How to Install and Configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet

Technical Whitepaper Author: <u>Sandro Pereira</u> Version: 1.0

Brought to you by:



This guide describes the process for installing and configuring Microsoft BizTalk Server 2013 R2 on a single computer (standalone machine) 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.

Table of Contents

1	Ab	bout the Author	3
2	Ab	bout the Whitepaper	4
3		Paper Introduction Assumptions and out of scope portant considerations before you install the RosettaNet Accelerator	4
4	3.1 3.2 Pre	Software Requirements Things to be taken care eparing your BizTalk Server 2013 R2 environment for BTARN	6
5	4.1 4.2 4.3 4.4 4.5 Ins 23	Create a new account to be associated with the BTARN hosts	1 7 8
6	5.1 5.2 Ac	Install Microsoft BizTalk 2013 R2 Accelerator for RosettaNet	7
7	6.1 6.2 Tro	To start BTARN orchestrations, send ports, and receive locations	4
	7.1 7.2 acc	Do not install SQL Server on the domain controller computer	е

1 About the Author

Sandro Pereira



Currently working as a BizTalk consultant at DevScope (www.devscope.net). In the last few years has been working implementing integration scenarios and Cloud Provisioning at a major telecommunications service provider in Portugal. His main focus is on Integration Technologies where is been using .NET, BizTalk and SOAP/XML/XSLT since 2002.

He is an active member and moderator on the MSDN BizTalk Server Forums, TechNet Wiki author, Code Gallery contributor and was awarded Most Valuable Professional

(MVP) for BizTalk Server by Microsoft since 2010 (<u>https://mvp.support.microsoft.com/profile/Sandro.Pereira</u>) and MCTS: BizTalk Server BizTalk Server 2006 and BizTalk Server 2010 certified.

He is also author of the Blog: <u>http://sandroaspbiztalkblog.wordpress.com/</u>, member of the BizTalk Brazil community: <u>http://www.biztalkbrasil.com.br/</u>, NetPonto community (<u>http://netponto.org/</u>), member of BizTalk Administrators community: <u>http://www.biztalkadminsblogging.com</u>, editor of the magazine "Programar" (<u>http://www.revista-programar.info/?action=editions</u>), public speaker and technical reviewer of "BizTalk 2010 Cookbook", Packt Publishing book and several BizTalk white papers.

You can contact Sandro at: <u>Sandro-pereira@live.com.pt</u> (Twitter: <u>@sandro asp</u>).

2 About the Whitepaper

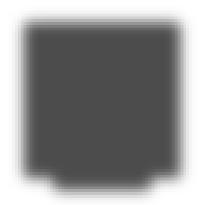
2.1 Paper Introduction

This article will explain in detail – a step-by-step guideline – how to install and configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet (BTARN) on a standalone environment running Windows Server 2012 R2 and BizTalk Server 2013 R2.

RosettaNet is a business protocol that enables enterprises to conduct business over the Internet. The RosettaNet Consortium (<u>http://www.rosettanet.org</u>) is an independent, non-profit consortium of major information technology, electronic component, and semiconductor manufacturing companies working to create and implement industry-wide, open process standards. These processes are designed to standardize the electronic business interfaces used between participating supply chain partners. The RosettaNet Implementation Framework (RNIF) specification is a guideline for applications that implement RosettaNet Partner Interface Processes (PIPs). These PIPs are standardized electronic business processes used between trading partners. You can find all the Framework specification and the list of PIPs available, as well the PIPs contract (DTD and documentation) in the RosettaNet Consortium website: <u>http://www.rosettanet.org</u>.

BTARN will extend the existing BizTalk Server capabilities allowing you to run RosettaNet Partner Interface Processes (PIPs) and by doing that, this will allow you to exchange RosettaNet documents with your business partners, by simple providing a set of orchestrations, schemas, tools and related helper assemblies. BTARN supports the RosettaNet Implementation Framework (RNIF) versions 1.1 and 2.0.01. However installing the accelerator can be difficult if you do not plan correctly for it.

This guide will provide you comprehensive guidelines that will help you plan the installation and configuration of BTARN.



2.2 Assumptions and out of scope

It will be assumed that all the BTARN software requirements already have been installed.

This guideline will use BizTalk Server 2013 R2 running over Windows Server 2012 R2 with all the latest critical Windows updates from Microsoft and latest Cumulative Updates for BizTalk Server installed.

3 Important considerations before you install the RosettaNet Accelerator

There are some important considerations or suggestions, since some of these operations are not mandatory, that we can and should set before starting the installation and configuration Microsoft BizTalk 2013 R2 Accelerator for RosettaNet (BTARN).

3.1 Software Requirements

The following table lists the software that BizTalk 2013 R2 Accelerator for RosettaNet (BTARN) requires to run correctly. BTARN has the same software and hardware requirements as BizTalk Server 2013 R2.

Software Required	Description	Required for/Information
Microsoft Windows	 Windows Server 2012 R2 Windows Server 2012 Windows 8.1 Windows 7 SP1 	
Microsoft BizTalk Server 2013 R2	Enterprise EditionStandard EditionDeveloper Edition	
Internet Information Services (IIS)	 The version that comes with the operating system. IIS version 8.0 and 7.5 are supported. 	
Microsoft Office	OPTIONAL Microsoft Office Excel 2013 or 2010. BIZTALK SERVER 2013 R2 SUPPORTS ONLY 32-BIT VERSION OF MICROSOFT OFFICE. (installed on client computers when using BAM)	Required by Business Activity Monitoring (BAM) to display a real- time view of business processes
Microsoft SQL Server	 Microsoft SQL Server 2014 Microsoft SQL Server 2012 SP1 	This is required for BTARN Runtime, BizTalk Server Runtime, EDI, and BAM
SQL Server Analysis Services		if using BAM aggregations
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	This is required for BizTalk Server Runtime, Administrative Tools, and BAM.

	create XML View of your existing relational data and work with it as if it was an XML file. NOTE: You don't need to worry about installing this because REDISTRIBUTABLE CAB FILE will install this for you if necessary.	
Windows Identity Foundation	OPTIONAL The official documentation mention that Microsoft Windows SharePoint Services is a requirement. However I think this is not correct/necessary. Until this date I don't see any connection between the accelerator and the SharePoint Service.	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 Visual Studio	Optional Visual Studio 2013	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

3.2 Things to be taken care

When you are planning to install Microsoft BizTalk 2013 R2 Accelerator for RosettaNet (BTARN), you need to be very careful with certain, documented and nondocumented, notes or necessary configuration in your existing BizTalk environment. These are the notes in the official documentation:

- Both BTARN and BizTalk Server 2013 R2 require Microsoft .NET Framework 4.5 as software pre-requisite.
 - If you have multiple versions of .NET Framework installed on your computer, make sure that the BtarnAPP Web application is referencing .NET Framework 2.0. You can configure this by using the Internet Information Services (IIS) Manager.
 - **PERSONAL NOTE**: Despite the official documentation saying that the BtarnAPP Web application need to refer .NET Framework 2.0, what I noticed is that it will work properly in .NET 4.0.

- The BizTalk Host Instance Account and the BizTalk Isolated Host Instance Account should be the same. Otherwise, BTARN will not function correctly.
- BTARN allows you to add only individual service accounts, and not groups, to the BizTalk Server Administrators group or the BizTalk Application Users group.
- You need to create a Web Service extension for BTSHTTPReceive.dll, configuring the IIS isolation mode.
 - For more information, see the "404 Not found error when sending a HTTP request" entry in the "Troubleshooting: Issues and Resolutions" topic at <u>http://go.microsoft.com/fwlink/?LinkId=188560</u>. Also, see the "<u>How to</u> <u>Configure IIS for an HTTP Receive Location</u>" topic in BizTalk Server Help.
- Add your server (http://<server name>) to the Local Internet zone in the Internet Explorer security options.
- If a remote SQL instance using non default port is used for configuring BTARN, then the SQL Server Client Tools must be installed locally.
 - For details, see BizTalk Server Installation Guide for multicomputer environment at <u>http://go.microsoft.com/fwlink/?LinkId=186857</u>.
- A separate group must be used for role BizTalk Administrator, BizTalk Host Users, and BizTalk Isolated Host Users during the configuration of BizTalk Server.
- BTARN does not support the use of alias created for SQL instance to configure the BTARN database.

Unfortunately for us, there are still plenty of notes or the necessity to perform additional settings in our environment so that the minimal conditions are guaranteed for BTARN be able to run properly:

- Installation
 - RosettaNet requires the IIS_WPG group (group provided by IIS 6.0 that provides the minimum set of user rights and permissions required to run an application) unfortunately for us this group doesn't exist anymore, so you need to create it manually. Otherwise, BTARN installation will fail.
- Host Instances
 - The accelerator requires both in-process and isolated host to be marked as "Authentication Trusted" and "32-bit only". Otherwise, BTARN installation will fail.
 - VERY IMPORTANT: The accelerator requires both in-process and isolated host to be marked as "Authentication Trusted" (this setting is off by default when you create a new host) and "32-bit only".
 - And the reason why in-process need to be also trusted is that the BizTalk Host Instance Account and the BizTalk Isolated Host Instance Account should be the same and you cannot use the same account for trusted and untrusted hosts. Otherwise it was only necessary to mark the isolated host as trusted.
 - The BizTalk Host Instance Account and the BizTalk Isolated Host Instance Account should be the same. Otherwise, BTARN will not work correctly.



- If the service account set for the BTARN application pools is different from the Isolated Host account, BTARN will not be able to process incoming messages correctly. When the receive ".aspx" page calls the pipeline, the pipeline will not have access to the appropriate certificates. Therefore, it will not be able to decrypt the incoming message or validate the signature. It will also not be able to access the MessageBox database.
- Do never use Full Qualify domain name in the Logon credentials. Otherwise, BTARN will not work correctly.
- Make sure the BTARN in-process host is the default send handler of HTTP Adapter and the general Default Host in the group
 - IMPORTANT: Make sure the BTARN in-process host is the default send handler of the HTTP Adapter. When you create a Partner it will create two send ports and it will use the default send handler for the HTTP Adapter: If the BTARN in-process host is not the default handler, the engine will use the default one instead and then you need to stop the BTARN process, unbinding the send ports, reconfigure the send handler and only then start everything again, so this will induce a small shutting down in our environment.
 - When installing the accelerator, it will install all the assemblies into the default BizTalk Application, and will attempt to configure all orchestrations and ports to run in the first host it finds that is marked as "Authentication Trusted". To ensure everything is installed to the host instances you need to:
 - Temporarily make the trusted host instance as the default instance (not recommended).
 - Or if you want the assemblies to be in a different application than the default, create a new application in the BizTalk Administration Console and set it as the default during the installation.
- BAM
 - Microsoft provide a Tracking file with the activity definitions. However: you need to create your custom BAM views
 - BTARN supports enhanced tracking using BizTalk Activity Monitoring (BAM).
 - Right-click the BizTalk Accelerator for RosettaNet node and then click Properties.
 - In the Global Properties dialog box, select Enable BAM Tracking to enable tracking, or clear this option to disable it.
 - Microsoft provide a Tracking file with the activity definitions however:



- The tracking points are not customizable;
- Do not change activity definitions.
- You only can Manage BAM views and deployment.

• Databases Maintenance

- o BTARN database are not backed up by default
 - Fortunately for us, Microsoft provides two SQL Scripts that you need to run against this databases in other to extend the standard backup mechanisms but you also need to modify the adm_OtherBackupDatabases table to include a row for each of your custom databases.
 - C:\Program Files (x86)\Microsoft BizTalk Server 2013 R2\Schema
 - Backup_Setup_All_Procs.sql
 - Backup_Setup_All_Tables.sql
 - Also you need to modify the adm_OtherBackupDatabases table to include a row for each of your custom databases
- There are no maintenance processes to clean up BTARN databases so you need to create these maintenance processes according to the legal requirements of your company/organization, be aware that:
 - BTARN databases can grow quickly because they contain the PIP XML that you are processing
 - They can affect the performance of your environment

4 Preparing your BizTalk Server 2013 R2 environment for BTARN

This may be the most important section in order for you to accomplish a successfully BTARN installation and configuration and at the same time preventing further additional problems. Again, the installation and configuration process is very simple, however be able to correctly configure the accelerator in order to work properly can be difficult if you do not plan correctly for it.

This part of the article will focus on how to prepare your existing BizTalk Server 2013 R2 environment for BTARN.

4.1 Create a new account to be associated with the BTARN hosts

As mention before the accelerator requires both BTARN in-process and BTARN isolated host to be marked as "Authentication Trusted" and "32-bit only" and the account associated with these Host instances should be the same, otherwise, BTARN will not work correctly.

"Authentication Trusted" is off by default when you create a new host, or if you don't specify in the BizTalk Server configuration process that you want this setting enable. And BizTalk will not allow you to use the same user account for both trusted and untrusted hosts.

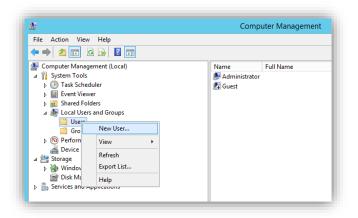
Also because, for security aspects, we don't want to have all our host instances marked as "Authentication Trusted" it is necessary for us to create:

- A new user account that will be associated to the trusted hosts.
- And a new user account (support account) that will help us in the switching host process from untrusted to trusted.

NOTE: Sometimes it is often easier/more desirable to create a new User Group with the same privileges of the "BizTalk Application Users" group (let's say: BTARN BizTalk Application Users) and a new user account that will be associated with this group to run all the BTARN processes.

To accomplished that we need to:

- Press the "Windows key" to switch to the Start screen, type "Computer Management" and click in "Computer Management" option from the Search menu
- On the left three of the "Computer Management" screen,, expand "System Tools → Local Users and Groups" and select "Users"
- Right click under "Users" folder, and then select "New User..."



In the "New User" dialog box, do the following:

- User name: Type the user name. For this guide let's assume "btsadmin"
- Full name: Optionally, type a full user name for this account.
- Description: Optionally, type a description for this account.
- Password: Type a password for the user.
- Confirm password: Confirm the password for the user.
- And leave only the "Password never expires" check box enabled

Note: Make sure that the user that you are creating (btsadmin) it has:

- The same privileges of the existent BizTalk Admin Account (in my case or in developer environments)
- It has the same privileges of the existent Account associated in the "BizTalk Application Users" group

Repeat the same steps to create another account for support, let's call it "supportacc":

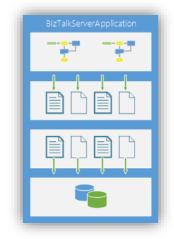
- This account will be deleted after the installation/configuration
- Normal user account, it doesn't requires any particular privileges

4.2 (Re)Configure BizTalk Host and Host Instances to support BTARN

BizTalk Server provides great flexibility for addressing high availability, because you can strategically dedicate logical hosts to run specific areas of functionality such as receiving messages, sending messages or processing orchestrations.

By default the BizTalk configuration will create two BizTalk Host and Host Instances:

• **BizTalkServerApplication**: This is the default Host and Host Instance created during configuration that will do all the work on the BizTalk Server, i.e. is the default send and receive handler for all installed adapters (other than HTTP, WCF (BasicHttp, CustomIsolated, WebHttp and WSHttp) and SOAP Receive Handlers), and is also used for processing orchestration and tracking.



• **BizTalkServerIsolatedHost**: The logical container for HTTP, WCF (BasicHttp, CustomIsolated, WebHttp and WSHttp) and SOAP Receive Handlers.

Although a single BizTalk Host can contain items that receive, send, and process messages, it is considered a best practice to create different hosts for each function to create security boundaries and for easier management and scalability. In particular, we recommend that you use different hosts for processing and for receive/send operations, and that you separate trusted and non-trusted items.

While there are benefits to creating additional host instances, there are also potential drawbacks if too many host instances are created.

• Each host instance is a Windows service (BTSNTSvc.exe), which generates additional load against the MessageBox database and consumes computer resources (such as CPU, memory, threads).

Regarding to BTARN installation and configuration process, it becomes more difficult to configure when we have multiple host and host instances created, compared with the default configuration (with only two BizTalk Host and Host Instances) and the reasons are:

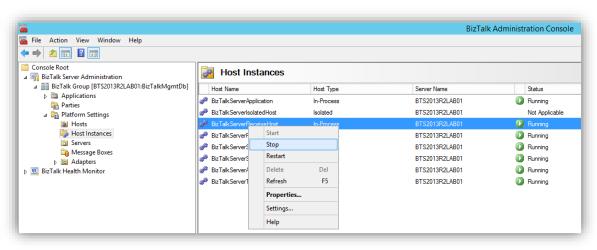
 The accelerator requires both in-process and isolated hosts that will run BTARN artifacts to be marked as "Authentication Trusted" (this setting is off by default when you create a new host), "32-bit only" and should run under the same service account.

To ensure everything is installed and configured properly we have different options:

- Temporarily mark all the hosts as "Authentication Trusted" and the "32-bit only" host as the default host
 - Of course, this is not the recommended solution, but is the easier one.
- Or we need to properly configure the hosts and host instances to handle correctly BTARN.

Because I have all my environments, even my developer environments, with host separation according to some of the best practices described here: <u>BizTalk Server Best</u> <u>Practices: Create and Configure BizTalk Server Host and Host Instances</u>. I need to properly configure the hosts and host instances to handle correctly BTARN, to accomplish that we need to:

- Press the "Windows key" to switch to the Start screen, type "BizTalk Server" and click in "BizTalk Server Administration" option from the Search menu
- In the console tree, expand "BizTalk Server Administration", expand the "BizTalk group", click "Platform Settings", and then click "Host Instances".
- Now we need to change all the host instances, with the exception of "BizTalkServerApplication" and "BizTalkServerIsolatedHost" (these two will be running the BTARN artifacts), to run under this last user that we just created in the last section: "**btsadmin**"

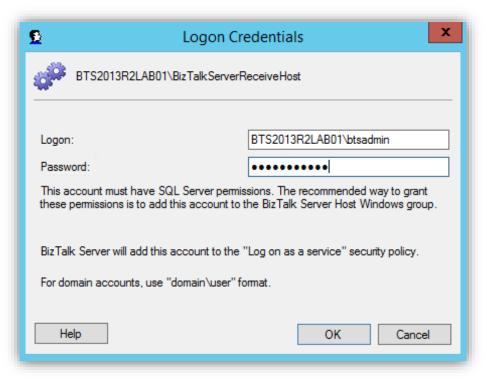


Right-click in the host instance name, for example
 "BizTalkServerReceiveHost", and select "Stop"

- In the details pane, right-click the host instance you want to modify, and then click "Properties", for example: "BizTalkServerReceiveHost"
- In the "Host Instance Properties" dialog box, click "Configure" to modify the service account information.

p	BizTalkServerReceiveHost - Host Instance Properties
General	General
	A Host Instance is a run-time instance of a host. It runs within the security boundaries of the host and executes message processing on each machine belonging to the host.
	Host name: BizTalkServerReceiveHost
	Server: BTS2013R2LAB01
	Logon: BTS2013R2LAB01\Administrator Configure
	Disable host instance from starting.
Help	OK Cancel Apply

• Change the logon credentials to run under the "btsadmin" account



• Do the rest for all the host instances that you have with the exception of "BizTalkServerApplication" and "BizTalkServerIsolatedHost" host instances.

Host Name	Host Type	Server Name	Status	Logon	Is Disabled
BizTalkServerApplication	In-Process	BTS2013R2LAB01	🚺 Running	\Administrator	
n Biz Talk Serverlsolated Host	Isolated	BTS2013R2LAB01	Not Applicable	\Administrator	
BizTalkServerReceiveHost	In-Process	BTS2013R2LAB01	Stopped	BTS2013R2LAB01\btsadmin	
BizTalkServerReceive32Host	In-Process	BTS2013R2LAB01	Stopped	BTS2013R2LAB01\btsadmin	
BizTalkServerSendHost	In-Process	BTS2013R2LAB01	Stopped	BTS2013R2LAB01\btsadmin	
Biz Talk Server Send 32 Host	In-Process	BTS2013R2LAB01	Stopped	BTS2013R2LAB01\btsadmin	
BizTalkServerApplication64Host	In-Process	BTS2013R2LAB01	Stopped	BTS2013R2LAB01\btsadmin	
BizTalkServerTrackingHost	In-Process	BTS2013R2LAB01	Stopped	BTS2013R2LAB01\btsadmin	

The next step is to configure the both BTARN in-process and isolated hosts to be marked as "Authentication Trusted" and "32-bit only" but because we still have two non-trusted host instances running with the same account that we need to mark as trusted and we cannot have the same account being used as "Authentication Trusted" and non "Authentication Trusted", we first need to provisionally change one of the host instance, to use the "supportacc" account, we can use for example the "BizTalkServerIsolatedHost" host instance –

- Right-click in the "BizTalkServerIsolatedHost" name, and then click "Properties"
- In the "Host Instance Properties" dialog box, click "Configure" to modify the service account information.
 - Change the logon credentials to run under the "supportacc" account

Now we need to change the "BizTalkServerApplication" Host configuration and mark it as:

- "32-bit only" 🗆 by default is already marked as 32-bit only
- And "Authentication Trusted"

To accomplish that we need to:

• In the BizTalk Server Administration console tree, under "Platform Settings", click "Hosts".

2	BizT	alk Administ	ration Console				_ D X
🚡 File Action View Window Help							- 6
Console Root a 🖓 BizTalk Server Administration	B Hosts						Actions Hosts
BizTalk Group [BTS2013R2LAB01:BizTalk Displications	i Name	Host Type	Windows Group	Tracking	Trusted	Oustered	New
Parties	BizTalkServerAp BizTalkServerAp		BizTalk Applicati BizTalk Applicati				Settin
Mosts	BizTalkServerisol	Isolated	BizTalk Isolated				View
Host Instances	BizTalkServerRe BizTalkServerRe		BizTalk Applicati BizTalk Applicati				New
Message Boxes Message Boxes	BzTakServerSe		BizTalk Applicati				Help
BizTalk Health Monitor	BizTalkServerSe		BizTalk Applicati				Selected ·
	BizTalkServerTra	In-Process	BizTalk Applicati	Tes			New
							Settin
							Refresh Refresh

- In the "Hosts" pane, right-click the host that is not trusted, in this case BizTalkServerApplication", and then click Properties.
- In the "Host Properties" dialog box, on the "General" tab:
 - Verify if the "32-bit only" check box is selected, if not select the "32-bit only" check box
 - Verify if the "Authentication Trusted" check box is selected, if not select the "Authentication Trusted" check box
- And then click OK.

General	General
Certificates	A host is a logical container representing one or more Biz Talk Server run-time instanc It represents a virtual process boundary within which host instances run on one or mo servers. A host also is a security domain within Windows.
	Name: BizTalk-ServerApplication
	Type: In-Process
	Options
	Allow Host Tracking
	Authentication Trusted
	✓ 32-bit only
	Make this the default host in the group
	Windows group: BizTalk Application Users
	The Windows group is used to control access of this host and the associated host instances to databases and other resources. Each instance of this host must run und user account that is a member of this group. Note that you can change the Windows group only if no instances of this host exist.

• Now do the exact same to the "BizTalkServerIsolatedHost" host

General	General	
Certificates		spresenting one or more BizTalk Server run time instances. boundary within which host instances run on one or more ity domain within Windows.
	Name: BizTi	sik Serverisolated Host
	Type: Isolat	ed
	Options	
	Authentication Trusted 32-bit only Make this the default ho Windows group:	at in the group BizTalk Isolated Host Users
	instances to databases and o	to control access of this host and the associated host ther resources. Each instance of this host must run under a or of this group. Note that you can change the Windows bis host avid

Because the BTARN BizTalk Host Instance Account and the BizTalk Isolated Host Instance Account should be the same we need to change the "BizTalkServerIsolatedHost" host instance logon account, which we momentarily configured to run under the "supportacc" account to be the same of the "BizTalkServerApplication" host instance: "Administrator".

- In the BizTalk Server Administration console tree, under "Platform Settings", click "Host Instances".
- Right-click in the "BizTalkServerIsolatedHost", and then click "Properties"
- In the "Host Instance Properties" dialog box, click "Configure" to modify the service account information.

1		BizTalk Adm	inistration Co	onsole					×
File Action View Window	Help							-	8
Console Root		Hosts						Actions	_
a 🔡 BizTalk Group (BTS2013R2LA	801:BizTalkMgmtDb]	Name	Host Type	Windows Group	Tracking	Trusted	Clustere	110313	*
 Applications Parties 		BizTalkServerApplication	In-Process	BizTalk Applicati		Yes		New	-
Platform Settings		BizTalkServerApplication64H	In-Process	BzTalk Applicati				Set	
Mosts	3	BizTalkServerlsolatedHost	loolated	BizTalk Isolated		Yes		View	1
Host Instances	3	BizTalkServerReceive32Host	In-Process	BizTalk Applicati				Ne	
Servers Message Boxes		BzTakServerReceiveHost	In-Process	BizTalk Applicati				G Re	
þ 🔛 Adapters	~	BizTalkServerSend32Host	In-Process	BizTalk Applicati				Help	
BizTalk Health Monitor	· · · · · · · · · · · · · · · · · · ·	BzTakServerSendHost	In-Process	BizTalk Applicati				Select	
	0	BzTalkServerTrackingHost	In-Process	BizTalk Applicati	Yes			G.,.	
								Un	
								New	7
								De	
								Re	
								Pr	
		C					>	Set	

 Change the logon credentials to run under the "Administrator" account

Finally you should restart all the BizTalk Host instances services.

Note: Because we don't really want to run all our isolated processes under a trusted host instance, I recommend you to create a new Isolated Host and Host Instance that you should configured as non-"Authentication Trusted" and set to run under the "btsadmin" account (in this scenario). For that operation please check the following MSDN articles:

- How to Create a New Host
- How to Add a Host Instance

4.3 Configure the Default Host and Default Handlers

The last concern that you need to have regarding with BizTalk Host and Host instances are the:

- General Default Host in the group
- And the Default send handler of HTTP Adapter and SQL Adapter

Again, as explained previously, when we are installing the RosettaNet Accelerator, the installer will install all the BTARN assemblies into the default BizTalk Application: "BizTalk Application 1", and will attempt to configure all the orchestrations and ports (receive and send) to **run not with the first host that it finds that is marked as "Authentication Trusted"** but INSTEAD WITH THE DEFAULT HOST AND HANDLERS THAT ARE CONFIGURED IN THE ENVIRONMENT.

To ensure that everything will be configured properly, or at least minimize some problems, with the BTARN configuration process you need to:

• Make sure the BTARN in-process host (BizTalkServerApplication) is the general Default Host in the group

General	General					
Certificates	A host is a logical container representing one or more BizTalk. Server run-time instan It represents a vitual process boundary within which host instances run on one or n servers. A host also is a security domain within Windows.					
	Name: BizTalkServerApplication					
	Type: In-Process					
	Options					
	Allow Host Tracking					
	Authentication Trusted					
	✓ 32-bit only					
	Make this the default host in the group					
	Windows group: BizTalk Application Users					
	The Windows group is used to control access of this host and the associated host instances to databases and other resources. Each instance of this host must run ur user account that is a member of this group. Note that you can change the Window group only if no instances of this host exist.					

• Make sure the BTARN in-process host (BizTalkServerApplication) is the default send handler of the SQL Adapter (yes the old obsolete one – not the WCF-SQL) and it is also associated with the receive handler.

2		BizTalk A	dministration Co	onsole		_	D X
🖀 File Action View Window Help							- 8
🗢 🔿 🙍 📰 📓 📷							
D POP3	^	SQL				Actions	
B SB-Messaging						SQL	
Chedule		Host Name	Direction	Adapter	Is Configured	New	÷
SFTP SMTP		BizTalk ServerApplication			Yes		
SMIP SOAP		Biz Talk Server Send 32 Host	Send	SQL	Yes	Delete	
C SQL		BizTalkServerApplication	Receive	SQL	Yes	Refresh	
WCF-BasicHttp		BizTalkServerReceive32Host	Receive	SQL	Yes	Properties	
WCF-BasicHttpRelay		Diz Tak Server receives zi loa	HOUGIVO	Jul	100	View	•
WCF-Custom	~					New Window from He	
< WCF-Customisolated	>					Help	

• Make sure the BTARN in-process host (BizTalkServerApplication) is the default send handler of the HTTP Adapter.

General	General		
	An Adapter Handler is adapter.	the BizTalk Server host responsible for executing	a particular
	Adapter name:	HTTP	
			Properties
	Host name:	BizTalkServerApplication	~
	Direction:	Send	
	Make this the defa	ult handler	
	Description:		

• And of course the BTARN isolated host (BizTalkServerIsolatedHost) is configured to be the receive handler of the HTTP Adapter.

a 2		DIZI	alk Administra	tion console				□ ×
File Action View Window Help								- 8
⊨ 🔿 🙍 📰 🚺 🖬								
🎭 Host Instances	^	HTTP				Ac	tions	
📋 Servers						н	ТТР	
in Message Boxes		Host Name	Direction	Adapter	Is Configured		New	
⊿ 🖾 Adapters		Biz Talk Server Application		HTTP	Yes			-
記 FILE 記 FTP		BizTalkServerSendHost	Send	НТТР	Yes		Delete	
		BizTalkServerlsolatedHost		HTTP	Yes		Refresh	
D MQSeries	=	biz raik serveraolatearioat	TIBODIVE		165		Properties	
MSMQ							View	•
POP3								•
Ba SB-Messaging	~						New Window from Her	-
(III	>					2	Help	

4.4 Create the IIS_WPG group

When configuring BTARN on Windows 8.1, Windows Server 2012, and Windows Server 2012 R2, you must create the IIS_WPG group manually. We need this because RosettaNet accelerator requires the IIS_WPG group (group provided by IIS 6.0 that provides the minimum set of user rights and permissions required to run an application) but unfortunately for us this group doesn't exist anymore in the SO listed above, so you need to create it manually. Otherwise, BTARN installation will fail.

To accomplish that you need to:

 Press the "Windows key" to switch to the Start screen, type "Computer Management" and click in "Computer Management" option from the Search menu

• In the console tree, expand "System Tools", expand the "Local Users and Groups", and then click "Groups".

₽		Computer Managem	ient		
File Action View Help					
Computer Management (Lc ^		Description		^	Actions
Task Scheduler	Access Control Assist	Members of this group can remot Administrators have complete an		Ξ	Groups More Actions
▷ 10 Event Viewer ▷ 10 Shared Folders	Backup Operators	Backup Operators can override se Members of this group are allowe			More Actions
⊿ 🕭 Local Users and Groι □ Users	🜆 Cryptographic Operat	Members are authorized to perfor			
Groups		Members are allowed to launch, a Members of this group can read e			
> N Performance N Performance >	S Guests	Guests have the same access as m		~	
	and a second				

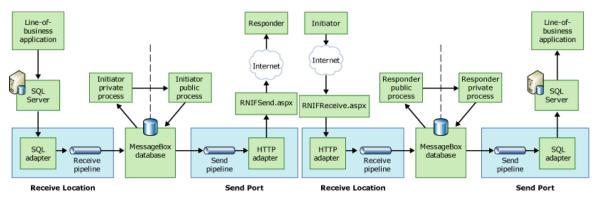
- Right click under "Groups" folder, and then select "New Group..."
- In the New Group dialog box, set the following parameters:
 - In Group name, type "IIS_WPG".
 - In Description, type "RosettaNet IIS group"

New Group ? X
IIS_WPG
RosettaNet IIS group
Remove
Create Close

• Click "Create", and then click "Close"

4.5 Create a WebService extension for BTSHTTPReceive.dll

BTARN uses the HTTP adapter to send (left picture) or receive (right picture) PIPs to and from different partners:



If the PIP process is asynchronous, each message transmission over the Internet occurs on a different HTTP connection. If the PIP is synchronous, each message transmission occurs on the same connection, which the HTTP adapter holds until the process is complete.

For that reason we need to create a WebService extension for the BTSHTTPReceive.dll and configure the IIS isolation mode. To accomplish that we need to:

- Press the "Windows key" to switch to the Start screen, type "IIS" and click in "Internet Information Services (IIS) Manager" option from the Search menu
- In Internet "Information Services (IIS) Manager" screen, select the root Web server entry. In the "Features View", double-click "Handler Mappings"

File View Help		
Connections . Carl Carl Carl Start Page Start Page BTS2013R2LAB01 (BTS2013R2LA	BTS2013R2LAB01 Home Filter: SP.NET NET NET NET NET NET Session State SMTP E-mail STRUCTURE Session State SMTP E-mail	Actions Open Feature Manage Server ② Restart ▷ Start ■ Stop View Application Pools View Sites Deploy ④ Export Server Package 圖 Import Server or Site Package
	IIS ASP Authentic CGI Compression Default DCGI Compression Default Document Browsing Error Pages Failed Request Tra Settings Handler Handler HTTP ISAPI and ISAPI Filters Logging MIME Types Modules Output Request CGI Restri V	Change .NET Framework Version • Get New Web Platform Components • Help

• And then in the Actions pane, click "Add Script Map..."

How to Install and Configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet

€ 6 BTS2013R2LAB01	•						5 × 谷 6
File View Help							
Connections							Actions
Lonnections	Handler Mappi	nas					
	17						Add Managed Handler
▲ Start Page ■ Start Page	Use this feature to specify the reso	ources, such as DLLs a	ind managed co	de, that handle respo	nses for specific request types.		Add Script Map
Application Pools	Group by: State •						Add Wildcard Script Map Add Module Mapping
⊳-🗃 Sites	Name	Path	State	Path Type	Handler	Entry ^	
	Disabled						Edit Feature Permissions View Ordered List
	CGI-exe	*.exe	Disabled	File	CgiModule	Local	_
	ISAPI-dii	*.dll	Disabled	File	IsapiModule	Local	😢 Help
	Enabled						
	ASPClassic	*.asp	Enabled	File	IsapiModule	Local	
	aspq-Integrated-4.0	*.aspq	Enabled	Unspecified	System.Web.HttpForbiddenH	Local	
	aspq-ISAPI-4.0_32bit	*.aspq	Enabled	Unspecified	IsapiModule	Local	
	aspq-ISAPI-4.0_64bit	*.aspq	Enabled	Unspecified	IsapiModule	Local	
	AssemblyResourceLoader-Inte		Enabled	Unspecified	System.Web.Handlers.Assem	Local	
	AssemblyResourceLoader-Inte		Enabled	Unspecified	System.Web.Handlers.Assem	Local	
	AXD-ISAPI-2.0	*.axd	Enabled	Unspecified	IsapiModule	Local	
	AXD-ISAPI-2.0-64	*.axd	Enabled	Unspecified	IsapiModule	Local	
	AXD-ISAPI-4.0_32bit	*.axd	Enabled	Unspecified	IsapiModule	Local	
	AXD-ISAPI-4.0_64bit	*.axd RtcHttpReceive.dll	Enabled	Unspecified File	IsapiModule IcaniModule	Local	
	Kirtalk HITD Receive	RtcHttpReceive dil	III	File	IcaniModule	local ×	
	(emm						
III >	📰 Features View 🕂 Content View	v					

- In the "Add Script Map" dialog box, in the "Request path" field, type "BtsHttpReceive.dll"
 - In the "Executable" field, click the ellipsis (...) button and browse to "C:\Program Files (x86)\Microsoft BizTalk Server 2013 R2 \HttpReceive"
 - And select "BtsHttpReceive.dll" and then click "OK"
 - In the "Name" field, type "BizTalk HTTP Receive"

	Add Script Map	? X
Request path:		
BtsHttpReceive.dll		
Example: *.bas, wsvc.axd		1
Executable:		
C:\Program Files (x86)\Micr	osoft BizTalk Server 2013 R2	\HttpReceive\{
BizTalk HTTP Receive		
	ОК	Cancel

- Then click "Request Restrictions"
- In the "Request Restrictions" dialog box, click the "Verbs" tab and then select "One of the following verbs"
 - Enter "POST" as the verb

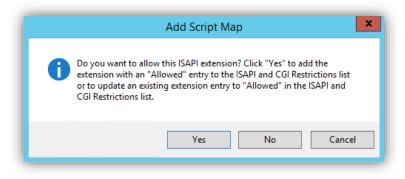
• On the "Access" tab, select "Script", and then click "OK".

Request Restrictions
Mapping Verbs Access
Specify the verbs to be handled:
○ All verbs
One of the following verbs:
POST
Example: GET, POST
OK Cancel

• On the "Access" tab, select "Script", and then click "OK".

Request Restrictions
Mapping Verbs Access
Specify the access required by the handler:
○ None
○ Read
○ Write
Script
○ Execute
OK Cancel

• When prompted to allow the ISAPI extension, click "Yes".



 Do the exact same process this time using the "C:\Program Files (x86)\Microsoft BizTalk Server 2013 R2\HttpReceive64\BTSHTTPReceive.dll"

	Add Script Map	? X
Request path:		
BTSHTTPReceive.dll		
Example: *.bas, wsvc.axd		
Executable:		
Microsoft BizTalk Server 2	013 R2\HttpReceive64\BTSHT	TPReceive.dll
BTS HTTP Receive 64 Request Restrictions		
	ОК	Cancel

5 Install and configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet (BTARN)

This part of the article will focus on installing and configuring Microsoft BizTalk 2013 R2 Accelerator for RosettaNet.

Make sure that you have installed all the prerequisites and prepared you environment for the RosettaNet accelerator.

5.1 Install Microsoft BizTalk 2013 R2 Accelerator for RosettaNet

BizTalk Accelerator for RosettaNet is available in the BizTalk Server installation disk (ISO) under: "BizTalk Accelerators" folder.

• Access to "BizTalk Accelerators" folder in the BizTalk Server ISO, and then run the Setup.exe file

Name	Date modified	Туре	Size
BizTalk Accelerators	08/06/2014 15:51	File folder	
BizTalk Server	03/06/2014 13:28	File folder	

• On the Start page, click "Microsoft BizTalk 2013 R2 Accelerator for RosettaNet"



How to Install and Configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet



• On the "Installation Wizard" screen for Microsoft BizTalk Accelerator for RosettaNet, click "Install"

	Installation Wizard X
2	BizTalk: Accelerator
	E Plan
	Read the installation guide.
BizTall	c Accelerator

• On the "Customer Information" page, type your user name, organization, and the product key, and then click "Next"

Enter your name and the	name of your organization.
User Name:	Sandro Pereira
Organization:	Sandro Pereira
The 25-character product	key appears on the lower section of your certificate of authenticity.
The Le character presses	



• On the License Agreement page, read the End User License Agreement, and then click Accept.

Microsoft BizTalk 2013 R2 Accelerator for RosettaNet Installation Wizard License Agreement Please read the following license agreement carefully.	x
To continue with Microsoft Biz Talk 2013 R2 Accelerator for RosettaNet setup, please read and accept the terms of the License Agreement below.	
MICROSOFT BIZTALK SERVER ADAPTER PACK MICROSOFT BIZTALK SERVER ADAPTER FOR ENTERPRISE APPLICATIONS MICROSOFT BIZTALK SERVER ADAPTER FOR ENTERPRISE APPLICATIONS MICROSOFT BIZTALK SERVER ACCELERATOR FOR HL7 MICROSOFT BIZTALK SERVER ACCELERATOR FOR ROSETTANET MICROSOFT BIZTALK SERVER ACCELERATOR FOR A4SWIFT MICROSOFT BIZTALK SERVER ACCELERATOR FOR A4SWIFT MICROSOFT UNIVERSAL DESCRIPTION, DISCOVERY AND INTEGRATION (UDDI) SERVICES MICROSOFT WINDOWS COMMUNICATION FOUNDATION (WCF) LINE OF BUSINESS (LOB) ADAPTERS SDK MICROSOFT BIZTALK SERVER RFID PLEASE NOTE: Refer to your license terms for Microsoft BizTalk Server software (the MICROSOFT BIZTALK SERVER FIL	×
Help < Back Accept > Decline	

NOTE: If you do not accept the license agreement, you cannot continue with the installation.

- On the "Installation Options" page, select "Complete" for a full installation and ensure the installation path is correct, and then click "Next".
 - Or if you wish so, you can also customize the features that you want to install or perform a partial installation by selecting the "Custom" option
 - NOTE: If you select Custom, select the components to install from the Custom Installation page. If you select to install SDK or Documentation components only, you must have .NET Framework 4.5 installed before running the setup program.

Microsoft BizTalk 2013 R	2 Accelerator for RosettaNet	Installation Wizard 💌
Installation Options Select the type of installation.		
Select the type of installation that best	t suits your needs, and then select the ins	tallation path.
 Complete 	Description	
O Custom	This option installs all features on	your computer.
	Space allocation	25,50 MB
	Space available on C:	76,93 GB
Install to: C:\Program File	s (x86)\Microsoft BizTalk 2013 R2 Accel	aratori Browse
Help	< Back Ne	ext > Cancel

- On the "Summary" page, review the components you are installing, and then click "Install".
 - The Installation Progress screen displays the progress of the installation procedure.

To start the ins	tallation, click Install. To r	make changes, click Bacł	¢.	
Microsoft B	zTalk 2013 R2 Accel	erator for RosettaNet	Components	~
The follow	ng components will t	e installed:		
- BAM - HTTP - Softv	lk Accelerator for Ro Tracking Front End rare Development Ki mentation			
informatio You can ad "Microsoft	n on the affected ser Id or remove additio	vices, click Help. nal components after	rvices during installatio this installation using t et" entry in the Add/Re	he

• On the "Installation Completed" page, ensure the Run Configuration Wizard box is selected, and then click Finish.

Microsoft BizTalk 2	013 R2 Accelerator for RosettaNet Installation Wizard
×	Installation Completed
BizTalk: Accelerator for RosettaNet	You have successfully installed Microsoft BizTalk 2013 R2 Accelerator for RosettaNet.
	A <u>Logfile</u> has been created in your temp directory.
	▼ Run Configuration Wizard
	To close this wizard, click Finish.
Help	< <u>B</u> ack Finish Cancel

• The BTARN Configuration Wizard opens. Next, you configure BTARN.

IMPORTANT

- If you perform a custom installation to install only the BTARN HTTP Front End feature, BTARN configuration may fail after setup is complete, displaying the error message "Failed to create object for feature: WebApp". If this occurs, you need to copy two files (Microsoft.VC80.ATL.manifest and atl80.dll) from a computer with BizTalk Server 2013 R2 installed on it, to the computer where you installed the BTARN HTTP Front End feature
- If Visual Studio 2012 is installed on the same computer as BizTalk Server, the source folder for the two files is <drive>:\Program Files\Microsoft Visual Studio 11.0\VC\redist\x86\Microsoft.VC100.ATL. If Visual Studio 2012 is not installed on the BizTalk server, the source folder for the two files on the BizTalk server is a folder under <drive>:\WINDOWS\WinSxS. The version of the files should be 8.0.50727.42. The destination folder on the computer where you have installed the HTTP Front End feature is the BTARN installation directory (by default, <drive>:\Program Files (x86)\Microsoft BizTalk 2013 R2 Accelerator for RosettaNet)
- After you have copied these files to the computer with the HTTP Front End feature installed, rerun Configuration.exe

5.2 Configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet

NOTE: Before configuring BTARN, Make sure that you have installed all the prerequisites and prepared you environment for the RosettaNet accelerator. In specially:

- Make sure you map .NET Framework 4.0 under Handler Mappings in IIS
- Also, when configuring BTARN on Windows 8.1, Windows Server 2012, and Windows Server 2012 R2, you must create the IIS_WPG group manually

To configure BTARN using Basic Configuration:

- Press the "Windows key" to switch to the Start screen, type "RosettaNet", rightclick "BizTalk 2013 R2 Accelerator for RosettaNet Configuration" option from the Search menu, and then click Run as Administrator
- On the "Microsoft BizTalk 2013 R2 Accelerator for RosettaNet" Wizard page:
 - Select the "Basic configuration" option to configure the server with default settings
 - Or "Custom configuration" to configure the server using advanced configuration options.
 - In the "Database server name" text box under "Database" properties, verify that the server name displayed is correct.
 - In the "Service credential" properties, type the "User name" and "Password" for the account that the configure BTARN will run under.

How to Install and Configure Microsoft BizTalk 2013 R2 Accelerator for RosettaNet

Microsoft BizTalk S	erver Configuration - Start
Microsoft BizTalk 2013 R2 Accelerator for RosettaNet Confi Choose default or custom configuration, and then enter the	-
Basic configuration Custom configuration	
Description	
You have selected basic configuration (recommended for first	time users).
Use this option to configure the server with default settings. Al information, click Configure.	fter you enter the default database name and credential account
If BizTalk was already configured on this machine or if the data	abase server is not local, use custom configuration.
Enter the database and service credential information:	
Database	Service credential
Type the name of the computer where SQL Server is installed. If you select the basic configuration option, all databases will be created on this server. If you select the custom configuration option, this value will be used as the default value for all databases which you can later customize.	Type the user name and password for the account that the services will run under. If you select the basic configuration option, all services will run under this account. If you select the custom configuration option, this value will be used as the default value for all services which you can later customize.
Database server name:	User name:
BTS2013R2LAB01	Administrator Browse
	Password:
	••••••
Help	Configure Cancel

- Click "Configure"
- If your account has administrative privileges, click "Yes" to proceed with the configuration

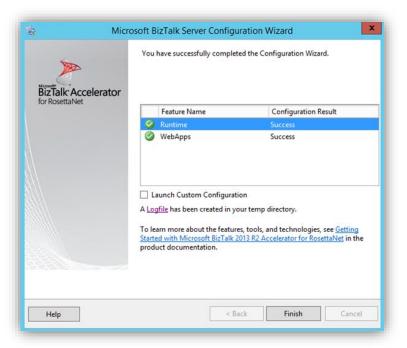


• On the "Summary" page, review the components you are installing, and then click "Next".

f the configuration a	bout to be perfo	rmed			
ntime	ccelerator for R	osettaNet Configu	ration		
	being configured:	being configured: soft BizTalk 2013 R2 Accelerator for R ntime	soft BizTalk 2013 R2 Accelerator for RosettaNet Configu ntime	being configured: soft BirTalk 2013 R2 Accelerator for RosettaNet Configuration intime	being configured: soft BiLTalk 2013 R2 Accelerator for RosettaNet Configuration ntime



• On the "Configuration Completed" page, click "Finish"



NOTE:

- If you selected Custom configuration in step 1, perform the following steps:
 - To configure the runtime, in the Microsoft BTRAN Configuration dialog box, click "Runtime" in the left pane:
 - In the right "Runtime" pane, click "Enable the Runtime feature on this computer"
 - To join an existing database group, clear "Do you want to create a new database group"
 - Select the appropriate Web server name, port number, data stores, Application Pool service account, and BizTalk HTTP Receive virtual folder
 - To configure the WebApps feature, in the Microsoft BTRAN Configuration dialog box, click "WebApps" in the left pane:
 - In the right "WebApps" pane, click "Enable the Runtime feature on this computer"
 - Enter the appropriate BizTalk Server name and port number, or select the defaults
 - Select the appropriate Web application virtual folder.
 - Click Apply Configuration

Note: BTARN configuration will fail if you use a special character in the name of any of the BTARN databases.



6 Additional Configurations of BizTalk 2013 R2 Accelerator for RosettaNet

This section provides detailed information about additional configurations of BizTalk 2013 R2 Accelerator for RosettaNet (BTARN) that you need to do before you start using it:

- Start BTARN orchestrations, send ports, and receive locations, manually. These do not start automatically when you install and configure BTARN.
 - NOTE: You need to start the "PrivateInitiator_To_LOB" and "PrivateResponder_To_LOB" send ports before you can start the "PrivateInitiatorProcess" and "PrivateResponderProcess" orchestrations.
- On computers where you have configured an Internet Information Services (IIS) virtual server with Secure Sockets Layer (SSL), you must configure the virtual server to accept the client certificate. For more information, see the "<u>Step 4: Enabling Secure Sockets Layer in IIS</u>" topic in the MSDN Double Action Tutorial.

6.1 To start BTARN orchestrations, send ports, and receive locations

- Start "BizTalk Server Administration" console as an administrator.
- In the "BizTalk Server Administration Console", in the left pane, expand "BizTalk Group", expand "Applications", and then expand "**BizTalk Application 1**".
- Click "Send Ports".
 - In the right pane, for each BTARN send port that is not started, rightclick and then click "Start":
 - "PrivateInitiator_To_LOB" Static One-Way send port
 - "PrivateResponder_To_LOB" Static One-Way send port
- Click "Receive Locations".
 - In the right pane, for each BTARN receive location that is not started, right-click and then click "Enable".
 - "Async_Http_Receive" HTTP location
 - "Sync_Http_Receive" HTTP location
 - "LOB_To_PrivateInitiator" SQL location
 - "LOB_To_PrivateResponder" SQL location
- Click "Orchestrations".
 - In the right pane, for each BTARN orchestration that is not started, rightclick and then click "Start"
 - Microsoft.Solutions.BTARN.CommonTypes.OdxTypes
 - Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToLOB
 - Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToPrivat eProcess
 - Microsoft.Solutions.BTARN.PublicResponder.PublicResponderPro cess
 - Microsoft.Solutions.BTARN.PublicResponder.PublicResponderV11
 - Microsoft.Solutions.BTARN.PublicInitiator.PublicInitiatorProcess
 - Microsoft.Solutions.BTARN.PublicInitiator.PublicInitiatorV11

- Microsoft.Solutions.BTARN.PrivateResponder.PrivateResponderPr ocess
- Microsoft.Solutions.BTARN.PrivateInitiator.PrivateInitiatorProcess

However, sometimes, from some strange unknown reasons, even if the installation/configuration end up successfully, some of the artifacts may not be properly created/deployed in your BizTalk environment, for example ports and/or bindings. This situation already happen to me twice in several installations.

Orchestrations	Microsoft.Solutions.BTARN.Pri	vate Initiator. Private Initiator Process
OdxTypes SendExceptionToLOB SendExceptionToPrivateProcess		any logical ports in the orchestration to physical ports. A clicking on the combo box next to the logical port name.
Private Initiator Process Private Responder Process Public Initiator Process	Host: <a>None>	~
 PublicInitiatorV11 PublicResponderProcess PublicResponderV11 	Inbound Logical Ports FromLOB	Receive Pots None>
Role Links hitistorRole ResponderRole SyncResponderRole Messaging	Outbound Logical Ports SendToLOB	Send Ports/Send Port Groups
Send Ports and Send Port Groups		

In this particular problem, the reason was that, because the configuration process has their half dozens of failures/limitations/bugs, some of the binding files used by BTARN (generated by configuration/installation process) was configure to use the default host – that in my case it was incorrectly defined as "BizTalkServerApplication64Host", a non-BTARN host - in the receive and send ports. The problem was that this particular host is used only to process orchestrations and it is not associated with any BizTalk adapter.

The solution in this situations is to understand the problem and manually fix. Fortunately for us Microsoft made available all the BTARN resources: DLL, source code, binding files and so on in the BTARN installation folder, which by default is:

• "C:\Program Files (x86)\Microsoft BizTalk 2013 R2 Accelerator for RosettaNet"

It is recommend to validate if all the resources are correctly deploy and configured in your BizTalk Server. I already face an issue where I found out after finish the installation/configuration process that none of the DLL's where deployed correctly in the environment:

- In the "BizTalk Server Administration Console", in the left pane, expand "BizTalk Group", expand "Applications", and then expand "BizTalk Application 1".
- Click "Resources" and you should find there 11 BTARN DLL's (otherwise you need to manually deploy the missing ones)

- o Microsoft.Solutions.BTARN.CommonTypes.dll
- o Microsoft.Solutions.BTARN.GlobalSchemas.dll
- o Microsoft.Solutions.BTARN.PipelineReceive.dll
- Microsoft.Solutions.BTARN.PipelineSend.dll
- o Microsoft.Solutions.BTARN.PrivateInitiator.dll
- o Microsoft.Solutions.BTARN.PrivateResponder.dll
- o Microsoft.Solutions.BTARN.PublicInitiator.dll
- Microsoft.Solutions.BTARN.PublicResponder.dll
- o Microsoft.Solutions.BTARN.Schemas.RNIFv11.dll
- o Microsoft.Solutions.BTARN.Schemas.RNIFv201.dll
- Microsoft.Solutions.BTARN.Schemas.RNPIPs.dll

Console Root ෯ BizTalk Server Administration	Resources		
BizTalk Group [BTS2013R2LAB01:BizTalkMgmtDb]	Name	Туре	Source Location
⊿ math Applications b math Applications	Microsoft.Solutions.BTARN.CommonTypes, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
RizTalk.System	Microsoft.Solutions.BTARN.GlobalSchemas, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
AnnoyingTord	Microsoft.Solutions.BTARN.PipelineReceive, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
BizTalk Application 1	Microsoft.Solutions.BTARN.PipelineSend, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
Crchestrations	Microsoft.Solutions.BTARN.PrivateInitiator, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
Send Port Groups	Microsoft.Solutions.BTARN.PrivateResponder, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
Send Ports	Microsoft.Solutions.BTARN.PublicInitiator, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
Receive Ports	Microsoft.Solutions.BTARN.PublicResponder, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
Receive Locations	Microsoft.Solutions.BTARN.Schemas.RNIFv11, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
Dicies	Microsoft.Solutions.BTARN.Schemas.RNIFv201, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2
a Maps	Microsoft.Solutions.BTARN.Schemas.RNPIPs, Version=3.3.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35	System.BizTalk:BizTalkAssembly	C:\Program Files (x86)\Microsoft BizTalk 2013 R2

Note: You will find these DLL's in the BTARN installation folder under the "Bin" folder: "C:\Program Files (x86)\Microsoft BizTalk 2013 R2 Accelerator for RosettaNet\Bin"

- The second step is to fix and import the binding files
 - **NOTE:** You will find these Binding Files in the BTARN installation folder under the "Bin" folder.
 - NOTE: Before you import it you need to manually fix manually, that way the PREPARING YOUR BIZTALK SERVER 2013 R2 ENVIRONMENT FOR BTARN section is very important to avoid these type of problems after the installation and configuration process.

(Delivit)	e Name="Microsoft.Solutions.BTARN.CommonTypes.OdxTypes">
	<ports></ports>
	<roles></roles>
	<pre><host name="BizTalkServerApplication64Host" ntgroupname="BizTalk Application Users" pre="" type<=""></host></pre>
<td>.ce></td>	.ce>
<servio< td=""><td>e Name="Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToLOB"></td></servio<>	e Name="Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToLOB">
	<ports></ports>
	<roles></roles>
	<pre><host name="BizTalkServerApplication64Host" ntgroupname="BizTalk Application Users" pre="" type<=""></host></pre>
<td>.ce></td>	.ce>
<servio< td=""><td><pre>:e Name="Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToPrivateProcess"></pre></td></servio<>	<pre>:e Name="Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToPrivateProcess"></pre>
	<ports></ports>
	<roles></roles>
	<pre>KHost Name="BizTalkServerApplication64Host" NTGroupName="BizTalk Application Users" Type</pre>
	(ce>

- In this case to solve the problem that you need to:
 - Right-click in the "BizTalk Application 1", and select the option "Import -> Bindings..." and import the following binding files that you will find in the BTARN Bin folder:
 - CommonTypesBinding
 - PrivateInitiatorBinding
 - PrivateResponderBinding

- PublicInitiatorBinding
- PublicResponderBinding
- The next step is to make sure that all the artifacts (orchestrations, send ports and receive locations) are associated with the BTARN hosts:
 - o BizTalkServerApplication
 - o BizTalkServerlsolatedHost
- Click "Send Ports" and check if the following BTARN send ports are running under the "BizTalkServerApplication" send handler, otherwise you should modify it.
 - "PrivateInitiator_To_LOB"
 - "PrivateResponder_To_LOB"

Send Ports					
Name	Status	URI	Transport Type	Handler	Application
PrivateInitiator_To_LOB	🚺 Started	SQL://BTS2013R2LAB01/BTARND		BizTalk ServerApplication	BizTalk Application 1
PrivateResponder_To_LOB	Started	SQL://BTS2013R2LAB01/BTARND	SQL	BizTalkServerApplication	BizTalk Application 1

- Click "Receive Locations"
 - Check if the following BTARN receive location are running under the "BizTalkServerIsolatedHost" receive handler, otherwise you should modify it.
 - "Async_Http_Receive"
 - "Sync_Http_Receive"
 - And check if the following BTARN receive location are running under the "BizTalkServerApplication" receive handler, otherwise you should modify it.
 - "LOB_To_PrivateInitiator"
 - "LOB_To_PrivateResponder"

Receive Locatio	ns				
Name	Status	URI Transport Type	Receive Port	Receive Handler	Application
😵 Async_Http_Receive	Enabled	/BTARNHttpReceive/BTSHTT HTTP	RNIF_Async_Receive	BizTalkServerIsolatedHost	BizTalk Application 1
Sync_Http_Receive	Enabled	/BTARNHttpReceive/BTSHTT HTTP	RNIF_Sync_Receive	BizTalkServerlsolatedHost	BizTalk Application 1
😵 LOB_To_PrivateInitiator	Enabled	SQL://BTS2013R2LAB01/BTA SQL	LOB_To_PrivateInitiator	BizTalkServerApplication	BizTalk Application 1
Responder	Enabled	SQL://BTS2013R2LAB01/BTA SQL	LOB To PrivateResponder	Biz Talk Server Application	BizTalk Application 1

- Click "Orchestrations" and check if the following BTARN orchestrations are running under the "BizTalkServerApplication" host, otherwise you should modify it
 - Microsoft.Solutions.BTARN.CommonTypes.OdxTypes
 - Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToLOB
 - Microsoft.Solutions.BTARN.CommonTypes.SendExceptionToPrivateProc ess
 - o Microsoft.Solutions.BTARN.PublicResponder.PublicResponderProcess
 - o Microsoft.Solutions.BTARN.PublicResponder.PublicResponderV11
 - o Microsoft.Solutions.BTARN.PublicInitiator.PublicInitiatorProcess
 - o Microsoft.Solutions.BTARN.PublicInitiator.PublicInitiatorV11
 - o Microsoft.Solutions.BTARN.PrivateResponder.PrivateResponderProcess
 - Microsoft.Solutions.BTARN.PrivateInitiator.PrivateInitiatorProcess

BizTalk 36^C

Orchestrations			
Name Status	Host	Assembly	Application
Microsoft.Solutions.BTARN.Common Types.Od 🚺 Started	BizTalkServerApplication	Microsoft.Solutions.BTARN.CommonTypes, V	BizTalk Application 1
Microsoft.Solutions.BTARN.CommonTypes.Se 🚺 Started	BizTalk ServerApplication	Microsoft.Solutions.BTARN.Common Types, V	BizTalk Application 1
) Microsoft.Solutions.BTARN.Common Types.Se 🚺 Started	Biz Talk Server Application	Microsoft.Solutions.BTARN.Common Types, V	BizTalk Application
Microsoft.Solutions.BTARN.PublicResponder 🚺 Started	Biz Talk Server Application	Microsoft.Solutions.BTARN.PublicResponder,	BizTalk Application
) Microsoft.Solutions.BTARN.PublicResponder 🚺 Started	Biz Talk Server Application	Microsoft.Solutions.BTARN.PublicResponder,	BizTalk Application
) Microsoft.Solutions.BTARN.PublicInitiator.Publ 🚺 Started	Biz Talk Server Application	Microsoft.Solutions.BTARN.PublicInitiator, Ver	BizTalk Application
) Microsoft.Solutions.BTARN.PublicInitiator.Publ 🚺 Started	BizTalk ServerApplication	Microsoft.Solutions.BTARN.PublicInitiator, Ver	BizTalk Application
) Microsoft.Solutions.BTARN.PrivateResponder 🚺 Started	BizTalk ServerApplication	Microsoft.Solutions.BTARN.PrivateResponder	BizTalk Application
) Microsoft.Solutions.BTARN.PrivateInitiator.Pri 🚺 Started	BizTalkServerApplication	Microsoft.Solutions.BTARN.PrivateInitiator, Ve	BizTalk Application

You should do all of this configuration, to prevent future problems, otherwise, sooner or later you will have problems with BTARN.

NOTE: The Official documentation specifies that should restart the BizTalk Server machine to apply any modifications made in configuration and permissions. Fortunately, you don't need that.

6.2 Configuring IIS Application Pool Identities

IIS supports running 32- and 64-bit web sites in separate application pools. Regarding to BTARN is very important to:

- Set the BTARN application pool to 32-bit mode
- The Identity used in the BTARN Application pools should be the same that we use in the BTARN BizTalk Host Instance Account and the BizTalk Isolated Host Instance Account. Otherwise, BTARN in some situations may not work correctly
 - If the service account set for the BTARN application pools is different from the Isolated Host account, BTARN will not be able to process incoming messages correctly. When the receive ".aspx page" calls the pipeline, the pipeline will not have access to the appropriate certificates. Therefore, it will not be able to decrypt the incoming message or validate the signature. It will also not be able to access the MessageBox database

To change the Identity property of BATRN application pools you need to:

- Open the IIS Management Console
- On the left three in the "Internet information Services (IIS) Manager" console, click in "Application Pools" node underneath the machine node.
- Right-click the "BTARNAppPool" application pool and select "Advanced Settings..."
 - Select the "Identity" list item and click the ellipsis, the following dialog appears:



4	(General)			^				
	.NET CLR Version	v4.0						
	Enable 32-Bit Applications	True						
	Managed Pipeline Mode	Classic		=				
	Name	BTARNAppPool						
	Queue Length	1000						
	Start Mode	OnDemand						
⊿	CPU							
	Limit (percent)	0						
	Limit Action	NoAction			Application Pool Identity	? X		
	Limit Interval (minutes)	5			, ppreddor i oor idenidy	<u> </u>		
	Processor Affinity Enabled	False	0	Built-in account:				
	Processor Affinity Mask	4294967295						
	Processor Affinity Mask (64-bit	c 4294967295		NetworkService				
⊿	Process Model			Custom account:				
Þ	Generate Process Model Event	L .	۲	custom account.				
	Identity	NetworkService				Set		
	Idle Time-out (minutes)	20						
	Idle Time-out Action	Terminate						
(id as	e ntity entityType, username, password built-in account, i.e. Applicatior vice, Local System, Local Servic	Pool Identity (recon		<u> </u>	ОК	Cancel		

- Select the "Custom account" option and set the same service account used for the Isolated Host and Host instances
- Do the exact same steps for the "BTARNHttpReceivePool" application pool

Application Pools This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applic											
Filter: • 🐨 Go - 🖳 Show All Group by: No Grouping •											
Name ^	Status	.NET CLR V	Managed Pipel	Identity	Applications						
②.NET v2.0	Started	v2.0	Integrated	ApplicationPoolIdentity	0						
INET v2.0 Classic	Started	v2.0	Classic	ApplicationPoolIdentity	0						
🔂 .NET v4.5	Started	v4.0	Integrated	ApplicationPoolIdentity	0						
INET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolIdentity	0						
🗊 BAMAppPool	Started	v4.0	Classic	BTS2013R2LAB01\Administrator	3						
BizTalkBasicHTTPAppPool	Started	v4.0	Integrated	.\Administrator	1						
BTARNAppPool	Started	v4.0	Classic	BTS2013R2LAB01\Administrator	1						
BTARNHttpReceivePool	Started	v4.0	Classic	BTS2013R2LAB01\Administrator	1						

7 Troubleshooting Your Installation

This section provides information about troubleshooting your BizTalk 2013 R2 Accelerator for RosettaNet (BTARN) installation.

7.1 Do not install SQL Server on the domain controller computer

If you install SQL Server on the same computer as your domain controller computer, it returns the following error message when it is trying to create the SQL send ports:

Error: Failed updating binding information.

BindingException: Could not validate TransportTypeData or Address properties for Primary Transport of Send Port 'SendPort1'. Exception from HRESULT: 0x80131500.

Error: Failed updating binding information.

BindingException: Could not validate TransportTypeData or Address properties for Primary Transport of Send Port 'SendPort1'. Exception from HRESULT: 0x80131500

IMPORTANT: Do not install SQL Server on the domain controller computer.

7.2 Service account for the application pools must be the same as the service account for the Isolated Host and Host instances

If the service account set for the BTARN application pools is different from the Isolated Host account, BTARN will not be able to process incoming messages correctly. When the receive .aspx page calls the pipeline, the pipeline will not have access to the appropriate certificates. Therefore, it will not be able to decrypt the incoming message or validate the signature. It will also not be able to access the MessageBox database.