

iWay

Omni-Payer™ Management Central Installation and Configuration Guide

Version 1.3.5.1

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Contents

Preface.....	5
Documentation Conventions.....	5
Related Publications.....	6
Customer Support.....	6
Help Us to Serve You Better.....	7
User Feedback.....	9
iWay Software Training and Professional Services.....	9
1. Installing Omni-Payer Management Central and Deploying to IBM WebSphere	
Application Server.....	11
Overview.....	12
Preparing the Omni-Payer Management Central Home Environment.....	12
Starting and Stopping IBM WebSphere Application Server.....	13
Configuring Heap Sizes and JVM Settings.....	13
Configuring Name Space Bindings.....	18
Configuring JDBC Providers.....	24
H2 Database.....	24
Omni-Payer DB2 Database.....	36
Installing the Remediation Service.....	53
Resolving Library Conflicts.....	53
Installing and Deploying the OPMC Application.....	56
Known Issues.....	61
Inappropriate URL Format.....	61
2. Uninstalling Omni-Payer Management Central From IBM WebSphere	
Application Server.....	63
Uninstalling Omni-Payer Management Central.....	64
A. Installing or Upgrading WS02 Identity Server.....	67
Overview.....	68

Installing New Omni-Payer Management Central Components.....	68
Installing a New Version of the WSO2 Identity Server.....	68
Starting the WSO2 Identity Server.....	69
Upgrading the WSO2 Identity Server.....	69
Verifying if the WSO2 Identity Server is Active.....	69
Stopping the WSO2 Identity Server.....	70
Reader Comments.....	73

Preface

This documentation provides the installation and configuration instructions for installing new releases of Omni-Payer™ Management Central (OPMC). In this release, OPMC includes the Omni-Payer 360 Viewer application. This manual is intended for Omni-Payer administrators and data stewards.

How This Manual Is Organized

This manual includes the following chapters:

	Chapter/Appendix	Contents
1	Installing Omni-Payer Management Central and Deploying to IBM WebSphere Application Server	Describes how to install Omni-Payer Management Central (OPMC) and then deploy OPMC to IBM WebSphere Application Server.
2	Uninstalling Omni-Payer Management Central From IBM WebSphere Application Server	Describes how to uninstall Omni-Payer Management Central (OPMC) from IBM WebSphere Application Server.
A	Installing or Upgrading WSO2 Identity Server	Describes how to install or upgrade WSO2 Identity Server (WSO2 IS).

Documentation Conventions

The following table lists and describes the documentation conventions that are used in this manual.

Convention	Description
THIS TYPEFACE or this typeface	Denotes syntax that you must type exactly as shown.
<i>this typeface</i>	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
<u>underscore</u>	Indicates a default setting.
Key + Key	Indicates keys that you must press simultaneously.
{ }	Indicates two or three choices. Type one of them, not the braces.
	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
...	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).
.	Indicates that there are (or could be) intervening or additional commands.

Related Publications

Visit our Technical Documentation Library at <http://documentation.informationbuilders.com>. You can also contact the Publications Order Department at (800) 969-4636.

Customer Support

Do you have questions about this product?

Join the Focal Point community. Focal Point is our online developer center and more than a message board. It is an interactive network of more than 3,000 developers from almost every profession and industry, collaborating on solutions and sharing every tips and techniques. Access Focal Point at <http://forums.informationbuilders.com/eve/forums>.

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Call Information Builders Customer Support Services (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 A.M. and 8:00 P.M. EST to address all your questions. Information Builders consultants can also give you general guidance regarding product capabilities. Be prepared to provide your six-digit site code (xxxx.xx) when you call.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

Help Us to Serve You Better

To help our consultants answer your questions effectively, be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following table lists the environment information that our consultants require.

Platform	
Operating System	
OS Version	
JVM Vendor	
JVM Version	

The following table lists the deployment information that our consultants require.

Adapter Deployment	
Container	
Version	

Enterprise Information System (EIS) - if any	
EIS Release Level	
EIS Service Pack	
EIS Platform	

The following table lists iWay-related information needed by our consultants.

iWay Adapter	
iWay Release Level	
iWay Patch	

The following table lists additional questions to help us serve you better.

Request/Question	Error/Problem Details or Information
Did the problem arise through a service or event?	
Provide usage scenarios or summarize the application that produces the problem.	
When did the problem start?	
Can you reproduce this problem consistently?	
Describe the problem.	
Describe the steps to reproduce the problem.	
Specify the error messages.	

Request/Question	Error/Problem Details or Information
Any change in the application environment: software configuration, EIS/database configuration, application, and so forth?	
Under what circumstance does the problem <i>not</i> occur?	

The following is a list of error and problem files that might be applicable.

- Input documents (XML instance, XML schema, non-XML documents)
- Transformation files
- Error screen shots
- Error output files
- Trace files
- Service Manager package to reproduce problem
- Custom functions and agents in use
- Diagnostic Zip
- Transaction log

For information on tracing, see the *iWay Service Manager User's Guide*.

User Feedback

In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. Please use the Reader Comments form at the end of this document to communicate your feedback to us or to suggest changes that will support improvements to our documentation. You can also contact us through our website, <http://documentation.informationbuilders.com/connections.asp>.

Thank you, in advance, for your comments.

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1 Installing Omni-Payer Management Central and Deploying to IBM WebSphere Application Server

This section describes how to install Omni-Payer Management Central (OPMC) and then deploy OPMC to IBM WebSphere Application Server.

Topics:

- ❑ Overview
- ❑ Preparing the Omni-Payer Management Central Home Environment
- ❑ Starting and Stopping IBM WebSphere Application Server
- ❑ Configuring Heap Sizes and JVM Settings
- ❑ Configuring Name Space Bindings
- ❑ Configuring JDBC Providers
- ❑ Installing the Remediation Service
- ❑ Resolving Library Conflicts
- ❑ Installing and Deploying the OPMC Application
- ❑ Known Issues

Overview

Omni-Payer is an enterprise master data application that combines an enterprise master payer index with pre-packaged models to provide full payer identity management, and easily achieve a 360-degree view of key entities, with a single golden record for each payer, provider, workforce and facility.

IBM WebSphere Application Server performs the role of a web application server. More specifically, it is a software framework and middleware that hosts Java based web applications. It is the flagship product within the IBM WebSphere software suite.

Omni-Payer Management Central (OPMC) is a portal web application, running in the IBM WebSphere Application Server, which provides a 360 viewer application, an Advanced Remediation application, and a Data Dictionary application. These applications combine to expose, display, and allow for the remediation of enterprise master data stored in Omni-Payer.

OPMC also uses a WS02 Identity Server (WS02 IS) component to provide user authentication and role-based data access authorization services to the OPMC web application. For more information on installing or upgrading WS02 IS, see [Installing or Upgrading WS02 Identity Server](#) on page 67.

Preparing the Omni-Payer Management Central Home Environment

This section describes how to prepare the Omni-Payer Management Central (OPMC) home environment.

1. Copy the *opay_home* directory to the local drive of your computer.

Note: This directory is supplied as part of the delivery installation package.

2. If Omni-Payer is using a DB2 database, then edit the *remediation.properties* file, which is located in the following directory:

`opay_home/Properties`

Change:

`workflow.sql=sql/mssql/`

To:

`workflow.sql=sql/db2/`

Note: Microsoft SQL Server (MS SQL) is set by default.

Starting and Stopping IBM WebSphere Application Server

The following are typical start and stop command formats for IBM WebSphere Application Server. You must substitute the `/usr/local` path and the server name values with the path and server names in your specific IBM WebSphere Application Server instance.

Use the following command to **start** IBM WebSphere Application Server:

```
/usr/local/subin/ibmwas8-start AppSrv01 server1
```

Use the following command to **stop** IBM WebSphere Application Server:

```
/usr/local/subin/ibmwas8-stop AppSrv01 server1
```

Configuring Heap Sizes and JVM Settings

This section describes how to configure heap sizes and JVM settings for IBM WebSphere Application Server using the Administrative Console.

1. Ensure the IBM WebSphere Application Server is started.
2. Enter the following URL in a browser to access the IBM WebSphere Application Server Administrative Console:

```
http://localhost:port/ibm/console/login.do
```

where:

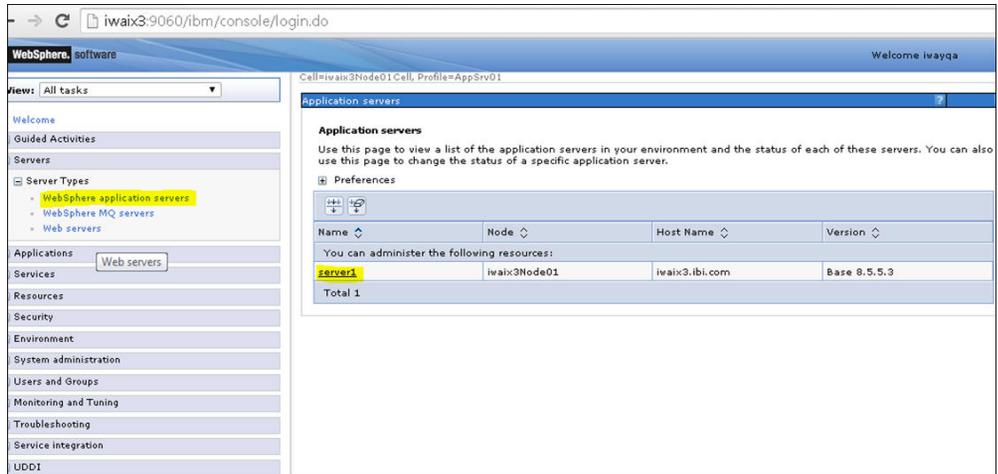
`localhost`

Is the name the system that is hosting IBM WebSphere Application Server.

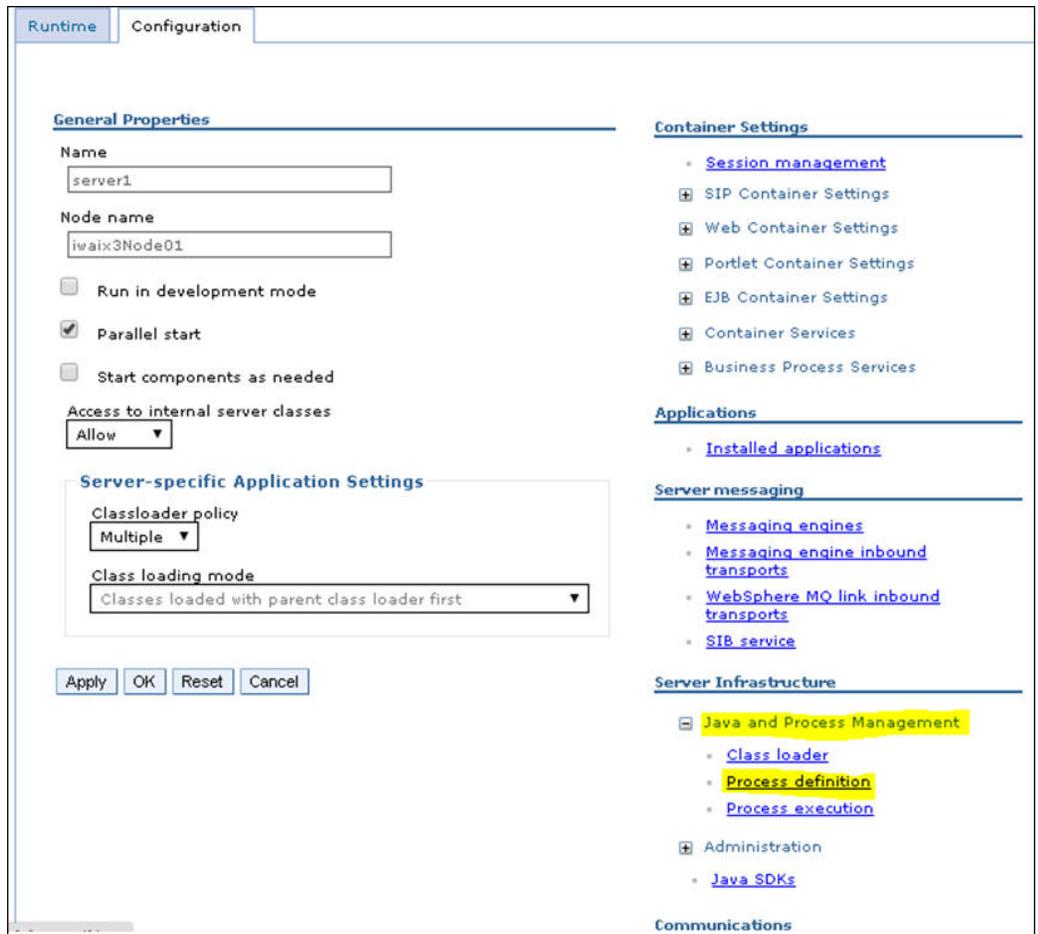
`port`

Is the configured port number where the IBM WebSphere Application Server is listening.

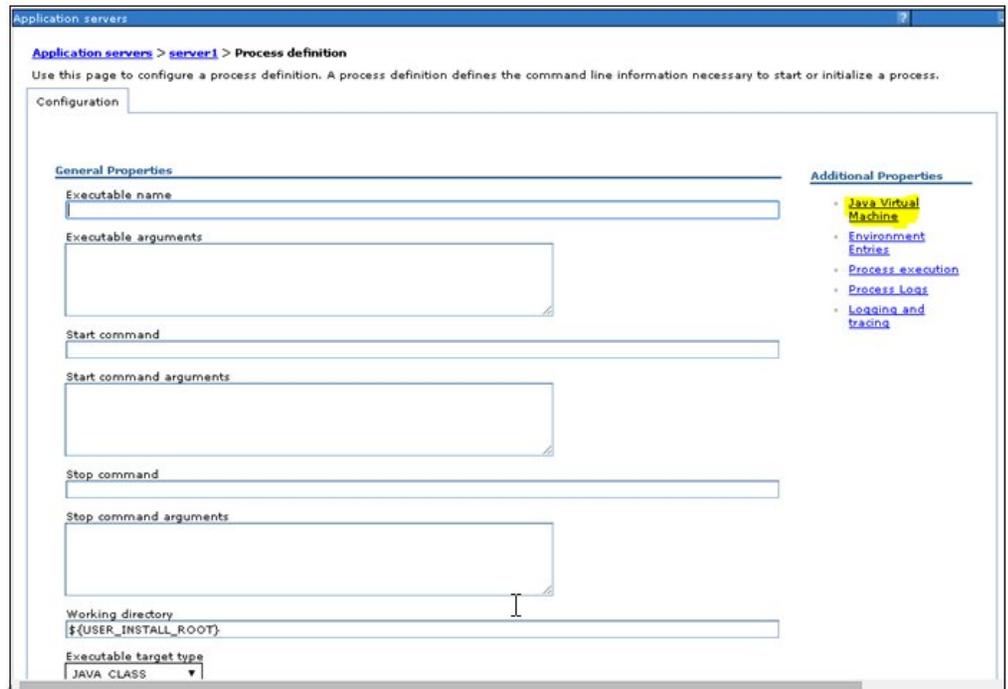
3. Configure the heap size for the server by performing the following steps:
 - a. From the Servers section on the left pane, expand *Server Types*, click *WebSphere application servers*, and then on the right pane, click the name of an available server (for example, *server1*) in the Application servers section.



- b. In the Server Infrastructure section, expand *Java and Process Management* and click *Process definition*, as shown in the following image.



The Process definition pane opens, as shown in the following image.



c. In the Additional Properties section, click *Java Virtual Machine*.

4. Set the following properties:

- ❑ Initial heap size: **512**

- Maximum heap size: **1024** (or more if required)

The screenshot shows the 'Runtime' configuration page for a Java Virtual Machine. Under the 'General Properties' section, there are two text input fields: 'Initial heap size' with the value '512' and 'Maximum heap size' with the value '1024'. Both fields are followed by 'MB'. A red rectangular box highlights these two fields. Below these fields are several unchecked checkboxes: 'Verbose class loading', 'Verbose garbage collection', 'Verbose JNI', and 'Run HProf'.

5. Configure the JVM settings by performing the following steps:
 - a. From Application servers, click *server*, *Java Process Management*, select *Process Definition*, click *Java Virtual Machine*, and then set Generic JVM arguments to:


```
-Xverify:none
```
 - b. From Application servers, click *server*, *Java Process Management*, select *Process Definition*, click *Java Virtual Machine*, and then *Custom Properties*.

Add the following custom property:

```
com.ibm.ws.classloader.getInputStream.enableIOException
```

Set this custom property value to *true*.
 - c. From Application servers, click *server*, Select *Web container*, and then click *Custom Properties*.

Add the following custom property:

```
com.ibm.ws.webcontainer.invokeFiltersCompatibility
```

Set this custom property value to *true*.

Configuring Name Space Bindings

How to:

Configure Name Space Bindings

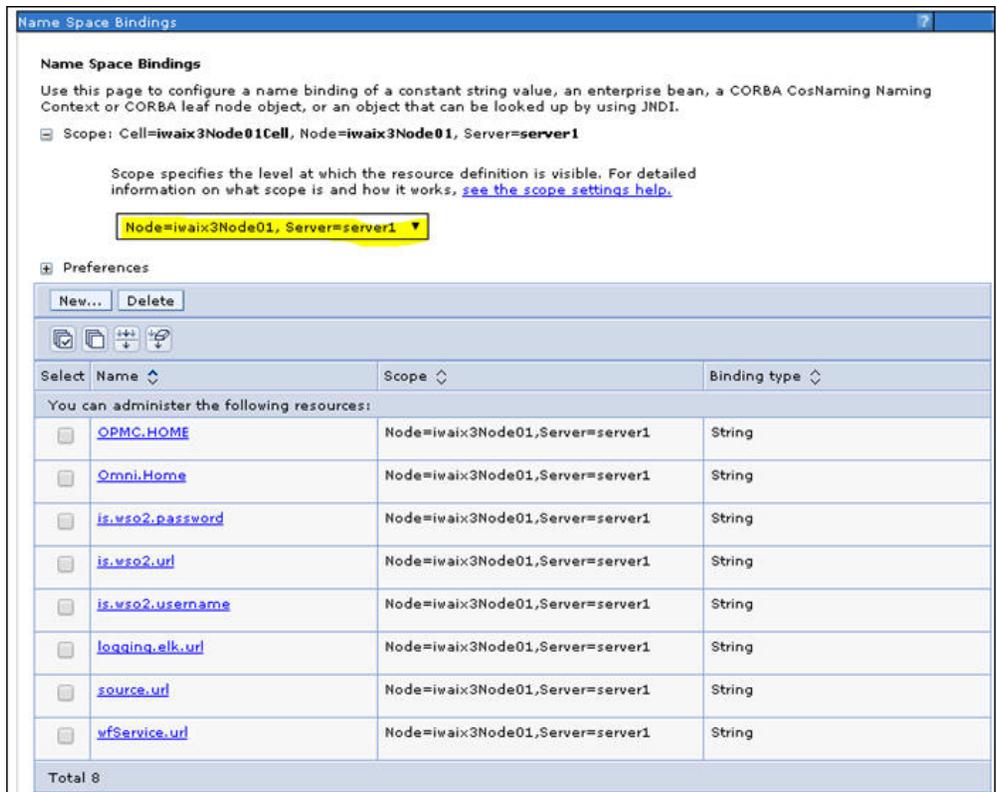
This section describes how to configure name space bindings for the WS02 server using the IBM WebSphere Application Server Administrative Console.

Procedure: How to Configure Name Space Bindings

1. Expand the *Environment* section, expand *Naming*, and then click *Name space bindings*, as shown in the following image.

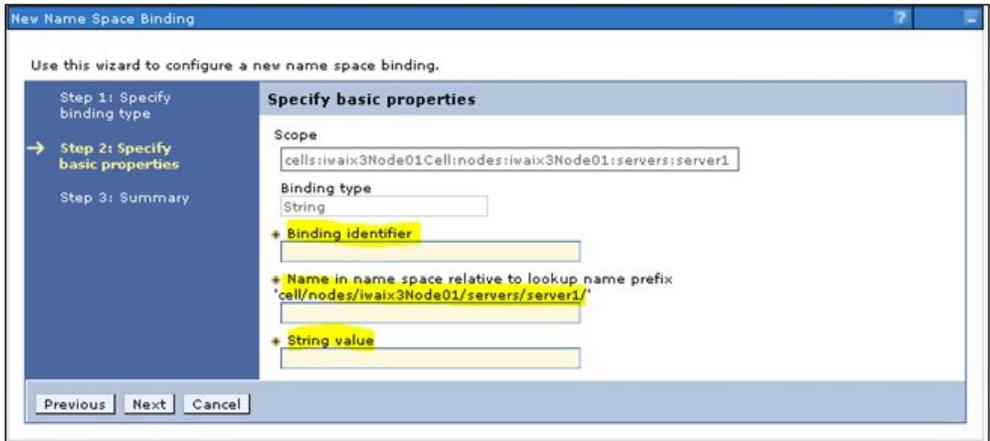


- From the drop-down list, select the node and the server (for example, `Node=iwaix3Node01, Server=server1`), as shown in the following image.



- Click New and then click Next.

The New Name Space Binding pane opens, as shown in the following image.



4. In the Specify basic properties section, enter the required parameters. The following table lists and describes the requested parameters.

Parameter	Description
Binding Identifier	Name in the Environment properties value.
Name in name space relative to lookup name prefix	The value in the Binding Identifier.
String Value	The value in the Environment properties.

5. After entering the values, click *Next*, click *Finish*, and then click *Save*.
6. Configure the following properties, as listed in the table below:

Parameter	Property
Property 1:	
Binding Identifier	is.wso2.url
Name in name space relative to lookup name prefix	is.wso2.url
String value	https://{company_specific_machine_name}:9443

Parameter	Property
Property 2:	
Binding Identifier	is.wso2.username
Name in name space relative to lookup name prefix	is.wso2.username
String value	PRIMARY/admin
Property 3:	
Binding Identifier	is.wso2.password
Name in name space relative to lookup name prefix	is.wso2.password
String value	admin
Property 4:	
Binding Identifier	logging.elk.url
Name in name space relative to lookup name prefix	logging.elk.url
String value	0.0.0.0:0
Property 5:	
Binding Identifier	logging.elk.enabled
Name in name space relative to lookup name prefix	logging.elk.enabled
String value	false
Property 6:	
Binding Identifier	source.url
Name in name space relative to lookup name prefix	source.url

Parameter	Property
String value	http://[company_specific_machine_name]:[company_specific_WC_default_port]/OmniPayerDomain/v2/data.svc/
Property 7:	
Binding Identifier	wfService.url
Name in name space relative to lookup name prefix	wfService.url
String value	http://[company_specific_machine_name]:9280/workflow/
Property 8:	
Binding Identifier	Omni.Home
Name in name space relative to lookup name prefix	Omni.Home
String value	{company_specific_defined_directory_of_omnihome}. For example: /prog/opay_home/ Note: This value must point to the Omni-Payer home directory that was configured.
Property 9:	
Binding Identifier	OPMC.HOME
Name in name space relative to lookup name prefix	OPMC.HOME
String value	{company_specific_defined_directory_of_omnihome}. For example: /prog/opay_home Note: This value is used by the Data Dictionary. Also note that this should be the same directory as Omni.Home, but in the value, do not insert the trailing forward slash.

7. Click *Finish*, and then click *Save*.

Configuring JDBC Providers

In this section:

H2 Database

Omni-Payer DB2 Database

This section describes how to configure JDBC providers for the H2 database and Omni-Payer DB2 database.

H2 Database

How to:

Configure a JDBC Provider for the H2 Database

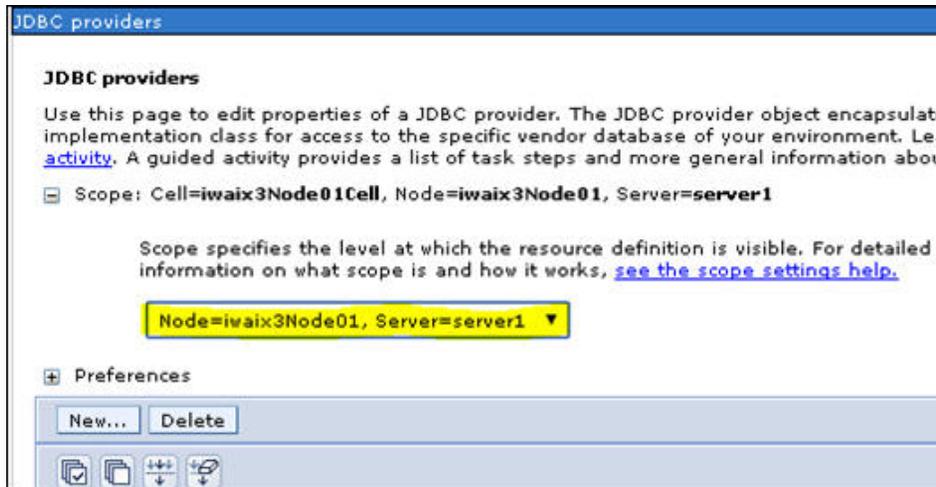
This section describes how to configure a JDBC provider for the H2 database, which will be used to store the Omni-Payer configuration database location.

Procedure: How to Configure a JDBC Provider for the H2 Database

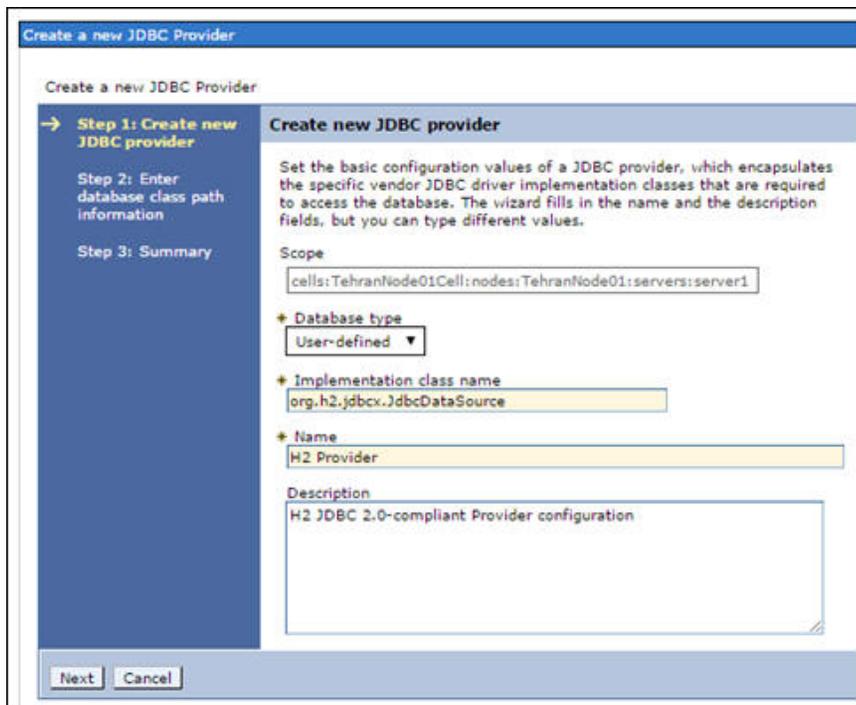
1. In the Resources section, expand *JDBC*, and then click *JDBC providers*, as shown in the following image.



2. From the Scope/Server drop-down list, select the node and the server (for example, *Node=iwaix3Node01, Server=server1*), and then click *New*, as shown in the following image.



The Create new JDBC provider pane opens, as shown in the following image.

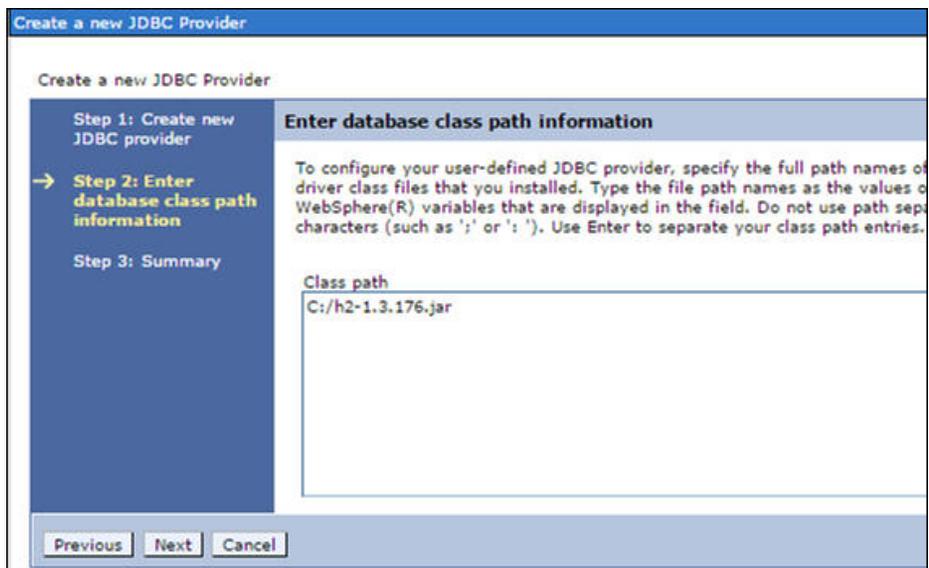


- Enter the required parameters, as shown in the following table.

Parameter	Value
Database type	User-defined
Implementation class name	org.h2.jdbcx.JdbcDataSource
Name	H2 Provider
Description	H2 JDBC 2.0-compliant Provider configuration

- Click Next.

The Enter database class path information pane opens, as shown in the following image.



- In the Class path field, enter the path where the h2.jar file is located, for example:

`C:/h2-1.3.176.jar`

You can download the library from <http://www.h2database.com/html/download.html>.

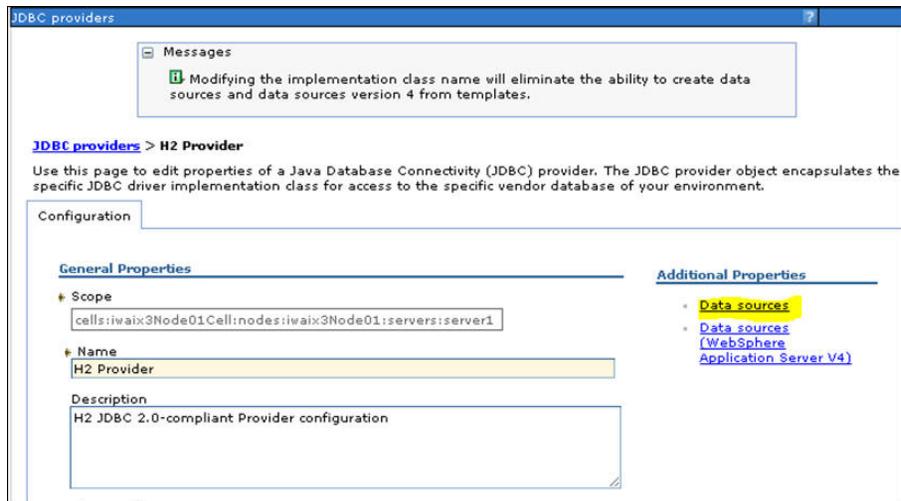
Note: The H2 .jar file for IBM WebSphere Application Server version 8.5.5 in the AIX environment .jar must be version 1.4.186 or higher (for example, `h2-1.4.186.jar`).

- Click Next.

7. Click *Finish*.
8. Set up the configuration database data source.

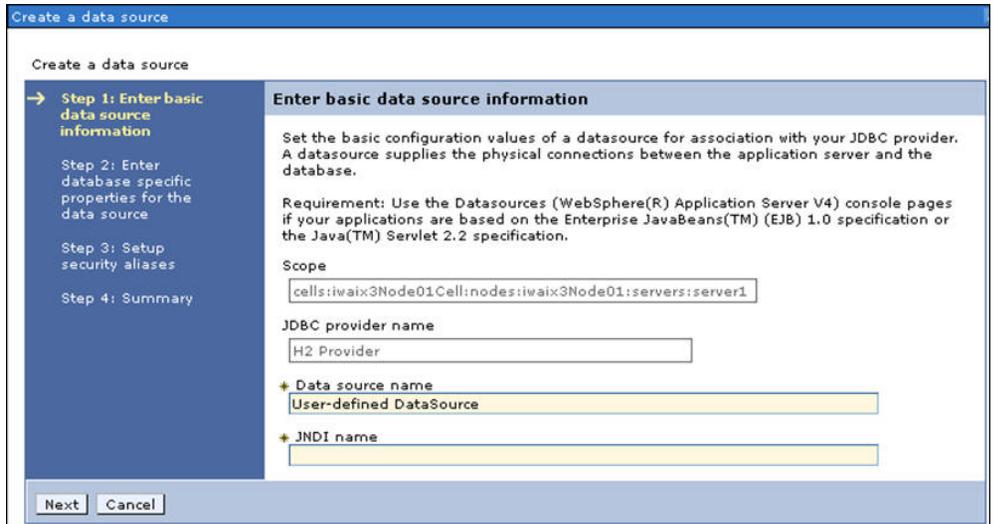
This data source will be used by the Omni-Payer application to get a connection configuration (metadata) data source.

- a. Click *Data sources*, as shown in the following image.

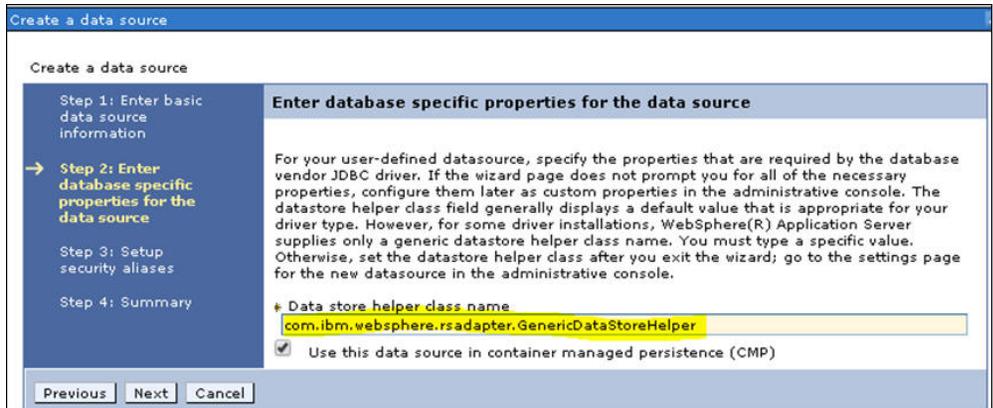


- b. Click New.

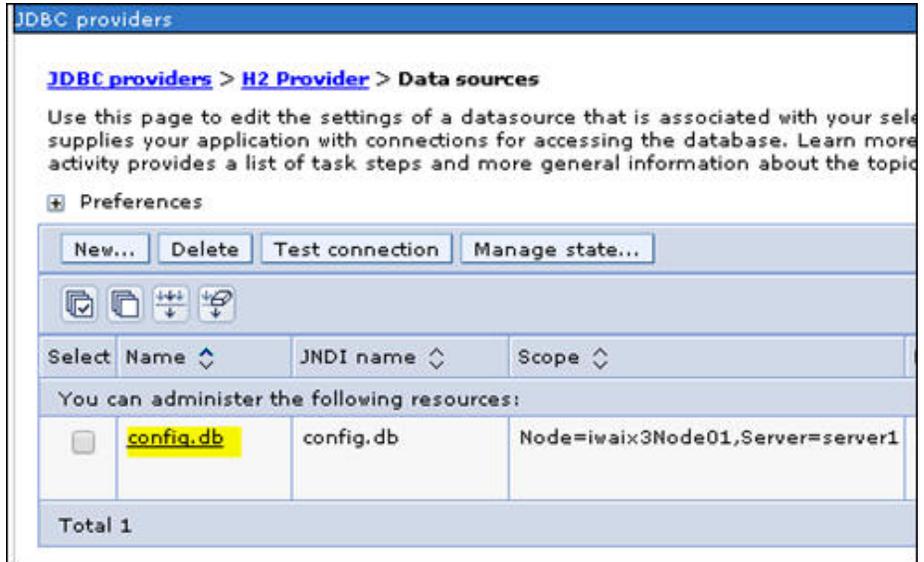
The Enter basic data source information pane opens, as shown in the following image.



- c. In the Data source name field, enter `config.db`.
- d. In the JNDI name field, enter `config.db`
- e. Click Next.
- f. In the Data store helper class name field, enter `com.ibm.websphere.rsadapter.ConnectJDBCDataStoreHelper`, as shown in the following image.



- g.** Click *Next*, and then click *Next* again, using the default selections.
- h.** Click *Finish*.
- i.** Click *config.db*, as shown in the following image.



- j. In the Additional Properties section, click *Custom Properties*.

Use this page to edit the settings of a datasource that is associated with your selected JDBC provider. The datasource object supplies your application with connections for accessing the database.

Configuration

General Properties

Scope
cells:siwaix3Node01Cell:nodes:siwaix3Node01:servers:server1

Provider
H2 Provider

Name
config.db

JNDI name
config.db

Use this data source in container managed persistence (CMP)

Description
New JDBC Datasource

Category

Data store helper class name

Additional Properties

- [Connection pool properties](#)
- [WebSphere Application Server data source properties](#)
- [Custom properties](#)**

Related Items

- [JAAS - J2C authentication data](#)

- k. Click New, as shown in the following image.

JDBC providers

JDBC providers > H2 Provider > Data sources > config.db > Custom properties

Use this page to specify custom properties that your enterprise information system (EIS) requires for the resource providers and resource factories that you or database vendors require additional custom properties for data sources that access the database.

Preferences

Select: Name Value Description

You can administer the following resources:

<input type="checkbox"/>	freeResourcesOnClose	false	Controls whether or not the server automatically frees Clob, NClob, SQLXML, and Readers when the object is closed. The ability resources is contingent on supporting the free (or cl
<input type="checkbox"/>	userDefinedErrorMap		Overlays existing entries by invoking

- I. Adding each property value individually, create the following properties (taken from the config.db JNDI property configuration) and click *OK* and then *New* after each property:

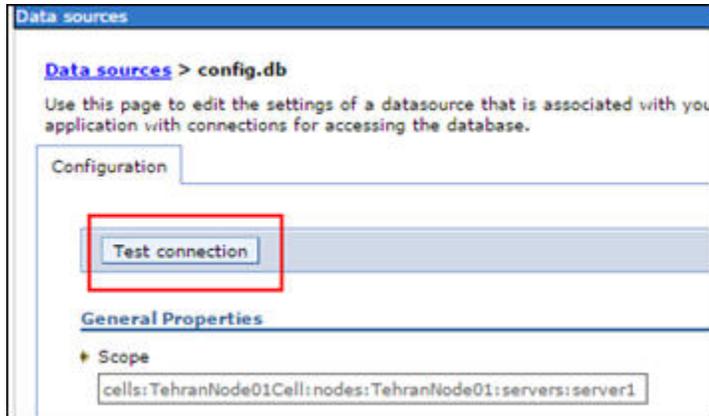
Property	Value
Property 1:	
Name	auth
Value	Container
Property 2:	
Name	type
Value	javax.sql.DataSource
Property 3:	
Name	pooled
Value	true

Property	Value
Property 4:	
Name	driverClassName
Value	org.h2.Driver
Property 5:	
Name	username
Value	sa
Property 6:	
Name	
Value	
Property 7:	
Name	password
Value	password
Property 8:	
Name	URL Note: The absolute path must be used to define where the production database will be written to. In this case, write it to /prog/lc10683/prod-db (directory). Replace /prog/lc10683/prod-db with a site-specific directory.
Value	jdbc:h2:/prog/lc10683/prod-db/prodDb;MVCC=TRUE;LOCK_TIMEOUT=10000;DB_CLOSE_ON_EXIT=FALSE
Property 9:	
Name	numTestsPerEvictionRun
Value	3

Property	Value
Property 10:	
Name	testOnBorrow
Value	true
Property 11:	
Name	testWhileIdle
Value	true
Property 12:	
Name	maxActive
Value	-1
Property 13:	
Name	maxIdle
Value	30
Property 14:	
Name	maxWait
Value	10000
Property 15:	
Name	testonReturn
Value	false
Property 16:	
Name	validationQuery
Value	Select 1
Property 17:	

Property	Value
Name	jdbcInterceptors
Value	ConnectionState
Property 18:	
Name	validationInterval
Value	15000
Property 19:	
Name	maxAge
Value	600000
Property 20:	
Name	timeBetweenEvictionRunsMillis
Value	5000
Property 21:	
Name	minEvictableIdleTimeMillis
Value	60000
Property 22:	
Name	removeAbandonedTimeout
Value	120

9. Click *Test connection*, as shown in the following image.



Omni-Payer DB2 Database

How to:

Configure a JDBC Provider for the Omni-Payer DB2 Database

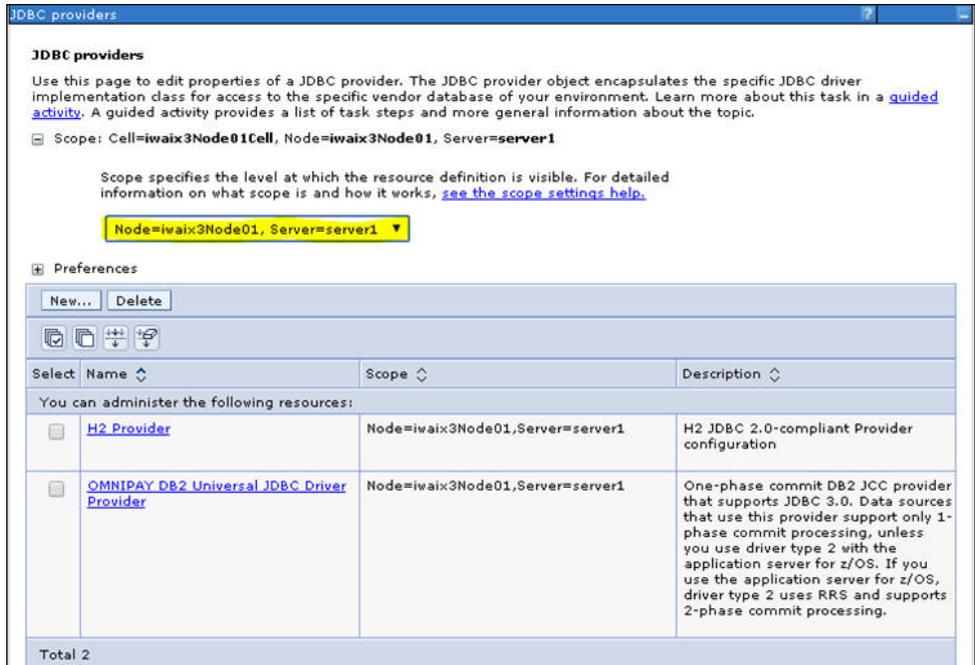
This section describes how to configure a JDBC provider for the Omni-Payer DB2 database.

Procedure: How to Configure a JDBC Provider for the Omni-Payer DB2 Database

1. From the Resources section, expand *JDBC* and then click *JDBC providers*, as shown in the following image.



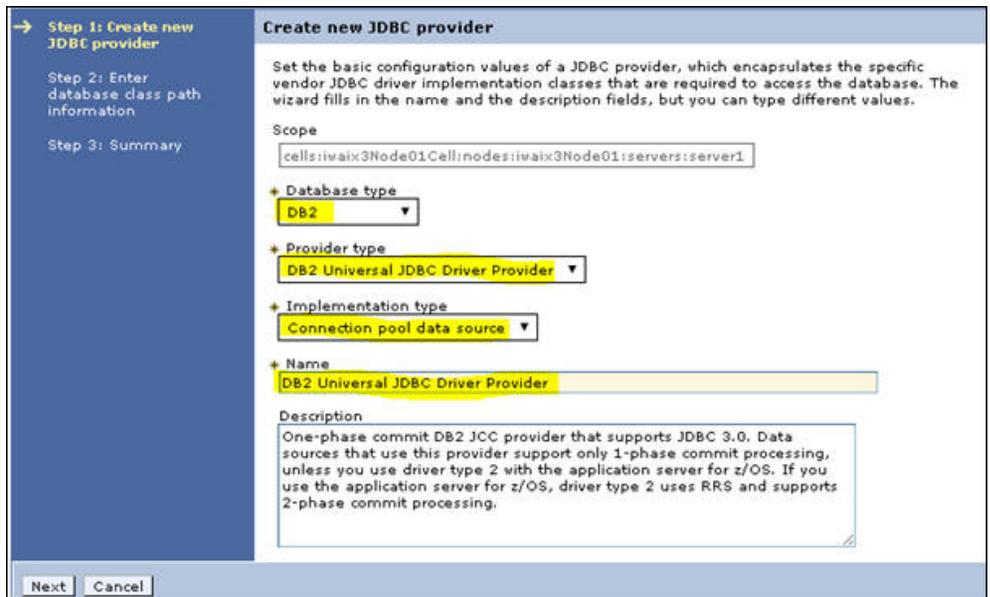
2. From the Scope/Server drop-down list, select the node and the server (for example, *Node=iwaix3Node01, Server=server1*), and then click *New*, as shown in the following image.



The Create new JDBC provider pane opens.

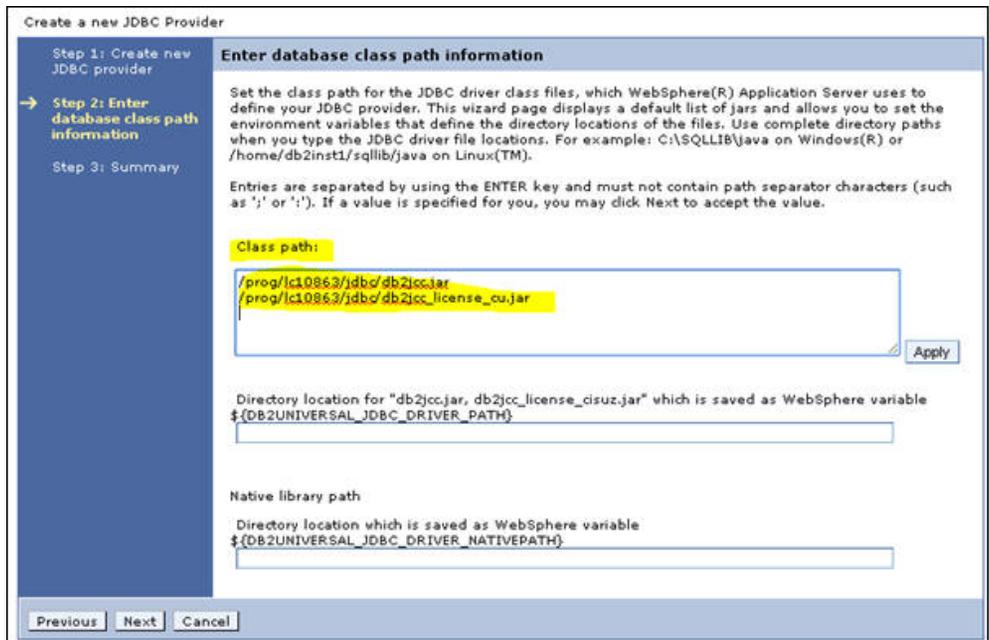
3. Provide the required values for the parameters.
 - a. For the Database type drop-down list, select *DB2*.
 - b. For the Provider type drop-down list, select *DB2 Universal JDBC Driver Provider*
 - c. For the Implementation type drop-down list, select *Connection Pool Data Source*.

- d. In the Name field, enter the name of the provider, for example, *DB2 Universal JDBC Driver Provider*.



- 4. Click Next.

5. In the Class path field, enter the path where the database drivers reside in, and then click *Apply*, as shown in the following image.



Note: Use a site-specific directory of where the database drivers reside.

6. Click *Next*.
7. Click *Finish*.

8. In the following screen that opens, click *OMNIPAY DB2 Universal JDBC Driver Provider*, as shown in the following image.

JDBC providers

Use this page to edit properties of a JDBC provider. The JDBC provider object encapsulates the specific JDBC driver implementation class for access to the specific vendor database of your environment. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

☑ Scope: Cell=**ivaix3Node01**Cell, Node=**ivaix3Node01**, Server=**server1**

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#).

Node=**ivaix3Node01**, Server=**server1** ▼

☑ Preferences

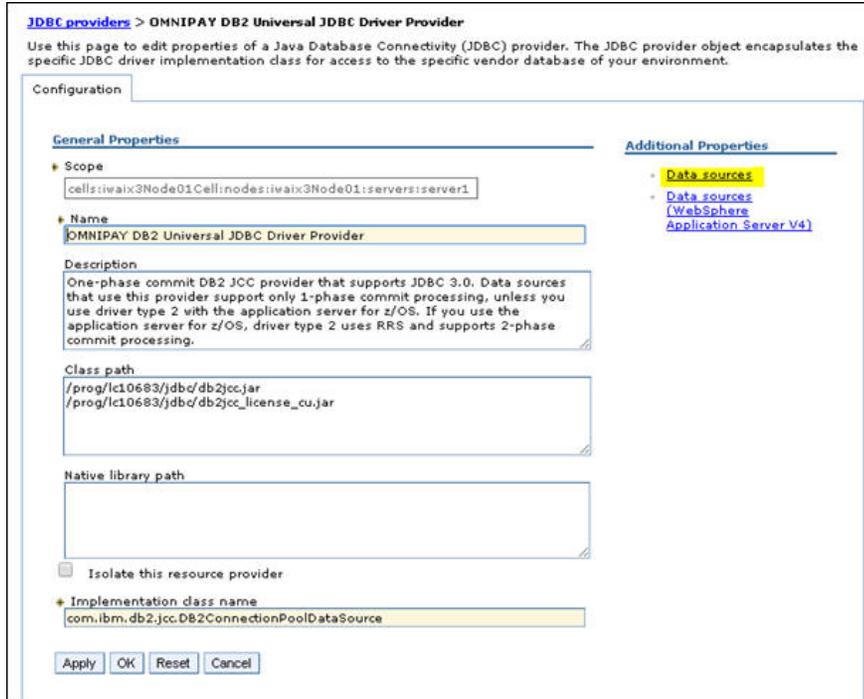
Nav... Delete

🔍 📄 ⚙️ ↻

Select	Name	Scope	Description
You can administer the following resources:			
<input type="checkbox"/>	H2 Provider	Node=ivaix3Node01,Server=server1	H2 JDBC 2.0-compliant Provider configuration
<input type="checkbox"/>	OMNIPAY DB2 Universal JDBC Driver Provider	Node=ivaix3Node01,Server=server1	One-phase commit DB2 JCC provider that supports JDBC 3.0. Data sources that use this provider support only 1-phase commit processing, unless you use driver type 2 with the application server for z/OS. If you use the application server for z/OS, driver type 2 uses RRS and supports 2-phase commit processing.

Total 2

9. Click **Data sources**, as shown in the following image.



10. Click **New**.



11. Create the following JNDI/Names:

- jdbc/Omni-Workflow
- jdbc/Omni-Payer
- jdbc/OmniWorkflow
- jdbc/OmniDictionary

❑ jdbc/omnidictdbx

12 In the JNDI name field, enter:

jdbc/Omni-Workflow

The screenshot shows the 'Create a data source' wizard. On the left, a navigation pane lists four steps: Step 1 (selected), Step 2, Step 3, and Step 4. The main area is titled 'Enter basic data source information' and contains the following text: 'Set the basic configuration values of a datasource for association with your JDBC provider. A datasource supplies the physical connections between the application server and the database. Requirement: Use the Datasources (WebSphere(R) Application Server V4) console pages if your applications are based on the Enterprise JavaBeans(TM) (EJB) 1.0 specification or the Java(TM) Servlet 2.2 specification.' Below this are four input fields: 'Scope' with the value 'cells:iwaix3Node01Cell:nodest:iwaix3Node01:servers:server1', 'JDBC provider name' with 'OMNIPAY DB2 Universal JDBC Driver Provider', 'Data source name' with 'DB2 Universal JDBC Driver DataSource', and 'JNDI name' with 'jdbc/Omni-Workflow'. At the bottom are 'Next' and 'Cancel' buttons.

13 Click Next.

The Enter database specific properties for the data source pane opens.

14 Enter the required values for the requested parameters.

- a. In the Database name field, enter the name of the database (for example, *iwayprs*).
- b. In the Server name field, enter the name of the server, for example, *iwaix3*.

- c. In the Port number field, enter the port number, for example, 60004.

Create a data source

Enter database specific properties for the data source

Set these database-specific properties, which are required by the database vendor JDBC driver to support the connections that are managed through the datasource.

Name	Value
Driver type	4
Database name	
Server name	
Port number	50000

Use this data source in container managed persistence (CMP)

Previous Next Cancel

Note: The Database name, server name, and port number in this example are for documentation purposes. You should use a site-specific database name, server name, and port number as it relates to Omni-Payer.

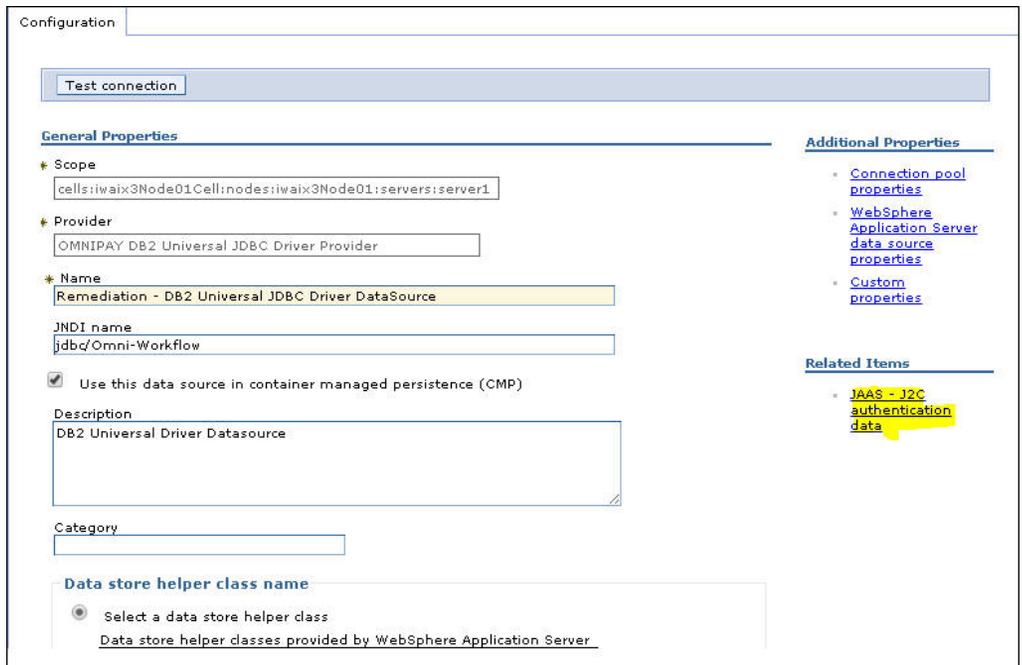
- 15. Click Next, and then click Next again.
- 16. Click *Finish*, and then save your progress.

- 17.** Click *Remediation - DB2 Universal JDBC Driver DataSource*, as shown in the following image.

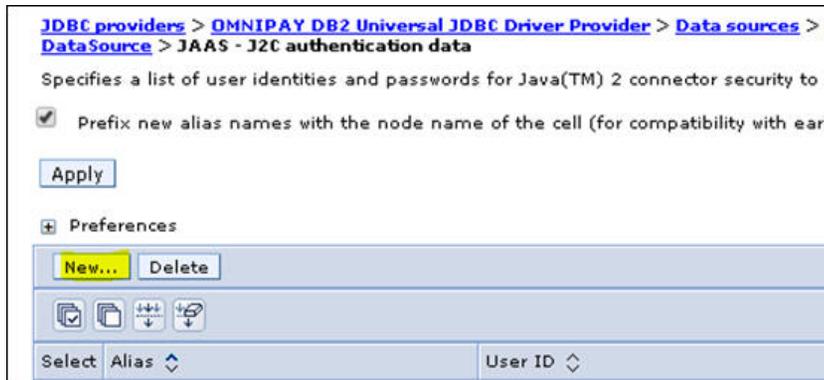
Select	Name	JNDI name	Scope	Provider	Description	Category
<input type="checkbox"/>	OMNIDICTDBX DB2 Universal JDBC Driver DataSource	jdbc/omnidictdbx	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource	
<input type="checkbox"/>	OMNIDIRECTIONARY DB2 Universal JDBC Driver DataSource	jdbc/OmniDictionary	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource	
<input type="checkbox"/>	OMNIPAYER DB2 Universal JDBC Driver DataSource	jdbc/OmniPayer	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource	
<input type="checkbox"/>	OMNIWORKFLOW DB2 Universal JDBC Driver DataSource	jdbc/OmniWorkflow	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource	
<input type="checkbox"/>	Remediation - DB2 Universal JDBC Driver DataSource	jdbc/Omni-Workflow	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource	

Total 5

18. Click **JAAS - J2C authentication data**.



19. Click **New**, as shown in the following image.



The General Properties pane opens, as shown in the following image.

The screenshot shows a web browser window with the following breadcrumb navigation: [JDBC providers](#) > [OMNIPAY DB2 Universal JDBC Driver Provider](#) > [Data sources](#) > [DataSource](#) > [JAAS - J2C authentication data](#) > [New...](#)

Specifies a list of user identities and passwords for Java(TM) 2 connector security to

General Properties

* Alias

* User ID

* Password

Description

Buttons: Apply, OK, Reset, Cancel

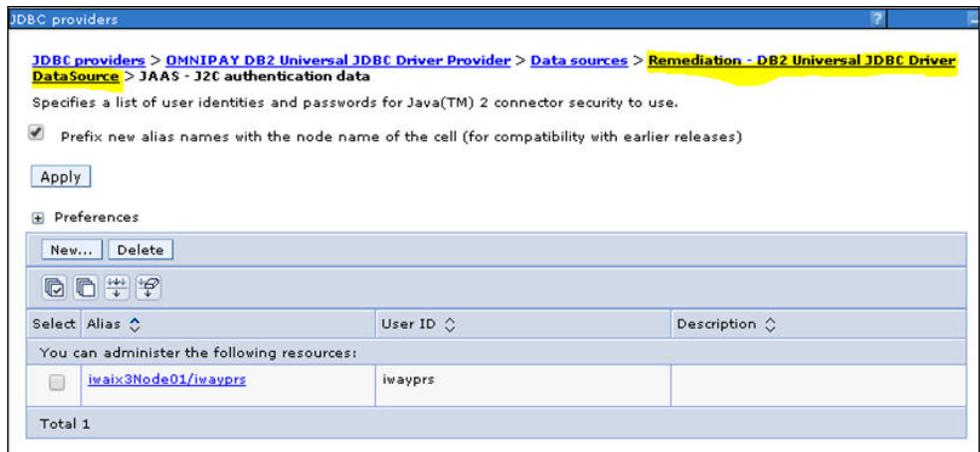
Note: When adding additional JNDI database names, proceed to Step 23 in this procedure.

- 20.** Enter the required values for the requested parameters.
 - a.** In the Alias field, enter an alias name, for example, *iwayprs*.
 - b.** In the User Id field, enter a user ID, for example, *iwayprs*.
 - c.** In the Password field, enter a password, for example, *iwayprs*.

Note: The Alias, User ID, and Password in this example are for documentation purposes. You should use a site-specific alias, user ID, and password as it relates to Omni-Payer

- 21.** Click *Ok* and then save your work.

2. Click the bread crumb, *Remediation - DB2 Universal JDBC Driver DataSource*, to go back to the previous section, as shown in the following image.



- 23.** In the Security settings section, click the Component-managed authentication alias drop-down list and select *iwaix3Node01/iwayprs*, as shown in the following image.

The screenshot displays the configuration page for a data source named "Remediation - DB2 Universal JDBC Driver DataSource". The JNDI name is "jdbc/Omni-Workflow". A checkbox is checked for "Use this data source in container managed persistence (CMP)". The description is "DB2 Universal Driver Datasource".

The "Data store helper class name" section has two radio buttons. The first, "Select a data store helper class", is selected. Below it, a list of helper classes is shown, with "DB2 Universal data store helper" selected. The second radio button, "Specify a user-defined data store helper", is unselected.

The "Security settings" section is highlighted. It contains the instruction "Select the authentication values for this resource." and three dropdown menus:

- "Component-managed authentication alias" is set to "iwaix3Node01/iwayprs".
- "Mapping-configuration alias" is set to "(none)".
- "Container-managed authentication alias" is set to "(none)".

Note: For documentation purposes, use a site-specific node.

- 24.** Click *Apply*.

25. Click *Custom properties*, as shown in the following image.

General Properties

Scope
cells:iiwaix3Node01Cell:nodes:iiwaix3Node01:servers:server1

Provider
OMNIPAY DB2 Universal JDBC Driver Provider

Name
Remediation - DB2 Universal JDBC Driver DataSource

JNDI name
jdbc/Omni-Workflow

Use this data source in container managed persistence (CMP)

Description
DB2 Universal Driver Datasource

Category

Data store helper class name

Select a data store helper class

Data store helper classes provided by WebSphere Application Server

- DB2 Universal data store helper
(com.ibm.websphere.rsadapter.DB2UniversalDataStoreHelper)
- DB2 for iSeries data store helper
(com.ibm.websphere.rsadapter.DB2AS400DataStoreHelper)

Specify a user-defined data store helper

Enter a package-qualified data store helper class name

Security settings

Select the authentication values for this resource.

Component-managed authentication alias
iiwaix3Node01/iwayprs

Additional Properties

- [Connection pool properties](#)
- [WebSphere Application Server data source properties](#)
- [Custom properties](#)

Related Items

- [JAAS - J2C authentication data](#)

26. Scroll down the list of properties and then click on *CurrentSchema*, as shown in the following image.

<input type="checkbox"/>	currentSQLID	Specifies the default schema name that is used to qualify unqualified database objects in dynamically prepared SQL statements. This value of this property sets the value in the CURRENT SQLID special register on a DB2 UDB for OS/390 or z/OS server. If the currentSQLID property is not set, the default schema name is the value in the CURRENT SQLID special register.	false
<input type="checkbox"/>	currentSchema	Identifies the default schema name used to qualify unqualified database object references where applicable in dynamically prepared SQL statements. Unless currentSchema is used, the default schema name is the authorization id of the current session user.	false
<input type="checkbox"/>	cursorSensitivity	Specifies whether java.sql.ResultSet.TYPE_SCROLL_SENSITIVE maps to sensitive dynamic or sensitive static scroll. This property is ignored for insensitive scrollable cursors. The default is 0 (TYPE_SCROLL_SENSITIVE_STATIC).	false

27. In the Value field, enter *OMNIPAY_WORKFLOW*, as shown in the following image.

Configuration

General Properties

Scope

Required

Name

Value

Description

Type

Apply OK Reset Cancel

Note: This value changes for each schema as it relates to a JNDI data source.

28. Click *OK* and then click *Save*.

29. Select the check box for *Remediation - DB2 Universal JDBC Driver*, and then click *Test connection*, as shown in the following image.

JDBC providers > OMNIPAY DB2 Universal JDBC Driver Provider > Data sources

Use this page to edit the settings of a datasource that is associated with your selected JDBC provider. The datasource supplies your application with connections for accessing the database. Learn more about this task in a [guided activity](#). A guided activity provides a list of task steps and more general information about the topic.

Preferences

New... Delete **Test connection** Manage state...

Select	Name	JNDI name	Scope	Provider	Description
<input type="checkbox"/>	OMNIDICTDBX DB2 Universal JDBC Driver DataSource	jdbc/omnidictdbx	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource
<input type="checkbox"/>	OMNIDictionary DB2 Universal JDBC Driver DataSource	jdbc/OmniDictionary	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource
<input type="checkbox"/>	OMNIPAYER DB2 Universal JDBC Driver DataSource	jdbc/OmniPayer	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource
<input type="checkbox"/>	OMNIWORKFLOW DB2 Universal JDBC Driver DataSource	jdbc/OmniWorkflow	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource
<input checked="" type="checkbox"/>	Remediation - DB2 Universal JDBC Driver	jdbc/Omni-Workflow	Node=iwaix3Node01,Server=server1	OMNIPAY DB2 Universal JDBC Driver Provider	DB2 Universal Driver Datasource

A confirmation message indicates that connection was successful.

Messages

 The test connection operation for data source Remediation - DB2 Universal JDBC Driver DataSource on server server1 at node iwaix3Node01 was successful.

30. Repeat Step 12 for the other JNDI database connections listed in Step 11.

Installing the Remediation Service

This section describes how to install the remediation service.

- 1.** Click *Install*, and then click *Browse* to select a *.war* file.
- 2.** Click *Next*.
- 3.** Select the installation options.
 - a.** Select *Allow EJB reference targets to resolve automatically*.
 - b.** Click *Next*.
- 4.** Map modules to the servers.
 - a.** Select *iWay 7.0.2 xxxxxx RemediationService*.
 - b.** Click *Next*.
- 5.** Map the virtual host for web modules.
 - a.** Select *iWay 7.0.2 xxxxxx RemediationService*.
 - b.** Leave the default setting for virtual host.
 - c.** Click *Next*.
- 6.** Map the context roots for web modules.
 - a.** Map the context root to */RemediationService*.
 - b.** Click *Next*.
- 7.** Ensure that there is metadata for modules and then click *Next*.
- 8.** Review the summary and then click *Finish*.
- 9.** Once the *.war* has been deployed, click *Save* to save it directly to the master configuration.

Resolving Library Conflicts

How to:

Configure Isolated Shared Libraries

This section describes how to configure isolated shared libraries and is used to resolve library conflicts between IBM WebSphere Application Server and the Omni-Payer application. For now, the only conflicted library is the Apache HTTP Client.

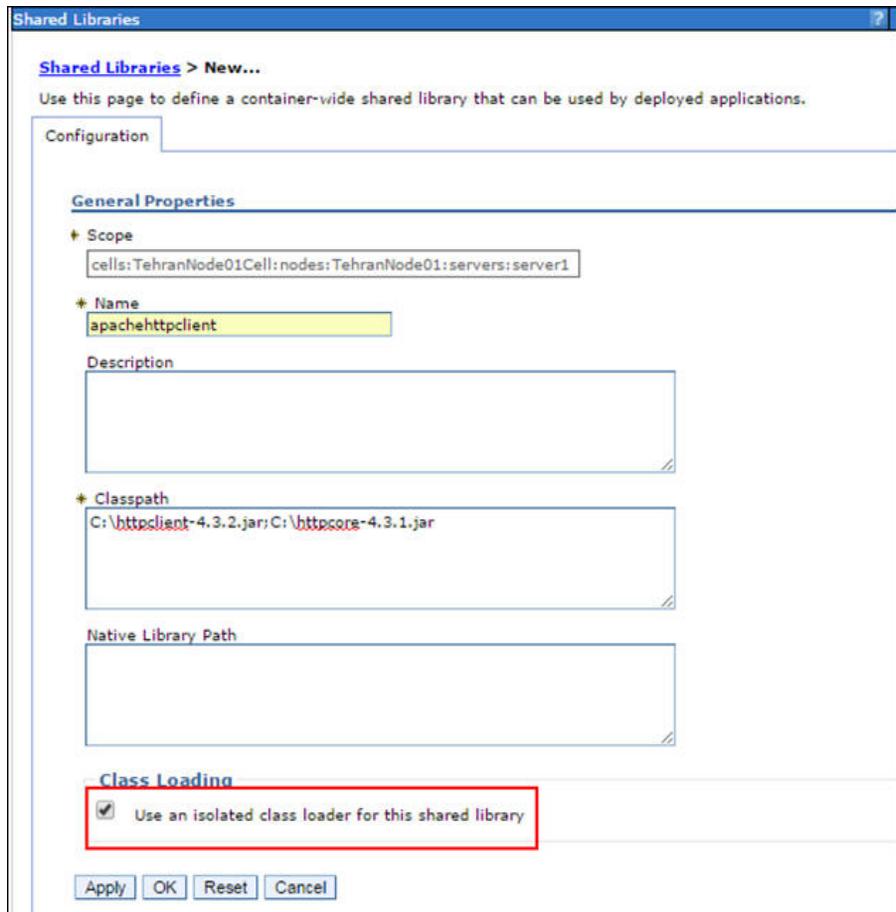
Procedure: How to Configure Isolated Shared Libraries

To configure isolated shared libraries:

- 1.** From the Environment section, click *Shared libraries*.
- 2.** From the Scope/Server drop-down list, select the node and the server (for example, *Node=iwaix3Node01, Server=server1*), and then click *New*.
- 3.** Enter the required values for the parameters.
 - a.** In the Name field, enter a library name, for example, *apachehttpclient*.
 - b.** In the Classpath field, enter a list of paths separated by semicolons (;), for example, *C:\httpclient-4.3.2.jar;C:\httpcore-4.3.1.jar*.

Note: You can find the specified libraries in the *opmc.war* file (WEB-INF\lib\ directory). You can copy them to your file system and edit the classpath according to the new location.

- c. Select the *Use an isolated class loader for this shared library* check box, as shown in the following image.



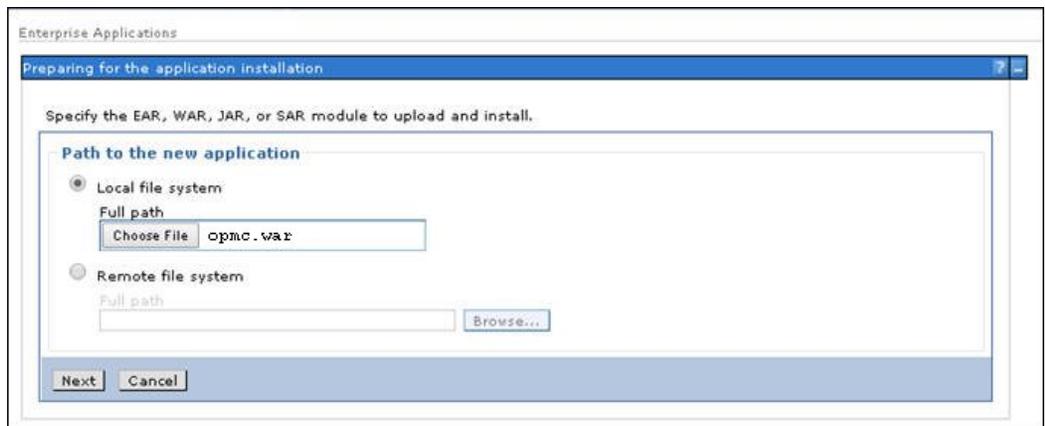
- 4. Click *Apply*, and then click *Save*.
- 5. Prepare the *opmc.war* file. Some additional preparations are required due to library incompatibilities.
 - a. Explore the contents of the *opmc.war* file using any archiving tool.
 - b. Navigate to the *WEB-INF\lib* directory.
 - c. Delete the *validation-api-1.0.0.GA.jar* and *xml-apis-1.3.04.jar* files.

Installing and Deploying the OPMC Application

This section describes how to install and deploy the OPMC application.

1. Install the OPMC application.

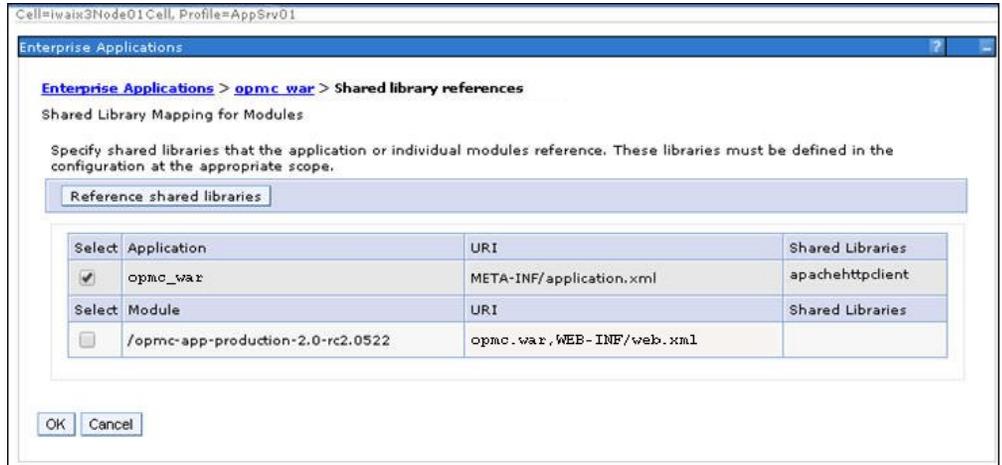
- a.** From the Applications section, expand *Application Types*, and then click *WebSphere enterprise applications*.
- b.** Click the *Install* button.
- c.** Select the *.war* file that pertains to the OPMC application you wish to install (for example, *opmc.war*), as shown in the following image.



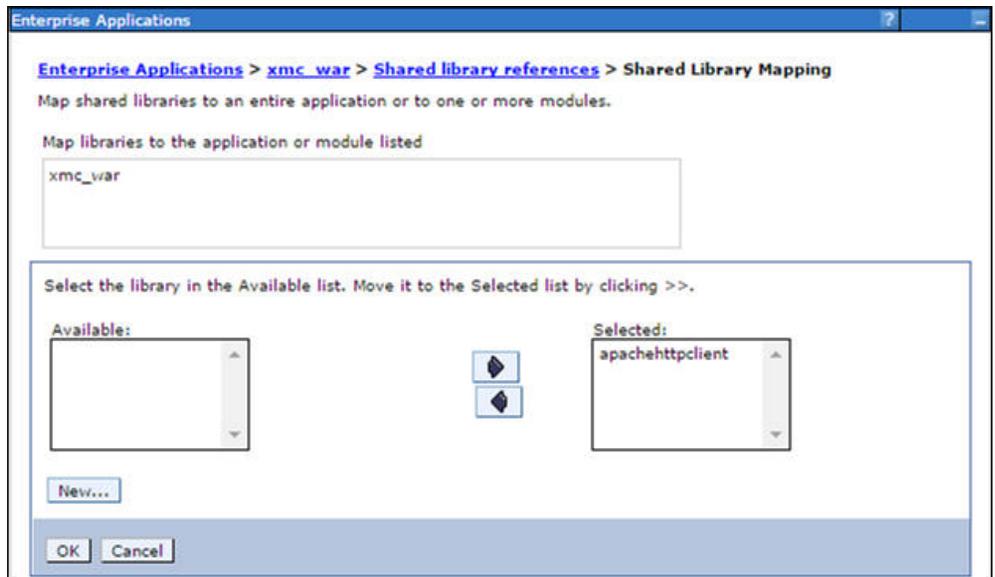
- d.** Click *Next*.
 - e.** Leave the default values (Fast Path mode) and click *Next*.
 - f.** Select *Allow EJB reference targets to resolve automatically*, and leave the other options to their default settings, then click *Next*.
 - g.** Continue clicking *Next* until you reach *Step 4*.
 - h.** In the Context root field, enter:
`/opmc`
 - i.** Click *Next*, and then click *Finish*.
 - j.** Click *Save*.
- 2.** Reference the shared libraries.

The previously created Apache HTTP Client shared library should be referenced by the OPMC application.

- a. From the Applications section, expand Application Types and click *WebSphere enterprise applications*, then select *opmc_war*.
- b. Click *Shared library references*.
- c. Select the *opmc_war* check box and then click the *Reference shared libraries* button, as shown in the following image.

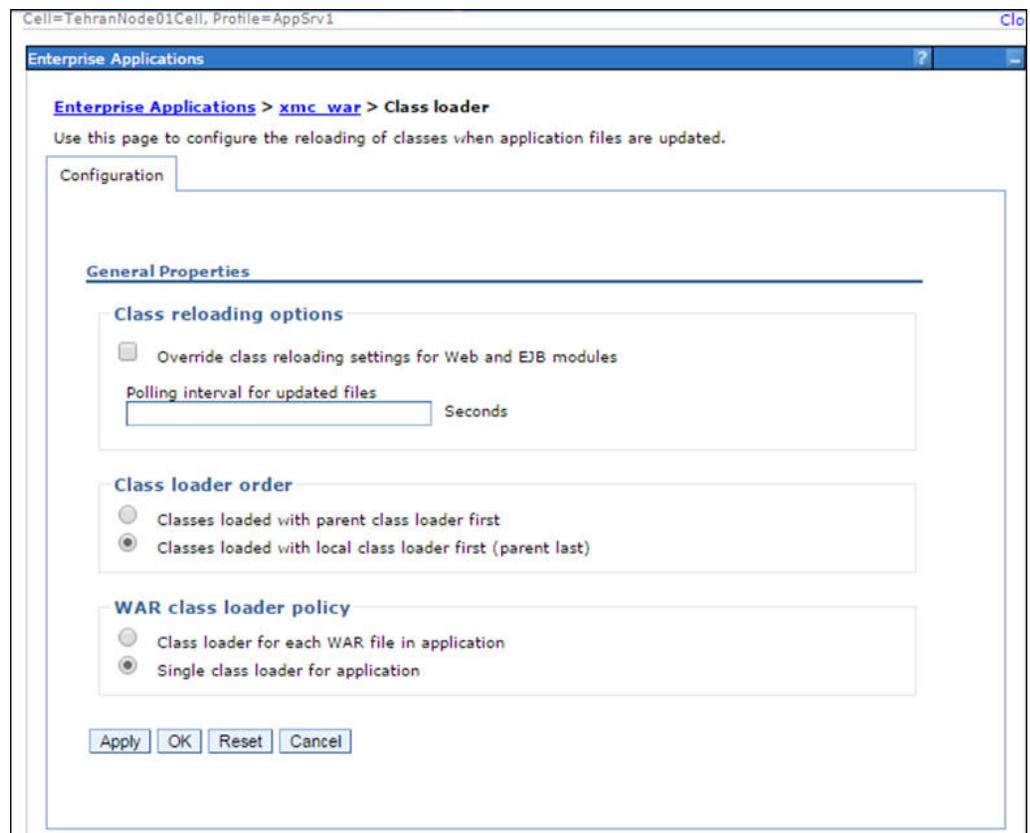


- d. Move the *apachehttpclient* shared library from the *Available* section to the *Selected* section, as shown in the following image.



- e. Click *OK* and then click *OK* again on the following page.
 - f. Click *Save*.
3. Configure the class loader.
 - a. From the Applications section, expand *Application Types*, click *WebSphere enterprise applications*, and select *opmc_war*.
 - b. Select *Class loading and update detection*.

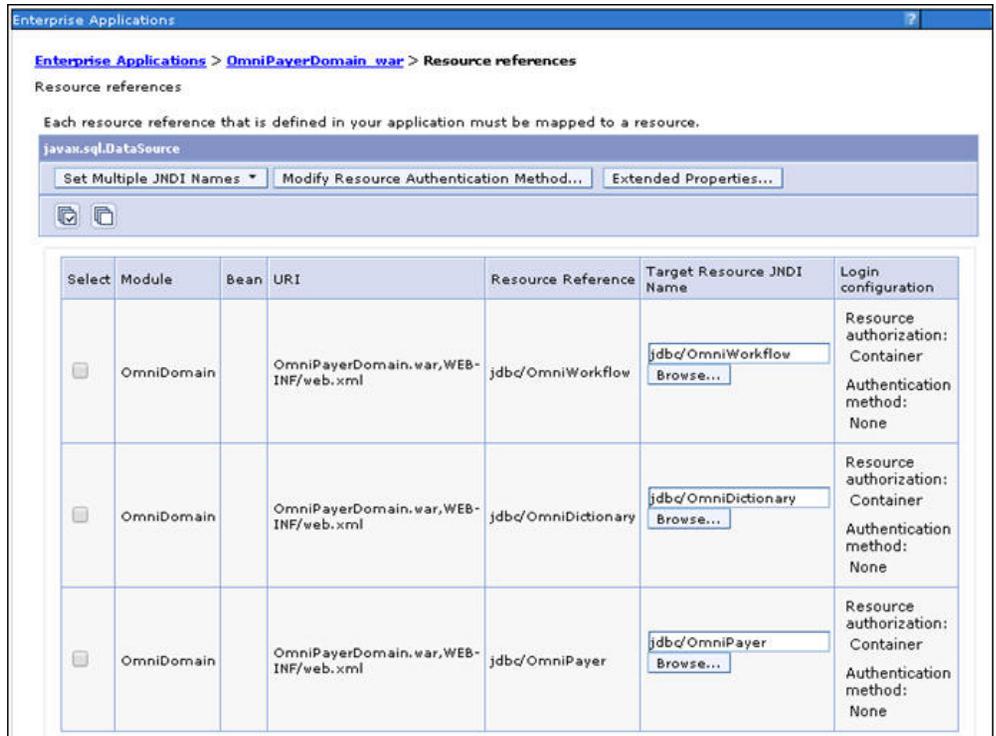
- c. Select *Classes loaded with local class loader first (parent last)* and *Single class loader for application*, as shown in the following image.



Click **OK** and then click **Save**.

4. Install the Omni-Payer Domain application.
 - a. From the Applications section, expand *Application Types*, and then click *WebSphere enterprise applications*.
 - b. Click the *Install* button.
 - c. Select the *.war* file that pertains to the Omni-Payer application you wish to install, for example, *OmniPayerDomain.war*.
 - d. Click *Next*.
 - e. Leave the default values (Fast Path mode) and click *Next*.

- f. Select *Allow EJB reference targets to resolve automatically*, and leave the other options to their default settings, then click *Next*.
- g. Enter the following Resource References:
 - jdbc/OmniWorkflow
 - jdbc/OmniDictionary
 - jdbc/OmniPayer



- h. Click *Next*.
- i. In the Context root field, enter:
 - /OmniPayerDomain
- j. Click *Next*, and then click *Finish*.
- k. Click *Save*.

5. Start the Omni-Payer application.
 - a. From the Applications section, expand *Application Types*, and click *WebSphere enterprise applications*.
 - b. Select *OmniPayer_war*.
 - c. Click *Start*.

6. Check and review the installation by navigating to:

`http://localhost:9080/opmc/`

where:

`localhost`

Is the site-specific machine name.

`9080`

Is the site-specific default host port number.

If the Omni-Payer login page is displayed, then the installation was successful. It is also recommended to restart the IBM WebSphere Application Server after the Omni-Payer application installation to determine whether there are any library conflicts.

Known Issues

In this section:

Inappropriate URL Format

This section describes known issues that were encountered when deploying Omni-Payer Management Central (OPMC) to IBM WebSphere Application Server.

Inappropriate URL Format

An inappropriate URL format has been recognized. When deploying to IBM WebSphere Application Server version 8.5, the following URL:

`http://localhost:9080/opmc/`

is not the same as:

`http://localhost:9080/opmc`

As a workaround, perform the following steps:

1. In the Servers section of the IBM WebSphere Application Server Administrative Console, expand *Server Types*, click *WebSphere application servers*, *Web container settings*, *Web container*, select *Additional Properties*, and then click *Custom properties*.

- 2.** Add the following new property:

`com.ibm.ws.webcontainer.redirectcontextroot`

- 3.** Set this new property to *true*.
- 4.** Click *OK* and then click *Save*.

2 | Uninstalling Omni-Payer Management Central From IBM WebSphere Application Server

This section describes how to uninstall Omni-Payer Management Central (OPMC) from IBM WebSphere Application Server.

Topics:

- ❑ Uninstalling Omni-Payer Management Central

Uninstalling Omni-Payer Management Central

How to:

Uninstall Omni-Payer Management Central

If a specific version of Omni-Payer Management Central (OPMC) must be removed or replaced, use the IBM WebSphere Application Server Administrative Console to uninstall OPMC from your system.

Procedure: How to Uninstall Omni-Payer Management Central

1. Ensure the IBM WebSphere Application Server is started.
2. Enter the following URL in a browser to access the IBM WebSphere Application Server Administrative Console:

`http://localhost:port/ibm/console/login.do`

where:

`localhost`

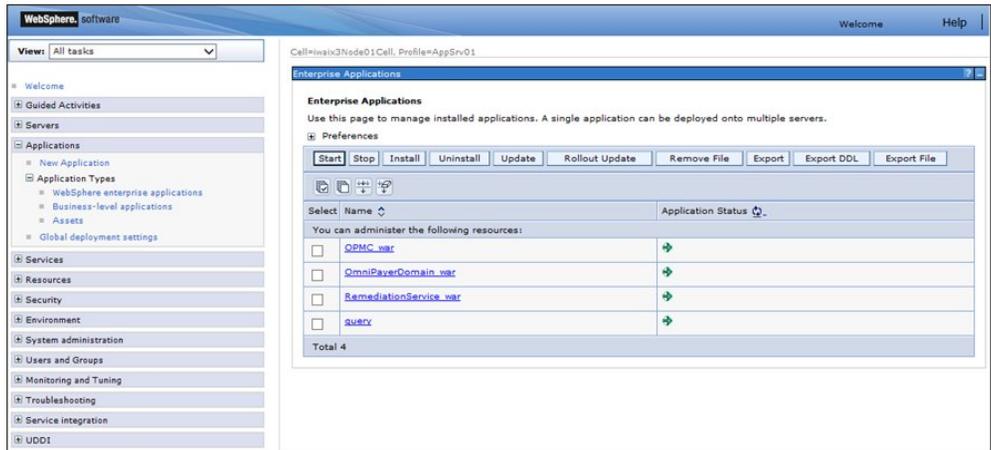
Is the name the system that is hosting IBM WebSphere Application Server.

`port`

Is the configured port number where the IBM WebSphere Application Server is listening.

3. From the Applications section on the left pane, expand *Application Types*, and then click *WebSphere enterprise applications*.

The Enterprise Applications pane opens, as shown in the following image.



4. Select the following .war files:

- OPMC.war
- OmniPayerDomain.war
- RemediationServices.war

5. Click *Uninstall*.

A Installing or Upgrading WS02 Identity Server

This appendix describes how to install or upgrade WS02 Identity Server (WS02 IS) used with Linux and AIX-based Omni-Payer Management Central (OPMC) for Omni-Payer versions 1.2.9 through 1.3.5.x.

Topics:

- ❑ Overview
- ❑ Installing New Omni-Payer Management Central Components
- ❑ Installing a New Version of the WS02 Identity Server
- ❑ Starting the WS02 Identity Server
- ❑ Upgrading the WS02 Identity Server
- ❑ Verifying if the WS02 Identity Server is Active
- ❑ Stopping the WS02 Identity Server

Overview

Each working Omni-Payer Management Central (OPMC) consists of:

- ❑ Three web archives (.war files) deployed in an application server:
 - ❑ *OPMC.war*
 - ❑ *OmniPayerDomain.war*
 - ❑ *RemediationServices.war*
- ❑ A file system beneath the *OMNI_Home* folder, which contains SQL scripts and other artifacts used by the OPMC .war files during runtime, OPMC installation, upgrade, and configuration tasks.
- ❑ A standalone instance of WS02 Identity Server (WS02 IS), including Role and Policy definitions, which may change with each version of OPMC.
- ❑ An external properties file (for Apache Tomcat only), which is called *context.xml*. It is used to configure which databases are used, and which ports are used to communicate with Omni-Payer. The *context.xml* file is located in the following directory:
[/opmc/apache-tomcat 7.0.47/conf/](#)
- ❑ A fourth web archive (*OmniDictImport.war*) is used only during Data Dictionary building, and not during runtime.

Installing New Omni-Payer Management Central Components

Perform the following steps to install new Omni-Payer Management Central (OPMC) components.

- 1.** If not already completed earlier, extract the *opmc_pay_1.3.5.1.zip* file into the desired location on the AIX-based OPMC host machine.
- 2.** Create a new folder called *opmc_1.3.5.1* folder at the root of the C: drive on the Windows-based WS02 Identity Server (WS02 IS) host machine.
- 3.** Copy the *wso2is-4.6.0.zip* file from the AIX file system location to the *C:\opmc_1.3.5.1* folder on the Windows-based WS02 IS host machine.

Installing a New Version of the WS02 Identity Server

To install a new version of the WS02 Identity Server (WS02 IS), extract the *wso2is-4.6.0.zip* file into *C:\wso2is-4.6.0*.

Starting the WS02 Identity Server

To start WS02 Identity Server (WS02 IS), enter the following from a Windows command prompt (C:\ drive):

```
C:\>cd \wso2is-4.6.0\bin
C:\wso2is-4.6.0\bin>wso2server.bat *
```

Upgrading the WS02 Identity Server

No upgrade of WS02 Identity Server (WS02 IS) is required for Omni-Payer Management Central (OPMC) when upgrading Omni-Payer to version 1.3.5.1.

Verifying if the WS02 Identity Server is Active

Perform the following steps to verify if the WS02 Identity Server (WS02 IS) is active.

1. Enter the following URL in a web browser:

```
https://machine_name:9443
```

where:

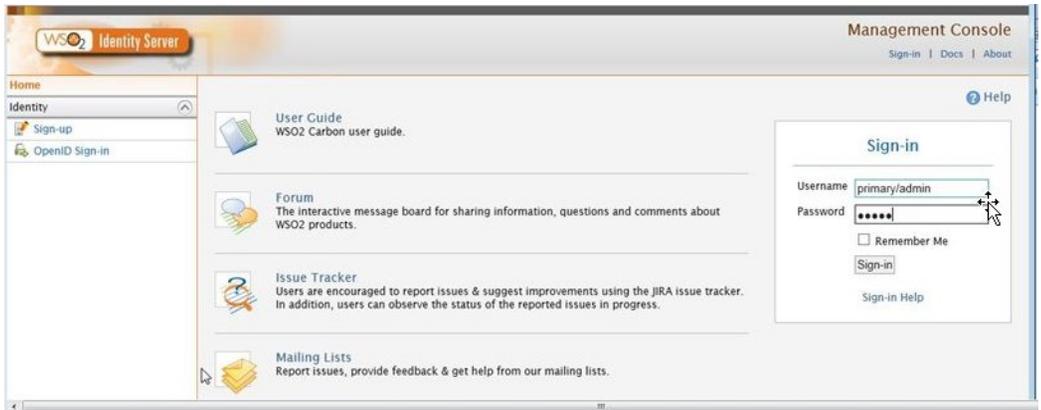
```
machine_name
```

Is the name of the system that is hosting WS02 IS.

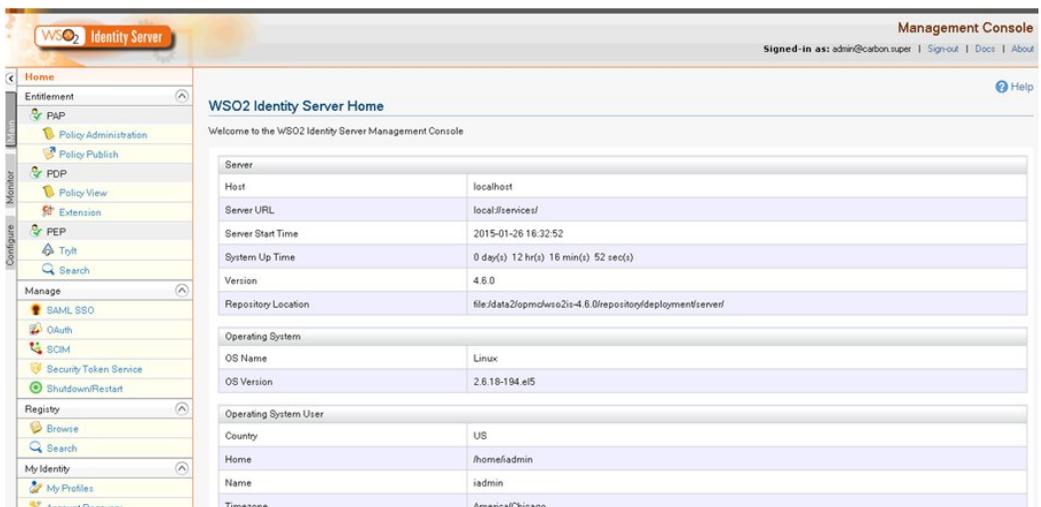
Note: You can specify *http* or *https* in the URL.

2. If you receive a message indicating *This page can't be displayed*, then WS02 IS is down. You must start WS02 IS in this case.
3. If WS02 IS is active you will receive a certificate warning message. Ignore the certificate warning message and click *Continue to this website (not recommended)*.
4. Provide the following login credentials:
 - Username: **primary/admin**
 - Password: **admin**

The following image shows the WS02 IS Sign-in dialog.



The following image shows the WS02 IS home page with configuration details for WS02 IS. If you are able to view this page, then you have verified that WS02 IS active.



Stopping the WS02 Identity Server

Perform the following steps to stop WS02 Identity Server (WS02 IS).

1. Click the grey *Main* tab in the left pane of the WS02 IS home page.
2. Click the *Shutdown/Restart* command with the green target icon.
3. Click the red *Graceful Shutdown* command.

4. Click Yes to confirm stopping your WS02 IS.

WS02 IS now shuts down.

Reader Comments

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