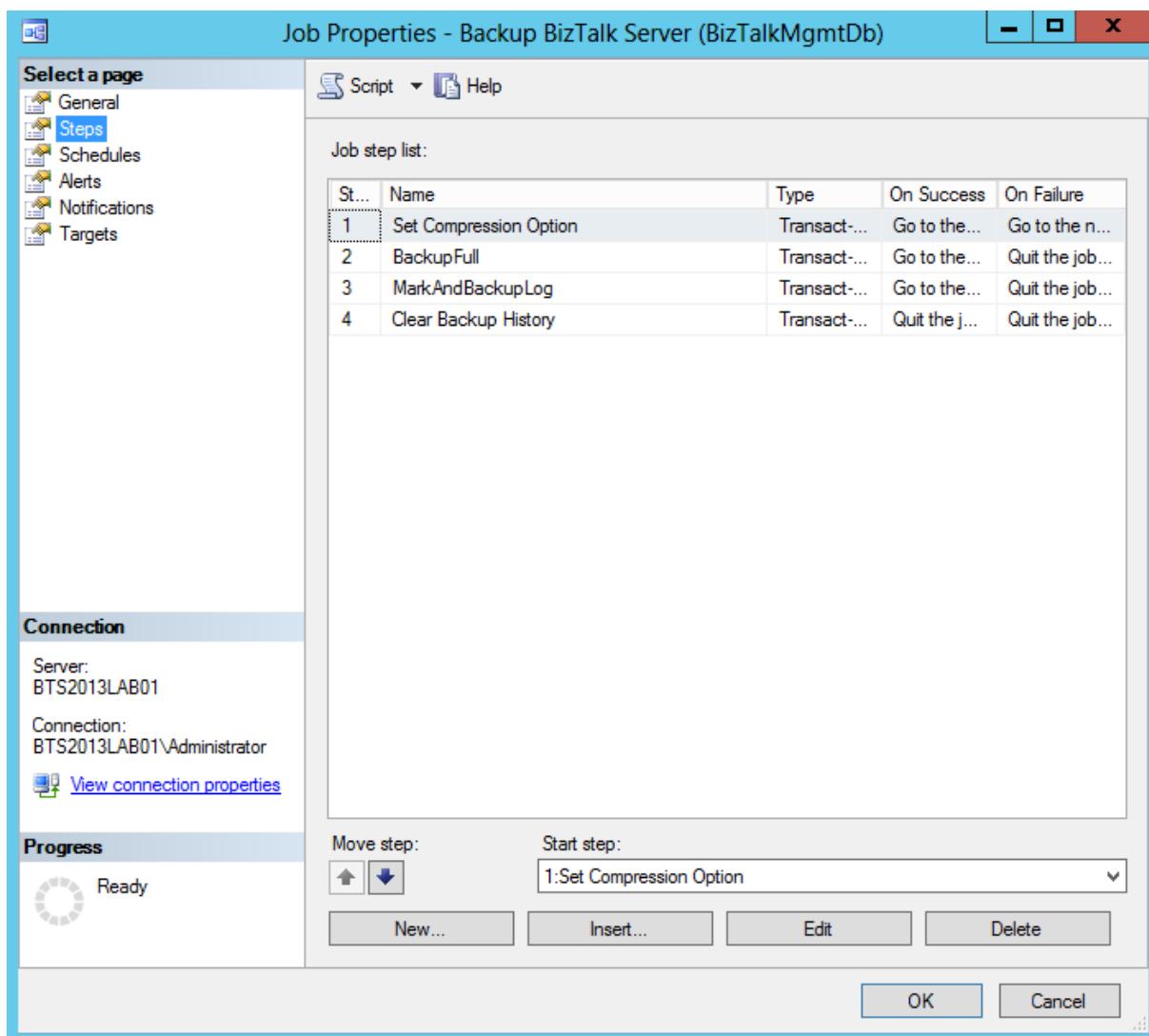
This is the job provided by Microsoft to do a best practice backup of the BizTalk databases. This job has to be configured for it to be able to run.

This Job consists of four steps:

- Step 1 – Set Compression Option – Enable or disable compression during backup.
- Step 2 – BackupFull – Performs full database backups of the BizTalk Server databases.
- Step 3 – MarkAndBackUpLog – Backs up the BizTalk Server database logs.
- Step 4 – Clear Backup History – Specifies for how long the backup history is kept.

To configure the Backup BizTalk Server job:

- Press the “Windows key” to switch to Start screen and type “SQL Management” or “SQL” and click in “SQL Server Management Studio” option on Apps menu.
- In Object Explorer panel, connect to the SQL Server instance and expand the server tree.
 - Expand the “SQL Server Agent” node
 - Expand “Jobs” node
- Double click “Backup BizTalk Server (BizTalkMgmtDb)” to open the job properties window.
- In the Job Properties - Backup BizTalk Server (BizTalkMgmtDb) dialog box, under “Select a page”, click “Steps”.
- In the “Job step list”, click in the job you want to edit, and then click “Edit”



Step 1 – Set Compression Option

Since BizTalk Server 2010, BizTalk Server supports compression for its SQL Server database backups thereby providing some benefits like: less space needed for the backup files, fewer I/O operations for the backup and restore and so on.

This job step calls a stored procedure named `sp_SetBackupCompression` on the BizTalk management database (BizTalkMgmtDb by default) to set the value on the `adm_BackupSettings` table.

The original script is:

```
exec [dbo].[sp_SetBackupCompression] @bCompression = 0 /*0 - Do not use Compression, 1 - Use Compression */
```

The stored procedure has only one parameter:

- `@bCompression`: By default, Set Compression Option is set to 0, which makes backup compression off by default. To change the default, change Set Compression Option to 1.

Change the script to:

```
exec [dbo].[sp_SetBackupCompression] @bCompression = 1 /*0 - Do not use Compression, 1 - Use Compression */
```

Step 2 – BackupFull

The `BackupFull` step is responsible for performing a full backup of the database.

The original script is:

```
exec [dbo].[sp_BackupAllFull_Schedule] 'd' /* Frequency */, 'BTS' /* Name */, '<destination path>' /* location of backup files */
```

Where:

- Frequency: The default is d (daily). This is the recommended setting. Other values include h (hourly), w (weekly), m (monthly), or y (yearly).
- Name: The default is BTS. The name is used as part of the backup file name.
- Location of backup files: Replace '<destination path>' with the full path (the path must include the single quotes) to the computer and folder where you want to back up the BizTalk Server databases.

There are also three optional parameters:

- Force full backup after partial backup failures (@ForceFullBackupAfterPartialSetFailure): The default is 0 when not specified, which means that if a log backup fails, no full backups are done until the next full backup frequency interval is reached. Replace with 1 if you want a full backup to be made whenever a log backup failure occurs.
- Local time hour for the backup process to run (@BackupHour): The default is NULL when not specified, which means that backup job will not be associated with the time zone of the BizTalk Server computer and will run at midnight UTC time (0000). If you want to backup to run at a particular hour in the time zone of the BizTalk Server computer, specify an integer value from 0 (midnight) to 23 (11 PM) as the local time hour for the BackupHour parameter.
- Use local time (@UseLocalTime): This is an extra parameter that you can also add that tells the procedure to use local time
 - The default value is 0
 - If set to 0, then it uses current UTC time – GETUTCDATE() – 2007-05-04 01:34:11.933
 - If set to 1, then it uses local time – GETDATE() – 2007-05-03 18:34:11.933

Change the script to:

```
exec [dbo].[sp_BackupAllFull_Schedule] 'd' /* Frequency */, 'BTS' /* Name */, '<your_destination_path>\BizTalk Database\Full' /* location of backup files */
```

Step 3 – MarkAndBackUpLog

The MarkAndBackupLog step is responsible for marking the logs for backup, and then backing them up.

The original script is:

```
exec [dbo].[sp_MarkAll] 'BTS' /* Log mark name */, '<destination path>' /* location of backup files */
```

Where:

- @MarkName: Log mark name is part of the naming convention for backup files:
 - <Server Name>_<Database Name>_Log_< Log Mark Name >_<Timestamp>
- @BackupPath: You must change the destination path this to a valid one. It may be local or a UNC path to another server.

There is also one optional parameter:

- @UseLocalTime: This is an extra parameter that you can also add that tells the procedure to use local time
 - `exec [dbo].[sp_MarkAll] 'BTS' /* Log mark name */,'<destination path>' /*location of backup files */ , 1`

Change the script to:

```
exec [dbo].[sp_MarkAll] 'BTS' /* Log mark name */ , '< your_destination_path>\BizTalk Database\Logs' /* location of backup files */
```

Step 4 – Clear Backup History

The Clear Backup History step is responsible for performing a cleanup of the backup history according to how long a backup should be kept.

The original script clears out the instances in the MarkLog table older than 14 days:

```
exec [dbo].[sp_DeleteBackupHistory] @DaysToKeep=14
```

Where:

- @DaysToKeep: specifies how long the backup history is kept in the Adm_BackupHistory table. Periodically clearing the backup history helps to maintain the Adm_BackupHistory table at an appropriate size. The default value for the DaysToKeep parameter is 14 days.

There is also one optional parameter:

- @UseLocalTime: This is an extra parameter that you can also add that tells the procedure to use local time
 - `exec [dbo].[sp_DeleteBackupHistory] @DaysToKeep=14, @UseLocalTime =1`

In this particular case I like to leave the default settings.

NOTE: This job step does not provide functionality for deleting backup files that have accumulated over time.

You can solve this problem by implementing your custom `sp_DeleteBackupHistory`:

- Start SQL Server Management Studio, and then connect to the BizTalk Management Database. By default, this database is named BizTalkMgmtDb.
- Click New Query to open a Query Editor window.
- Run the following Transact-SQL script to create the `sp_DeleteBackupHistoryAndFiles` stored procedure:

```
CREATE PROCEDURE [dbo].[sp_DeleteBackupHistoryAndFiles] @DaysToKeep smallint = null
AS
BEGIN
    set nocount on
    IF @DaysToKeep IS NULL OR @DaysToKeep <= 1
        RETURN
    /* Only delete full sets
    If a set spans a day in such a way that some items fall into the deleted group and the other does not, do not delete the set */
    DECLARE DeleteBackupFiles CURSOR
    FOR SELECT 'del "' + [BackupFileLocation] + '\' + [BackupFileName] + ""'' FROM [adm_BackupHistory]
    WHERE datediff(dd, [BackupDateTime], getdate()) >= @DaysToKeep
    AND [BackupSetId] NOT IN (SELECT [BackupSetId] FROM [dbo].[adm_BackupHistory] [h2] WHERE [h2].[BackupSetId] =
    [BackupSetId] AND datediff(dd, [h2].[BackupDateTime], getdate()) < @DaysToKeep)
    DECLARE @cmd varchar(400)
    OPEN DeleteBackupFiles
    FETCH NEXT FROM DeleteBackupFiles INTO @cmd
    WHILE (@@fetch_status >> -1)
        BEGIN
```

```

IF (@@fetch_status <> -2)
BEGIN
    EXEC master.dbo.xp_cmdshell @cmd, NO_OUTPUT
    delete from [adm_BackupHistory] WHERE CURRENT OF DeleteBackupFiles
    print @cmd
END
FETCH NEXT FROM DeleteBackupFiles INTO @cmd
END
CLOSE DeleteBackupFiles
DEALLOCATE DeleteBackupFiles
END
GO

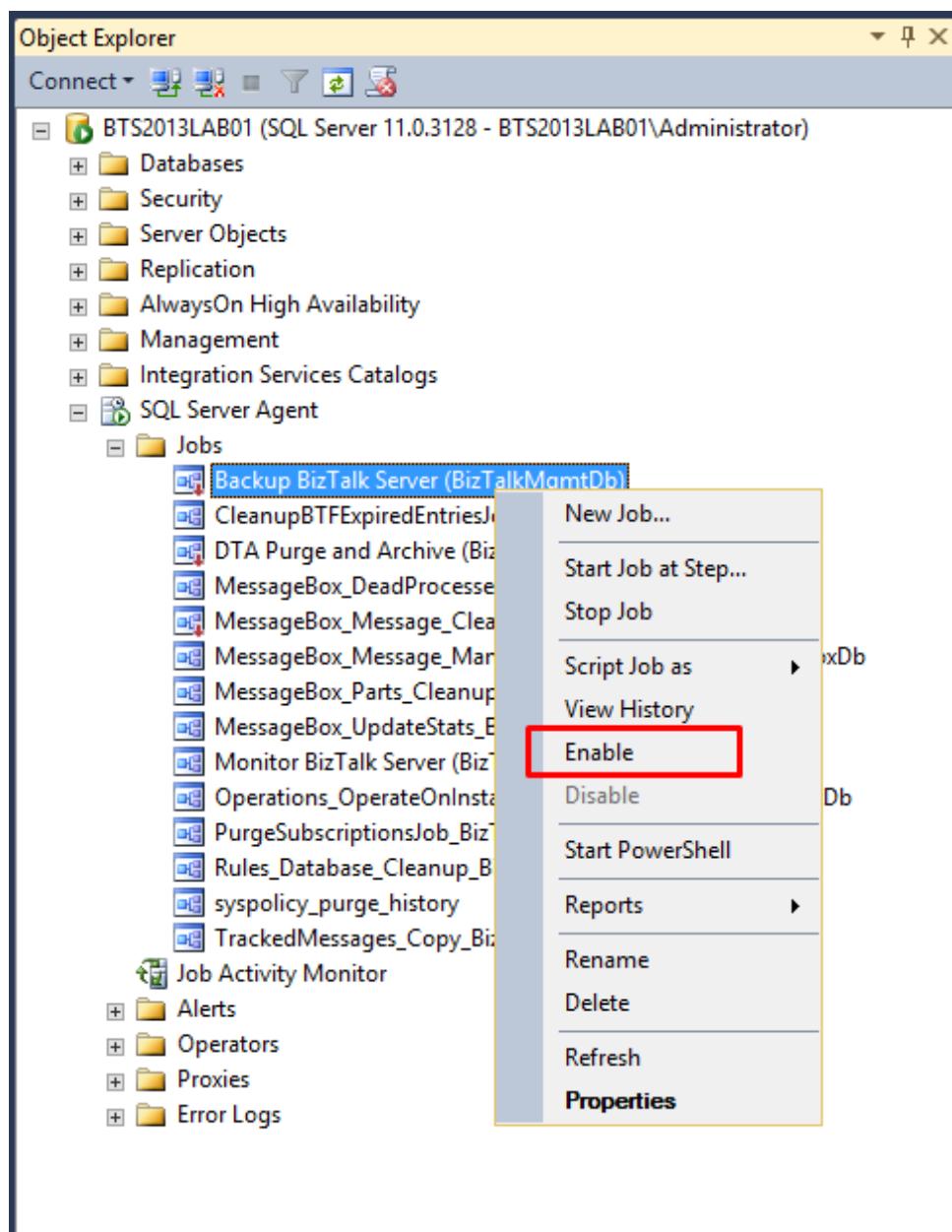
```

- You can find more information about this SQL script here: <http://support.microsoft.com/kb/982546>
- Change the “Clear Backup History” step of the Backup BizTalk Server job so that it calls the sp_DeleteBackupHistoryAndFiles stored procedure instead of the sp_DeleteBackupHistory stored procedure.

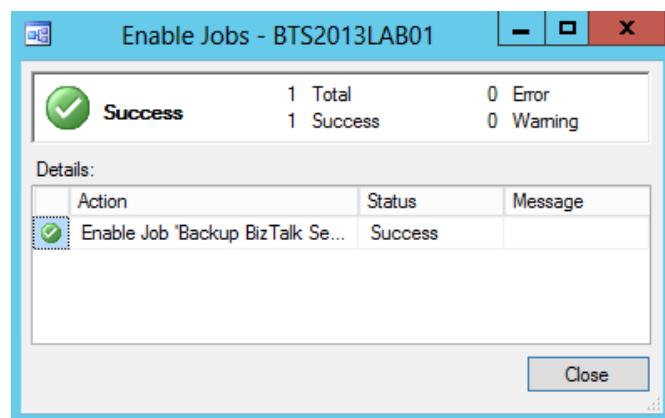
NOTE: However I don't like this approach and I really prefer to take advantage of all features that SQL gives me and create a maintenance plan with a Cleanup task to remove this files.

After properly configure, to enable the Backup BizTalk Server job:

- Under “Jobs” in SQL Server Management Studio Object Explorer, Right click in the name of the job “Backup BizTalk Server (BizTalkMgmtDb)” and select “Enable” option.



- In the result screen, click “Close”.



4.9.2 How to configure DTA Purge and Archive (BizTalkDTADb)

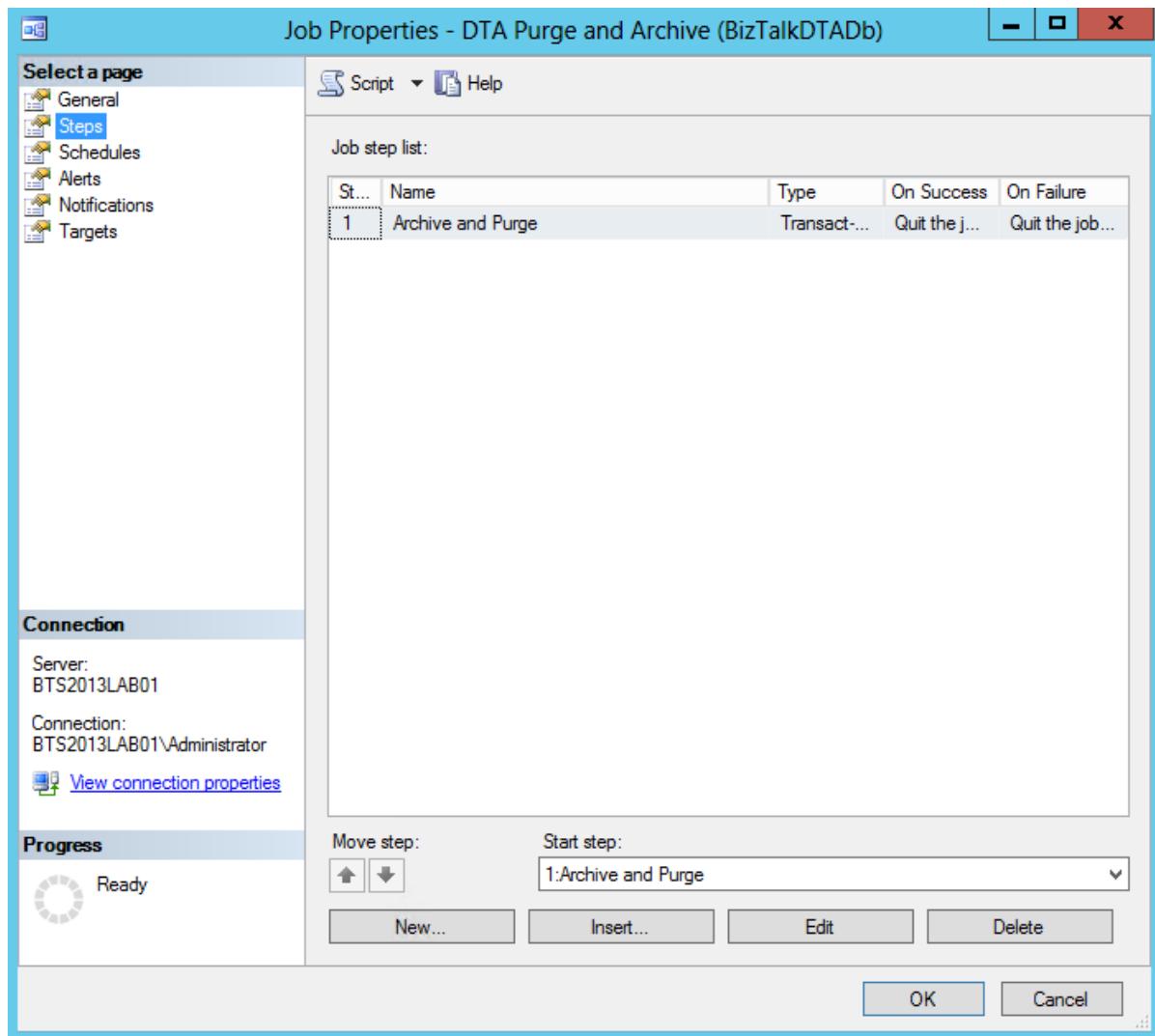
This job automates the archiving of tracked messages and the purging of the BizTalk Tracking database to maintain a healthy system and to keep the tracking data archived for future use.

And it's configured to call the stored procedure `dtasp_BackupAndPurgeTrackingDatabase`, which uses the six parameters you must configure in this job:

- @nLiveHours: Any completed instance older than the (live hours) + (live days) will be deleted along with all associated data. Default is 0 hours.
- @nLiveDays: Any completed instance older than the (live hours) + (live days) will be deleted along with all associated data. Default interval is 1 day.
- @nHardDeleteDays: All data (even if incomplete) older than this will be deleted. The time interval specified for HardDeleteDays should be greater than the live window of data. The live window of data is the interval of time for which you want to maintain tracking data in the BizTalk Tracking (BizTalkDTADb) database. Anything older than this interval is eligible to be archived at the next archive and then purged. Default is 30 days.
- @nvcFolder: Folder in which to put the backup files.
- @nvcValidatingServer: Server on which validation will be done. NULL value indicates no validation is being done. Default is NULL.
- @fForceBackup: Default is 0. This is reserved for future use.

To configure the DTA Purge and Archive job:

- Press the “Windows key” to switch to Start screen and type “SQL Management” or “SQL” and click in “SQL Server Management Studio” option on Apps menu.
- In Object Explorer panel, connect to the SQL Server instance and expand the server tree.
 - Expand the “SQL Server Agent” node
 - Expand “Jobs” node
- Double click “DTA Purge and Archive (BizTalkDTADb)” to open the job properties window.
- In the Job Properties - DTA Purge and Archive (BizTalkDTADb) dialog box, under “Select a page”, click “Steps”.
- In the “Job step list”, click Archive and Purge, and then click Edit.



The original script after installing BizTalk looks like this:

```
exec dtasp_BackupAndPurgeTrackingDatabase
0, --@nLiveHours tinyint, --Any completed instance older than the live hours +live days
1, --@nLiveDays tinyint = 0, --will be deleted along with all associated data
30, --@nHardDeleteDays tinyint = 0, --all data older than this will be deleted.
null, --@nvcFolder nvarchar(1024) = null, --folder for backup files
null, --@nvcValidatingServer sysname = null,
0 --@fForceBackup int = 0 --
```

This means that:

- Any completed instance that is older than the live days plus live hours will be deleted, as will any associated data.
- Any data older than the HardDeleteDays will be deleted.

Normally I use these configurations for production environments:

```
exec dtasp_BackupAndPurgeTrackingDatabase 0, 10, 20, '<destination path>', null, 0
```

However in a development machine we don't need to maintain the archived tracking data, so I just purge it periodically. BizTalk gives you the option to Archive and Purge the tracking data or just simple purge the data without archiving:

- Change the SQL Statement inside "DTA Purge and Achieve" SQL Job to

```
declare @dtLastBackup datetime set @dtLastBackup = GetUTCDate() exec dtasp_PurgeTrackingDatabase 1, 0, 7, @dtLastBackup
```

After properly configure, to enable the Backup BizTalk Server job:

- Under “Jobs” in SQL Server Management Studio Object Explorer, Right click in the name of the job “DTA Purge and Archive (BizTalkDTADb)” and select “Enable” option.
- In the result screen, click “Close”.

4.9.3 MessageBox_Message_Cleanup_BizTalkMsgBoxDb

This job removes all messages that are not referenced by any subscribers in the BizTalkMsgBoxDb database tables.

IMPORTANT: This job is also started by the MessageBox_Message_ManageRefCountLog_BizTalkMsgBoxDb job. Therefore, we recommend that you disable this job.

4.10 Configure BizTalk Server Windows Services

By default, the “Startup type” propriety of BizTalk Windows Services, Enterprise Single Sign-On Service, Microsoft UDDI Notification Service and the new BAMAlerts service are set as “Automatic”, however some of this Windows Services may not start automatically after a system restart, to avoid this behavior you must configure the “Startup type” to “Automatic (Delayed Start)” option in this services:

- BAMAlerts
- Microsoft UDDI Notification Service
- Rule Engine Update Service

Also in previous version (2006 R2, 2009, 2010) of BizTalk Server also had this problem for:

- Enterprise Single Sign-On Service
- BizTalk Service BizTalk Group : BizTalkServerApplication Service

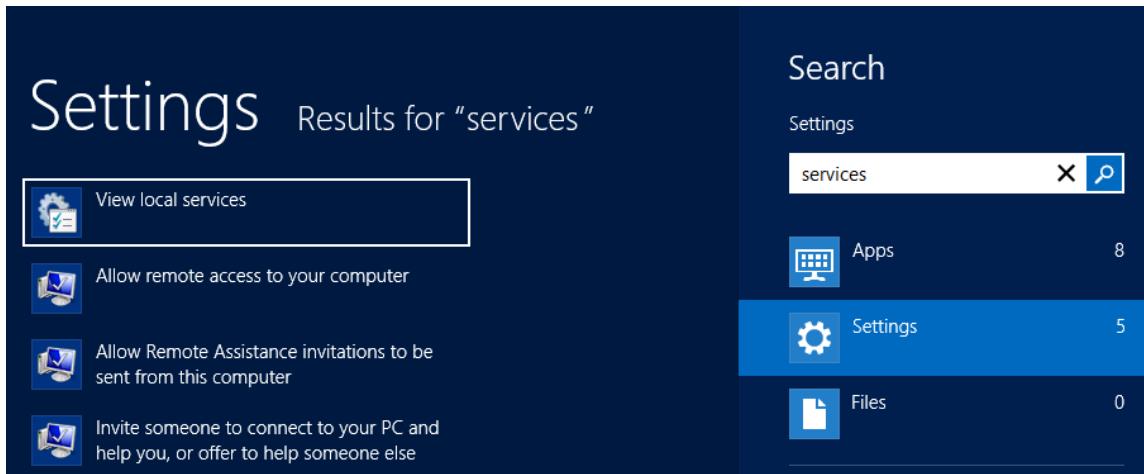
That we manage to solve by also configuring the startup type of the service to: “Automatic (Delayed Start)”

However, despite this services (SSO and BizTalk Services) being configured by default as “Automatic”, this problem has been resolved in this release on [Windows Server 2012 and you don't need to configure them](#) to “Automatic (Delayed Start)”. Nevertheless if you are using other old SO versions supported by BizTalk Server 2013 you maybe need to apply this configuration to avoid possible issues.

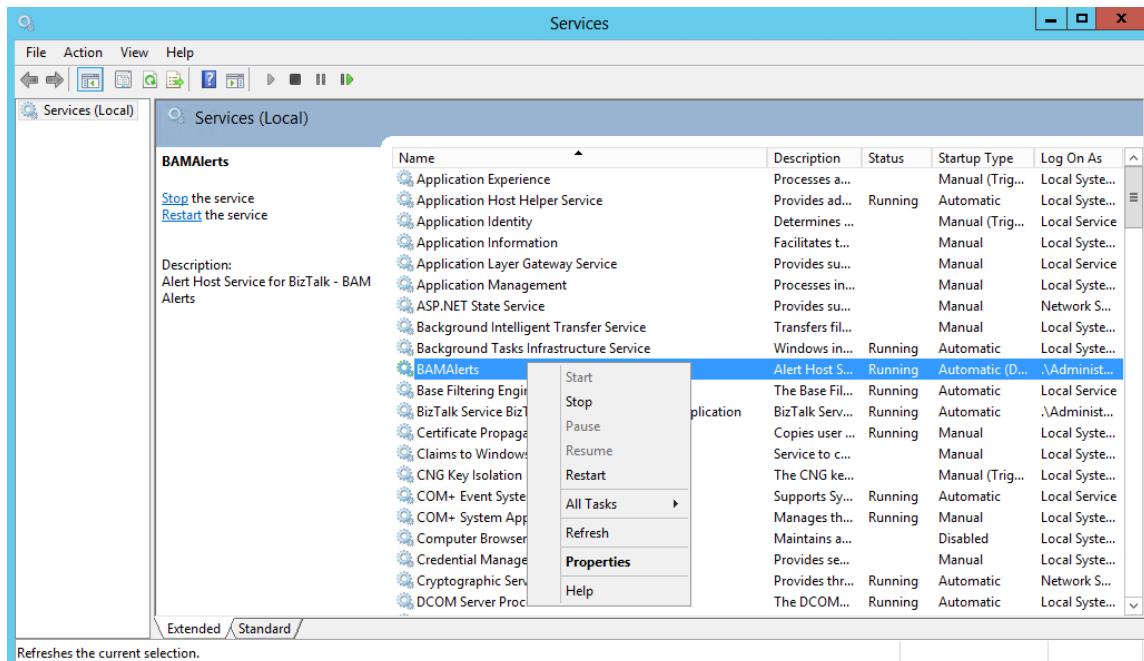
Note: if you prefer you can also configure this services as “Automatic (Delayed Start)” on [Windows Server 2012](#) without any impact.

To proper configure the “BAMAlerts” and “Microsoft UDDI Notification Service” Windows service:

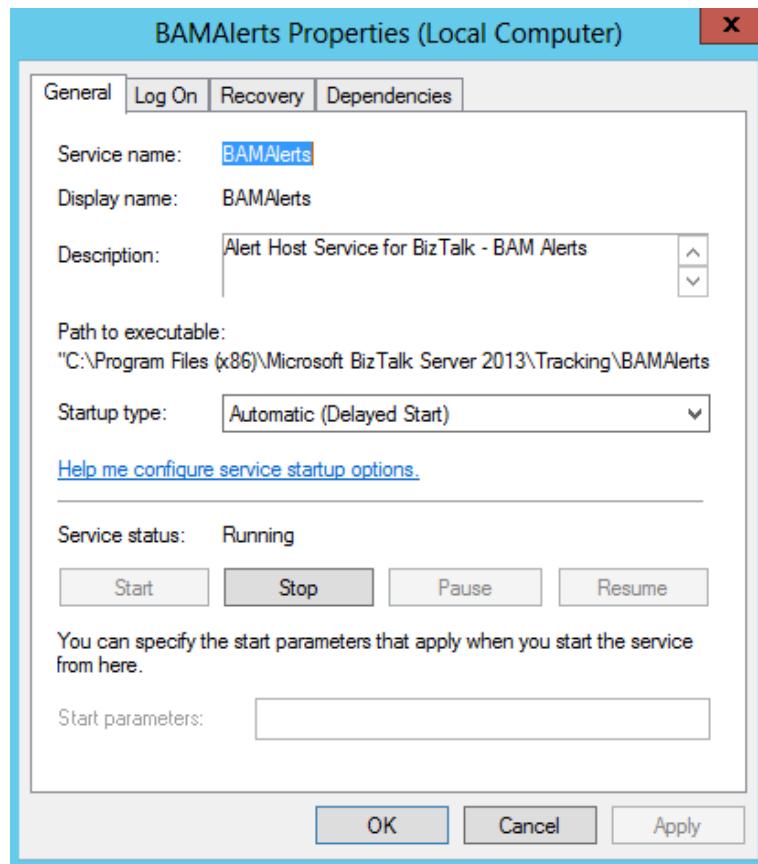
- Press the “Windows key” to switch to Start screen and type “Services” and click in “View local services” option on Settings menu.



- In the Services window, on the Services (Local) panel select the BAMAlerts service, right click and select “Properties” option.

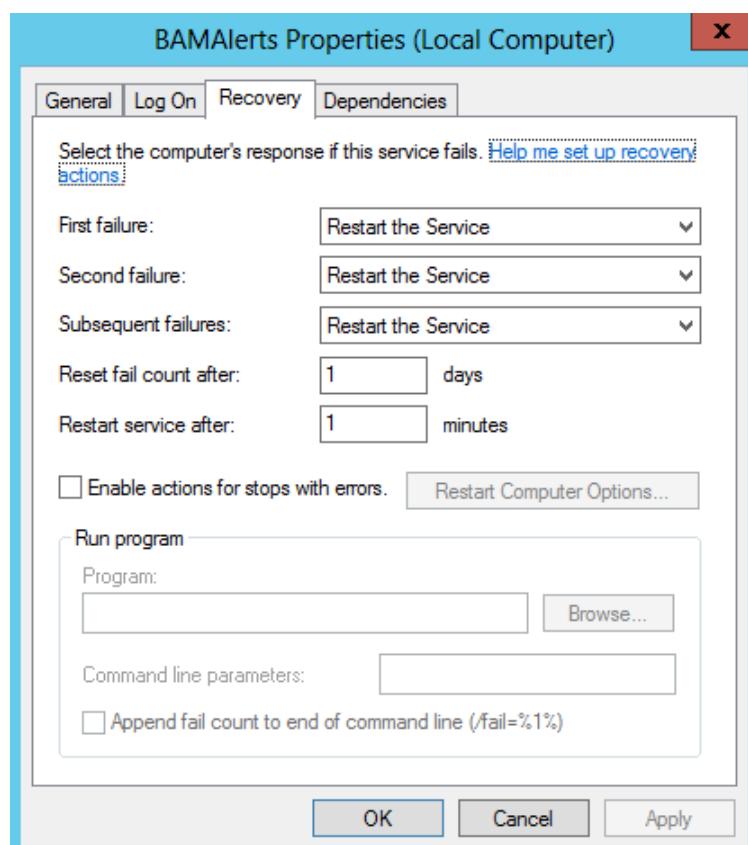


- On the BAMAlerts Properties (Local Computer) window:
 - On the General tab apply the following configuration.
 - Startup type: “Automatic (Delayed Start)”



○ On the Recovery tab, apply the following configuration:

- First failure: "Restart the Service"
- Second failure: "Restart the Service"
- Subsequent failures: "Restart the Service"
- Reset fail count after ... day: 1
- Restart service after ... minutes: 1



- Click “OK” to apply the changes and close the window
- Repeat the steps for the other services.

Appendix A: Hardware and Software Requirements

Hardware Requirements

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

Resource Id	Minimum Requirement
Computer and processor	<p>A computer with an Intel Pentium-compatible CPU that is:</p> <ul style="list-style-type: none">1 GHz or higher for single processors900 MHz or higher for double processors700 MHz or higher for quad processors <p>Notes:</p> <ul style="list-style-type: none">Hyper-Threading and Dual-Core processors are supported.The 64-bit versions of BizTalk Server require a 64-bit operating system running on an x64-based system. Computers based on CPUs that are compatible with the AMD64 (x86-64) and Extended Memory 64-bit Technology (EM64T) processor architecture are considered x64-based systems.BizTalk Server is not supported on Itanium-based systems.
Memory	2GB or more
Hard disk	10 GB of available hard disk space for a complete installation including the operating system and all prerequisite software. The hard disk must be NTFS formatted.

Software Requirements

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

Software Required	Description	Required for
Microsoft Windows	<ul style="list-style-type: none">Windows Server 2012Windows Server 2008 R2 SP1Windows 8Windows 7 SP1	
Internet Information Services (IIS)	IIS version 8.0 and 7.5 are supported.	Provides a scalable Web application infrastructure and is required for EDI, BAM, WSS Adapter, and UDDI.
Windows Identity Foundation	OPTIONAL When using the Windows SharePoint Services Client Side Object Model (CSOM), Windows Identity Foundation is needed.	SharePoint Services adapter or SharePoint Services Online when used with SharePoint Services Client Side Object Model (CSOM). It is not needed when using the SharePoint Services Web Service, which is deprecated. Or when you don't want to use this feature.
Microsoft SharePoint	OPTIONAL The BizTalk Server Windows SharePoint Services adapter supports several Windows SharePoint Services versions, depending on your BizTalk Server installation options.	If you plan to receive or send messages from SharePoint Services, then a SharePoint Services computer is required. It can be installed on the same computer as BizTalk Server, OR PREFERABLY ON A SEPARATE COMPUTER.

Microsoft Office	OPTIONAL Microsoft Office Excel 2010 or 2013. BIZTALK SERVER 2013 SUPPORTS ONLY 32-BIT VERSION OF MICROSOFT OFFICE.	Required by Business Activity Monitoring (BAM) to display a real-time view of business processes
Microsoft .NET Framework	.NET Framework 4.5	This is required for all BizTalk Server managed components
Microsoft Visual Studio	OPTIONAL Visual Studio 2012	Provides a development environment for building BizTalk Server applications. Ultimate Edition is recommended, but Premium and Professional are also supported. This is required for BizTalk Server Developer Tools and SDK component
Microsoft Visual C++ 2010 Redistributable Package	On an x86 computer, install only the x86 version of the package. On an x64 computer, install both x86 and x64 versions of the package. The installer is available as part of the BizTalk Server installation media under \Platform\SSO\Platform.	The Microsoft Visual C++ 2010 Redistributable Package installs runtime components of Visual C++ Libraries required to run applications developed with Visual C++ on a computer that does not have Visual C++ 2010 installed.
Microsoft SQL Server	<ul style="list-style-type: none"> ● Microsoft SQL Server 2012 ● Microsoft SQL Server 2008 R2 SP1 <p>For optimal performance, Microsoft recommends the Enterprise Edition of SQL Server. In order to fully use the BizTalk Server 2013 SDK, or deploy BizTalk Server applications from a Visual Studio development environment, you must also install the SQL Server Development Tools.</p> <p>Other considerations</p> <ul style="list-style-type: none"> ● If you install SQL Server 2012, you must configure SQL Server Database Mail to use BAM Alerts. ● BAM real-time aggregation (RTA) is not supported in the Standard Edition of SQL Server. ● Using SQL Server Express Edition is not recommended. The Express edition does not include certain features needed by BizTalk Server. 	This is required for BizTalk Server Runtime, EDI, and BAM
SQL Server 2005 Notification Services	OPTIONAL If you are configuring the BAM Alerts feature in BizTalk Server 2013 and you are using a SQL Server 2008 R2 SP1 database, you must install SQL Server 2005 Notification Services. Notification Services is not included with SQL Server 2008 R2 SP1 and must be downloaded and installed separately.	Enables the use of BAM Alerts
SQLXML 4.0 with Service Pack 1	SQLXML enables XML support for your SQL Server Database. It allows developers to bridge the gap between XML and relational data. You can create XML View	This is required for BizTalk Server Runtime, Administrative Tools, and BAM.

	<p>of your existing relational data and work with it as if it was an XML file.</p> <p>NOTE: You don't need to worry about installing this because REDISTRIBUTABLE CAB FILE will install this for you if necessary.</p>	
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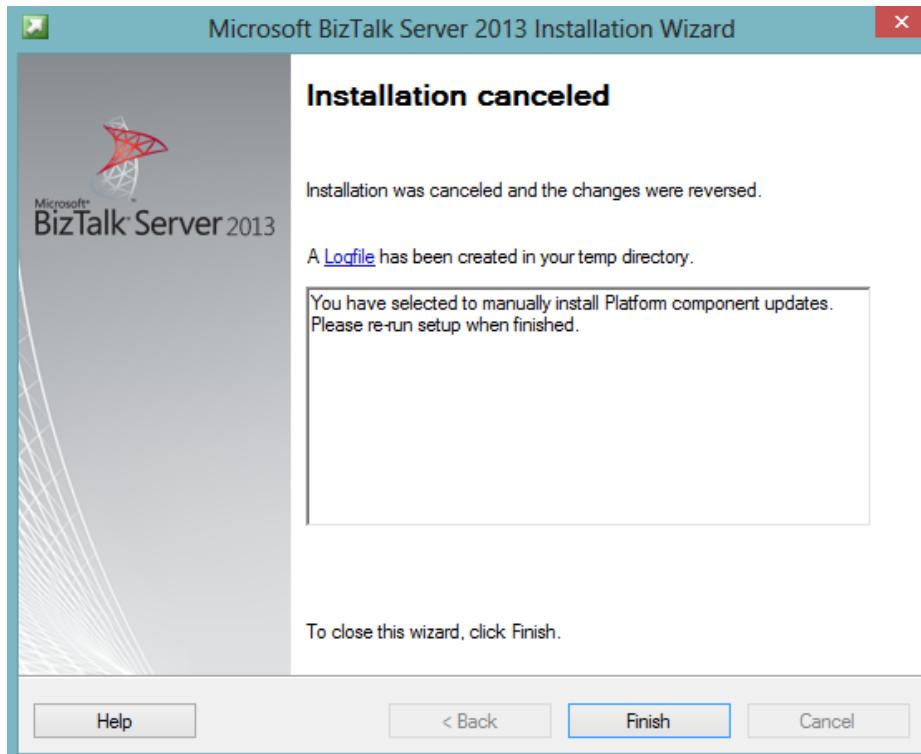
Appendix B: Redistributable CAB Files

BizTalk Server relies on diverse products and technologies to provide essential services and features. If not already present, some software that is required by BizTalk Server is installed on your computer during the BizTalk installation process, such as:

- Microsoft SQL XML 4.0 with Service Pack 1
- Microsoft Office Web Components
- Microsoft ADO MD.Net 9.0
- Microsoft ADO MD.Net 10.0

Microsoft BizTalk Server 2013 Installation Wizard, in the “Redistributable Prerequisites” screen, gives you the option to:

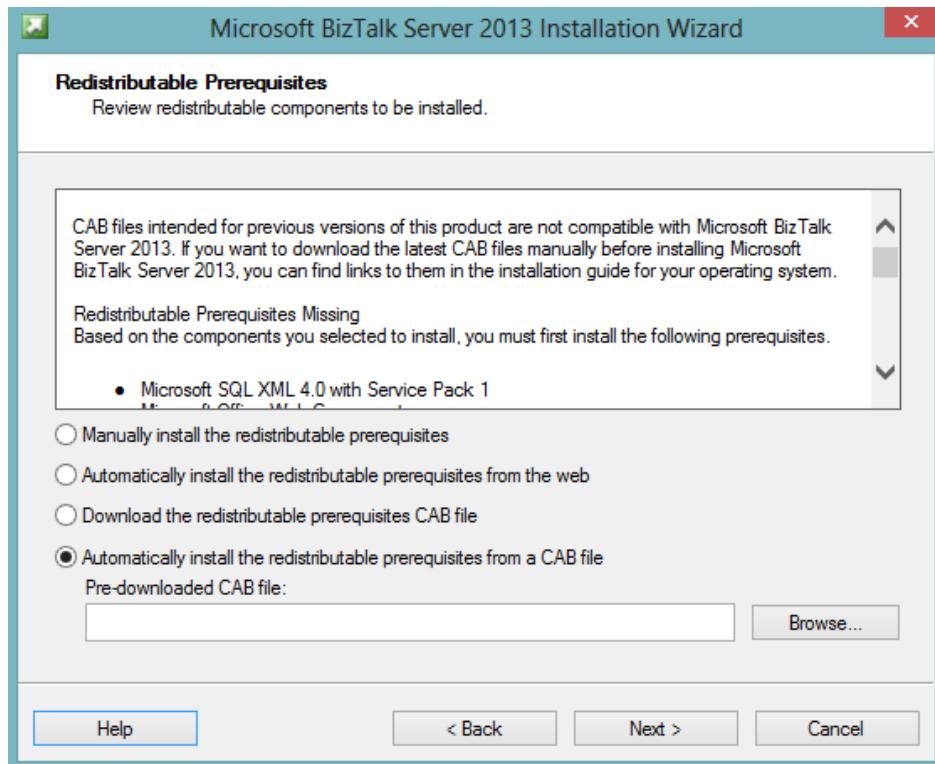
- **MANUALLY INSTALL THE REDISTRIBUTABLE PREREQUISITES:** By selecting this option you are choosing that you want to manually install the redistributable files that are required for the installation process to continue. In this case the installation process is canceled.



- **AUTOMATICALLY INSTALL THE REDISTRIBUTABLE PREREQUISITES FROM THE WEB:** By selecting this option the Wizard will download and install the necessary components automatically for you. The disadvantage is that this option requires an internet connection.
- **DOWNLOAD THE REDISTRIBUTABLE PREREQUISITES CAB FILE:** By selecting this option the Wizard will automatically download the correct version of the redistributable prerequisites CAB file which is compatible with the operating system that is

running the Installation Wizard, to your computer so that you can install later and will exit the installation process. Again this option requires an internet connection.

- **AUTOMATICALLY INSTALL THE REDISTRIBUTABLE PREREQUISITES FROM A CAB FILE:** by selecting this option the Wizard will automatically install the redistributable prerequisites from a CAB file that you have previously downloaded. So the disadvantage is that you already must have downloaded the correct CAB file before running the setup but in return you don't need Internet connection.



The CAB file containing all the prerequisites needed, however, if you are choosing the last option “Automatically install the redistributable prerequisites from a CAB file”:

- Be sure you are using the correct CAB file according to your language and operating system.
- And you cannot use CAB files from previous versions of BizTalk Server to install BizTalk Server 2013.

List of Redistributable CAB Files for BizTalk Server 2013

CAB Files for 64-bit Editions (EN)

- Windows Server 2012: <http://go.microsoft.com/fwlink/?LinkId=269616>
- Windows Server 2008 R2: <http://go.microsoft.com/fwlink/?LinkId=269613>
- Windows 8: <http://go.microsoft.com/fwlink/?LinkId=269615>
- Windows 7: <http://go.microsoft.com/fwlink/?LinkId=269614>

CAB Files for 32-bit Editions (EN)

- Windows 8: <http://go.microsoft.com/fwlink/?LinkId=269612>
- Windows 7: <http://go.microsoft.com/fwlink/?LinkId=269611>

Other languages:

- DE (German)
 - CAB Files for 64-bit Editions

- Windows Server 2012: <http://download.microsoft.com/download/C/7/9/C791D903-A500-4FFF-BB96-82E812184EE3/BtsRedistW2K12DE64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/C/7/9/C791D903-A500-4FFF-BB96-82E812184EE3/BtsRedistW2K8R2DE64.cab>
 - Windows 8: <http://download.microsoft.com/download/C/7/9/C791D903-A500-4FFF-BB96-82E812184EE3/BtsRedistWin8DE64.cab>
 - Windows 7: <http://download.microsoft.com/download/C/7/9/C791D903-A500-4FFF-BB96-82E812184EE3/BtsRedistWin7DE64.cab>
- CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/C/7/9/C791D903-A500-4FFF-BB96-82E812184EE3/BtsRedistWin8DE32.cab>
 - Windows 7: <http://download.microsoft.com/download/C/7/9/C791D903-A500-4FFF-BB96-82E812184EE3/BtsRedistWin7DE32.cab>
- ES (Spanish)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/5/D/C/5DC17D5B-4D5D-4669-90F1-623B79909860/BtsRedistW2K12ES64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/5/D/C/5DC17D5B-4D5D-4669-90F1-623B79909860/BtsRedistW2K8R2ES64.cab>
 - Windows 8: <http://download.microsoft.com/download/5/D/C/5DC17D5B-4D5D-4669-90F1-623B79909860/BtsRedistWin8ES64.cab>
 - Windows 7: <http://download.microsoft.com/download/5/D/C/5DC17D5B-4D5D-4669-90F1-623B79909860/BtsRedistWin7ES64.cab>
 - CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/5/D/C/5DC17D5B-4D5D-4669-90F1-623B79909860/BtsRedistWin8ES32.cab>
 - Windows 7: <http://download.microsoft.com/download/5/D/C/5DC17D5B-4D5D-4669-90F1-623B79909860/BtsRedistWin7ES32.cab>
- FR (French)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/8/B/6/8B691DFD-E810-4696-9B04-BD32E18E952A/BtsRedistW2K12FR64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/8/B/6/8B691DFD-E810-4696-9B04-BD32E18E952A/BtsRedistW2K8R2FR64.cab>
 - Windows 8: <http://download.microsoft.com/download/8/B/6/8B691DFD-E810-4696-9B04-BD32E18E952A/BtsRedistWin8FR64.cab>
 - Windows 7: <http://download.microsoft.com/download/8/B/6/8B691DFD-E810-4696-9B04-BD32E18E952A/BtsRedistWin7FR64.cab>
 - CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/8/B/6/8B691DFD-E810-4696-9B04-BD32E18E952A/BtsRedistWin8FR32.cab>
 - Windows 7: <http://download.microsoft.com/download/8/B/6/8B691DFD-E810-4696-9B04-BD32E18E952A/BtsRedistWin7FR32.cab>
- IT (Italian)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/0/B/C/0BC82018-CF05-4E78-A9A9-7AD31A2F147A/BtsRedistW2K12IT64.cab>

- Windows Server 2008 R2: <http://download.microsoft.com/download/0/B/C/0BC82018-CF05-4E78-A9A9-7AD31A2F147A/BtsRedistW2K8R2IT64.cab>
- Windows 8: <http://download.microsoft.com/download/0/B/C/0BC82018-CF05-4E78-A9A9-7AD31A2F147A/BtsRedistWin8IT64.cab>
- Windows 7: <http://download.microsoft.com/download/0/B/C/0BC82018-CF05-4E78-A9A9-7AD31A2F147A/BtsRedistWin7IT64.cab>
- CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/0/B/C/0BC82018-CF05-4E78-A9A9-7AD31A2F147A/BtsRedistWin8IT32.cab>
 - Windows 7: <http://download.microsoft.com/download/0/B/C/0BC82018-CF05-4E78-A9A9-7AD31A2F147A/BtsRedistWin7IT32.cab>
- JA (Japanese)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/F/B/F/FBF8AF4A-FA1E-4F26-AF27-6F19942CB24B/BtsRedistW2K12JA64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/F/B/F/FBF8AF4A-FA1E-4F26-AF27-6F19942CB24B/BtsRedistW2K8R2JA64.cab>
 - Windows 8: <http://download.microsoft.com/download/F/B/F/FBF8AF4A-FA1E-4F26-AF27-6F19942CB24B/BtsRedistWin8JA64.cab>
 - Windows 7: <http://download.microsoft.com/download/F/B/F/FBF8AF4A-FA1E-4F26-AF27-6F19942CB24B/BtsRedistWin7JA64.cab>
 - CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/F/B/F/FBF8AF4A-FA1E-4F26-AF27-6F19942CB24B/BtsRedistWin8JA32.cab>
 - Windows 7: <http://download.microsoft.com/download/F/B/F/FBF8AF4A-FA1E-4F26-AF27-6F19942CB24B/BtsRedistWin7JA32.cab>
- KO (Korean)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/4/6/F/46FE0D2A-850A-4AE1-BD91-B9E1063B9F84/BtsRedistW2K12KO64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/4/6/F/46FE0D2A-850A-4AE1-BD91-B9E1063B9F84/BtsRedistW2K8R2KO64.cab>
 - Windows 8: <http://download.microsoft.com/download/4/6/F/46FE0D2A-850A-4AE1-BD91-B9E1063B9F84/BtsRedistWin8KO64.cab>
 - Windows 7: <http://download.microsoft.com/download/4/6/F/46FE0D2A-850A-4AE1-BD91-B9E1063B9F84/BtsRedistWin7KO64.cab>
 - CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/4/6/F/46FE0D2A-850A-4AE1-BD91-B9E1063B9F84/BtsRedistWin8KO32.cab>
 - Windows 7: <http://download.microsoft.com/download/4/6/F/46FE0D2A-850A-4AE1-BD91-B9E1063B9F84/BtsRedistWin7KO32.cab>
- CN (Chinese)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/F/3/8/F3864688-5B3F-4AF4-B8D4-4213C4ADD3FA/BtsRedistW2K12CN64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/F/3/8/F3864688-5B3F-4AF4-B8D4-4213C4ADD3FA/BtsRedistW2K8R2CN64.cab>

- Windows 8: <http://download.microsoft.com/download/F/3/8/F3864688-5B3F-4AF4-B8D4-4213C4ADD3FA/BtsRedistWin8CN64.cab>
- Windows 7: <http://download.microsoft.com/download/F/3/8/F3864688-5B3F-4AF4-B8D4-4213C4ADD3FA/BtsRedistWin7CN64.cab>
- CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/F/3/8/F3864688-5B3F-4AF4-B8D4-4213C4ADD3FA/BtsRedistWin8CN32.cab>
 - Windows 7: <http://download.microsoft.com/download/F/3/8/F3864688-5B3F-4AF4-B8D4-4213C4ADD3FA/BtsRedistWin7CN32.cab>
- TW (Taiwan)
 - CAB Files for 64-bit Editions
 - Windows Server 2012: <http://download.microsoft.com/download/2/A/B/2ABDDD44-C727-422D-8C39-A5A3CBE0611A/BtsRedistW2K12TW64.cab>
 - Windows Server 2008 R2: <http://download.microsoft.com/download/2/A/B/2ABDDD44-C727-422D-8C39-A5A3CBE0611A/BtsRedistW2K8R2TW64.cab>
 - Windows 8: <http://download.microsoft.com/download/2/A/B/2ABDDD44-C727-422D-8C39-A5A3CBE0611A/BtsRedistWin8TW64.cab>
 - Windows 7: <http://download.microsoft.com/download/2/A/B/2ABDDD44-C727-422D-8C39-A5A3CBE0611A/BtsRedistWin7TW64.cab>
 - CAB Files for 32-bit Editions
 - Windows 8: <http://download.microsoft.com/download/2/A/B/2ABDDD44-C727-422D-8C39-A5A3CBE0611A/BtsRedistWin8TW32.cab>
 - Windows 7: <http://download.microsoft.com/download/2/A/B/2ABDDD44-C727-422D-8C39-A5A3CBE0611A/BtsRedistWin7TW32.cab>

Appendix C: Basic Configuration vs. Custom Configuration

BizTalk Server can be configured using Basic Configuration or Custom Configuration.

For helping you decide what kind of configuration you should use consider the following table:

	Basic Configuration	Custom Configuration
BizTalk Groups	Automatically creates local groups. No option to use domain groups.	You enter the domain groups.
SQL Server	Use this option when SQL Server is installed on the BizTalk Server virtual machine.	Use this option when SQL Server is installed on a separate computer (virtual machine).
Database Names	Generated automatically.	You can modify the default values.
Service Account	Microsoft SQL Server 2003 or higher (including Express Edition is supported)	You can enter different accounts for different services.

Reviews



Nino Crudele [Microsoft Integration MVP]

Nino Crudele lives in Italy and he currently works as a BizTalk consultant at Microsys (www.msys.it). He has been a BizTalk MVP for 6 years. Besides that he is also a Virtual Technology Specialist for BizTalk Server, a role in which he works closely with Microsoft Italy. He enjoys this role as it enables him to work with many different clients seeing BizTalk in different scenarios from a technical point of view, size, and criticality.

Nino has worked with most of the BizTalk accelerators, Rosettanet, HL7, SWIFT and has done some big projects on EDI and RFID. In the past he also had the opportunity to be part of a big integration project with a major Italian enterprise organization that integrates many technologies like SAP, AS400, TIBCO and others using BizTalk.



Steef-Jan Wiggers [Microsoft Integration MVP]

Steef-Jan Wiggers is a principal consultant for a consultancy firm in the Netherlands. He has almost 15 years' experience as a technical lead developer, application architect and consultant, specializing in custom applications, enterprise application integration (BizTalk), Web services and Windows Azure. Steef-Jan is very active in the BizTalk community as a blogger, Wiki author/editor, forums, writer and public speaker in the Netherlands and Europe. For these efforts, Microsoft has recognized him a Microsoft MVP for the past 3 years. For more information about Steef-Jan and his BizTalk experiences please visit <http://soa-thoughts.blogspot.com/>.



Tord Glad Nordahl [Microsoft Integration MVP]

Tord Glad Nordahl is a BizTalk Administrator Expert for Bouvet ASA in Norway and was the first BizTalk Administrator to be awarded as a Microsoft Integration MVP in 2013. Tord is originally a developer but now only focuses on BizTalk Administration and has done this for the past 5 years. Tord has been running the www.biztalkadmin.com blog and is actively contributing to the community through his blog, TechNet Wiki, MSDN Forums and presenting at different stages all over Europe.



Ricardo Torre [Product Strategist – BizTalk360]

Ricardo has recently joined BizTalk360 as the Head of Technical Pre-Sales & Product Strategist after over 6 years working for Microsoft as a deep technical field specialist. He had extensive hands-on experience with the world's top tier BizTalk customers, enabling them through training, troubleshooting, mentoring, application design principles and architecture recommendations. As a serious BizTalker he is passionate by the integration world and cloud computing.