Informatica Data Services (Version 9.1.0)

JDBC/ODBC Connection Guide
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Preface

The Informatica Data Services JDBC/ODBC Connection Guide explains how to connect to an SQL data service so that you can run SQL queries against virtual tables and run virtual stored procedures. This guide is written for end users that need to configure client machines and third-party JDBC or ODBC client tools. End users connect to SQL data services through third-party tools to run SQL queries against virtual tables and run virtual stored procedures.

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Use the following telephone numbers to contact Informatica Global Customer Support:

<table>
<thead>
<tr>
<th>North America / South America</th>
<th>Europe / Middle East / Africa</th>
<th>Asia / Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toll Free</strong></td>
<td><strong>Toll Free</strong></td>
<td><strong>Toll Free</strong></td>
</tr>
<tr>
<td>Brazil: 0800 891 0202</td>
<td>France: 00800 4632 4357</td>
<td>Australia: 1 800 151 830</td>
</tr>
<tr>
<td>Mexico: 001 888 209 8853</td>
<td>Germany: 00800 4632 4357</td>
<td>New Zealand: 1 800 151 830</td>
</tr>
<tr>
<td>North America: +1 877 463 2435</td>
<td>Italy: 800 915 985</td>
<td>Singapore: 001 800 4632 4357</td>
</tr>
<tr>
<td><strong>Standard Rate</strong></td>
<td>Netherlands: 00800 4632 4357</td>
<td><strong>Toll Free</strong></td>
</tr>
<tr>
<td>North America: +1 650 653 6332</td>
<td>Portugal: 800 208 360</td>
<td>Australia: 1 800 151 830</td>
</tr>
<tr>
<td></td>
<td>Spain: 900 813 166</td>
<td>New Zealand: 1 800 151 830</td>
</tr>
<tr>
<td></td>
<td>Switzerland: 00800 4632 4357</td>
<td><strong>Standard Rate</strong></td>
</tr>
<tr>
<td></td>
<td>or 0800 463 200</td>
<td>India: +91 80 4112 5738</td>
</tr>
<tr>
<td></td>
<td>United Kingdom: 00800 4632 4357 or 0800 023 4632</td>
<td><strong>Standard Rate</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>France: 0805 804632</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Germany: 01805 702702</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Netherlands: 030 6022 797</td>
</tr>
</tbody>
</table>
CHAPTER 1

SQL Data Service Connections

This chapter includes the following topic:
- SQL Data Service Connections Overview, 1

SQL Data Service Connections Overview

An SQL data service is a virtual database that you can query. It provides a uniform view of data that might be scattered among disparate, heterogeneous data sources. You can use a third-party JDBC or ODBC client tool to run SQL queries against the virtual tables in an SQL data service and to run virtual stored procedures.

An SQL data service can contain the following objects:
- Virtual schemas that define the database structure
- Virtual tables
- Virtual table mappings that define the flow of data between sources and a virtual table
- Virtual stored procedures that take optional inputs through parameters, transform the data, and optionally return output through parameters

To make the virtual tables and virtual stored procedures available to you, a developer creates and deploys an application that contains the SQL data service. The developer deploys the application to a Data Integration Service and an administrator runs the application. When the application is running, you can query the virtual tables and run the virtual stored procedures in the SQL data service.

When you query a virtual table or run a virtual stored procedure, the JDBC or ODBC driver sends the request to the Data Integration Service. By default, the driver uses HTTP to communicate with the Data Integration Service. If an administrator enables Transport Layer Security (TLS) for the domain, the driver uses TLS to communicate with the Data Integration Service.

Before you can run SQL queries or virtual stored procedures for the first time, you must configure the machine from which you want to access the SQL data service. You must also configure the client tool so that it can connect to the SQL data service.
Client Machine Configuration

This chapter includes the following topics:

- Client Machine Configuration Overview, 2
- JDBC Client Connections, 3
- ODBC Client Connections on Windows, 3
- ODBC Client Connections on UNIX, 5

Client Machine Configuration Overview

Before you can connect to an SQL data service through a third-party client tool, you must configure the machine that you want to connect from. You configure the machine differently based on whether you connect through a JDBC or ODBC client tool.

Before you can configure the JDBC or ODBC client machine, you must get domain information from the Informatica administrator.

The following table describes the information required to configure the JDBC or ODBC client machine:

<table>
<thead>
<tr>
<th>Required Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Integration Service name</td>
<td>Data Integration Service where the application that contains the SQL data service runs.</td>
</tr>
<tr>
<td>Domain host name</td>
<td>Machine that hosts the Informatica domain.</td>
</tr>
<tr>
<td>Domain HTTP port</td>
<td>Informatica domain HTTP port number.</td>
</tr>
</tbody>
</table>
| Runtime SQL data service name | SQL data service that contains the virtual tables you want to query or the virtual stored procedures you want to run. By default, the runtime SQL data service name is:  
  &lt;application name&gt;&lt;SQL data service name&gt; where &lt;application name&gt; is the name of the application that contains the SQL data service. |
| Security domain name       | Informatica security domain name. Required if the security domain is not native.                                                             |
| User name                  | Informatica domain user name. Required if you cannot enter this information in the JDBC or ODBC client tool.                              |
| User password              | Informatica domain user password. Required if you cannot enter this information in the JDBC or ODBC client tool.                           |
JDBC Client Connections

You can connect to an SQL data service through a JDBC client tool such as the SQL SQuirreL Client.

Before you can connect to an SQL data service through a JDBC client tool, you must perform the following tasks:

1. Install the Informatica JDBC driver.
2. Update the CLASSPATH environment variable.

Note: The Informatica JDBC driver does not support the setBigInt method. If you use setBigInt in a parameterized query, the Java client code fails at compilation. If you need to bind data to a bigint column, use the setLong method.

Installing the Informatica JDBC Driver

Install the Informatica JDBC driver on the machine you connect to the SQL data service from. To install the driver, run the Informatica JDBC/ODBC driver installation program.

The Informatica JDBC driver version must match the Data Integration Service version. For example, version 9.1.0 of the Informatica JDBC driver is not compatible with version 9.0.1 of the Data Integration Service. Similarly, version 9.0.1 of the Informatica JDBC driver is not compatible with version 9.1.0 of the Data Integration Service.

Updating the CLASSPATH

Update the CLASSPATH environment variable to include the JDBC driver. The JDBC driver is compiled with Java 6.

The JDBC driver is installed in the following location:

<Informatica Installation Directory>jdbcdrv\infadsjdbc.jar

Connecting to the SQL Data Service

You can connect to an SQL data service through a JDBC client tool.

The CLASSPATH environment variable on the machine must include the JDBC driver.

1. Open the JDBC client tool.
2. Enter the following information:

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class name</td>
<td>com.informatica.ds.sql.jdbcdrv.INFADriver</td>
</tr>
<tr>
<td>JDBC URL</td>
<td>jdbc:informatica:sqlids\optional security domain&lt;optional user name&gt;/&lt;optional user password&gt;@&lt;domain host name&gt;:&lt;domain HTTP port&gt;\dis=Data Integration Service name\sqlids=runtime SQL data service name</td>
</tr>
</tbody>
</table>

ODBC Client Connections on Windows

You can connect to an SQL data service through an ODBC client tool such as QlikView or WinSQL.
Before you can connect to an SQL data service through an ODBC client tool on Windows, you must perform the following tasks:

1. Install the Informatica ODBC driver.
2. Configure the Informatica ODBC driver.

**Installing the Informatica ODBC Driver on Windows**

Install the Informatica ODBC driver on the machine you connect to the SQL data service from. To install the driver, run the Informatica JDBC/ODBC driver installation program.

The Informatica JDBC/ODBC driver installation program updates the system path to include the Java Virtual Machine (jvm.dll) directory. If you install the ODBC driver on a machine with a Windows 64-bit operating system, you must restart the machine after you run the Informatica JDBC/ODBC driver installation program.

**Configuring the Informatica ODBC Driver**

Before you can connect to an SQL data service through an ODBC client tool on Windows, you must configure the Informatica ODBC driver.

1. Open the **Administrative Tools** from the Windows Control Panel.
2. Open the **Data Sources (ODBC)** shortcut.
   - The **ODBC Data Source Administrator** appears.
3. Click **Add**.
4. Select the **Informatica Data Services ODBC Driver**.
5. Click **Finish**.
6. Configure the driver with the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSN name</td>
<td>Any valid data source name.</td>
</tr>
<tr>
<td>Connect string</td>
<td>jdbc:informatica:sqlds:&lt;optional security domain&gt;&lt;optional user name&gt;:&lt;optional user password&gt;@&lt;domain host name&gt;:&lt;domain HTTP port&gt;:&lt;dis=Data Integration Service name&gt;&amp;sqlds=&lt;runtime SQL data service name&gt;</td>
</tr>
<tr>
<td>JDBC Jar</td>
<td>&lt;Informatica Installation Directory&gt;\jdbcdrv\infadsjdbc.jsr</td>
</tr>
<tr>
<td>Treat Length as Characters (Deferred Parameters)</td>
<td>Enabled</td>
</tr>
<tr>
<td>Multi-threaded application</td>
<td>Enabled</td>
</tr>
</tbody>
</table>

   *Enable this option only for MicroStrategy.*

**Connecting to the SQL Data Service**

You can connect to an SQL data service through an ODBC client tool on Windows.

The PATH environment variable on the machine must include the Java Virtual Machine (jvm.dll) directory. The Informatica Data Services ODBC Driver must also be configured on the machine.

1. Open the ODBC client tool.
2. Enter the connect string and JDBC Jar file location.

**ODBC Client Connections on UNIX**

You can connect to an SQL data service through an ODBC client tool such as IBM Cognos.

Before you can connect to an SQL data service through an ODBC client tool on UNIX, you must perform the following tasks:

1. Install the Informatica ODBC driver.
2. Update the shared library environment variable.
3. Update odbc.ini.

**Installing the Informatica ODBC Driver on UNIX**

Install the Informatica ODBC driver on the machine you connect to the SQL data service from. To install the driver, run the Informatica JDBC/ODBC driver installation program.

**Updating the Shared Library Environment Variable**

Set the shared library environment variable based on the operating system.

Update the shared library environment variable to include the directories where the Java Virtual Machine and Driver Manager library files exist.

The following table describes the shared library environment variable for each operating system:

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Shared Library Environment Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX</td>
<td>LIBPATH</td>
</tr>
<tr>
<td>HP-UX</td>
<td>SHLIB_PATH or LD_LIBRARY_PATH</td>
</tr>
<tr>
<td>Linux</td>
<td>LD_LIBRARY_PATH</td>
</tr>
<tr>
<td>Solaris</td>
<td>LD_LIBRARY_PATH</td>
</tr>
</tbody>
</table>

Update the shared library environment variable to include the following directories:

- The directory where the platform libjvm or j9vm library resides.
- The directory where the libodbc and libodbcinst libraries reside. This is usually the Driver Manager lib directory.

**Updating odbc.ini**

Before you can connect to an SQL data service through an ODBC client tool on UNIX, you must update odbc.ini.

1. Edit odbc.ini or copy odbc.ini to the home directory and edit it. This file exists in the $ODBCHOME directory.

   $ cp $ODBCHOME/odbc.ini $HOME/.odbc.ini
2. Add an entry for the ODBC user under the section [<user name>_odbc]. For example:

```
[<user name>_odbc]
ConnectionString=jdbc:informatica:sqlds/(optional security domain)/(optional user name)/(optional user password)@<domain host name>:<domain HTTP port>?dis=<Data Integration Service name>&sqlds=<runtime SQL data service name>
Driver=ODBC_DRIVER_INSTALL_LOCATION/bin/OS/libinfadsodbc.so
IsMultithreaded=true
JDBCDriverLocation=<Informatica Installation Directory>/jdbcdrv/infadsjdbc.jar
UseDetach=false
WCHARLengthInChars=true
```

Configure WCHARLengthInChars only for MicroStrategy.

**Connecting to the SQL Data Service**

You can connect to an SQL data service through an ODBC client tool on UNIX.

The shared library environment variable on the machine must include the correct directories. The odbc.ini file must also be configured on the machine.

1. Open the ODBC client tool.
2. Enter the connection string and JDBC driver location.
Chapter 3

Third-Party Client Tool Configuration

This chapter includes the following topics:

- Third-Party Client Tool Configuration Overview, 7
- BusinessObjects Configuration, 7
- IBM Cognos Configuration, 9
- MicroStrategy Configuration, 11
- QlikView Configuration, 12
- SQuirreL SQL Client Configuration, 13
- WinSQL Configuration, 14

Third-Party Client Tool Configuration Overview

Before you can connect to an SQL data service, you must configure the JDBC or ODBC third-party client tool that you want to connect from.

You can connect to an SQL data service through the following third-party client tools:

- BusinessObjects
- IBM Cognos
- MicroStrategy
- QlikView
- SQuirreL SQL Client
- WinSQL

BusinessObjects Configuration

You can access the virtual data in an SQL data service through a BusinessObjects universe. Import metadata from the SQL data service into the universe. Use a BusinessObjects application to query the data or generate reports.
To configure BusinessObjects to access an SQL data service, complete the following tasks:

1. Update the BusinessObjects Connection Server configuration file to include Informatica Java Virtual Machine (JVM) information.
2. Create an ODBC connection to the SQL data service in the BusinessObjects universe.

After you perform these tasks, you can import metadata from an SQL data service into the universe and generate reports based on the data.

**Step 1. Update the BusinessObjects Configuration File**

BusinessObjects Connection Server is the data access software that manages the connection between a BusinessObjects application and a data source. To use an SQL data service as a data source, you must update the BusinessObjects Connection Server configuration file, cs.cfg. Update the configuration file to replace the BusinessObjects JVM with the Informatica JVM, version 1.6.

The BusinessObjects XI 3.1 configuration file, cs.cfg, is in the following directory:

`<BusinessObjects Installation Directory>\BusinessObjects Enterprise 12.0\win32_x86\dataAccess\connectionServer\`

1. Open cs.cfg in a text editor.
2. Find the JavaVM element.
3. In the LibraryName element, replace the JVM directory with the Informatica JVM directory and replace the JNIVersion with the Informatica JVM version.

   For example, change the following lines:
   ```xml
   <JavaVM>
   <LibraryName JNIVersion="JNI_VERSION_1_4">
   C:\Program Files\Business Objects\javadoc\jre6\bin\client\jvm.dll
   </LibraryName>
   </JavaVM>
   ``

   To:
   ```xml
   <JavaVM>
   <LibraryName JNIVersion="JNI_VERSION_1_6">
   C:\Informatica\9.0\java\bin\server\jvm.dll
   </LibraryName>
   </JavaVM>
   ```

   **Note:** You must specify an absolute path for the Informatica JVM directory.

4. Save and close cs.cfg.

**Step 2. Create the ODBC Connection**

Create the ODBC connection through a BusinessObjects application such as BusinessObjects Designer. To create the ODBC connection, use the application **New Connection** wizard.

1. Open the Business Objects application **New Connection** wizard.
2. Click **Add** to create a connection.

   The **Define a new connection** dialog box, **Database Middleware Selection** page appears.

3. Enter a connection name and select a generic ODBC or ODBC3 data source driver.
4. Click **Next**.

   The **Login Parameters** page appears.
5. Enter the following information:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication Mode</td>
<td>Select Use specified username and password.</td>
</tr>
<tr>
<td>User name</td>
<td>Informatica domain user name.</td>
</tr>
<tr>
<td>Password</td>
<td>Informatica domain user password.</td>
</tr>
<tr>
<td>Data source name</td>
<td>ODBC data source name for the SQL data service.</td>
</tr>
</tbody>
</table>

6. Click **Test Connection** to test the connection.
   The BusinessObjects application displays a message saying that the server is responding.

7. Click **OK**.

**IBM Cognos Configuration**

IBM Cognos Framework Manager is a modeling tool that allows you to create and manage business-related metadata for use in all Cognos 8 BI applications. Use Framework Manager to create a project. Within a project, you can create data source connections and import data source metadata.

When you define a data source in Framework Manager, you create an ODBC connection to the SQL data service. Cognos uses the information in the connection to connect to the SQL data service. After you create the ODBC connection and import the SQL data service metadata, you can create a Cognos model based on the SQL data service. Use the model to run queries and generate reports in Cognos BI applications.

To run queries that include aggregations, the Cognos configuration file must include Informatica ODBC driver information.

To configure IBM Cognos to access an SQL data service, complete the following tasks:

1. Update the IBM Cognos configuration file to include the Informatica ODBC driver information.
2. Create an ODBC connection to the SQL data service, and import SQL data service metadata in a Cognos project.

**Step 1. Update the IBM Cognos Configuration File**

Update the IBM Cognos configuration file to include Informatica ODBC driver information. The ODBC driver information in the configuration file enables the Data Integration Service to handle SQL queries that include aggregations. If you do not update the configuration file and you query an SQL data service from an IBM Cognos application, the query might fail if it includes aggregations.

The IBM Cognos configuration file, cogdm.ini, is in the following directories:

- C:\Program Files\cognos\tools\c8\bin\cogdm.ini
- C:\Program Files\cognos\c8\bin\cogdm.ini

You must update both copies of the configuration file.

1. Stop the Cognos service.
2. Back up both copies of cogdm.ini.
3. Add the following entry to both copies of cogdmod.ini:

[Exceptions Set Operators DRIVER:INFADSODBC.DLL]
Distinct="distinct"
Except="except"
Except_All=T
Intersect="Intersect"
Intersect_All=T
Union="union"
Union_All=T

[Exceptions Tables DRIVER:INFADSODBC.DLL]
Derived=T
Joined=T
Simple=T
UniqueName_Prefix="coguda"

[Exceptions OLAP Functions DRIVER:INFADSODBC.DLL]
Olap_Max="max"
Olap_Min="min"
Olap_Sum="sum"
Olap_Avg="avg"
Olap_Count="count"
Olap_Count_Star="count(*)"
Olap_Distinct="distinct"

4. Restart the Cognos service.

Step 2. Create the ODBC Connection and Import Metadata

Create the ODBC connection and import SQL data service metadata into a project. Use Cognos Framework Manager to create the project. Run the Framework Manager Run Metadata wizard to create the connection and import metadata.

1. Start Cognos Framework Manager.
2. Create a project.
3. Start the Run Metadata wizard.
4. In the Select Metadata Source window, click Data Sources.
5. Click Next.
   The Select Data Source window appears.
6. Click New.
   The New Data Source wizard appears.
7. In the name and description page, enter a name and optional description for the data source.
8. Click Next.
9. In the connection page, select the ODBC database type, select an isolation level, and click Next.
10. In the connection string page, enter the SQL data service ODBC data source name in the ODBC data source and ODBC connect string fields. Enter timeouts or sign-on information, if required. Enter the user ID and password if they are not part of the Informatica ODBC driver connect string.
11. Click Test the connection to test the connection to the Informatica ODBC driver.
12. In the Run Metadata wizard, select the data source.
13. Click Next.
14. In the Select Objects page, select the objects you want to import and specify how the import handles duplicate object names.
15. Specify the criteria to use to create relationships and click Import.
   Framework Manager displays the number of imported objects and a list of objects that it could not import.
16. Click Finish.
MicroStrategy Configuration

MicroStrategy is a business intelligence platform that allows you to analyze, distribute, and customize business information. MicroStrategy Desktop allows you to create projects and reports. Within a project, you can create data source connections and import data source metadata.

To configure MicroStrategy to access an SQL data service, complete the following tasks:

1. Create the database instance and connection.
2. Configure the SQL generation options.

Step 1. Create the Database Instance and Connection

Use MicroStrategy Desktop to create the database instance and database connection. MicroStrategy retrieves SQL data service metadata through the database instance.

2. Create a project.
3. Select Schema > Warehouse Catalog to open the project Warehouse Catalog.
   The Warehouse Database Instance dialog box appears.
4. Click New.
   The Database Instance Wizard opens.
5. Click Next.
6. Enter a name for the database instance and select Generic DBMS as the database type.
7. Click Next.
8. Select the ODBC data source name for the SQL data service and enter the Informatica domain user name and password.
9. Click Finish.
10. Click OK to close the Warehouse Database Instance dialog box.
11. Select Schema > Warehouse Catalog to open the Warehouse Catalog.
12. Click Options.
13. Select Warehouse Connection.
14. Select the database instance and click Edit.
15. Click New to create a database connection.
16. On the General tab, enter a database connection name.
17. In the Local system ODBC data sources pane, select the ODBC data source name for the SQL data service.
18. On the Advanced tab, select the Multi-threaded database driver mode.
19. Select the Use parameterized queries option.
20. Set the character set encoding option for Windows and UNIX drivers to UTF-8.
21. Click OK to close the Database Connections dialog box.
22. Click OK to close the Database Instances dialog box.
23. In the Warehouse Catalog, select Read Settings.
24. Select Use standard ODBC calls to obtain the database catalog.
25. Click **OK**.
26. In the Warehouse Catalog, click **Save and Close** to save the changes.

**Step 2. Configure the SQL Generation Options**

The virtual tables in an SQL data service are read-only tables. Configure the SQL generation options to prevent MicroStrategy Desktop users from trying to write data to the virtual database.

1. Select **Schema > SQL Generation Options** to open the SQL generation options.
2. Select the database instance you use to connect to the SQL data service.
3. Edit the VLDB properties for the database instance.
4. Open the **Tables** settings.
5. In the **Drop Temp Tables Method** settings, set the drop temp table method to **Do nothing**.
6. In the **Intermediate Table Type** settings, set the intermediate table type to **Derived table**.
7. In the **Table Creation Type** settings, set the table creation type to **Implicit Table**.
8. In the **CREATE and INSERT Support** settings, select the **Create and insert are not supported option**.
9. Save and close the SQL generation options.

**QlikView Configuration**

You can access the virtual data in an SQL data service through QlikView. To read data from an SQL data service into your QlikView document, use the Script Editor. The script that you create uses an ODBC connection to connect to and retrieve data from the SQL data service.

1. Create a QlikView document.
2. Select **File > Edit Script**.
   The **Edit Script** dialog box appears.
3. In the **Data** view, select ODBC as the database and click **Connect**.
   The **Connect to Data Source** dialog box appears.
4. Select the ODBC data source name for the SQL data service and enter the user name and password for the Informatica domain user.
5. Click **Test Connection** to test the connection.
6. Click **OK** to close the connection results.
7. Click **OK** to close the **Connect to Data Source** dialog box.
8. In the **Data** view of the **Edit Script** dialog box, click **Select** to create an SQL SELECT statement that retrieves information from the SQL data service.
9. Click **OK**.
10. Run the script to retrieve data from the SQL data service.
SQuirreL SQL Client Configuration

You can access the virtual data in an SQL data service through SQuirreL SQL Client. SQuirreL SQL Client allows you to view the structure of a database and browse and query the data.

To configure SQuirreL SQL Client to access an SQL data service, complete the following tasks:

1. Copy the Informatica JDBC driver to the SQuirreL SQL Client library directory.
2. Create the Informatica JDBC driver and the database alias in SQuirreL SQL Client.

After you perform these tasks, you can import data from an SQL data service into SQuirreL SQL Client.

Step 1. Copy the Driver File

Copy the Informatica JDBC driver to the SQuirreL SQL Client library directory.

- Copy the Informatica JDBC driver, infadsjdbc.jar, from the following directory:
  
  \Informatica Installation Directory\jdbcdrv\lib

Step 2. Create the Driver and Alias

To read data from an SQL data service into SQuirreL SQL Client, create a driver definition and a database alias. SQuirreL SQL Client uses the driver definition and the database alias to enable you to view the SQL data service structure, browse the data in virtual tables, and enter SQL queries.

1. Open the Drivers list window.
2. Select Drivers > New Driver.
   
The Add Driver dialog box appears.
3. Enter the following information:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Informatica JDBC Driver</td>
</tr>
<tr>
<td>Example URL</td>
<td>jdbc:informatica:sqlds/&lt;optional security domain&gt;/&lt;optional user name&gt;/&lt;optional user password&gt;@&lt;domain host name&gt;:&lt;domain HTTP port&gt;?dis&lt;Data Integration Service name&gt;&amp;sqlds=&lt;runtime SQL data servicename&gt;</td>
</tr>
<tr>
<td>Website URL</td>
<td>jdbc:informatica:sqlds/&lt;optional security domain&gt;/&lt;optional user name&gt;/&lt;optional user password&gt;@&lt;domain host name&gt;:&lt;domain HTTP port&gt;?dis&lt;Data Integration Service name&gt;&amp;sqlds=&lt;runtime SQL data servicename&gt;</td>
</tr>
<tr>
<td>Extra Class Path</td>
<td>&lt;Informatica Installation Directory&gt;\jdbcdrv\infadsjdbc.jar</td>
</tr>
<tr>
<td>Class Name</td>
<td>com.informatica.ds.sql.jdbcdrv.INFADriver</td>
</tr>
</tbody>
</table>

4. Click OK.
   
   SQuirreL SQL Client displays a message saying that driver registration is successful.
5. Open the Aliases list window.
6. Select **Aliases > New Alias**.
   The **Add Alias** dialog box appears.

7. Enter the following information:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Alias name.</td>
</tr>
<tr>
<td>Driver</td>
<td>Select the new driver.</td>
</tr>
<tr>
<td>URL</td>
<td><code>jdbc:informatica:sqlds/optional security domain/env optional user name/env optional user password@&lt;domain host name&gt;:&lt;domain HTTP port&gt;/dis/Data Integration Service name&gt;sqlds&lt;runtime SQL data servicename&gt;</code></td>
</tr>
<tr>
<td>User Name</td>
<td>Informatica domain user name.</td>
</tr>
<tr>
<td>Password</td>
<td>Informatica domain user password.</td>
</tr>
</tbody>
</table>

8. Click **Test**.
   SQuirreL SQL Client displays a message saying that the connection is successful.

9. Click **OK**.

### WinSQL Configuration

You can access the virtual data in an SQL data service through WinSQL. To read data from an SQL data service into WinSQL, create a new connection. WinSQL imports data from the SQL data service based on the connection information.

1. Create a query.
2. Select **File > New Connection**.
   The **ODBC Data Source** dialog box appears.

3. Enter the following information:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Source Name</td>
<td>Select the ODBC data source name for the SQL data service.</td>
</tr>
<tr>
<td>User ID</td>
<td>Informatica domain user name.</td>
</tr>
<tr>
<td>Password</td>
<td>Informatica domain user password.</td>
</tr>
<tr>
<td>Database Type (WinSQL Plugin)</td>
<td>Select <strong>Generic ODBC</strong>.</td>
</tr>
</tbody>
</table>

4. Click **OK**.
Troubleshooting Connections

This appendix includes the following topics:

- Troubleshooting JDBC Connections, 15
- Troubleshooting ODBC Connections, 15

Troubleshooting JDBC Connections

I am connecting to an SQL data service through a JDBC client tool. I get an error when I try to bind data to a bigint column through a parameterized query.

The Informatica JDBC driver does not support the setBigInt method. If you use setBigInt in a parameterized query, the Java client code fails at compilation.

If you need to bind data to a bigint column, use the setLong method instead of the setBigInt method. For example, the following code does not cause a JDBC driver error:

```java
String sql = "select * from VT where COL_BIGINT = ?";
PreparedStatement stmt = connection.prepareStatement(sql);
stmt.setLong (1,new Long("9223372036854775807"));
```

Troubleshooting ODBC Connections

The ODBC application consumes large amounts of data.

Increase the maximum amount of memory available to the Java Virtual Machine (the -Xmx value).

To increase the -Xmx value, set the environment variable INFA_ODBCJVM to -Xmx??m, where ?? is the number of megabytes. For example, to set the -Xmx value to 64 MB, set INFA_ODBCJVM to -Xmx 64m. If you set the -Xmx value to a very large value, for example >500 MB, the Memory Manager may not be able to allocate the memory.

I am connecting to an SQL data service through the BusinessObjects Designer but I get the error, "The server is not responding! (SBO0001). CS: Error on Connect."

The Java Virtual Machine in BusinessObjects versions 11 and 12 does not load the Informatica JDBC driver. The JVM also uses version 5 of the Java Runtime Environment (JRE), while Informatica requires JRE version 6.
To work around this issue, update the CLASSPATH on the machine that runs the BusinessObjects Designer so that it includes the JDBC driver directory. By default, the JDBC driver is installed in the following directory:

\Infor\matica Installation Directory\jdbcdrv\jdbcdrv\jdbcdrv

After you update the CLASSPATH, configure the BusinessObjects JVM to use JRE version 6.

1. Stop all BusinessObjects services on the machine.
2. Back up the contents of the default JRE directory:
   \BusinessObjects Installation Directory\javasdk\jre\jre6\bin\jre6\bin\jre6\bin
3. Go to the JRE version 6 directory:
   \BusinessObjects Installation Directory\javasdk\jre\bin\jre6\bin\jre6\bin\jre6\bin
4. Copy the contents of the JRE version 6 directory to the default JRE directory.
5. Go to the JRE bin directory:
   \BusinessObjects Installation Directory\javasdk\jre\bin\jre6\bin\jre6\bin\jre6\bin
6. Create a server subdirectory in the JRE bin directory.
7. Go to the JRE client directory:
   \BusinessObjects Installation Directory\javasdk\jre\bin\clie
8. Copy the contents of the JRE client directory to the server subdirectory:
   \BusinessObjects Installation Directory\javasdk\jre\bin\server\server
9. Restart BusinessObjects services.
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