

Relocating the XMeta repository for Information Server version 8.0.1 and 8.1



This presentation describes the steps needed to move the XMeta repository from one database server to another for Information Server version 8.0.1 and version 8.1.

Objectives

- Backing up XMeta, IS, and key files
- Update Information Services Framework (ISF) configuration
- Update XMeta username and password
- Update WebSphere® Application Server configuration

The objectives of this presentation are to describe what needs to be backed up and how to update the Information Services Framework configuration, referred to as the ISF configuration. This presentation will also describe how to update the XMeta user name and password, and what changes need to be made to WebSphere.

Backup and restore

- Backup
 - backup XMeta, Information Server, and WebSphere
 - Backup all files being changed
 - InformationServer/ASBServer/bin/sql/database.properties
 - InformationServer/ASBServer/apps/lib/obj-conf.jar
 - InformationServer/ASBServer/apps/sql/obj-conf-pojo.jar – 801 only
 - InformationServer/ASBServer/etc/package.compiler.properties – 801 only
 - Do not leave copy of obj-conf.jar in Information Server folder hierarchy
 - Backup XMeta database
- Restore
 - Restore XMeta to new target system

Before you make any changes to XMeta, Information Server, or WebSphere, it is good practice to take a complete backup of all three installations. It is safest to do a cold backup of the WebSphere Application Server by stopping WebSphere before you do the backup. It is also good practice to make a copy of all the files that will be changed during this process to make it easier to revert back if necessary. The files that are key to make copies of are displayed on this slide. Ensure the backup of obj-conf.jar is not left in the IBM Information Server folder hierarchy.

Backup the XMeta database on the source system and restore to the target system using the backup and restore tools provided with the database. Backup the affected files before changing them in this procedure.

Updates to ISF Configuration (1 of 3)

- Stop WebSphere Application Server
 - `cd /opt/IBM/WebSphere/AppServer/bin`
 - `./stopServer.sh server1 –username <wasuser> –password <password>`
- Create temporary empty directory and make it current working directory
 - `mkdir /tmp/isftmp`
 - `cd /tmp/isftmp`
- Extract ojb-conf.jar into temp directory
 - `/opt/IBM/WebSphere/AppServer/java/bin/jar xf`
 - `/opt/IBM/InformationServer/ASBServer/apps/lib/ojb-conf.jar`

The next step is to update the ISF configuration. To do this, first you will need to stop WebSphere. `cd` into the `WebSphere/AppServer/bin` directory and run `./stopServer.sh server1 –username <user> –password <password>`, where `<user>` is your `wasadmin` username and `<password>` is your `wasadmin` password.

After stopping the WebSphere Application Server, create a temporary directory and set it as your current working directory by running:

```
mkdir /tmp/isftmp
cd /tmp/isftmp
```

While in your newly created temp directory, extract the `ojb-conf.jar` file using the `jar` utility of a JDK™. For example, the JDK in WebSphere. If WebSphere and Information Server are installed in the default directories, the command is

```
/opt/IBM/WepSphere/AppServer/java/bin/jar xf
/opt/IBM/InformationServer/ASBServer/apps/lib/ojb-conf.jar
```

This command will extract `ojb-conf.jar` and place the contents in your temp directory.

Updates to ISF Configuration (2 of 3)

- Edit repository_database.xml

Linux®/UNIX®:

vi repository_database.xml

Windows®:

Notepad repository_database.xml

DB2®	dbalias="//host:50000/dbname"
Oracle	dbalias="oracle://host:1521;SID=dbname"
MS SQLServer	dbalias="sqlserver://host:1433;DatabaseName=dbname"

The next step is to edit the repository_database.xml file that is in your temp directory. Use the vi command for Linux and UNIX or open the file in Notepad if on Windows. Search for the dbalias attribute. Use the table displayed on this slide to correctly update this field. Edit the dbalias attribute with the right host, port and dbname value, and save the file.

Updates to ISF Configuration (3 of 3)

- Rejar ojb-conf.jar with updated information
/opt/IBM/WebSphere/AppServer/java/bin/jar cf /opt/IBM/InformationServer/ASBServer/apps/lib/ojb-conf.jar .
- 8.1 - Remove temp directory
- 8.0.1 - Delete all files within temp directory

After updating the dbalias attribute, you can now re-jar ojb-conf.jar with the updated repository_database.xml file using the jar utility of a JDK. For example, the JDK in WebSphere. Be sure you are still in your temp directory. If WebSphere and Information Server are installed in the default directories, the command is

```
/opt/IBM/WebSphere/AppServer/java/bin/jar cf  
/opt/IBM/InformationServer/ASBServer/apps/lib/ojb-conf.jar .
```

You must remember to put the “space dot” at the end of the jar command. After this step is completed, you need to clean up the temp directory. If you are using 8.1, you should delete the temporary directory. If you are on 8.0.1, you need to remove all the files under the temp directory but leave the directory itself as you will need to use it again in the next step.

Updates to ISF Configuration – 8.0.1 ONLY (1 of 2)

- Repeat dbalias modification to ojb-conf-pojo.jar
- Extract ojb-conf-pojo.jar
`/opt/IBM/WebSphere/AppServer/java/bin/jar xf /opt/IBM/InformationServer/ASBServer/apps/sql/ojb-conf-pojo.jar`
- Change dbalias in repository_database.xml
- Jar ojb-conf-pojo.jar
`/opt/IBM/WebSphere/AppServer/java/bin/jar cf /opt/IBM/InformationServer/ASBServer/apps/sql/ojb-conf-pojo.jar .`

The next steps are for the Information Server 8.0.1 only. If you are using version 8.1, skip this step. Next, while in your temp directory, you will need to extract the ojb-conf-pojo.jar file using the jar utility of a JDK™. For example, the JDK in WebSphere. Repeat the same modification of the dbalias attribute in the repository_database.xml file as you just made for the ojb-conf.jar file and then re-jar ojb-conf-pojo.jar.

Updates to ISF Configuration – 8.0.1 ONLY (2 of 2)

- Edit InformationServer/ASBServer/etc/package.compiler.properties
- Look for correct Parameter Key

DB2	PackageCompiler.connectionURL.db2_8_nls
Oracle	PackageCompiler.connectionURL.oracle10g_nls
MS SQLServer	PackageCompiler.connectionURL.sqlserver_nls

- Parameter value format

DB2	jdbc:db2://host:50000/dbname
Oracle	jdbc:ibm:oracle://host:1521;SID=dbname
MS SQLServer	jdbc:ibm:sqlserver://host:1433;DatabaseName=dbname

The next steps are for Information Server 8.0.1 only. If you are using version 8.1, skip this step.

Edit the package.compiler.properties file located in the InformationServer/ASBServer/etc directory. Look for the PackageCompiler.connectionURL parameter key associated with your XMeta database. Update the host, port and dbname with the new values and save the file.

Updates to ISF configuration

- Edit database.properties

Linux/UNIX:

```
vi /opt/IBM/InformationServer/ASBServer/bin/sql/database.properties
```

Windows:

```
notepad C:\IBM\InformationServer\ASBServer\bin\sql\database.properties
```

- Update URL parameter

Example:

```
url=jdbc\:db2\://NewServer.com\:50008/XMeta
```

Edit the database.properties file in the InformationServer/ASBServer/bin/sql directory. Update the URL parameter to reflect the new repository server name and port. After updating, save the file.



Update XMeta username and password

- Run AppServerAdmin.sh command

Linux/UNIX:

```
/opt/IBM/InformationServer/ASBServer/bin/AppServerAdmin.sh -db -user <username> -password  
<password>
```

Windows:

```
C:\IBM\InformationServer\ASBServer\bin\AppServerAdmin.bat -db -user <u> -password <p>
```

- Start WebSphere Application server as root
cd /opt/IBM/WebSphere/AppServer/bin
./startServer.sh server1

To complete the updates to the ISF configuration, run the AppServerAdmin.sh command to update the XMeta username and password. The command can be found in the InformationServer/ASBServer/bin directory. Replace the <username> with your XMeta Database username and the <password> with the correct password.

Once the AppServerAdmin command has run successfully, as root, restart WebSphere. cd to the WebSphere/AppServer/bin directory and type ./startServer.sh server1.

Update WebSphere Application Server configuration (1 of 6)

- Login to WebSphere Application Server Administrative console

<https://<hostname>:9043/ibm/console>

The screenshot displays the WebSphere Application Server Administrative Console interface. On the left, a navigation pane shows the 'Resources' section expanded to 'JDBC Providers'. The main content area is titled 'JDBC providers' and shows the configuration for 'server1'. The 'Scope' is set to 'Server : server1'. The 'Apply' button is circled in red. Below the 'Apply' button, the 'ASB JDBC Provider' link is also circled in red.

Login to the WebSphere Application Server Administrative Console. Click the Resources tab on the left side and then click JDBC Providers underneath. In the middle of the screen, select the server : server1 radio button, and click Apply. Next click ASB JDBC Provider link in the box below the Apply button.

Update WebSphere Application Server configuration (2 of 6)

JDBC providers 7

Messages

Modifying the implementation class name will eliminate the ability to create data sources and data sources version 4 from templates.

JDBC providers > ASB JDBC Provider

JDBC providers are used by the installed applications to access data from databases.

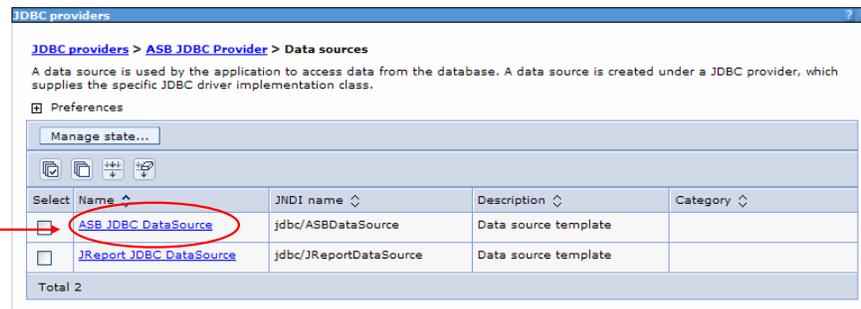
Configuration

General Properties	Additional Properties
<p>* Scope</p> <p>cells:vegasNode01Cell:nodes:vegasNode01:servers:server1</p>	<p>Data sources</p> <p>Data sources (Version 4)</p>
<p>* Name</p> <p>ASB JDBC Provider</p>	
<p>Description</p> <p></p>	

In the ASB JDBC Provider window, click Data sources under Additional Properties on the right side of the screen.

Update WebSphere Application Server configuration (3 of 6)

- Open each data Source listed and perform steps listed



JDBC providers

JDBC providers > ASB JDBC Provider > Data sources

A data source is used by the application to access data from the database. A data source is created under a JDBC provider, which supplies the specific JDBC driver implementation class.

Preferences

Manage state...

Select	Name	JNDI name	Description	Category
<input checked="" type="checkbox"/>	ASB JDBC DataSource	jdbc/ASBDataSource	Data source template	
<input type="checkbox"/>	JReport JDBC DataSource	jdbc/JReportDataSource	Data source template	

Total 2

You may have more than one data source listed. Perform the steps described on each data source in the list. Click the link for the data source to be modified.

Update WebSphere Application Server configuration (4 of 6)

- Modify connection properties – DB2

DB2 Universal data source properties

* Database name
xmeta

* Driver type
4

* Server name
vegas

Port number
50000

Apply OK Reset Cancel

For XMeta on DB2, scroll to the bottom of the screen for the data source and modify the connection properties as required. Click Apply.

Update WebSphere Application Server configuration (5 of 6)

- Modify connection properties – Oracle and SQL Server

[JDBC providers](#) > [ASB JDBC Provider](#) > [Data sources](#) > [ASB JDBC DataSource](#)
 A data source is used by the application to access data from the database. A data source is created under a JDBC provide which supplies the specific JDBC driver implementation class.

Configuration

General Properties

- Scope: [Connection pool properties](#)
- Name: [WebSphere Application Server data source properties](#)
- JNDI name: [Custom properties](#)
- Use this Data Source in container managed persistence (CMP)

Additional Properties

Select	Name	Value	Description	Required
<input type="checkbox"/>	serverName	dbdev2		false
<input type="checkbox"/>	portNumber	1521		false
<input type="checkbox"/>	databaseName	entpland		false
<input type="checkbox"/>	webSphereDefaultIsolationLevel	2		false
<input type="checkbox"/>	enable2Phase	false		false
<input type="checkbox"/>	SID	entpland		false

Total 6

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InfoSphere Information Server

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For XMeta on Oracle and SQL Server, on the Configuration tab, click Custom Properties on the right side under the Additional Properties heading. Once in Custom Properties, click the settings that have changed and set them to the appropriate values. Click Apply.

Update WebSphere Application Server configuration (6 of 6)

JDBC providers

JDBC providers

Messages

Changes have been made to your local configuration. Click **Save** to apply changes to the master configuration.

The server may need to be restarted for these changes to take effect.

JDBC providers

JDBC providers

JDBC providers > ASB JDBC Provider > Data sources > JReport JDBC DataSource > Save

Save your workspace changes to the master configuration

Click Save to update the master repository with your changes. Click Discard to discard your changes and begin work again using the master repository configuration. Click Cancel to continue working with your changes.

Total changed documents: 1

Save Discard Cancel

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In the Messages box at the top of the page click Save to save to the master configuration. Next, click the Save button in the next page.

Test connection

- Test connection

The screenshot shows the 'JDBC providers' configuration page in the IBM InfoSphere Information Server. The breadcrumb trail is 'JDBC providers > ASB JDBC Provider > Data sources > ASB JDBC DataSource'. A description states: 'A data source is used by the application to access data from the database. A data source is created under a JDBC provider, which supplies the specific JDBC driver implementation class.' The 'Configuration' tab is active, and the 'Test connection' button is highlighted with a red circle and a red arrow. Below the configuration page, a 'Messages' box shows a green success icon and the text: 'Test connection for data source ASB JDBC DataSource on server server1 at node vegasNode01 was successful.'

- Stop and restart WebSphere

Once the changes have been saved, test your new connection by clicking the Test connection button at the top of the Data Sources page where you made the server changes. If the connection is successful, you will see a message at the top of the screen indicating success. If it is unsuccessful, go back and check the modified data source settings.

Once the test completes successfully, go back and modify the remaining data sources in the same manor. After all changes have been made, saved, and successfully tested, stop and restart WebSphere.

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This module is also available in PDF format at: [../XmetaRepository.pdf](..../XmetaRepository.pdf)

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