Oracle® Insurance IStream

IStream Communicator Installation Guide

Release 2.2 FP3

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CONTENTS

IStream Communicator 2.2 Feature Pack 3

This guide describes how to install IStream Communicator 2.2 Feature Pack 3.

You can apply IStream Communicator 2.2 Feature Pack 3 directly on IStream Communicator 2.2, 2.2 SP1, 2.2 FP1 or 2.2 FP2.

IStream Communicator 2.2 Feature Pack 3 includes IStream Communicator 2.2 FP2, 2.2 FP1, and 2.2 SP1.

Please see the *Release Notes* for general product information, product enhancements and new features, supported platforms and third-party software, assorted considerations, and known issues and limitations.

Important: IStream Communicator 2.2 must be installed before installing IStream Communicator 2.2 FP3. For further information, please see the *IStream Communicator 2.2 Installation Guide*.

Installation Requirements

- IStream Communicator 2.2 FP3 requires IStream Communicator 2.2. See the *IStream Communicator 2.2 Installation Guide* for complete installation instructions and configuration requirements.
- You can work only with a Calligo Enterprise 5.4 DMS *or* an IStream Document Manager 6.x DMS. You cannot work with both versions.

Important: The installation procedure you need to complete depends on the version of WAS that you are using, either WAS 5.x or WAS 6.x. Therefore, please complete only *one* of the following procedures:

- *Installing the Feature Pack on WAS 5.x* on page 7
- *Installing the Feature Pack on WAS 6.x* on page 18

Installing the Feature Pack on WAS 5.x

Note: This section describes how to install the feature pack on a **WAS 5.x** system. If you are using WAS 6.x, please see *Installing the Feature Pack on WAS 6.x* on page 18.

In this installation procedure:

- *[WebSphere]* is the WebSphere installation folder. **This is usually:**

  `C:\Program Files\WebSphere\AppServer\installedApps\[computer name]`

- *[IStream Communicator]* is the IStream Communicator installation folder. **This is usually**:

  `C:\IStream\IStream Communicator`

Complete the following steps to install the Feature Pack on WAS 5.x:

Step A: Stop the Necessary Applications and Back Up the Data Files

1. From the IBM WebSphere Admin Console, stop the IStream Communicator application.
2. Stop all features that communicate with the IStream Communicator API, for example, the `SampleSDKClient` and `Letter Archive Utility` features.
3. Back up the *[WebSphere]*`\IStream Communicator.ear` folder by copying it to another location that is not specified in the `PATH` or `CLASSPATH`.
4. Back up `[`*IStream Communicator*`]\config\CorrConfig.xsd` file and `\`*[IStream Communicator]*`\IStreamCommunicator22.ear` by copying them to another location.

Step B: Undeploy IStream Communicator

1. Open the IBM WebSphere Application Server Admin Console.
2. From the navigation tree on the left side, expand **Applications**.
3. Click **Enterprise Applications**.
4. Select the **IStream Communicator** check box, then click **Stop**.
5. Select the **IStream Communicator** check box, then click **Uninstall**.
6. Click the **Save** link, then click the **Save** button.

Step C: Migrate from Microsoft SQL Server 2000 to 2005 (For Microsoft SQL 2005 only)

- If you are working with a **Microsoft SQL 2005 database**, please complete the procedures described in *Migrating from Microsoft SQL Server 2000 to 2005 for WAS 5.x* on page 12. Then, resume the installation process at the next step below: *Step D: Deploy the IStream Communicator EAR file* on page 8.
- If you are *not* working with a Microsoft SQL 2005 database, you do not need to migrate your SQL database. Please go directly to the next step below: *Step D: Deploy the IStream Communicator EAR file* on page 8.

Step D: Deploy the IStream Communicator EAR file

1. In the IBM WebSphere Admin Console, from the navigation tree on the left side, expand **Applications**.
2. Click **Install New Application**.

   The **Preparing for the application installation** page opens.
3. Enter or browse to the **Local path** or **Server path** to the `.ear` file located in `\distrib\IStreamCommunicator22.ear`.

   If the IBM WebSphere Administrative Console is on the same server where you will be deploying IStream Communicator, you can select the local path, otherwise, select the server path.
4. Select the `.ear` file, then click **Open**.
5. Scroll down, then click **Next**.

   A second **Preparing for the application installation** page opens.
6. Click **Next.**
7. If an **Application Security Warning** page appears, you can disregard it and click **Continue**.

   The **Step 1: Provide options to perform the installation** page opens.
8. Ensure that **Select pre-compile JSP is not checked**.
9. Scroll down, then click **Next**.

   The **Step 2: Provide JNDI Names for Beans page** opens.
10. Scroll down, then click **Next**.

    The **Step 3: Map EJB references to beans** page opens.
11. Scroll down, then click **Next**.

    The **Step 4: Map resource references to resources** page opens.

12. Each resource reference defined in the application must be mapped to the corresponding resource.

    For WAS Base Edition:

    a. From the **Resource JNDI name** drop-down list, select `<servername>:<datasource name>`

    b. Select the checkbox next to the **Module** column heading on the left side of the table.

    c. Click **Apply**.

    The **JNDI Name** for each module should automatically be updated to `<datasource name>` from the default `XrmDS` value that is displayed when the page is loaded.

    d. Ensure you have selected the correct authentication data for the existing **Resource JNDI name**.

    e. Click **OK** and continue to the next step.

    For WAS Network Deployment or Enterprise Editions

    a. For the **Resource JNDI name**, select the `IStream Communicator` installed server node name, for example: `<servernodename>:<datasource name>`

    b. Ensure you have selected the correct authentication data for the existing **Resource JNDI name**.

13. Scroll down, then click **Next**.

    The **Step 5: Map virtual hosts for Web modules** opens.

14. Click **Next**.

    The **Step 6: Map modules to application servers page** opens.

15. Select the server which each module should be deployed on. IBM recommends that all modules from one application be deployed onto a single server.

    - **for WAS Base Edition** – make no changes: continue to step 16 below.
    - **for WAS Network Deployment or Enterprise Editions**:

    a. From the **Clusters and Servers** drop down list, select the `IStream Communicator` installed server.

    b. Select the check boxes for all the **Module**s.

    c. Click **Apply**.

16. Click **Next**.

    The **Step 7: Ensure all unprotected 1.x methods have the correct level of protection** page opens.

17. Scroll down, then click **Next**.

    The **Step 8: Summary** page opens. This page lists the application deployment settings.

18. Review the settings on the **Summary** page, scroll down, then click **Finish**.
19. Click **Save to Master Configuration**, then click **Save**.

Step E: Add the IStream Communicator Libraries

In this step, you are adding the libraries that you previously created in IStream Communicator 2.2.

1. In the IBM WebSphere Admin Console, from the navigation tree on the left side, expand **Applications**.
2. Click **Enterprise Applications**.
3. Click the **IStream Communicator** link.
4. Scroll down to the **Additional Properties** section.
5. Click the **Libraries** link.
6. Click **Add**. The library you created is displayed.
7. In the **Library Name** column, click the `JMS` library name that you previously created.
8. From the navigation tree on the left side, expand **Applications**.
9. Click **Enterprise Applications**.
10. Click the **IStream Communicator** link.
11. Scroll down to the **Additional Properties** section.
12. Click the **Libraries** link.
13. Click **Add**. The library you created is displayed.
14. In the **Library Name** column, click the `CommunicatorConfig` library name that you previously created.
15. Click the **Save** link, then click the **Save** button.

Step F: Run the Database Scripts

1. Back up the entire IStream Communicator database.
2. Log on to the IStream Communicator database using your IStream Communicator user name and password.
3. Run one of the following database scripts:
   - **For Microsoft SQL, run:** `\dbScript\Comm22FPSQL.sql`
   - **For Oracle,** run: `\dbScript\Comm22FPORA.sql`

   This will update the related database tables.

Step G: Copy and Configure CorrConfig.xsd

1. Copy `CorrConfig.xsd` to the *`[IStream Communicator]`*`\config\com\insystems\ core\config` folder, overwriting the existing file.
2. When working with IStream Document Manager 6.x, set the following attribute value to `false` in the `CorrConfig.xml` file:

```
<repositories dms5xCompatibility="false">
```

Step H: Complete the Installation

1. Open the WebSphere Admin Console and start the IStream Communicator application.
2. Important! Stop and restart the system to implement the change to the `dms5xCompatibility` attribute.

Migrating from Microsoft SQL Server 2000 to 2005 for WAS 5.x

Note: This is the stage referred to previously in *Step C: Migrate from Microsoft SQL Server 2000 to 2005 (For Microsoft SQL 2005 only)* on page 8.

This section describes how to migrate IStream Communicator 2.2 FP3 from Microsoft SQL Server 2000 to Microsoft SQL Server 2005. It describes how to export your data from Microsoft SQL Server 2000 to Microsoft SQL Server 2005.

Step A: Upgrade the Database

1. On the SQL Server 2000 server, login as a system administrator, and make a complete backup of the existing IStream Communicator database, for example, `corr22.bak`.
2. Copy this database backup file to the server hosting the Microsoft SQL Server 2005 instance.
3. In SQL Server Management Studio 2005, restore this database backup file using the same database name as the backup file.
4. Create a new database user for the IStream Communicator database on the Microsoft SQL Server 2005 server with the same name, roles, and privileges as on the Microsoft SQL Server 2000 database.
5. In SQL Server Management Studio 2005, from the **Database Properties** dialog box, change the owner of the new IStream Communicator database to the new database user you created.
6. Right-click the new database and select **Properties**.
7. From the list on the right, select the **Files** page.
8. Browse to select and assign the database owner to the new user you created in step 4 as the database owner for the IStream Communicator database, then save your changes.
9. Change the object owner for all tables and views to `dbo` by running the following scripts. However, before running them, ensure that you replace your IStream Communicator database name and database owner where indicated in italics and square brackets:

```
use [IStream Communicator database name]

EXEC sp_MSforeachtable @command1="sp_changeobjectowner
'?', 'dbo'"

EXEC sp_changeobjectowner '[IStream Communicator
database owner name].CORRCOLLEAGUES','dbo'

EXEC sp_changeobjectowner '[IStream Communicator
database owner name].CORRASSIGNEDLETTERDEF','dbo'

EXEC sp_changeobjectowner '[IStream Communicator
database owner name].CORRSUBORDINATES','dbo'
```

Step B: Update CorrConfig.xml

In this step, you update the IStream Communicator `CorrConfig.xml` for the Microsoft SQL Server 2005 JDBC driver.

1. Copy the IStream Communicator Feature Pack 3 software package subfolder `MSSqlJDBC2005` to the computer where IStream Communicator is installed.
2. Backup the IStream Communicator configuration file: `CorrConfig.xml`.
3. Change the `driver` value in `CorrConfig.xml` from:

   ```
   <driver>com.microsoft.jdbc.sqlserver.SQLServerDriver</
   driver>
   ```

   to:

   ```
   <driver>com.microsoft.sqlserver.jdbc.SQLServerDriver</
   driver>
   ```

4. Change the `url` value in `CorrConfig.xml` from:

   ```
   <url>jdbc:microsoft:sqlserver://[IStream Communicator
   database server]:1433;DatabaseName=[IStream Communicator
   database name]; SelectMethod=cursor</url>
   ```

   to:

   ```
   <url>jdbc:sqlserver://[IStream Communicator database
   server]:1433;DatabaseName=[IStream Communicator database
   name]; SelectMethod=cursor</url>
   ```

   updating the server name and database name to point to your Microsoft SQL 2005 server and database.

Step C: Create a New JDBC Provider

In this step, you open the WebSphere Administrative Console and then create and configure a configure a new JDBC provider for Microsoft SQL Server 2005.

1. For Windows:

   - Click **Start > Programs > IBM WebSphere > Application Server > Administrative Console.**

   For Unix:

   - In your web browser, go to `http://host_name:9090/admin`
2. If required, enter a **username** and **password**, then click **OK.**

   The **WebSphere Administrative Console** opens.
3. From the navigation tree on the left side, expand **Resources**.
4. Click **JDBC Providers**.
5. In the **Scope** section, click **Node**, then **Apply**.
6. Click **New** to create a new JDBC provider.

   The **JDBC Providers Configuration** page opens.

7. In the **JDBC Provider** drop-down list, select **User-defined JDBC Provider.**
8. Click **Apply**.

   A second **JDBC Providers Configuration** page opens.
9. Enter the JDBC provider properties:

   - **Name** – a name for the provider: enter a descriptive name, for example, `CommunicatorSQL2005JDBCProvider`
   - **Description** – a description of the provider
   - **Classpath** – the path to the required database driver file, for example, `<driver path>\sqljdbc.jar`

   These driver files are located in the folder you specified in Step B, substep 1.

   - **Implementation Classname** – the name of the Java data source class that is used to connect to the database: this name is provided for you when you select the JDBC provider type, which is, `com.microsoft.sqlserver.jdbc.SQLServerConnectionPool DataSource`

   This class must be available in the driver file that the **Classpath** specifies.
10. Click **OK**.
11. Click the **Save** link near the top of the page, then click the **Save** button.

Step D: Create the JDBC Provider Data Source

After creating and configuring the JDBC provider, you can then create a data source under it. The data source will use the JDBC provider classes to connect to the database.

1. From the navigation tree on the left side, expand **Resources**.
2. Click **JDBC Providers**.
3. In the **Scope** section, click **Node**, then **Apply**.
4. Click the JDBC provider that you created for IStream Publisher, for example, `IStream PublisherJDBCProvider`.

   The configuration window for this JDBC provider opens.
5. Scroll down to the **Additional Properties** table.
6. Select **Data Sources**.

   Any data sources defined for the selected scope are listed.
7. Click **New** to create a new data source.
8. Complete the following fields for the new data source:

   - **Name** – the name used to administer the data source, for example, `SQL2005DataSource`
   - **JNDI Name** – the name of the data source as registered in the application server's name space, for example, `CorrDS`

- **Description** – a description of the data source
- **Category** – a category that you can use to classify the data source

9. Click **Apply**.
10. Scroll down to the **Related items** table, then select **J2C Authentication Data Entries**.

    All **Authentication Data** defined for the selected DataSource are listed.
11. Click **New** to create new authentication data.
12. Complete the following fields for the new data source:
    - Alias – the name of the authentication data entry
    - **User ID** – the user name for connecting to the database; if the user ID is specified, the password must also be specified
    - **Default Password** – the password for connecting to the database; if the password is specified, the user ID must also be specified
13. Click **OK**.
14. Click the **Save** link near the top of the page, then click the **Save** button.
15. Repeat steps 1 to 6 to select the data source that you created.
16. Scroll down to the **Additional Properties** table, then select **Custom Properties**.

    The **Custom Properties** page opens. These properties consist of **Names** and their corresponding **Values**.
17. Click **New**, then enter the following values:
    - **Name** – `URL`
    - **Value** – `jdbc:sqlserver://hostname:port number;SelectMethod=cursor; DatabaseName=database name`
18. Click **OK**.
19. Click the **Save** link near the top of the page, then click the **Save** button.
20. Repeat steps 1 to 6 to select data source that you created.
21. Scroll down to the **General Properties** table, and ensure the default value in **Datasource Helper Classname** field is `com.ibm.websphere.rsadapter.GenericDataStoreHelper`.
22. From the **Container-managed Authentication Alias** drop-down list, select the authentication data created in step 11.
23. From the **Mapping-Configuration Alias** drop-down list, select `DefaultPrincipalMapping`.
24. Click **OK**.
25. Click the **Save** link near the top of the page, then click the **Save** button.

Step E: Test the JDBC Provider Data Source

In this step, you test the JDBC provider data source for the database.

1. From the navigation tree on the left side, expand **Resources**.
2. Click **JDBC Providers**.
3. In the **Scope** section, click **Node**, then **Apply**.
4. Click the JDBC provider you created for IStream Communicator, for example, `CommunicatorSQL2005JDBCProvider`.
5. Scroll down to the **Additional Properties** table.
6. Click **Data Sources**.
7. Select the check box beside the JDBC datasource name you previously entered.
8. Click **Test Connection**.
9. If the test fails, repeat the following steps and ensure that the settings in these steps are correct:
   - *Step C: Create a New JDBC Provider* on page 13
   - *Step D: Create the JDBC Provider Data Source* on page 14

Step F: Update the IStream Communicator Mapping Resource

1. After you have verified your connection, select the `IStream Communicator` application from the Enterprise Application console.
2. Scroll down to the **Additional Properties** section, then select **Map resource references to resources**.
3. Select the new SQL Server 2005 JDBC provider created earlier.
4. Under the **Specify existing resource JNDI name**, select the check box next to the **Module** header at the top to select all the modules, then click **Apply**.

   The JNDI name appears as the new Microsoft SQL 2005 JNDI name for all modules.
5. Save your changes.
6. On the WebSphere Admin Console, stop and restart the IStream Communicator application.

You have completed migrating IStream Communicator 2.2 FP3 from Microsoft SQL Server 2000 to Microsoft SQL Server 2005. Please go to *Step D: Deploy the IStream Communicator EAR file* on page 8 to continue the feature pack installation process.

Installing the Feature Pack on WAS 6.x

Note: This section describes how to install the feature pack on a **WAS 6.x** system. If you are using WAS 6.x, please see *Installing the Feature Pack on WAS 5.x* on page 7.

In this installation procedure:

- *[WebSphere]* is the WebSphere installation folder. **This is usually:**

  `C:\Program Files\WebSphere\AppServer\profiles\default\installedApps\[computer name]`

- *[IStream Communicator]* is the IStream Communicator installation folder. **This is usually**:

  `C:\IStream Communicator`

Complete the following steps to install the Feature Pack on WAX 6.x:

Step A: Copy the Library Files

1. Copy `C:\IStream Communicator\config` folder from the IStream Communicator 2.2 computer to the WAS 6.1 computer.
2. Copy the Open JMS library `.jar` files to the WAS 6.1 computer.
3. Copy the Microsoft SQL Server JDBC driver jar files to the WAS 6.1 computer.

   Note: If the database is not Microsoft SQL Server 2005, use `msbase.jar`, `mssqlserver.jar` and `msutil.jar`.
4. Review the contents of `corrConfig.xml` and ensure that the WAS 6.1 computer can access all the repositories.

Step B: Stop Applications, Back Up, and Undeploy

1. Complete *Step A: Stop the Necessary Applications and Back Up the Data Files* on page 7 of the WAS 5.x installation procedure.
2. Complete *Step B: Undeploy IStream Communicator* on page 7 of the WAS 5.x installation procedure.

Step C: Migrate from Microsoft SQL Server 2000 to 2005

Important: Complete this step only if you are working with a Microsoft SQL 2005 database. Otherwise, proceed to *Step D: Create a New JDBC Provider* on page 20.

This section describes how to migrate IStream Communicator 2.2 FP3 from Microsoft SQL Server 2000 to Microsoft SQL Server 2005. It describes how to export your data from Microsoft SQL Server 2000 to Microsoft SQL Server 2005.

This section contains two substeps.

Substep A: Upgrade the Database

1. On the SQL Server 2000 server, login as a system administrator, and make a complete backup of the existing IStream Communicator database, for example, `corr22.bak`.
2. Copy this database backup file to the server hosting the Microsoft SQL Server 2005 instance.
3. In SQL Server Management Studio 2005, restore this database backup file using the same database name as the backup file.
4. Create a new database user for the IStream Communicator database on the Microsoft SQL Server 2005 server with the same name, roles, and privileges as on the Microsoft SQL Server 2000 database.
5. In SQL Server Management Studio 2005, from the **Database Properties** dialog box, change the owner of the new IStream Communicator database to the new database user you created.
6. Right-click the new database and select **Properties**.
7. From the list on the right, select the **Files** page.
8. Browse to select and assign the database owner to the new user you created in step 4 as the database owner for the IStream Communicator database, then save your changes.
9. Change the object owner for all tables and views to `dbo` by running the following scripts. However, before running them, ensure that you replace your IStream Communicator database name and database owner where indicated in italics and square brackets:

```
use [IStream Communicator database name]

EXEC sp_MSforeachtable @command1="sp_changeobjectowner
'?', 'dbo'"

EXEC sp_changeobjectowner '[IStream Communicator
database owner name].CORRCOLLEAGUES','dbo'

EXEC sp_changeobjectowner '[IStream Communicator
database owner name].CORRASSIGNEDLETTERDEF','dbo'

EXEC sp_changeobjectowner '[IStream Communicator
database owner name].CORRSUBORDINATES','dbo'
```

Substep B: Update CorrConfig.xml

In this step, you update the IStream Communicator `CorrConfig.xml` for the Microsoft SQL Server 2005 JDBC driver.

1. Copy the IStream Communicator Feature Pack 3 software package subfolder `MSSqlJDBC2005` to the computer where IStream Communicator is installed.
2. Backup the IStream Communicator configuration file: `CorrConfig.xml`.

3. Change the `driver` value in `CorrConfig.xml` from:

   ```
   <driver>com.microsoft.jdbc.sqlserver.SQLServerDriver</
   driver>
   ```

   to:

   ```
   <driver>com.microsoft.sqlserver.jdbc.SQLServerDriver</
   driver>
   ```

4. Change the `url` value in `CorrConfig.xml` from:

   ```
   <url>jdbc:microsoft:sqlserver://[IStream Communicator
   database server]:1433;DatabaseName=[IStream Communicator
   database name]; SelectMethod=cursor</url>
   ```

   to:

   ```
   <url>jdbc:sqlserver://[IStream Communicator database
   server]:1433;DatabaseName=[IStream Communicator database
   name]; SelectMethod=cursor</url>
   ```

   updating the server name and database name to point to your Microsoft SQL 2005 server and database.

Step D: Create a New JDBC Provider

In this step, you open the WebSphere Administrative Console and then create and configure a configure a new JDBC provider.

1. For Windows:

   - Click **Start > Programs > IBM WebSphere > Application Server > Administrative Console.**

   For Unix:

   - In your web browser, go to `http://host_name:9090/admin`

2. If required, enter a **username** and **password**, then click **OK.**

   The **WebSphere Administrative Console** opens.

3. From the navigation tree on the left side, expand **Resources**.
4. Click **JDBC Providers**.
5. In the **Scope** section, click **Node**, then **Apply**.
6. Click **New** to create a new JDBC provider.

   The **JDBC Providers Configuration** page opens.

7. In the **Database Type** drop-down list, select **SQL Server.**
8. In the **Provider Type** drop-down list, select **WebSphere Embedded ConnectJDBC Driver for MS SQL Server**.
9. In the **Implementation** drop-down list, select **Connection pool data source**.

10. Enter the JDBC provider properties:
    - **Name** – a name for the provider: enter a descriptive name, for example, `CommunicatorWAS6JDBCProvider`
    - **Description** – a description of the provider
11. Click **Next**, then **Finish**.
12. Click the **Save** link near the top of the page, then click the **Save** button.

Step E: Create the JDBC Provider Data Source

After creating and configuring the JDBC provider, you can then create a data source under it. The data source will use the JDBC provider classes to connect to the database.

1. From the navigation tree on the left side, expand **Resources**.
2. Click **JDBC Providers**.
3. In the **Scope** section, click **Node**, then **Apply**.
4. Click the JDBC provider that you created for IStream Publisher, for example, `CommunicatorWAS6JDBCProvider`.

   The configuration window for this JDBC provider opens.
5. From the **Additional Properties** table on the right, select **Data Sources**.

   Any data sources defined for the selected scope are listed.
6. Click **New** to create a new data source.
7. Complete the following fields for the new data source:
    - **Data source Name** – the name used to administer the data source, for example, `WAS6DataSource`
    - **JNDI Name** – the name of the data source as registered in the application server's name space, for example, `CorrDS`
8. Select an existing alias from the drop down list. Alternatively, to create a new alias, complete these steps:
    a. Click **Create a new J2C authentication alias**.
    b. Complete the following fields:
        - **Alias** – the name of the authentication data entry
        - **User ID** – the user name for connecting to the database; if the user ID is specified, the password must also be specified
        - **Password** – the password for connecting to the database; if the password is specified, the user ID must also be specified
        - **Description** – (optional) a description of this alias
    c. Click **OK**.
    d. Click the **Save** link near the top of the page, then click the **Save** button.

9. All **Authentication Data** defined for the selected DataSource are listed. Click **Next**.
10. In the **Enter database-specific properties for the data source** section, enter the properties for the data source:
    - **Database name** – the name of the IStream Communicator database
    - **Server name** – the name of the database server
    - **Port number** – the port number of the database
11. Click **Next**, then **Finish**.
12. Select this data source again.
13. Scroll down to the **General Properties** table, and ensure the default value in **Datasource Helper Classname** field is: `com.ibm.websphere.rsadapter.GenericDataStoreHelper`.
14. From the **Container-managed authentication** drop-down list, select the authentication data from step 8.
15. Click the **Save** link near the top of the page, then click the **Save** button.

Step F: Test the JDBC Provider Data Source

In this step, you test the JDBC provider data source for the database.

1. From the navigation tree on the left side, expand **Resources**.
2. Click **JDBC Providers**.
3. Click the JDBC provider you created for IStream Communicator, for example, `CommunicatorWAS6JDBCProvider`.
4. In the **Additional Properties** table, click **Data Sources**.
5. Select the check box beside the JDBC datasource name you previously entered.
6. Click **Test Connection**.
7. If the test fails, repeat the following steps and ensure that the settings in these steps are correct:
    - *Step D: Create a New JDBC Provider* on page 20
    - *Step E: Create the JDBC Provider Data Source* on page 21

Step G: Create the JMS Library

In this step, you define a shared library for MQ or OpenJMS.

1. From the navigation tree on the left side, expand **Environment**.
2. Click **Shared Libraries**.
3. In the **Scope** section of the shared library definition, click **Node**, then **Apply**.
4. Click **New**.

5. Enter the **JMSLibrary** properties:
   - **Name** – the shared library name, for example, `MQLibrary` or `OpenJMSLibrary`
   - **Classpath** – the classpath(s) for **JMSLibrary** that points to the IBM MQ Series or OpenJMS classes directory, for example: `C:\JMS`
6. Scroll down, then click **OK**.
7. Click the **Save** link, then click the **Save** button.

Step H: Create the IStream Communicator Library

1. From the navigation tree on the left side, expand **Environment**.
2. Click **Shared Libraries**.
3. In the **Scope** section of the shared library definition, click **Node**, then **Apply**.
4. Click **New**.
5. Enter the **CommunicatorConfig** properties:
   - **Name** – the shared library name, for example, `CommunicatorConfig`
   - **Classpath** – the classpath for the shared library: this is within the config folder directly under the `Communicator` installation folder, which is usually:
     - **for Windows:** `C:\InSystems\IStream\Communicator\config`
     - **for Unix:** `/opt/InSystems/IStream/Communicator/config`
6. Scroll down, then click **OK**.
7. Click the **Save** link, then click the **Save** button.

Step I: Create the SQL Shared Library

In this step, you create a new shared library for Microsoft SQL Server.

1. From the navigation tree on the left side, expand **Environment**.
2. Click **Shared Libraries**.
3. In the **Scope** section of the shared library definition, click **Node**, then **Apply**.
4. Click **New**.

5. Enter the **SQLServer Library** properties:
   - **Name** – the shared library name, for example, `SQLServerLibrary`
   - **Classpath** – the classpath(s) for the Microsoft SQL Server JDBC drivers:
     - **for Microsoft SQL Server 2000**, the drivers are `MSbase.jar`, `MSsqlserver.jar` and `msutil.jar`
     - **for Microsoft SQL Server 2005**, the driver is `sqljdbc.jar`
6. Scroll down, then click **OK**.
7. Click the **Save** link, then click the **Save** button.

Step J: Deploy the IStream Communicator EAR file

1. In the IBM WebSphere Admin Console, from the navigation tree on the left side, expand **Applications**.
2. Click **Install**.

   The **Preparing for the application installation** page opens.
3. Enter or browse to the **Local path** or **Server path** to the `.ear` file located in `\distrib\IStreamCommunicator22.ear`.

   If the IBM WebSphere Administrative Console is on the same server where you will be deploying IStream Communicator, you can select the local path, otherwise, select the server path.
4. Select the `.ear` file, then click **Open**.
5. Scroll down, then click **Next**.

   A second **Preparing for the application installation** page opens.
6. Click **Next.**
7. If an **Application Security Warning** page appears, you can disregard it and click **Continue**.
8. At this point, you will be presented with a series of pages (screens), one at a time, one page for each step. To help guide you, each page is titled for each step: **Step 1**, **Step 2**, **Step 3** and so on. On some of these pages, you will simply accept the default settings, then click **Next**. However, on other pages, you will need to make specific selections before moving on to the next page.

   The following steps describe the actions you need to take for each of these **Step** pages.
9. In the **Step 1: Select installation options** page, ensure that **Select pre-compile JSP is not checked**.
10. Scroll down, then click **Next**.
11. On pages **Step 2** to **Step 7,** accept all the default values by scrolling down, then clicking **Next** on each of these pages.

12. On the **Step 8: Map resource references to resources** page, each resource reference defined in the application must be mapped to the corresponding resource, as follows:

    a. From the **Resource JNDI name** drop-down list, select `<servername>:<datasource name>`

    b. Select the **Select all items** icon above the **Module** column heading on the left side of the table.

    c. Click **Apply**.

    The **JNDI Name** for each module should automatically be updated to `<datasource name>` from the default `XrmDS` value that is displayed when the page is loaded.

    d. Ensure you have selected the correct authentication data for the existing **Resource JNDI name**.

    e. Click **OK** and continue to the next step.

13. On pages **Step 9** to **Step 11,** accept all the default values by scrolling down, then clicking **Next** on each of these pages.

14. The **Step 12: Summary** page lists the application deployment settings. Review these settings, scroll down, then click **Finish**.

15. Click **Save to Master Configuration**, then click **Save**.

Step K: Add the IStream Communicator Libraries

In this step, you are adding the libraries that you previously created in IStream Communicator.

1. In the IBM WebSphere Admin Console, from the navigation tree on the left side, expand **Applications**.
2. Click **Enterprise Applications**.
3. Click the **IStream Communicator** link.
4. Scroll down to the **References** section.
5. Click the **Shared library references** link.
6. In the **Select** column, select the **IStream Communicator** application.
7. Click the **Reference shared libraries** link.
8. Use the selector buttons to move the following libraries from the **Available** list to the **Selected** list:
    - JMS library
    - Communicator Config library
    - MS SQL Server library

Note that these are the libraries that you created in the following previous steps:

- *Step G: Create the JMS Library* on page 22
- *Step H: Create the IStream Communicator Library* on page 23
- *Step I: Create the SQL Shared Library* on page 23

9. Click **OK**, then click the **Save** button.

Step L: Run the Database Scripts

1. Back up the entire IStream Communicator database.

2. Log on to the IStream Communicator database using your IStream Communicator user name and password.

3. Run one of the following database scripts:

- **For Microsoft SQL, run:** `\dbScript\Comm22FPSQL.sql`
- **For Oracle,** run: `\dbScript\Comm22FPORA.sql`

This will update the related database tables.

Step M: Copy and Configure CorrConfig.xsd

1. Copy `CorrConfig.xsd` to the *`[IStream Communicator]`* `\config\com\insystems\core\config` folder, overwriting the existing file.

2. When working with IStream Document Manager 6.x, set the following attribute value to `false` in the `CorrConfig.xml` file:

```
<repositories dms5xCompatibility="false">
```

Step N: Complete the Installation

1. Open the WebSphere Admin Console and start the IStream Communicator application.

2. Important! Stop and restart the system to implement the change to the `dms5xCompatibility` attribute.

Customer Support

If you have any questions about the installation or use of our products, please contact Skywire Software Customer Support:

- **Phone**: 1-905-513-7466
- **Fax**: 1-905-513-1419
- **Email**: directsupport@skywiresoftware.com

For information on all Skywire Software products, we invite you to check our website at www.skywiresoftware.com.