
September 2014
BizTalk Magazine
Focused on BizTalk Server and Windows Azure BizTalk Services (and in general to Microsoft Integration Stack)
BizTalk Innovation Day
Oslo - Norway

BizTalk Innovation Day is a one-day event focused purely on Microsoft BizTalk Server related topics that has been conducted in several major European cities since Feb 2011: Amsterdam (Netherland), Milan (Italy), Stavanger (Norway), London (UK) and Porto (Portugal).

For the third time the BizTalkCrew (Steef-Jan Wiggers, Tord Glad Nordahl, Nino Crudele, Saravana Kumar and me) are hosting the BizTalk Innovation Day, an one-day event focused purely on Microsoft BizTalk Server/BizTalk Services and related topics, in Norway!
The two previous BizTalk Innovation Day editions in Norway were carried out in Stavanger, this time the event will be held in Oslo, Thursday, September 25, 2014 from 9:00 AM to 6:30 PM at MESH AS, Tordenskiolds Gate 3, 0160 Oslo, Norway (see more information about the event and sign up here: http://www.biztalk360.com/Events/BizTalk-Innovation-day-2014-Norway/)

TARGET AUDIENCE
People interested in BizTalk Server/BizTalk Services and integration on several different levels, developers, administrators and architects. There is something for everyone

AGENDA
08:45 – 09:00: Registration/Welcome/Kick-Off;
09:00 – 10:00: Hitchhiker's guide to integration with Microsoft Azure BizTalk Service by Steef-Jan Wiggers [Microsoft Integration MVP];
10:00 – 11:00: The Future of Integration by Richard Seroter [Microsoft Integration MVP];
11:00 – 11:30: Break;
11:30 – 12:30: Developing like an Integration Person by Nino Crudele [Microsoft Integration MVP];
12:30 – 13:30: Lunch;
13:30 – 14:30: Top 10 features we added in BizTalk360 in 2014 by Saravana Kumar [Microsoft Integration MVP];
14:30 – 15:30: The new Transform Designer available in BizTalk Services by Sandro Pereira [Microsoft Integration MVP];
15:30 – 16:00: Break;
16:00 – 17:00: Developers Vs. Operation by Tord Glad Nordahl [Microsoft Integration MVP];
17:00 – 22:00: Networking/Drinks

Event Details

Traditionally we did the Norway event in Stavanger, this year we moved it to Oslo, for logistics reason. Come join us on September 25th and learn all about what's the latest news on BizTalk world.

Official Event Website
http://www.biztalk360.com/Events/BizTalk-Innovation-day-2014-Norway/

Speakers for this year include

- Richard Seroter
- Steef-Jan Wiggers
- Nino Crudele
- Saravana Kumar
- Sandro Pereira

MESH AS
TORDENSKIOLDS GATE 3
0160 Oslo
Norway

Thursday, September 25, 2014 from 9:00 AM to 6:30 PM (BST)

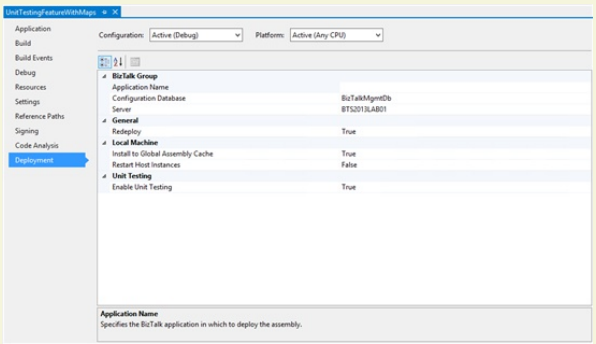
BizTalk Innovation Day, Oslo - Norway

BizTalk Server 2013: Step-by-Step to implement Unit Testing in Schemas and Maps

by Sandro Pereira

Testing is an important aspect of (BizTalk) application life cycle. Before a developer deploys his solution he needs to be confident that it will perform, and do the task(s) it is intended to do. It is a developers responsibility that he creates a robust application. Therefore he needs to unit test his BizTalk application artifacts before he deploys them for further testing.

A BizTalk developer has a couple of options when it comes to unit testing BizTalk artifacts. Testing of each can be done using a framework like BizUnit, or some of the other available tools offered through CodePlex, or Visual Studio. With BizTalk Server



2009 the unit test feature was introduced, which offered built-in developer support for testing schemas, maps and pipelines in Visual Studio.

The test capabilities offered by Visual Studio in for BizTalk artifacts are the following

- ***Validating an XML document instance.***
- ***Testing a map.***
- ***Unit test a schema, map and/or a pipeline.***

This article will explain step-by-step how we can implement unit test in BizTalk Server 2013 project within Visual Studio 2012 to test Schemas and Maps.

Testing is an important aspect of application life cycle

ADDING A UNIT TEST PROJECT TO YOUR BIZTALK SOLUTION

To implement unit test within Visual Studio 2012 to test Schemas and Map we need to:

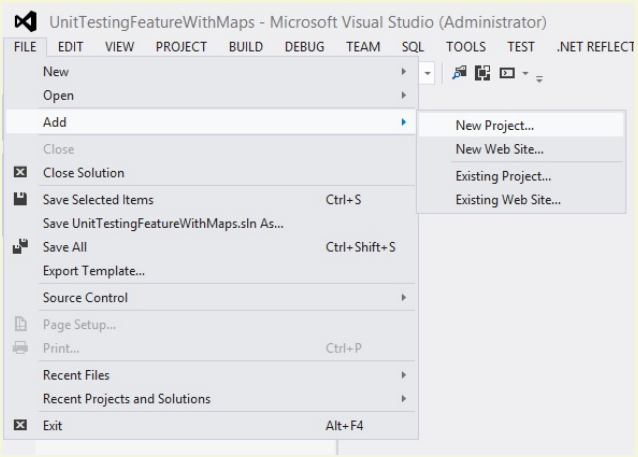
- Open your BizTalk Project in Visual Studio.NET 2012, in this sample: "UnitTestingFeatureWithMaps.sln".
- In Solution Explorer, right-click in the BizTalk Server project, in this sample "UnitTestingFeatureWithMaps", and then click Properties.
- In Project Designer, click the Deployment property page tab and set "Enable Unit Testing" option to "True".
- Close the project properties page saving the changes.

This feature allows you to create unit tests for schemas, maps, and pipelines. The topics in this section provide some example approaches to using the unit testing feature. When this feature is enabled and the project rebuilt, the artifact classes will be derived from the following base classes to support unit testing.

- In main menu, click Build, and then click Rebuild Solution.

TO CREATE A UNIT TEST PROJECT

- On the File menu, choose "Add", and then choose "New Project...."



・In the New Project dialog box, expand "Installed", expand "Visual C#", and then choose "Test".
・From the list of templates, select "Unit Test Project".
・In the Name box, enter "UnitTestProject1", and then choose "OK".
・The "UnitTestProject1" project is added to the the "UnitTestingFeatureWithMaps" solution.
・In the "UnitTestProject1" project, for us to be able to accomplished testing BizTalk Schemas and Maps, we need to manually add the following references to the solution:
・Microsoft.BizTalk.TestTools - you can find this assembly in the following directory: "C:\Program Files (x86)\Microsoft Visual Studio 11.0\Common7\IDE\PublicAssemblies\Microsoft.BizTalk.TestTools.dll"
・Microsoft.XLANGs.BaseTypes - you can find this assembly in the following directory: "C:\Program Files (x86)\Microsoft BizTalk Server 2013\Microsoft.XLANGs.BaseTypes.dll"
・BizTalk Server project assembly - in this case "UnitTestingFeatureWithMaps"
You can accomplish this by:
・In Solution Explorer, select "References" in the "UnitTestProject1" project and then choose "Add Reference..." from the context menu.

We need two test class, one for testing the Schema and the other to test the map. We can use the UnitTest1.cs that was generated by the project template, but we should give the file and class more descriptive names. We can do that in one step by renaming the file in Solution Explorer.

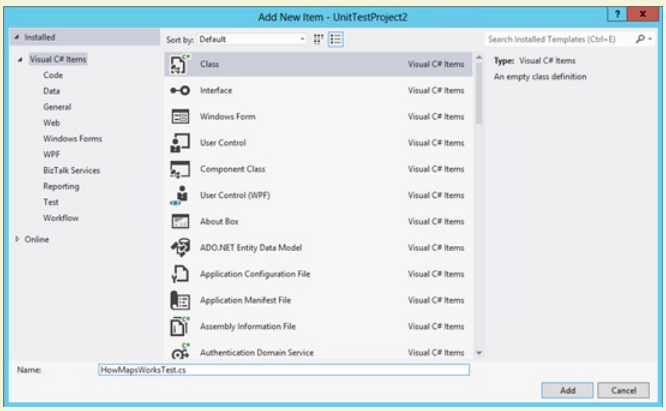
CREATE THE SCHEMA TEST CLASS

・In Solution Explorer, select the "UnitTest1.cs" file in the "UnitTestProject1" project.
・From the context menu, choose "Rename", and then rename the file to "PersonOriginTest.cs".
・add the following method:

```
[TestMethod()]
public void PersonOriginConstructorTest()
{
   PersonOrigin target = new
PersonOrigin();

   //=== Schema input file for validation
===//
   string strSourcePO_XML =
testContextInstance.TestDir +
"..\\..\\..\\Files\\PersonOrigin.xml";

   //=== Validate the XML Input message
against the schema ===//

Assert.IsTrue(target.ValidateInstance(strSo
urcePO_XML,

Microsoft.BizTalk.TestTools.Schema.Outpu
tInstanceType.XML));
}
```

CREATE THE MAP TEST CLASS

・Inthe "Add New Test" dialog box, select "Create a new Visual C# test project..." for Add to Test Project field. Select "Unit Test Wizard" in the Templates list, and then click OK.
・Right-click in "UnitTestProject1" project name, select "Add" and then select "New Item..."
・In the "Add New Item" dialog box, expand "Installed"and expand "Visual C# Items".
・From the list of items, select "Class" and in the Name box, enter "HowMapsWorksTest.cs", and then choose "OK".



· Add the following method:

```
public void HowMapsWorksMapTest()
{
  HowMapsWorks map = new
HowMapsWorks();

  //=== Use the HelloWorld sample directory
path for the message files ===//
  string strSourcePO_XML =
testContextInstance.TestDir +
"..\\..\\..\\Files\\PersonOrigin.xml";
  string strDestInvoice_XML =
testContextInstance.TestDir +
"\\OUT\\PersonTarget2.xml";

  //=== Test the map by using the TestMap
method of the TestableMapBase class ===//
  map.ValidateOutput = true;
  map.TestMap(strSourcePO_XML,

Microsoft.BizTalk.TestTools.Schema.InputIn
stanceType.Xml,
            strDestInvoice_XML,

Microsoft.BizTalk.TestTools.Schema.OutputI
nstanceType.XML);

  //=== Output file should be created as a
result of testing the map ===//

Assert.IsTrue(File.Exists(strDestInvoice_XM
L));
 }
```

ADD .TESTSETTINGS FILE

Unit tests in Visual Studio 2012 can be configured by using a .runsettings file. For example, you can change the .NET Framework on which the tests will be run, the directory where test results are delivered, and the data collected during a test run.

.runsettings is new in Visual Studio 2012. If you're familiar with unit testing in previous versions of Visual Studio, you might know about .testsettings files. You can still use .testsettings in Visual Studio 2012, so any test configurations you wrote for previous editions will still work. But .testsettings can be used only to configure tests written for the MSTest adapter. By contrast, .runsettings can be used with any of the adapters built for the extensible unit test framework in Visual Studio 2012, such as xUnit.net and NUnit.

Tests that use .testsettings files might run more slowly than tests that use .runsettings files, or for which there is no configuration file at all.

Create a Test Settings File

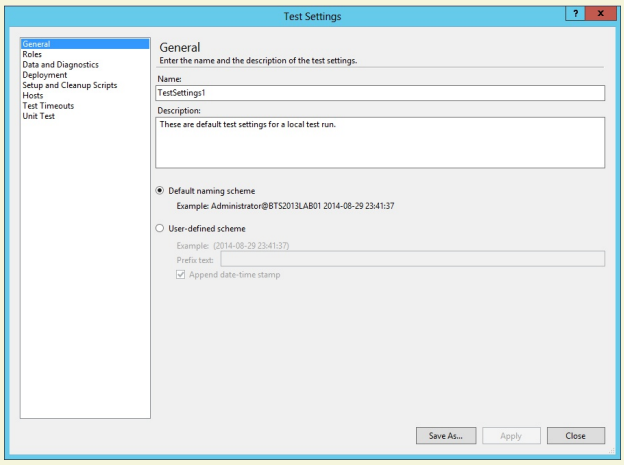
· Right click on the BizTalk solution name: "Solution 'UnitTestingFeatureWithMaps' (2 projects)", and select "Add" and them "New Item…"

· In the "Add New Item – Solution Items" dialog box, expand "Installed" and then choose "Test Settings".

· From the list of items, select "Test Settings".

· In the Name box, enter "TestSettings.testsettings", and then click "Add".

· This will open a new window for us to specify the settings of the test settings file, just leave the default setting by click "Close".



How do I use a test settings file?

Add test settings files to your solution, and then select the one you want to use. You can add more than one test settings file if you want to be able to switch quickly between different settings.

· On the Visual Studio main menu choose "Test", choose "Test Settings", and then choose "Test Settings File".

· In the "Open Setting File" window select the test setting file that we previous create: "Local.testsettings"or "TestSettings.testsettings"

BUILDING AND RUNNING THE UNIT TEST

Use Test Explorer to run unit tests from Visual Studio unit test projects. You can also debug tests and analyze test performance and code coverage.

When you build the test project, the tests appear in Test Explorer and as you run, write, and rerun your tests, Test Explorer displays the results in default groups of Failed Tests, Passed Tests, Skipped Tests and Not Run Tests. You can change the way Test Explorer groups your tests.

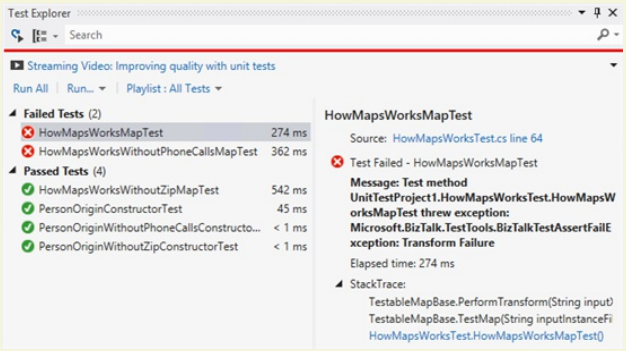
If Test Explorer windows is not visible:

· On the Visual Studio main menu choose "Test", choose "Windows", and then choose "Test Explorer".

You can run all the tests in the solution, all the tests in a group, or a set of tests that you select. Do one of the following:

· To run all the tests in a solution, choose Run All.

· To run all the tests in a default group, choose Run... and then choose the group on the menu.



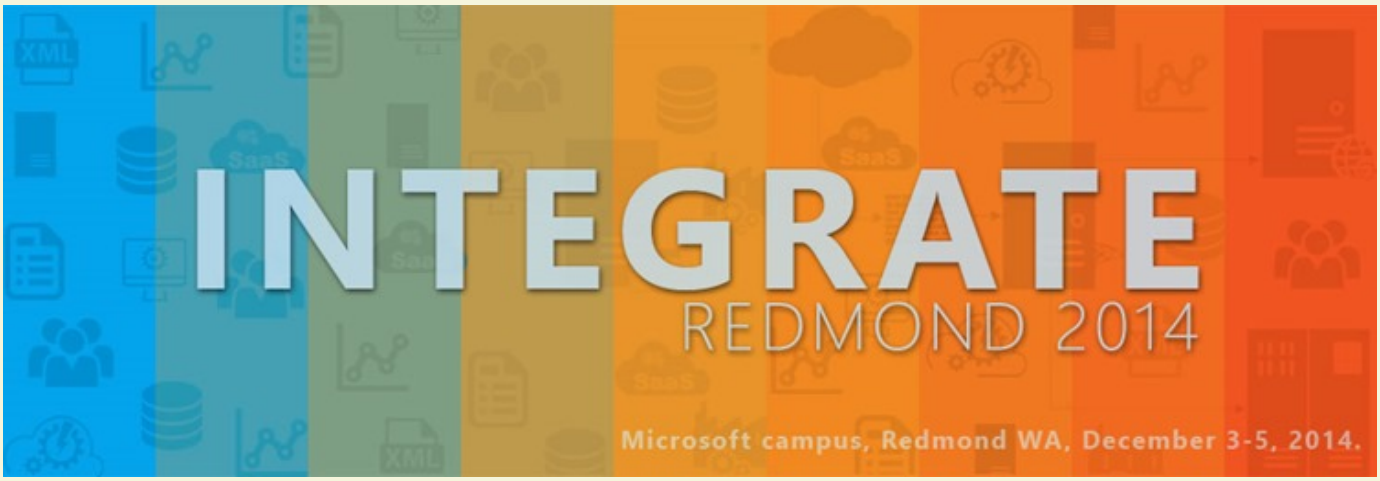
· Select the individual tests that you want to run, open the context menu for a selected test and then choose Run Selected Tests. The pass/fail bar at the top of the Test Explorer window is animated as the tests run. At the conclusion of the test run, the pass/fail bar turns green if all tests passed or turns red if any test failed.

Author

Sandro Pereira lives in Portugal and works as a BizTalk consultant at DevScope (http://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 2011 and MCTS: BizTalk Server BizTalk Server 2006 and BizTalk Server 2010 certified. He is also author of the Blog: http://sandroaspbiztalkblog.wordpress.com/, member of the BizTalk Brazil community, NetPonto community, member of BizTalk Administrator community, editor of the magazine “Programar”, public speaker and technical reviewer of "BizTalk 2010 Cookbook" and several BizTalk white papers.

"INTEGRATE – 2014"– Announcing the Global BizTalk Summit, Microsoft Campus, WA. Dec 3-5, 2014

by Saravana Kumar [BizTalk360]



We are super thrilled to announce the first global BizTalk summit called "INTEGRATE – 2014", which will be held on the Microsoft campus, Redmond WA, December 3-5, 2014.

Microsoft was conducting the "BizTalk Summit" for the past 2 years in their Redmond campus. This year they decided to pass the responsibility to us to organise and execute this event along with some core partners. We are honoured and privileged to be nominated to take this responsibility, it was purely given under the merits of our experience organizing the past two London events.

This announcement is primarily to give you ample time to book the dates and start your internal approval processes. In the past couple of years the announcement was made only in the last minute, which was challenging for some attendees. This year we wanted to notify the event dates well in advance.

Content wise this event is primarily Microsoft driven, the first 2 days of sessions will pretty much be coming from the product group.

There will be some important product announcements, vision and road map keynotes from top Microsoft executives.

This event is one of the key milestones for the Microsoft product group and all the partners and ISV's who work in BizTalk/Integration space. This is the message from product group for the attendees

This is our event, and our collective energy and ownership will make "INTEGRATE" our best summit ever. Thank you for your support and participation! All the best! Mark and Guru

AGENDA

Here are top level agenda

· Executive keynotes outlining Microsoft vision and roadmap
· Technical deep-dives with product group and industry experts
· Product announcements
· Real-world demonstrations from lighthouse customers
· Round-table discussions + Q&A
· Partner Showcase Sessions
· We are also planning hands-on labs us to roll up our sleeves and experience new capabilities
· Networking and social activities

We are expecting around 350-400 people to attend this event from across the globe.

EVENT DETAILS

· 3-Day Event- Wednesday – Friday, December 3-5, 2014
· Event Location - Microsoft Campus

BizTalk Administrator Deep dive course

by Tord Glad Nordahl

This course requires a basic knowledge of BizTalk administration and takes a deep dive into the following three topics in BizTalk

- Health checking
- Performance optimizing
- Monitoring

Focus for this Deep Dive course will be to provide you with in-depth knowledge to locate bottlenecks and perform tuning of the BizTalk environment. It also covers how to utilize the resources available on the BizTalk servers to optimize performance and sustain a stable setup. It will provide you with the tools to stay ahead of increase in traffic and load on your BizTalk environment. We will discuss how to set up an operation guideline, and best practices for requirements towards the development department.

Tord has provided an excellent BizTalk Administrators deep dive course/training for me and my colleagues. He is highly knowledgeable on all topics concerning BizTalk administration, and provided a valuable, interactive training. Finally he has a great personality and good sense of humor.
Steef-Jan Wiggers, Microsoft Integration MVP

As BizTalk grows, it is increasingly important to keep the server operational and ready for any unforeseen circumstances, making sure that the health of the BizTalk environment is good and within the recommended values. It is important for a BizTalk administrator is to be proactive, and act on any issues that may occur in BizTalk. This course will provide you with the tools and views you need to identify any difficulties regarding the current state of your BizTalk environment; it will also give you a good overview of how to predict the future health of the installed system.

Cost reducing initiatives, is one of the main factors when considering optimizing the performance of a BizTalk environment. This course will teach you the ability to tune the environment to perform better and provide a environment, this topic also covers how to tune down an application in order to give high latency but with a low throughput

Monitoring the BizTalk environment during errors situations and on a regular basis, is important in order to be aware of any issues. In addition to the health check, this topic will cover how to proper monitor and calculate time frames different messages should complete within. It will also give you information on how to use the tools provided with BizTalk to monitor live information from your installation.

This course can be tailored to fit your environment and the way BizTalk is installed at your company.

Tord Glad Nordahl

Tord Glad Nordahl is working as a BizTalk Administrator Expert for Bouvet ASA in Norway. He has worked with BizTalk the past 6 years and he has worked with all versions of BizTalk. His main jobs are Tech Lead of Bouvets Integration Competence Center, health checking, training, and as ad-hoc support during critical problems for clients. Tord Glad Nordahl is also an active contributor to the community with his work on his blog http://biztalkadmin.com/, on the MSDN TechNet forums and Wiki. January 2013 he was awarded Microsoft Integration MVP for his commitment to the BizTalk community. He has held presentation all over the world and is always up for a challenge when it comes to BizTalk.

Exposing data through BizTalk Service Hybrid Connections

by Steef-Jan Wiggers

A new addition to the Microsoft Azure BizTalk Service are Hybrid Connections [This link is external to TechNet Wiki. It will open in a new window.] . This feature provides you with the capability to easily create a connection between your on-premise data and/or services and your Azure Website or Mobile Service. The goal of the hybrid connections is to create a seamless connected environment, where your data is easily accessible regardless of its location.

BizTalk Server the counterpart of the cloud BizTalk Service has offered similar ways of exposing or providing access to on-premise data or services. This can be accomplished by creating endpoints and have them registered with the service bus through the relay binding or IIS using for instance using the WCF-BasicHttp binding. Instead of using BizTalk Server you can setup and configure access to your data through the BizTalk Service. This can be more a more cost effective, and faster way to have connectivity with your on-premise data in SQL Server than using BizTalk Server.

SETUP A HYBRID CONNECTION

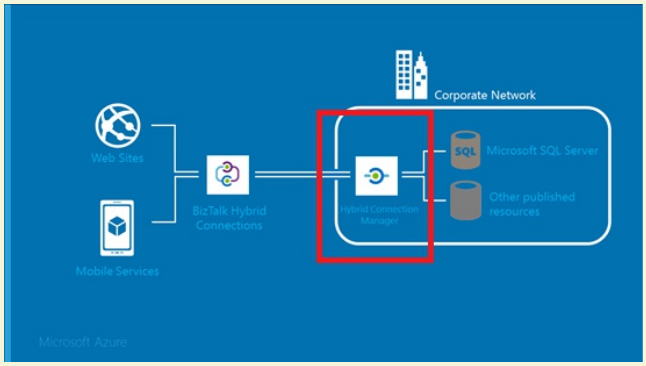
To be able to create a Hybrid Connection to an on-premise SQL Server database you will need to provision a BizTalk Service first. In case you a have a BizTalk Service available in your Azure Subscription you can create a Hybrid Connection through the Hybrid Connections tab. There is currently a free (preview) version [This link is external to TechNet Wiki. It will open in a new window.] available for BizTalk Service that supports Hybrid Connections. So you can provision a BizTalk Server for free. Here you can click CREATE A HYBRID CONNECTION.

The next step is to specify the Name and Host Name for your hybrid connection and set Port to 1433 in a window that will pop-up.

You can click the check mark to complete the specification. Now the host name is the name of the on-premises server. This configures the hybrid connection to access SQL Server running on TCP/IP port 1433 [This link is external to TechNet Wiki. It will open in a new window.] . Clicking the check mark will result in provisioning of a new hybrid connection with the status On-premises setup incomplete. By click the On-Premise Setup you can install the Hybrid Connection Manager, which will enable your on-premises machine to connect to Windows Azure and relay TCP traffic. A window will pop-up again.

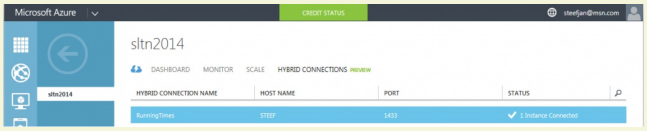
Once you click Install and Configure a customized instance of the Connection Manager, which is already pre-configured to work with the hybrid connection you created in the previous steps.

The installation of the Hybrid Connection manager will lead to a situation outlined below.



The Hybrid Connection Manager [This link is external to TechNet Wiki. It will open in a new window.] (which can be download separately) can be viewed as a proxy between your application or service in Microsoft Azure. As soon as installation completes you will see connection endpoint being displayed.

The status of the Hybrid Connection will show "Connected" after awhile. You will need to refresh the portal.



Once the connection is up you can make use of it.

NEXT STEPS

Once you have your Hybrid Connection up you can use for a Website or Mobile Service. The prerequisites for using Hybrid Connections are:

- Microsoft Azure Account
- Visual Studio 2013
- SQL Server 2014 (EXPRESS)
- Operating System Windows Server 2008 R2 Standard, Windows Server 2008 Standard, Windows Server 2012, Windows Server 2012 R2 Windows Server 2008 R2 or later

The following article on Microsoft Azure site can walk you through using the just created Hybrid Connection:

- Connect to an on-premises SQL Server from an Azure mobile service using Hybrid Connections [http://azure.microsoft.com/en-us/documentation/articles/mobile-services-dotnet-backend-hybrid-connections-get-started/]
- or a different approach: Connect an Azure web site to an on-premises resource using Hybrid Connections [http://azure.microsoft.com/en-us/documentation/articles/web-sites-hybrid-connection-get-started/]

Other resources to explore regarding Hybrid Connections are:

- Microsoft Azure Gets New Tools For Hybrid Clouds And Simplified Cloud Storage Service For Businesses [http://techcrunch.com/2014/05/12/windows-azure-gets-new-tools-for-hybrid-clouds-and-simplified-cloud-storage-service-for-businesses/]
- New Hybrid Connection Manager Enables Integration with Azure and Your Internal Network [http://www.microsofttrends.com/2014/05/13/new-hybrid-connection-manager-enables-integration-with-azure-and-your-internal-network/]

Author

Steef-Jan Wiggers 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. He 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 4 years. On his personal blog (http://soa-thoughts.blogspot.com/), and BizTalk Administrators blog (http://www.biztalkadminsblogging.com/) he shares his knowledge around SOA, Azure (ServiceBus) and BizTalk.

BizTalk Server SQL Agent Jobs

by Tord G. Nordahl

BizTalk is shipped out with a total of 13 SQL Agent jobs. Two of these jobs must be configured. The two jobs that needs configuration are the two most important jobs. The "Backup BizTalk Server" and the "DTA Purge and Archive". For more information about the different jobs look at the headings below.

BACKUP BIZTALK SERVER

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. Look at the references on how to set up this job. The job contains four steps

· Step 1: Turns on/off data compression
· Step 2: Performs a full backup of the database
· Step 3: Performs a full backup of the log tables
· Step 4: Performs a cleanup of the backup history according for how long a backup should be kept

CLEANUPBTFEXPIREDENTRIESJOB_BIZTALKMGMTDB

Criticality : Low

This job will delete all expired BizTalk Framework from the management database, it automates the archiving of tracked messages and purging of the BizTalk tracking database. This is to maintain a healthy system and to keep the tracking data archived for future use.

MESSAGEBOX_DEADPROCESSES_CLEANUP_BIZTALKMSGBOXDB

Criticality : High

This SQL Agent job detects whenever a Host Instance has stopped responding and releases all the work for this host instance in the message box so that another Host Instance can take over the job.

MESSAGEBOX_MESSAGE_CLEANUP_BIZTALKMSGBOXDB

Criticality : Very High

This SQL Agent jobs removes and message that are no longer referenced by any subscribers in the message box database, it also initiates the SQL Agent job MessageBox_Message_ManageRefCountLog_BizTalkMsgBoxDb.

MESSAGEBOX_MESSAGE_MANAGEREFCOUNTLOG_BIZTALKMSGBOXDB

Criticality : Very High

This SQL Agent Job manages the reference count logs for messages and determine when a message in the Message box database is no longer being referenced to a subscriber.

MESSAGEBOX_PARTS_CLEANUP_BIZTALKMSGBOXDB

Criticality : Medium

This SQL Agent job removes all message parts in the message box that are no longer referenced by and messages or instances.

MESSAGEBOX_UPDATESTATS_BIZTALKMSGBOXDB

Criticality : Medium

This SQL Agent Job updates statistics for the message box database.

Monitor BizTalk Server

This SQL Agent Job of BizTalk 2010, it scans for any errors on the BizTalk servers, for example orphaned instances, however it does not solve any issues.

It searches the BizTalk databases to locate any issues described in the bulletin below:

· Messages without any references
· Messages without reference counts
· Messages with reference count less than 0
· Message references without spool rows
· Message references without instances
· Instance state without instances
· Instance subscriptions without corresponding instances
· Orphaned DTA service instances
· Orphaned DTA service instance exceptions
· TDDS is not running on any host instance when global tracking option is enabled

If this jobs encounters and errors it will fail and report the error in the SQL Agent log file.

Operations_OperateOnInstances_OnMaster_BizTalkMsgBoxDb
Criticality : Medium
This SQL Agent job is used if you have multiple messages box databases. It asynchronously performs operational actions to convey the information to the correct database.

PURGESUBSCRIPTIONSJOB_BIZTALKMSGBOXDB
Criticality : Medium
This SQL Agent job purges unused subscription predicates from the Message box database.

RULES_DATABASE_CLEANUP_BIZTALKRULEENGINEDB
Criticality : Low
This SQL Agent job purges old audit data from the Rule Engine database that is over 90 days, it also purges old history data (deploy/undeploy notifications from the rule engine database every third day.

TrackedMessages_Copy_BizTalkMsgBoxDb
Criticality : Medium
This SQL Agent job copies message bodies from a tracked messages into the Tracking database from the message box database.

DTA PURGE AND ARCHIVE
This SQL Agent job purges and archives information from the tracking database, you do need to configure this job in order for it to work.

Author

I'm an outgoing Norwegian with a passion for Microsoft BizTalk and a Microsoft Integration MVP. I'm a big fan of the benefits you get when sharing in a community. I use the forums to ask and answer questions, and the TechNet Wiki to upload scenarios or other articles I may hold that can be a good asset for the rest of the community. I currently work as a BizTalk Administrator Expert at Bouvet ASA in Norway. I've also created a special deep dive health check plan which I'm performing and a BizTalk Administration deep dive course. I'm a part of the BizTalkCrew and have held presentation all over the world, Sweden, Norway, Italy, England, Portugal, USA and The Netherlands. I'm also MCTS: Microsoft BizTalk Server 2010 certified. If you have any questions, or want to learn more about my contributions take a look at my blog for BizTalk administration. Feel free to mail or call me if you have any questions.