Configuring Microsoft SQL Server Authentication in iWay Data Quality Server Design Time and Runtime Environments

This use case describes how to configure Microsoft SQL (MS SQL) Server authentication in iWay Data Quality Server (DQS) design time and runtime environments.

Enabling the *integratedSecurity* option in a database connection URL enables database authentication through a user, which is managed by the Lightweight Directory Access Protocol (LDAP), for example, a Windows user/global ID.

The *sql_auth_samples.zip* archive file that is provided with this use case contains the following sample files:

- SQL_Auth.iwp
- SQL_AUTH.plan

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Prerequisites

1. The *sqljdbc_auth.dll* file, which enables Windows authentication, must be copied to a directory that can be added to the Java Library Path.

2. The *sqljdbc4.jar* database driver file must be copied to the following directories:

    - *<dqs_home>*\runtime\lib
    - *<ism_home>*\lib

3. The sample DQS plan (*SQL_AUTH.plan*), which is provided with this use case, must be loaded into your DQS project.

Configuring DQS Design Time

The following procedure tests a plan in command line (batch) mode in the DQS GUI (workbench).

1. Using the DQS GUI (workbench), create a new database connection (for example, *MSSQL_IBI_User*) that has MS SQL Server authentication enabled.
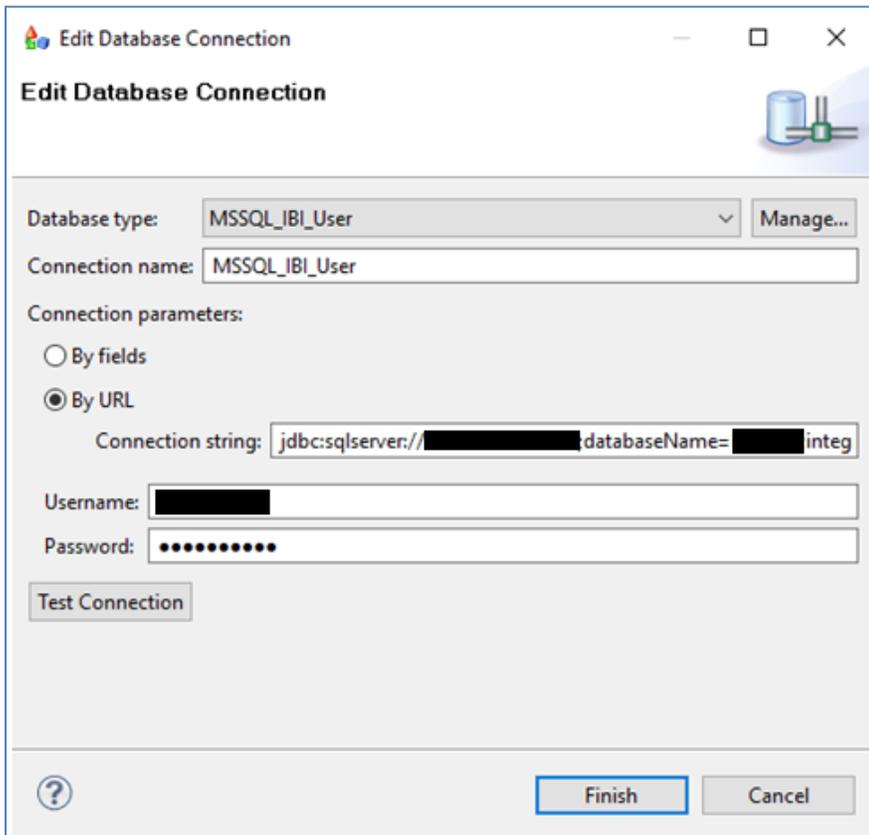
When creating this database connection, ensure to include *integratedSecurity=true* in the connection URL. For example:

```
jdbc:sqlserver://host:port;databaseName=DB_Name;integratedSecurity=true
```

Note: The values for `host`, `port`, and `databaseName` must be specified based on the actual environment.

2. Edit the *runcif.bat* file.

   Add the following line, which points to the directory containing the *sqljdbc_auth.dll* file. For example:

```
set JAVA_OPTS=-Djava.library.path=C:\iway7\etc\dqc\bin
```

```
1   @echo off
2
3   rem Start script for DQC - batch mode
4
5   rem modify JAVA_OPTS to meet your needs (such as heap size settings, variables definitions, etc.)
6   set JAVA_OPTS=-Djava.library.path=C:\iway7\etc\dqc\bin
7
8   call "%~dp0\run_java.bat" com.ataccama.dqc.processor.bin.CifProcessor %*
9
```

3. Save the *runcif.bat* file.

4. Test the sample *SQL_AUTH.plan* file, which is provided with this use case. For example:
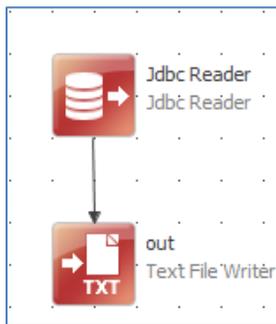
After modifying the values for these two objects based on your environment settings, this sample plan will authenticate with Windows authentication, run an MS SQL query, and write the output to your file system.

5. In the DQS GUI (workbench), right-click the plan (*SQL_AUTH.plan*), select *New* and then click *Runtime Configuration*, from the context menu. Save this runtime configuration as the *SQL_AUTH_runtimeconf.xml* file.

   This configuration will include the new database connection that was configured in Step 1 of this procedure.

```xml
<?xml version='1.0' encoding='UTF-8'?>
<runtimeconfig>
  <contributedConfigs/>
  <dataSources>
    <dataSource driverclass="com.microsoft.sqlserver.jdbc.SQLServerDriver"
name="MSSQL_IBI_User" user="SAMPLE_USER"
password="crypted:DESede:u0UgKdG07n/oof1pM7GZXCMlCXYH4efYebkDwUATQic="
url="jdbc:sqlserver://host:port;databaseName=DB_Name;integratedSecurity=true"/>
  </dataSources>
  <pathVariables/>
  <parallelismLevel>1</parallelismLevel>
</runtimeconfig>
```

Configuring DQS Runtime

The following procedure tests a plan in online mode in an iWay Service Manager (iSM) process flow using the DQS Batch Executor Service (com.ibi.agents.XDDQBatchExec).

1. Import the *SQL_Auth.iwp* file, which is provided with this use case, into your iWay Integration Tools (iIT) workspace.

   This process flow contains a Service object with the DQS Batch Executor Service (com.ibi.agents.XDDQBatchExec), which is configured as shown in the following image.

Service Object

General	▼ Main	
Type	DQS runtime command file	Runtime command file for DQS, e.g. DQS_BASE/runtime/runcif.bat for Windows
Properties		C:\DQS\DQS904\runtime\bin\runcif.bat
Pre-Execution	Plan File Location	The fully qualified location of the plan file to execute
Post-Execution		C:\DQS\DQS904\workspace\SQL_AUTH\SQL_AUTH.plan
Debug	Runtime Configuration File Location	The fully qualified default runtime configuration file location
		C:\DQS\DQS904\workspace\SQL_AUTH\SQL_AUTH_runtimeconf.xml

Notes:

- The specified path in the DQS runtime command file field, points to the location where the *runcif.bat* file is located.

- The specified path in the Plan File Location field, points to the location where the sample DQS plan (*SQL_AUTH.plan*) is located, which is provided with this use case.

- The specified path in the Runtime Configuration File Location field, points to the location where the runtime configuration (*SQL_AUTH_runtimeconf.xml* file) is located.