

# REMOTE EXECUTION OF SSIS PACKAGES TX DWA FEATURE

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# Introduction

The Remote Execution of SSIS Packages feature improves performance when TX DWA is installed separately from the SQL Server that houses the data warehouse.

In that setup, all traffic from source systems to the staging databases and data warehouses has to pass through the TX DWA machine where TX DWA opens and executes the SSIS packages it has generated. Even on a high-speed LAN, this is considerably slower than having TX DWA and the data warehouse on the same server.

As the name suggests Remote Execution of SSIS Packages lets you execute SSIS packages on a remote server, typically the server that houses the actual data warehouse, saving the data an extra trip through the network cables.

To use the feature, you need to install a service on the remote server and configure TX DWA to use the remote server for executing SSIS packages.



## Installation

### Installing the Remote SSIS Execution Service

To install the Remote SSIS Execution Service on the remote server, follow the steps below.

- Download the installation package for the service that matches the version of Microsoft SQL Server (2008-2014) on the remote machine from our website: <u>https://support.timextender.com/hc/en-us/articles/210439563</u>
- 2. Unzip the content of the installation package to a temporary folder and double-click Setup.exe. Follow the installation instructions to install the service.
- 3. Next, you need to set up the service. Click/Right-click **Start**, click **Run**, type "Services.msc" and click **OK**. Locate the Remote SSIS Execution service in the list. Right click the service and click **Properties**.
- 4. On the **General** tab, in the **Startup type** list, click **Automatic (Delayed Start)** to ensure that the service is started after SQL Server.
- 5. On the **Log On** tab, click **This Account** and enter the name and password for the user account you wish to use. The service should run with a user account that has permission to execute SSIS packages and, if using Integrated Security, read permissions on all data sources and read/write per-missions on the staging database(s) and data warehouse(s). By default, the service requires the user calling the service to be member of a specific Active Directory Group. You can change this see change advanced settings below.
- 6. Click **OK**.
- (Optional) Change advanced settings, such as the port the service listens to, by editing the config file. Start the service once to have the file created. Then open Explorer and navigate to the following folder:

%APPDATA%\Roaming\SSISWindowsService\Remote SSIS Execution Service\<version>

Open **SSISServiceConfig.xml** in Notepad or another editor.

SSISServiceConfig.xml - Notepad File Edit Format View Help <?xml version="1.0" encoding="utf-16"?> <ServiceSettings xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"> <ServerPort>16500</ServerPort> <CheckUserIsInGroup>true</CheckUserIsInGroup> <ADGroup>RemoteSSISOperators</ADGroup> </ServiceSettings>



8. You can edit the following properties:

Option	Description	Default setting
ServerPort	Specify the TCP port number that the service should listen on.	16500
CheckUserIsInGroup	If set to True, the service will only allow members of the AD Security Group specified in "AD- Group" to use the service. If set to False, all users can use the service.	true
ADGroup	Specify which Active Directory Security Group users have to be members of in order to use the service.	RemoteSSISOperators

9. Save the file and restart the service to apply your changes.



#### Configuring your project to use Remote Execution of SSIS Packages

When the service is installed and configured, remote SSIS execution can be enabled on the individual staging database or data warehouse in TX DWA. To enable Remote Executing of SSIS Packages:

1. Right click a data warehouse you wish to enable the feature on and click **Edit Data Warehouse** 

- OR -

Right click a staging database you wish to enable the feature on and click **Edit Staging Database**.

2. Click Advanced... The SQL Server Properties window appears.

SQL Server P	roperties			<u>о</u> к
Command Timeout	1800 🚖			Cancel
Connection Timeout	15 🖨			
Max Rows to copy	0	•		
Connection string Prop	erties			
			~	
			Ŧ	
SSIS Properti	es			
Use Integration Servic	es for transfer	s Parent	•	
SSIS Server Name				
Use remote SSIS pack	age execution 🛽	/		
SSIS Service Server				0
SSIS Service Server F	ort			Test
SSIS Service Path				Service
SSIS Service Open Ti	meout (Minutes)	1	*	
SSIS Service Close Ti	meout (Minutes)	1	*	
SSIS Service Receive	Timeout (Minutes	) 60	*	
SSIS Service Send Tir	neout (Minutes)	120	-	

- 3. Select **Use remote SSIS package execution** to enable the use of the feature.
- 4. In **SSIS Service Server**, enter the name of the server where the service is running. If you use HTTPS, please write the complete URL including https://.
- 5. In **SSIS Service Server Port**, enter the port number the service is listening to. Default is 16500
- 6. SSIS Service Path shows the complete URL TX DWA will use to connect to the remote server.



- 7. (Optional) In **SSIS Service Open Timeout (Minutes)**, enter the timeout for opening connections when no explicit timeout is otherwise specified.
- 8. (Optional) In **SSIS Service Close Timeout (Minutes)**, enter the timeout for closing channels when no explicit timeout is otherwise specified.
- SSIS Service Receive Timeout (Minutes) is not used in the current implementation, but would control how long TX DWA will wait for an answer from the remote server.
- 10. (Optional) In **SSIS Service Send Timeout (Minutes)**, enter the value used to initialize the OperationTimeout, which governs the whole process of sending a message, including receiving a reply message for a request/reply service operation. This timeout also applies when sending reply messages from a callback contract method.
- 11. Click **Test Service** to test for any connectivity and/or permission issues, click **OK** to save your changes and click **OK** in the data warehouse or staging database settings window.