### **Oracle® Fusion Middleware Application Adapters**

Application Adapter for J.D. Edwards OneWorld User's Guide for Oracle WebLogic Server

12*c* Release 1 (12.1.3.0.0) **E58248-01** 

October 2014 Provides information on how to integrate with J.D. Edwards OneWorld systems and develop applications.



Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld User's Guide for Oracle WebLogic Server, 12*c* Release 1 (12.1.3.0.0)

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Primary Author: Stefan Kostial

Contributors: Vikas Anand, Marian Jones, Sunil Gopal, Bo Stern

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## Glossary

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# Preface

Welcome to Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld User's Guide for Oracle WebLogic Server. This document provides information on how to integrate with J.D. Edwards OneWorld systems and develop applications.

## **Audience**

This document is intended for system administrators and developers who integrate with J.D. Edwards OneWorld systems and develop applications.

## **Documentation Accessibility**

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## **Related Documents**

For more information, see the following documents in the Oracle Enterprise Repository 12*c* Release 1 (12.1.3.0.0) documentation set:

- Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server
- Oracle Fusion Middleware Application Adapter Upgrade Guide for Oracle WebLogic Server
- Oracle Fusion Middleware Application Adapter Best Practices Guide for Oracle WebLogic Server
- Oracle's Unified Method (OUM)

A wealth of additional Governance information can be found within Oracle's Unified Method (OUM). OUM can be used by Oracle employees, Oracle Partner Network Certified Partners or Certified Advantage Partners, and Clients who either participate in the OUM Customer Program or are engaged on projects where Oracle provides consulting services. OUM is a web-deployed toolkit for planning, executing and controlling software development and implementation projects.

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http://my.oracle.com/portal/page/myo/ROOTCORNER/KNOWLEDGEAREAS1/BUSIN ESS\_PRACTICE/Methods/Learn\_about\_OUM.html

# **Conventions**

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# Introduction

Oracle WebLogic Server connects to a J.D. Edwards OneWorld system through Oracle Application Adapter for J.D. Edwards OneWorld. Oracle Application Adapter for J.D. Edwards OneWorld provides connectivity and carries out interactions on a J.D. Edwards OneWorld system.

**Note:** Throughout this document, *<ORACLE\_HOME>* refers to the 12*c* installed home location.

<ADAPTER\_HOME> refers to the following:

For SOA:

<ORACLE\_HOME>\soa\soa\thirdparty\ApplicationAdapters

For OSB:

<ORACLE\_HOME>\osb\3rdparty\ApplicationAdapters

This chapter contains the following sections:

- Section 1.1, "Adapter Features"
- Section 1.2, "J.D. Edwards OneWorld Concepts"
- Section 1.3, "Integration with J.D. Edwards OneWorld"
- Section 1.4, "Adapter Architecture"
- Section 1.5, "BSE Versus Oracle Adapter J2CA Deployment"
- Section 1.6, "Sample Projects"
- Section 1.7, "Quick Start Guide"

## 1.1 Adapter Features

Oracle Application Adapter for J.D. Edwards OneWorld provides a means to exchange real-time business data between J.D. Edwards systems and other applications, databases, or external business partner systems. The **adapter** enables inbound and outbound processing with J.D. Edwards.

Oracle Application Adapter for J.D. Edwards OneWorld can be deployed as a J2EE Connector Architecture (J2CA) 1.0 resource adapter. This deployment is referred to as Oracle Adapter J2CA. It can also be deployed as a Web services servlet and is referred to as Oracle Adapter Business Services Engine (BSE).

Oracle Application Adapter for J.D. Edwards OneWorld uses XML messages to enable non-J.D. Edwards OneWorld applications to communicate and exchange transactions with J.D. Edwards OneWorld using services and events. Services and events are described as follows:

- Services: Enables applications to initiate a J.D. Edwards OneWorld business event.
- Events: Enables applications to access J.D. Edwards OneWorld data only when a J.D. Edwards OneWorld business event occurs.

To support event functionality, channels are supported. A **channel** represents configured connections to particular instances of back-end or other types of systems.

The channel is the adapter component that receives events in real time from the Enterprise Information System (EIS) application. The channel component can be a File reader, an HTTP listener, a TCP/IP listener, or an FTP listener. A channel is always EIS specific. The adapter supports multiple channels for a particular EIS, which enables the user to choose the optimal channel component based on deployment requirements.

Oracle Application Adapter for J.D. Edwards OneWorld provides:

- XML schemas and WSDLs for the J2CA 1.0 and 1.5 resource adapter.
- Web services for BSE.

**See Also:** Oracle Application Server Adapter Concepts Guide

# 1.2 J.D. Edwards OneWorld Concepts

You can use Oracle Application Adapter for J.D. Edwards OneWorld to call a J.D. Edwards OneWorld Master Business Function, such as Address Book, Purchase Order, and Sales Order. You can also use the adapter as a part of an integration effort to connect J.D. Edwards OneWorld with non-J.D. Edwards OneWorld systems.

Oracle Application Adapter for J.D. Edwards OneWorld can receive an XML document, or it can run one or more J.D. Edwards OneWorld Master Business Functions (MBF) by passing an XML document into J.D. Edwards OneWorld through the J.D. Edwards OneWorld ThinNet API.

## 1.3 Integration with J.D. Edwards OneWorld

This section contains the following topics:

- Section 1.3.1, "Propagating Internal Listeners Out of J.D. Edwards OneWorld"
- Section 1.3.2, "J.D. Edwards OneWorld Interoperability Framework"

J.D. Edwards OneWorld supports multiple methods and technologies to provide interoperability. The three supported entry points are:

- Flat files
- Database tables
- Master Business Function (MBF) interactive calls

You configure Oracle AS Adapter to send requests to J.D. Edwards OneWorld. The adapter processes requests for J.D. Edwards OneWorld Master Business Functions (MBF), embedded in XML documents, and forwards them to a back-end J.D. Edwards OneWorld system. The resulting response information is then returned and processed for further routing.

Oracle Application Adapter for J.D. Edwards OneWorld can receive an XML request document from a client and call a specific function in the target Enterprise Information System (EIS). Oracle Application Adapter for J.D. Edwards OneWorld acts as a consumer of request messages and provides a response. An adapter performs the following functions:

- Receives requests from a legacy system, another EIS, or a non-EIS client.
- Transforms the XML request document into the EIS-specific format.

The request document conforms to a request XML schema. The schema is based on metadata in the EIS.

- Calls the underlying function in the EIS and waits for its response.
- Transforms the response from the EIS-specific data format to an XML document.

The response document conforms to a response XML schema that is generated by the adapter.

The schema is based on metadata in the EIS.

You can configure a channel for the adapter to receive messages from J.D. Edwards OneWorld. The information the channel receives is used to build an XML record and is forwarded to any specified disposition for further processing.

Channels are consumers of EIS-specific messages and may or may not provide a response. A channel performs the following functions:

- Receives messages from an EIS client
- Transforms the EIS-specific message format into an XML format.

#### 1.3.1 Propagating Internal Listeners Out of J.D. Edwards OneWorld

Integrating a J.D. Edwards OneWorld listener with external systems is similar to the outbound process, except in reverse. The Data Export Control table maintains the determination of whether a transaction must be integrated with an external system. When a transaction must be integrated, the MBF handles logging of all additions, changes, and deletions to the unedited transaction table. After the transaction information writes to the table, a key for that record is sent from the MBF to the subsystem data queue.

The subsystem data queue triggers the processing of the new record by launching an outbound subsystem batch process that is generic and handles all inbound transactions. The J. D. Edwards outbound subsystem then accesses the Data Export Control table to determine the configured external subscriber to run.

#### 1.3.2 J.D. Edwards OneWorld Interoperability Framework

J.D. Edwards OneWorld enables integration with systems through its interoperability framework. The adapter uses the framework and leverages various integration access methods to provide the greatest amount of flexibility and functionality.

Oracle Application Adapter for J.D. Edwards OneWorld supports the following integration access methods:

- J.D. Edwards OneWorld ThinNet API
- J.D. Edwards OneWorld XML
- J.D. Edwards OneWorld unedited transaction tables (Z tables)

Figure 1–1 illustrates the outbound processing framework.

The adapter uses the J.D. Edwards OneWorld ThinNet API to communicate with the J.D. Edwards OneWorld application. Using the ThinNet API, the adapter can run one or more MBF in a single Unit Of Work (UOW). When any of the MBF fail, the entire UOW fails, preventing partial updates. Validation of data, business rules, and communications to the underlying database are handled by the J.D. Edwards OneWorld application because the adapter runs the MBF.

Figure 1–1 J.D. Edwards OneWorld Outbound Processing

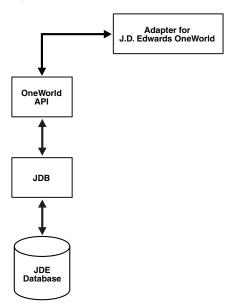


Figure 1–2 illustrates the inbound processing framework.

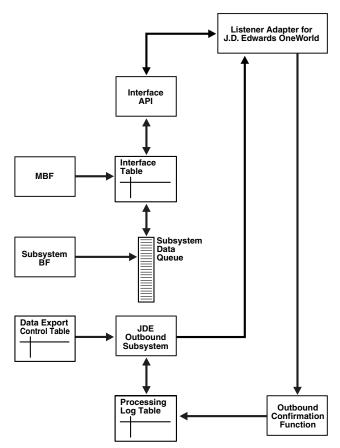


Figure 1–2 J.D. Edwards OneWorld Inbound Processing

In the outbound process, the event starts when a specific MBF is executed in the J.D. Edwards OneWorld environment. The MBF writes the required information for the event into the appropriate interface table and then notifies the subsystem Batch Function (BF) that an event occurred. The subsystem BF then places an entry about the event on the Subsystem Data Queue.

The J.D. Edwards OneWorld outbound subsystem retrieves the data queue entry and looks in the Data Export Control table for the external processes to notify. The J.D. Edwards OneWorld outbound subsystem then calls the Oracle Application Adapter for J.D. Edwards OneWorld listener with notification. The listener passes the notification to the generator. The generator then uses the J.D. Edwards OneWorld ThinNet API to retrieve the appropriate information from the interface table.

## **1.4 Adapter Architecture**

Oracle Application Adapter for J.D. Edwards OneWorld uses Application Explorer with one of the following components:

- Oracle WebLogic Server Adapter Business Services Engine (BSE)
- Enterprise Connector for J2EE Connector Architecture (J2CA)

This section contains the following topics:

- Section 1.4.1, "Oracle Adapter Application Explorer (Application Explorer)"
- Section 1.4.2, "Resource Adapters"

- Section 1.4.3, "Oracle WebLogic Server Adapter Business Services Engine (BSE) Architecture"
- Section 1.4.4, "Oracale WebLogic Server Adapter Generic J2CA Architecture"
- Section 1.4.5, "Processing Business Functions"

### 1.4.1 Oracle Adapter Application Explorer (Application Explorer)

Application Explorer is used to configure database connections and create Web services and events. It can be configured to work in a Web services environment with BSE or with the Enterprise Connector for J2EE Connector Architecture (J2CA). When working in a J2CA environment, the connector uses the Common Client Interface (CCI) to provide fast integration services using Adapters instead of using Web services.

Both BSE and the connector for J2CA are deployed to an application server with Application Explorer and the adapters.

Application Explorer uses an explorer metaphor for browsing the J.D. Edwards system for business functions. Application Explorer enables you to create XML schemas and Web services for the associated business function.

#### 1.4.2 Resource Adapters

Oracle Application Adapter for J.D. Edwards OneWorld is a J2CA-based component also known as resource adapter. Resource adapters connect applications that were not originally designed to communicate with each other. Adapters are bidirectional, that is, they can send requests to an Enterprise Information System (EIS), and receive notification of events occurring in an EIS.

#### 1.4.3 Oracle WebLogic Server Adapter Business Services Engine (BSE) Architecture

Figure 1–3 shows the generic architecture for the Oracle Web service adapter for packaged applications. The adapter works with BSE, as deployed to a Web container in a J2EE application server.

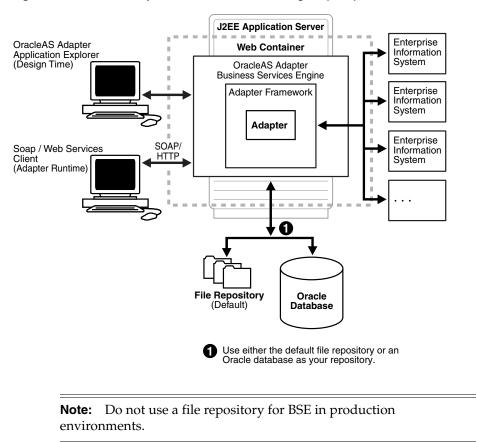


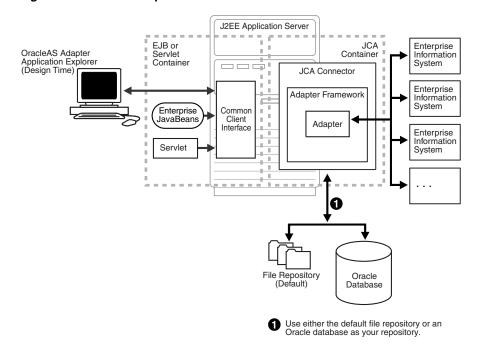
Figure 1–3 Oracle Adapter Business Services Engine (BSE) Architecture

Application Explorer, a design-time tool deployed along with BSE, is used to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. Metadata created while you perform these operations are stored in the repository by BSE.

BSE uses SOAP as a protocol for receiving requests from clients, interacting with the EIS, and sending responses from the EIS back to clients.

#### 1.4.4 Oracale WebLogic Server Adapter Generic J2CA Architecture

Figure 1–4 shows the generic architecture for Oracle J2CA adapter for packaged applications. The J2CA connector is deployed to a standard J2CA Container and serves as host container to the adapters. The connector is configured with a repository.



*Figure 1–4 Oracle Adapter Generic J2CA Architecture* 

Application Explorer, a design tool that works with the connector, is used to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. Metadata created during these operations is stored in the repository by the connector. The repository can be a file system or an Oracle database. It is deployed as a RAR file and has an associated deployment descriptor called ra.xml. You can create multiple connector factories by editing the Oracle WebLogic Server deployment descriptor ra.xml. For more information, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

#### 1.4.5 Processing Business Functions

Oracle Application Adapter for J.D. Edwards OneWorld enables the processing of J.D. Edwards OneWorld business functions through the J.D. Edwards ThinNet API. Using the API eliminates the requirement of creating complex and impractical batch processes. In addition, a transport layer, such as IBM MQSeries, is not required because a listener is defined through a HTTP, TCP, or File connection.

External applications that access J.D. Edwards OneWorld through Oracle Application Adapter for J.D. Edwards OneWorld use either XML schemas or Web services to pass data between the external application and the adapter. Chapter 2, "Configuring Oracle Application Adapter for J.D. Edwards OneWorld" describes how to use Application Explorer to create XML schemas and Web services for the J.D. Edwards Master Business Functions (MBF) used with the adapter.

### 1.5 BSE Versus Oracle Adapter J2CA Deployment

If you are using Oracle Application Adapter for J.D. Edwards OneWorld with Oracle SOA Suite components (for example, BPEL, Mediator, BPM, or OSB), then note that:

 Only Oracle Adapter J2CA deployment supports inbound integration (event notification) with Oracle SOA Suite components.  Oracle Adapter J2CA and BSE deployments support outbound integration (request-response service) with Oracle SOA Suite components.

The following two factors explain the differences between deploying BSE and Oracle Adapter J2CA. Understanding these factors can help in selecting a deployment option.

- **1.** BSE has the following advantages:
  - Can be deployed in a separate instance of Oracle WebLogic Server.
  - Provides better distribution of load.
  - Conforms more closely to the Service Oriented Architecture (SOA) model for building applications.
- 2. Oracle Adapter J2CA does provide slightly better performance than BSE.

## **1.6 Sample Projects**

Sample projects for the Oracle Application Adapter for J.D. Edwards OneWorld that demonstrate outbound and inbound integration scenarios using Oracle BPEL, Mediator, BPM, and OSB tools are packaged with the Application Adapters installation. The following table lists the locations of the sample projects:

Sample Project	Location
Outbound BPEL Process	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_</adapter_home></pre>
(J2CA)	Samples\BPEL\J2CA\Outbound_Project
Inbound BPEL Process	<adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_</adapter_home>
(J2CA)	Samples\BPEL\J2CA\Inbound_Project
Outbound BPEL Process (BSE)	<adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\BPEL\BSE\Outbound_Project</adapter_home>
Outbound Mediator	<adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_</adapter_home>
Process (J2CA)	Samples\Mediator\J2CA\Outbound_Project
Inbound Mediator	<adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_</adapter_home>
Process (J2CA)	Samples\Mediator\J2CA\Inbound_Project
Outbound Mediator	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_</adapter_home></pre>
Process (BSE)	Samples\Mediator\BSE\Outbound_Project
Outbound BPM Process (J2CA)	<ada and="" o<="" of="" set="" td="" the="" transformation=""></ada>
Inbound BPM Process	<adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_</adapter_home>
(J2CA)	Samples\BPM\J2CA\Inbound_Project
Outbound BPM Process (BSE)	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\BPM\BSE\Outbound_Project</adapter_home></pre>

Sample Project	Location
Outbound OSB sbconsole Process (J2CA)	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\OSB\J2CA\JDEdwards_Sample_J2CA_OSB_Outbound_ Project</adapter_home></pre>
Inbound OSB sbconsole Process (J2CA)	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\OSB\J2CA\JDEdwards_Sample_J2CA_OSB_Inbound_Project</adapter_home></pre>
Outbound OSB sbsonsole Process (BSE)	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\OSB\BSE\JDEdwards_Sample_BSE_OSB_Outbound_Project</adapter_home></pre>
Outbound OSB Jdeveloper Process (J2CA)	<abase>ADAPTER_HOME&gt;\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\OSB_Jdeveloper\J2CA\JDEdwards_Sample_J2CA_OSB_ Outbound_Project</abase>
Inbound OSB Jdeveloper Process (J2CA)	<abase>ADAPTER_HOME&gt;\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\OSB_Jdeveloper\J2CA\JDEdwards_Sample_J2CA_OSB_ Inbound_Project</abase>
Outbound OSB Jdeveloper Process (BSE)	<pre><adapter_home>\etc\sample\JDEdwards_Samples.zip\JDEdwards_ Samples\OSB_Jdeveloper\BSE\JDEdwards_Sample_BSE_OSB_ Outbound_Project</adapter_home></pre>

# 1.7 Quick Start Guide

This section enables you to quickly learn the basic steps to install and configure Oracle Application Adapter for J.D. Edwards OneWorld and to use it immediately. It includes the following topics:

- Section 1.7.1, "Installation"
- Section 1.7.2, "Copying Third-Party Library Files"
- Section 1.7.3, "Configuration"
- Section 1.7.4, "WebLogic Server Deployment and Integration"
- Section 1.7.5, "Creating Configurations, Targets, and Channels in Application Explorer"
- Section 1.7.6, "Working With Service Components in the SOA Suite"
- Section 1.7.7, "Working With Oracle Service Bus"
- Section 1.7.8, "Other Features"

#### 1.7.1 Installation

- **1.** Download the Oracle Fusion Middleware Application Adapters installation file for the corresponding platform being used and execute the file.
  - Windows: iwora12c\_application-adapters\_win.exe
  - Linux: iwora12c\_application-adapters\_linux.bin
  - Solaris: iwora12c\_application-adapters\_solaris.bin
  - HPUX: iwora12c\_application-adapters\_hpux.bin

- AIX: iwora12c\_application-adapters\_aix.bin
- **2.** The Oracle Fusion Middleware Application Adapters must be installed in one of the following directories:
  - For Oracle SOA Suite:

<ORACLE\_HOME>\soa\soa\thirdparty\ApplicationAdapters

For OSB:

<ORACLE\_HOME>\osb\3rdparty\ApplicationAdapters

For more information on installing the Oracle Fusion Middleware Application Adapters, see the Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server.

#### 1.7.2 Copying Third-Party Library Files

Once the adapter installation is completed, copy the required third-party library files for J.D. Edwards OneWorld to the following directories:

<ADAPTER\_HOME>\lib

<ORACLE\_HOME>\user\_projects\domains\base\_domain\lib

For more information on installing Oracle Fusion Middleware Application Adapters, see the Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server.

#### 1.7.3 Configuration

Navigate to <*ADAPTER\_HOME*> and make the following changes:

**1.** Open *iwafjca.rar\META-INF\ra.xm1* and add the following values under the specified config-property-name parameters, as shown in Table 1–1.

Config-Property-Name	Config-Property-Value				
IWayHome	<adapter_home></adapter_home>				
	For example:				
	• For SOA:				
	$\verb"C:\l2C_soa\soa\thirdparty\ApplicationAdapters"$				
	■ For OSB:				
	$C:\12c_OSB\osb\3rdparty\ApplicationAdapters$				
IWayConfig	The name of the configuration. For example:				
	jca_sample				

Table 1–1

**2.** Open *ibse.war\WEB-INF\web.xml* and add the following values under the specified param-name parameters, as shown in Table 1–2.

Param-Name	Param-Value
ibseroot	<adapter_home>\ibse.war</adapter_home>
	For example:
	■ For SOA:
	C:\12C_ soa\soa\soa\thirdparty\ApplicationAdapters\ibse.war
	■ For OSB:
	C:\12c_ OSB\osb\3rdparty\ApplicationAdapters\ibse.war
IWay.home	<adapter_home></adapter_home>
	For example:
	■ For SOA:
	C:\12C_soa\soa\thirdparty\ApplicationAdapters
	■ For OSB:
	C:\12c_OSB\osb\3rdparty\ApplicationAdapters
Iway.config	The name of the configuration. For example:
	IBSE

Table 1–2

**Note:** These steps are provided only when configuring a File repository. For more information about configuring a database repository and general configuration information, see Chapter 2, "Configuring Oracle Application Adapter for J.D. Edwards OneWorld" and Chapter 3, "Oracle WebLogic Server Deployment and Integration".

#### 1.7.4 WebLogic Server Deployment and Integration

- 1. Start the WebLogic server and open the WebLogic console.
- **2.** Deploy the adapter components (ibse.war, iwafjca.war, and iwafjca.rar files) and start the deployed adapter components.

For more information on deployment, integration, and target creation, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

### 1.7.5 Creating Configurations, Targets, and Channels in Application Explorer

For more information on creating configurations, targets, and channels in Application Explorer, see the following sections in this user's guide:

- Starting Application Explorer: Section 2.1, "Starting Application Explorer"
- Creating a BSE Configuration: Section 2.3.1, "Creating a Configuration for BSE"
- Creating a J2CA Configuration: Section 2.3.2, "Creating a Configuration for J2CA"

- Connecting the Created Configurations: Section 2.3.3, "Connecting to a BSE or J2CA Configuration"
- Creating and Connecting to Targets: Section 2.4, "Establishing a Connection (Target) for J.D. Edwards OneWorld"
- Creating and Testing Web Services: Section 2.7, "Creating and Testing a Web Service (BSE Configurations Only)"
- Generating WSDL Files: Section 2.6, "Generating WSDL (J2CA Configurations Only)"
- Creating and Working With Channels: Section 2.8, "Configuring an Event Adapter"

#### 1.7.6 Working With Service Components in the SOA Suite

Oracle Application Adapter for J.D. Edwards OneWorld integrates with service components in SOA suite such as BPEL, Mediator, and BPM. Required processes are created in JDeveloper and then deployed to the SOA server.

For more information on working with BPEL, Mediator, and BPM service components, see:

- Chapter 4, "Integration With BPEL Service Components in the Oracle SOA Suite"
- Chapter 5, "Integration With Mediator Service Components in the Oracle SOA Suite"
- Chapter 6, "Integration With BPM Service Components in the Oracle SOA Suite"

#### 1.7.7 Working With Oracle Service Bus

Oracle Application Adapter for J.D. Edwards OneWorld integrates with Oracle Service Bus (OSB) to facilitate Web service integration. Required processes are created in the Oracle Service Bus Console. The process can also be created in JDeveloper and then deployed to the SOA server.

For more information on working with OSB Console, see Chapter 7, "Configuring Outbound and Inbound Processing Using Oracle Service Bus".

For more information on working with OSB JDeveloper, see Chapter 8, "Configuring an Outbound and Inbound Process for Oracle Service Bus Using JDeveloper".

#### 1.7.8 Other Features

The following is list of other features and their relevant sections in this user's guide:

- Configuring the Exception Filter: Section 9.1, "Exception Filter"
- Configuring Credential Mapping:
  - Section 9.2, "Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)"
  - Section 9.3, "Credential Mapping for Oracle Service Bus (OSB)"

# Configuring Oracle Application Adapter for J.D. Edwards OneWorld

This chapter describes how to use Oracle Adapter Application Explorer (Application Explorer) to define a target to connect to a J.D. Edwards OneWorld system, view system objects, and create XML schemas and Web services. This chapter also explains how to configure an event adapter.

This chapter contains the following sections:

- Section 2.1, "Starting Application Explorer"
- Section 2.2, "Configuring Repository Settings"
- Section 2.3, "Creating a Repository Configuration"
- Section 2.4, "Establishing a Connection (Target) for J.D. Edwards OneWorld"
- Section 2.5, "Creating an XML Schema"
- Section 2.6, "Generating WSDL (J2CA Configurations Only)"
- Section 2.7, "Creating and Testing a Web Service (BSE Configurations Only)"
- Section 2.8, "Configuring an Event Adapter"
- Section 2.9, "Runtime Overview"
- Section 2.10, "Modifying the JDE.INI File for Outbound and Inbound Processing"

# 2.1 Starting Application Explorer

To start Application Explorer:

- **1.** Ensure that Oracle WebLogic Server is started, which is where Application Explorer is deployed.
- 2. Open the command prompt.
- **3.** Navigate to the following directory:

<ADAPTER\_HOME>\user\_projects\domains\base\_domain\bin

4. Execute setDomainEnv.cmd(Windows) or . ./setDomainEnv.sh
 (UNIX/Linux).

This command sets the class path and other environment variables for Application Explorer in the Oracle WebLogic Server environment. In addition, it allows Application Explorer to access the Oracle WebLogic Server APIs to publish WSDL files to the Oracle Service Bus (OSB) Console.

- 5. Do not close the command prompt.
- 6. Navigate to the following directory:

<ADAPTER\_HOME>\tools\iwae\bin

7. Execute *ae.bat* (Windows) or *iwae.sh* (UNIX/Linux) to start Application Explorer.

Application Explorer starts. You are ready to define new targets to your J.D. Edwards OneWorld system.

**Note:** Before you run the **iwae.sh** file on UNIX or Linux platforms, the permissions must be changed. For example:

chmod +x iwae.sh

# 2.2 Configuring Repository Settings

A repository holds information about configuration details, adapter targets, channels, and other configuration information. For more information on how to configure BSE and J2CA repository settings, see the *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server* (Section 2.7.4 "Configuring the Oracle Database Repository").

# 2.3 Creating a Repository Configuration

Before you use Application Explorer with Oracle Application Adapter for J.D. Edwards OneWorld, you must create a repository configuration. You can create two kinds of repository configurations, Web services and J2CA, depending on the container to which the adapter is deployed. During design time, the repository is used to store metadata created when using Application Explorer to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. The information in the repository is also referenced at run-time.

This section contains the following topics:

- Section 2.3.1, "Creating a Configuration for BSE"
- Section 2.3.2, "Creating a Configuration for J2CA"
- Section 2.3.3, "Connecting to a BSE or J2CA Configuration"

Web services and BSE refer to the same type of deployment. For more information, see "Adapter Features" on page 1-1.

#### 2.3.1 Creating a Configuration for BSE

To create a repository configuration for BSE using Application Explorer, you must first define a new configuration.

This section contains the following topic:

Section 2.3.1.1, "Defining a New Configuration for BSE"

#### 2.3.1.1 Defining a New Configuration for BSE

To define a new configuration for BSE:

1. Right-click **Configurations** and select **New**.

The New Configuration dialog is displayed, as shown in Figure 2–1.

Figure 2–1 New Configuration Dialog

New Con	figuration	×
?	Name:	-
	OK Cancel	

 Enter a name for the new configuration (for example, myConfig) and click OK. The New Configuration dialog is displayed, as shown in Figure 2–2.

Figure 2–2 New Configuration Dialog

🔊 New Configuratio	n			×
Service Provider iBS	E			
iBSE URL http://local/	nost:70	01/ibse/IBSES(	ervlet	
C	ок	Cancel		

- 3. From the Service Provider list, select iBSE.
- **4.** In the **iBSE URL** field, accept the default URL or replace it with a different URL using the following format:

http://host name:port/ibse/IBSEServlet

Where *host name* is the system where your Oracle WebLogic Server resides and *port* is the HTTP port for a managed Oracle WebLogic Server (for example, soa\_server1).

5. Click OK.

A node representing the new configuration appears beneath the root Configurations node, as shown in Figure 2–3.

Figure 2–3 Configurations Node

Configurations

#### 2.3.2 Creating a Configuration for J2CA

To create a configuration for J2CA using Application Explorer, you must first define a new configuration.

To define a new configuration for J2CA:

1. Right-click **Configurations** and select **New**.

The New Configuration dialog is displayed.

**2.** Enter a name for the new configuration (for example, myConfig) and click **OK**, as shown in Figure 2–4.

Figure 2–4 New Configuration Dialog

🔊 New Configura	tion			×
Service Provider	JCA 💌			
Home C:VoracleVM	iddleware	NOracle_SO.	A1\soa\third;	part
	ок	Cancel		

- 3. From the Service Provider list, select JCA.
- 4. Click OK.

A node representing the new configuration appears beneath the root Configurations node, as shown in Figure 2–5.

#### Figure 2–5 Configurations Node

Sonfigurations

The Oracle Adapter J2CA configuration folder is stored in a location based on your adapter installation:

<ADAPTER\_HOME>\config\configuration\_name

The *configuration\_name* is the name of the configuration you created (for example, SampleConfig).

#### 2.3.3 Connecting to a BSE or J2CA Configuration

To connect to a new configuration:

- 1. Right-click the configuration to which you want to connect, for example, SampleConfig.
- 2. Select Connect.

Nodes appear for Adapters, Events, and Business Services (also known as Web services). The Business Services node is only available for BSE configurations. If you are connected to a J2CA configuration, then the Business Services node is not shown. As shown in Figure 2–6, the following is an example of a BSE configuration named SampleConfig:

# *Figure 2–6 The New SampleConfig Configuration That Appears Under The Configurations Node*



- Use the Adapters node to create inbound interaction with J.D. Edwards OneWorld. For example, you use the J.D. Edwards OneWorld node in the Adapters node to configure a service that updates J.D. Edwards OneWorld.
- Use the **Events** node (available for J2CA configurations only) to configure listeners that listen for events in J.D. Edwards OneWorld.
- Use the **Business Services** node (available for BSE configurations only) to test Web services created in the Adapters node. You can also control security settings for the Web services by using the security features of the Business Services node.

You can now define new targets to J.D. Edwards OneWorld.

# 2.4 Establishing a Connection (Target) for J.D. Edwards OneWorld

Part of the application definition includes adding a target for the adapter. Setting up the target in Application Explorer requires information which is specific to the target.

This section contains the following topic:

Section 2.4.1, "Defining a Target to J.D. Edwards OneWorld"

To browse the available Master Business Functions (MBF), you must first define a target to the system you use. After you define the target, it is automatically saved. You must connect to the system every time you start Application Explorer or after you disconnect.

When you launch Application Explorer, the left pane displays (as nodes) the application systems supported by Application Explorer, based on the adapters that are installed.

#### 2.4.1 Defining a Target to J.D. Edwards OneWorld

This section contains the following topics:

- Section 2.4.1.1, "Connecting to a Defined J.D. Edwards OneWorld Target"
- Section 2.4.1.2, "Disconnecting from J.D. Edwards OneWorld"
- Section 2.4.1.3, "Editing a Target"
- Section 2.4.1.4, "Deleting a Target"

To connect to an application system for the first time, you must define a new target.

When you define a target, you must restart the Oracle WebLogic Server to update the repository for run time purposes.

**Note:** Before you create a new target, you must obtain the required library files for your J.D. Edwards OneWorld system and copy them to the appropriate location where the Oracle Application Adapter for J.D. Edwards OneWorld is deployed. For more information, see the *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server.* 

To define a target:

1. In the left pane, expand the Adapters node.

The applications systems supported by Application Explorer appear as nodes based on the adapters that are installed.

2. Right-click the JDEdwards node and select Add Target.

The Add Target dialog is displayed, as shown in Figure 2–7.

Figure 2–7 Add Target Dialog

🙀 Add Targ	et	×
Name:	JDEConnection	
Description:		
Туре:	JDE One World	•
	OK Cancel	

Perform the following steps:

- a. In the Name field, enter a descriptive name, for example, JDEConnection.
- **b.** In the **Description** field, enter a description for the target (optional).
- c. From the Type list, select JDE One World.
- 3. Click OK.

The JDE One World dialog appears, as shown in Figure 2–8.

Repository Logo	
Repository direct	ory c:\genjava
Schema style	ATTRIBUTE_STYLE
	ATTROUT_STILL

Figure 2–8 JDE One World Dialog

**a.** In the **Repository** tab, enter the path to the GenJava repository in the Repository directory field.

This is the location of the Java wrappers for accessing the J.D. Edwards OneWorld business functions, which are created by the GenJava development tool. Please note that this is a prerequisite step, which must be performed before a new target is created using Application Explorer.

**Note:** Generating schemas requires the GenJava repository. For more comprehensive information on building the J.D. Edwards OneWorld Master Business Function repository, see the *J.D. Edwards Interoperability Guide for OneWorld Xe.* For information on how to use the GenJava program, see Using the GenJava Development Tool (Outbound Processing) in Appendix A, "Configuring J.D. Edwards OneWorld for Outbound and Inbound Processing".

- b. From the Schema style list, select ELEMENT\_STYLE or ATTRIBUTE\_ STYLE.
- **c.** Click the **Logon** tab and enter the appropriate information for your target type based on the information in the following table. Fields marked with an asterisk are required, as shown in Figure 2–9.

#### Figure 2–9 Logon Tab

Repository Logon	
User id*	
User password*	
JDE Environment*	
Server IP address*	
Server port *	
User role	*ALL

Parameter	Description
User id*	A valid user ID for J.D. Edwards OneWorld.
User password*	The password associated with the user ID.
JDE environment*	The J.D. Edwards OneWorld environment, for example, DU7333. For more information about this parameter, see your J.D. Edwards OneWorld documentation or ask your J.D. Edwards OneWorld system administrator.
Server IP address*	The name of the server on which J.D. Edwards OneWorld is running. This can be the name of the server, for example, JDEOW, or its IP address.
Server Port*	The port number on which the server is listening, for example, 6009.
User role	Specify *ALL.

#### 4. Click OK.

The new target, JDEConnection, appears under the JDEdwards node.

#### 2.4.1.1 Connecting to a Defined J.D. Edwards OneWorld Target

To connect to a target:

- 1. Expand the Service Adapters node.
- 2. Expand the JDEdwards node.
- 3. Click the target name (for example, JDEConnection) under the JDEdwards node.
- 4. Click the Logon tab on the right.

The Logon tab displays the values you entered for connection parameters.

- 5. Verify your connection parameters.
- 6. Right-click the target name and select Connect.

The x icon disappears, indicating that the node is connected, as shown in Figure 2-10.

Figure 2–10	JDEdwards Target Node
🔁 📲 JDEdwa	ards One World
📋 🗄 🖵 JDB	Connection
	Events
-6	Services
	UnitsOfWork

#### 2.4.1.2 Disconnecting from J.D. Edwards OneWorld

To disconnect from a target:

- 1. Expand the Adapters node.
- 2. Expand the JDEdwards node.
- **3.** Right-click the target to which you are connected (for example, JDEConnection), and select **Disconnect**.

The x icon appears, indicating that the node is disconnected.

#### 2.4.1.3 Editing a Target

To edit a target:

- 1. In the left pane, ensure that the target you want to edit is disconnected.
- 2. Right-click the target and select Edit.

A window is displayed that enables you to edit the existing connection parameters.

- **3.** Modify the target information.
- 4. Click OK.

When you edit a target, you must restart the Oracle WebLogic Server to update the repository for run time purposes.

#### 2.4.1.4 Deleting a Target

You can delete a target, rather than just disconnecting and closing it. When you delete the target, the node disappears from the list of J.D. Edwards OneWorld targets in the left pane of the explorer.

When you delete a connection, you must restart the Oracle WebLogic Server to update the repository for run time purposes.

To delete a target:

- **1.** Expand the **Adapters** node.
- 2. Expand the JDEdwards node.
- **3.** Right-click the target to which you are connected (for example, JDEConnection), and select **Delete**.

The node disappears from the list of available connections.

For information on how to view application system objects, see J.D. Edwards Interoperability Guide Release OneWorld XE.

# 2.5 Creating an XML Schema

To execute an MBF, the adapter must receive a request document through the J.D. Edwards OneWorld ThinNet API. The agent processes the request and sends an XML response document indicating the result. Application Explorer creates both the XML request schema and the XML response schema.

This section contains the following topic:

Section 2.5.1, "Creating a Request and a Response Schema"

#### 2.5.1 Creating a Request and a Response Schema

The following procedure explains how to create request and response schemas for a J.D. Edwards OneWorld business function. Application Explorer enables you to create XML schemas for this function.

- 1. Connect to a J.D. Edwards OneWorld target as described in "Connecting to a Defined J.D. Edwards OneWorld Target" on page 2-8.
- 2. Expand the Services node.
- **3.** Expand the node of the MBF for which you want to create the schema.
- 4. Expand and then select the node beneath the MBF, as shown in Figure 2–11.

#### Figure 2–11 Detail Tab

🔓 🎇 Detail	parameters	🛗 Request Schema	🖺 Response Schema
iwaf.description	Not Specified		

5. Click the parameters tab to view the parameter information Figure 2–12.

Figure 2–12 Parameters Tab

👬 Detail		📰 parameters		
Field	Туре	;	MaxLength	
szLedgerType	String		3	
szUnitsLedg	String		3	
cRetainedEa	Char		1	
cLedgerReq	Char		1	
cIntercompa	Char		1	
cRestateme	Char		1	
szCurrency	String		4	
cDirectBalan	Char		1	

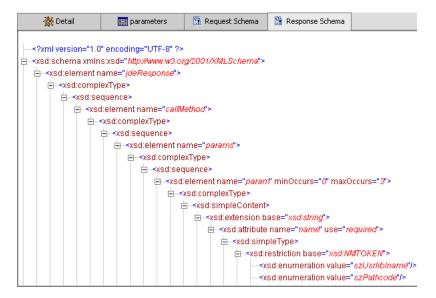
**6.** Click **Request Schema** to view the request schema information, as shown in Figure 2–13.

💥 Detail	📰 parameters	🖺 Request Schema	🛗 Response Schema	
	/" encoding="UTF-8" ?> is:xsd=" http://www.w3.or hame=" jdeRequest"> lexType> iquence> d:element name="callM <xsd:complextype> - <xsd:sequence> - <x< td=""><td>g/2001/XMLSchema"&gt; lethod"&gt; ame="params"&gt; ixType&gt; uence&gt; element name="param xsd:complexType&gt; = <xsd:simplecontent= = <xsd:simple< td=""><td>1' minOccurs="<i>0</i>' maxO ase="<i>xsd:string</i>"&gt; name="<i>name</i>" use="<i>re</i></td><td>equired"&gt;</td></xsd:simple<></xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </td></x<></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:sequence></xsd:complextype>	g/2001/XMLSchema"> lethod"> ame="params"> ixType> uence> element name="param xsd:complexType> = <xsd:simplecontent= = <xsd:simple< td=""><td>1' minOccurs="<i>0</i>' maxO ase="<i>xsd:string</i>"&gt; name="<i>name</i>" use="<i>re</i></td><td>equired"&gt;</td></xsd:simple<></xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= </xsd:simplecontent= 	1' minOccurs=" <i>0</i> ' maxO ase=" <i>xsd:string</i> "> name=" <i>name</i> " use=" <i>re</i>	equired">
		— <x< td=""><td>sd:enumeration value=' sd:enumeration value='</td><td>"szUsrlibiname"l&gt;</td></x<>	sd:enumeration value=' sd:enumeration value='	"szUsrlibiname"l>

Figure 2–13 Request Schema Tab

**7.** Click **Response Schema** to view the response schema information, as shown in Figure 2–14.

Figure 2–14 Response Schema Tab



# 2.6 Generating WSDL (J2CA Configurations Only)

The procedure for generating WSDL (Web Service Definition Language) for request-response (outbound) services differs from that of generating WSDL for event notification (inbound) J2CA services of the adapter.

This section contains the following topic:

Section 2.6.1, "Generating a WSDL for Outbound Interaction"

#### 2.6.1 Generating a WSDL for Outbound Interaction

To generate a WSDL file for request-response service:

- **1.** Start Application Explorer and connect to a defined J.D. Edwards OneWorld target.
- 2. Expand Services, CALLBSFN, and then Addressbook. Select GetEffectiveAddress.
- 3. Right-click GetEffectiveAddress.

The following menu is displayed, as shown in Figure 2–15.

Figure 2–15 Create Outbound JCA Service (Request/Response) Option

Export Schema(s)
Create Outbound JCA Service(Request/Response)
Apply Filter

4. Select Create Outbound JCA Service (Request/Response).

The Export WSDL dialog is displayed, as shown in Figure 2–16.

Figure 2–16 Export WSDL Dialog

xport WSDL	
Name	Japters\tools\iwae\bin\\\.\wsdls\J2CA_Outbound_invoke.wsdl
Export to OSB	
Location	
Host	
Port	
User	
Password	
	OK Cancel

**5.** Accept the default name for the file.

The **.wsdl** file extension is added automatically. By default, the names of WSDL files generated for request-response services end with \_invoke, while those generated for event notification end with \_receive.

6. Click OK.

The WSDL file is saved in the specified location.

# 2.7 Creating and Testing a Web Service (BSE Configurations Only)

You can generate a Web service (also known as a **business service**) using Application Explorer. You can explore the business function repository and generate Web services for the functions you want to use with the adapter.

This section contains the following topics:

- Section 2.7.1, "Creating a Web Service"
- Section 2.7.2, "Testing a Web Serice"
- Section 2.7.3, "Identity Propagation"

The following procedure uses an example called BusinessUnitExistenceCheck.

**Note:** In a J2EE Connector Architecture (J2CA) implementation, Web services are not available. When the adapters are deployed to use J2CA, the Common Client Interface (CCI) provides integration services.

#### 2.7.1 Creating a Web Service

To create a Web service for a business function:

- 1. Expand the **JDEdwards** node and then the **Services** node.
- 2. Expand CALLBSFN and then Addressbook.
- 3. Right-click GetEffectiveAddress and select Create Web Service.

The Create Web Service dialog is displayed, as shown in Figure 2–17.

Figure 2–17 Create Web Service Dialog

🙀 Create Web Service		×
Existing Service Names:	<new service=""></new>	•
Service Name:		
Service Description:		•
	Next Cancel	

You can add the business function as a method for a new Web service or as a method for an existing one.

- **a.** From the **Existing Service Names** list, select either **<new service>** or an existing service.
- **b.** In the **Service Name** field, specify a service name if you are creating a new service. This name identifies the Web service in the list of services under the Business Services node.
- **c.** Enter a description for the service (optional).
- 4. Click Next.

Perform the following steps:

- **a.** In the **License Name** field, select one or more license codes to assign to the Web service.
- b. In the Method Name field, leave the default method name.
- c. In the **Description** field, enter a brief description of the method (optional).
- **d.** In the **DTD Directory** field, specify a location where the Web service are saved. If you want to select a location different than the default, then click **Browse** and navigate to the desired location.
- 5. Click OK.

Application Explorer switches the view to the **Business Services** node, and the new Web service appears in the left pane.

6. Right-click the new Web service and select Save WSDL from the menu.

The Save dialog is displayed.

- **7.** Provide a name for the WSDL file and a location to save the WSDL file on your file system.
- 8. Click Save.

### 2.7.2 Testing a Web Serice

After a Web service is created, you can test it to ensure it functions properly. A test tool is provided for testing the Web service.

To test a Web service:

- 1. Click the Business Services node to access your Web services.
- 2. Expand the Services node.
- 3. Select the name of the business service you want to test.

The business service name appears as a link in the right pane.

4. In the right pane, click the named business services link.

The test option appears in the right pane. If you are testing a Web service that requires XML input, then an input field is displayed.

- 5. Enter the appropriate input.
- 6. Click Invoke.

Application Explorer displays the results.

### 2.7.3 Identity Propagation

If you test or execute a Web service using a third party XML editor, for example XMLSPY, then the user name and password values that you specify in the SOAP header must be valid and are used to connect to J.D. Edwards OneWorld. The user name and password values that you provided for J.D. Edwards OneWorld during target creation using Application Explorer are overwritten for this Web service request. The following is a sample SOAP header that is included in the WSDL file for a Web service:

```
<SOAP-ENV:Header>
<m:ibsinfo xmlns:m="urn:schemas-iwaysoftware-com:iwse">
<m:service>String</m:service>
<m:method>String</m:method>
<m:license>String</m:license>
```

```
<m:disposition>String</m:disposition>
<m:Username>String</m:Username>
<m:Password>String</m:Password>
<m:language>String</m:language>
</m:ibsinfo>
</SOAP-ENV:Header>
```

You can remove the <m:disposition> and <m:language> tags from the SOAP header, since they are not required.

# 2.8 Configuring an Event Adapter

Events are generated by activity in a database or in an application system. You can use events to trigger an action in your application. For example, an update to a database can reflect an update to customer information. If your application must perform when this happens, then your application is a consumer of this event.

This section contains the following topics:

- Section 2.8.1, "Creating and Editing a Channel"
- Section 2.8.2, "The J.D. Edwards OneWorld Event Listener"
- Section 2.8.3, "Configuring the J.D. Edwards OneWorld Event Listener"

After you create a connection to your application system, you can add events using Application Explorer. To create an event, you must create a channel.

**Note:** If you are using a J2CA configuration, then you must create a new channel for every event object and select this channel when you generate WSDL. Creating a channel is required for J2CA configurations only.

A **channel** represents configured connections to particular instances of back-end systems. For more information, see "Creating and Editing a Channel" on page 2-15.

#### 2.8.1 Creating and Editing a Channel

The following section describes how to create a channel for your event and contains the following topics:

- Section 2.8.1.1, "Creating an HTTP Channel"
- Section 2.8.1.2, "Creating a TCP Channel"
- Section 2.8.1.3, "Creating a File Channel"
- Section 2.8.1.4, "Editing a Channel"
- Section 2.8.1.5, "Deleting a Channel"

When you create, modify, or delete a channel, you must restart the Oracle WebLogic Server to recognize the change and update the repository for run time purposes. After successfully creating the channel and inbound WSDL file, close Application Explorer before you restart the application server. **Note:** If you are planning to integrate Oracle Application Adapter for J.D. Edwards OneWorld with BPM, BPEL, Mediator, or OSB inbound process components, then do not start the channel. The channel is managed by the run-time server after the BPM, BPEL, Mediator, or OSB process component is deployed. If you start the channel from Application Explorer for testing and debugging purposes, then stop it before run-time (when working with BPM, BPEL, Mediator, or OSB process components).

Three channel types are available:

HTTP

=

- TCP
- File

**Note:** Channels can be configured only on the system where the Oracle Application Adapter for J.D. Edwards OneWorld is installed.

### 2.8.1.1 Creating an HTTP Channel

To create an HTTP Channel:

- **1.** Click the **Events** node.
- 2. Expand the **JDEdwards** node.

The ports and channels nodes appear in the left pane.

3. Right-click Channels and select Add Channel.

The Add Channel dialog is displayed, as shown in Figure 2–18.

📓 Add Channel	×
Name:	
JDE_Channel1	
Description:	
Protocol:	
HTTP Listener	•
Augilable Dert(a)	Salastad Dart/a)
Available Port(s)	Selected Port(s)
	>
	<
	<
Nex	d Cancel

Figure 2–18 Add Channel Dialog

Provide the following information:

- **a.** Enter a name for the channel, for example, **JDE\_Channel1**.
- **b.** Enter a brief description.
- **c.** From the **Protocol** list, select **HTTP Listener**.
- 4. Click Next.

The Http Listener dialog is displayed, as shown in Figure 2–19.

Http Listener	×
Basic PreParser	
Listener port*	8080
Https	
Synchronization Type	REQUEST
Encoding Type	ASCII
<u>p</u>	OK Cancel
Fields marked with * are re	equired.

Figure 2–19 Http Listener Dialog Basic Tab

5. Enter the system information as specified in the following table:

Description
Port on which to listen for J.D. Edwards OneWorld event data.
For a secure HTTP connection, select the <b>Https</b> check box.
This option is currently not supported.
Choose from the following synchronization options:
<ul> <li>REQUEST_RESPONSE</li> </ul>
<ul> <li>REQUEST_ACK</li> </ul>
<b>Important:</b> The J.D. Edwards OneWorld channel does not work if the synchronization type is set to REQUEST.
Choose an encoding type to be used from the list. By default, ASCII is selected.

6. Click the **PreParser** tab, as shown in Figure 2–20.

Http Liste	ner	×
Basic	PreParser	
User i	d*	
User	password*	
JDE E	nvironment*	
Applic	ation	
Serve	r IP address*	
Serve	r port *	
User	role	
Scher	na Location	
Scher	na style	ELEMENT_STYLE
		OK Cancel
Fields ma	rked with * are	e required.

Figure 2–20 Http Listener Dialog Preparser Tab

7. Enter the system information as specified in the following table:

Parameter	Description
User id	A valid user ID for J.D. Edwards OneWorld.
User password	The password associated with the J.D. Edwards OneWorld user ID.
JDE Environment	The J.D. Edwards OneWorld environment, for example, DU7333. For more information about this parameter, see your J.D. Edwards OneWorld documentation or ask your J.D. Edwards OneWorld system administrator.
Application	The application that is defined in the J.D. Edwards OneWorld environment.
Server IP address	The name of the server on which J.D. Edwards OneWorld is running. This can be the name of the server, for example, JDEOW, or its IP address.
Server port	The port number on which the server is listening, for example, 6009.
User role	Specify *ALL.
Schema Location	The location of the XML schema (.xsd file) that was generated from the event output. For example:
	<pre><adapter_home>\config\configuration_name\schemas\JDEdwards\target_ name\jde-schema.xsd</adapter_home></pre>
	For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.
Schema Style	Choose from one of the following options:
	<ul> <li>ELEMENT_STYLE (default)</li> </ul>
	<ul> <li>ATTRIBUTE_STYLE</li> </ul>

8. Click OK.

A summary pane is displayed, providing the channel description, channel status, and available ports. All the information is associated with the channel you created.

The channel appears under the channels node in the left pane.

An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

9. Right-click the channel and select Start.

The channel you created becomes active. The X over the icon in the left pane disappears.

**10.** To stop the channel, right-click the channel and select **Stop**.

#### 2.8.1.2 Creating a TCP Channel

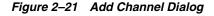
To create a TCP Channel:

- **1.** Click the **Events** node.
- 2. Expand the JDEdwards node.

The ports and channels nodes appear in the left pane.

3. Right-click **Channels** and select **Add Channel**.

The Add Channel dialog is displayed, as shown in Figure 2–21.



📓 Add Channel	×
Name:	
JDE_Channel2	
Description:	
Protocol:	
TCP Listener	•
Available Port(s)	Selected Port(s)
	>>
	>
	<
	<<
Nex	t Cancel

Provide the following information:

- **a.** Enter a name for the channel, for example, **JDE\_Channel2**.
- **b.** Enter a brief description.
- c. From the Protocol list, select TCP Listener.
- 4. Click Next.

The Tcp Listener dialog is displayed, as shown in Figure 2–22.

Figure 2–22 Tcp Listener Dialog Basic Tab

lcp Listener	×
Basic PreParser	
Port Number*	
Host/IP Binding	
Synchronization Type REQUEST_RESPONSE	
Is Length Prefix	
✓ IS XML	
Is Keep Alive	
OK Cancel	
ields marked with * are required.	

5. Enter the system information as specified in the following table:

Parameter	Description
Port Number	Port on which the Host database is listening.
Host/IP Binding	Name or URL of the system where the database resides.
	Choose from the following synchronization options:
Туре	<ul> <li>REQUEST_RESPONSE</li> </ul>
	<ul> <li>REQUEST_ACK</li> </ul>
	<b>Important:</b> The J.D. Edwards OneWorld channel does not work if the synchronization type is set to REQUEST.
Is Length Prefix	For J.D. Edwards OneWorld events that send data back that is not in XML format. The TCP/IP event application must prefix the data with a 4-byte binary length field when writing the data to the TCP/IP port.
Is XML	For J.D. Edwards OneWorld events that send data back in XML format. No preparser is required.
Is Keep Alive	Maintains continuous communication between the event transaction and the channel.

6. Click the **PreParser** tab, as shown in Figure 2–23.

Tcp Listener	X
Basic PreParser	
User id*	
User password*	
JDE Environment*	
Application	
Server IP address	
Server port *	
User role	
Schema Location	
Schema style	ELEMENT_STYLE -
	OK Cancel
Fields marked with * a	

Figure 2–23 Tcp Listener Dialog Preparser Tab

7. Enter the system information as specified in the following table:

Parameter	Description
User id	A valid user ID for J.D. Edwards OneWorld.
User password	The password associated with the J.D. Edwards OneWorld user ID.
JDE Environment	The J.D. Edwards OneWorld environment, for example, DU7333. For more information about this parameter, see your J.D. Edwards OneWorld documentation or ask your J.D. Edwards OneWorld system administrator.
Application	The application that is defined in the J.D. Edwards OneWorld environment.
Server IP address	The name of the server on which J.D. Edwards OneWorld is running. This can be the name of the server, for example, JDEOW, or its IP address.
Server port	The port number on which the server is listening, for example, 6009.
User role	Specify *ALL.
Schema Location	The location of the XML schema (.xsd file) that was generated from the event output. For example:
	<pre><adapter_home>\config\configuration_name\schemas\JDEdwards\target_ name\jde-schema.xsd</adapter_home></pre>
	For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.
Schema Style	Choose from one of the following options:
	<ul> <li>ELEMENT_STYLE (default)</li> </ul>
	ATTRIBUTE_STYLE

#### 8. Click OK.

A summary pane is displayed, providing the channel description, channel status, and available ports. All the information is associated with the channel you created.

The channel appears under the channels node in the left pane.

An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

9. Right-click the channel and select Start.

The channel you created becomes active. The X over the icon in the left pane disappears.

**10.** To stop the channel, right-click the channel and select **Stop**.

#### 2.8.1.3 Creating a File Channel

To create a File Channel:

- **1.** Click the **Events** node.
- 2. Expand the JDEdwards node.

The ports and channels nodes appear in the left pane.

3. Right-click Channels and select Add Channel.

The Add Channel dialog is displayed, as shown in Figure 2–24.

Figure 2–24 Add Channel Dialog

📓 Add Channel		×
Name:		
JDE_Channel3		
Description:		
Protocol:		
File Listener		-
Available Port(s)		Selected Port(s)
Available Port(s)	>>	Selected Port(s)
Available Port(s)		Selected Port(s)
Available Port(s)	>>	Selected Port(s)
Available Port(s)	>>	Selected Port(s)
Available Port(s)	>>	Selected Port(s)
Available Port(s)	>>	Selected Port(s)

Provide the following information:

**a.** Enter a name for the channel, for example, **JDE\_Channel3**.

- **b.** Enter a brief description.
- c. From the Protocol list, select File Listener.
- 4. Click Next.

The File Listener dialog is displayed, as shown in Figure 2–25.

Figure 2–25 File Listener Dialog

File Listener		×
Request Respon	se Advanced PreParser	
Polling Location*		Ĩ
File Mask*	*	
-	OK Cancel	
Fields marked with * a	re required.	

5. Enter the system information in the Request tab as specified in the following table:

Parameter	Description
Polling Location	Target file system location for the J.D. Edwards OneWorld XML file.
File Mask	File name to be used for the output file generated by the operation.

6. Click the **Response** tab, as shown in Figure 2–26.

e Listener	
Request Response A	Nanced PreParser
Synchronization Type	REQUEST
Response/Ack Directory	
	OK Cancel
elds marked with * are req	red.

Figure 2–26 File Listener Dialog Response Tab

**7.** Enter the system information in the Response tab as specified in the following table:

Parameter	Description
Synchronization	Choose from the following synchronization options:
Туре	<ul> <li>REQUEST_RESPONSE</li> </ul>
	<ul> <li>REQUEST_ACK</li> </ul>
	<b>Important:</b> The J.D. Edwards OneWorld channel does not work if the synchronization type is set to REQUEST.
Response/Ack Directory	Target file system location for the J.D. Edwards OneWorld XML file.

**8.** Click the **Advanced** tab, as shown in Figure 2–27.

	V
ile Listener Request Response	Advanced PreParser
Error Directory	
Poll interval(msec)*	3000
Processing Mode	sequential 🔻
Thread limit*	
	OK Cancel
ields marked with * are	required.

Figure 2–27 File Listener Dialog Advanced Tab

**9.** Enter the system information in the Advanced tab as specified in the following table:

Parameter	Description	
Error directory	Directory to which documents with errors are written.	
Poll interval (msec)	Interval (in milliseconds) when to check for new input. The default is three seconds. Optional.	
Processing Mode	<b>Sequential</b> indicates single processing of requests. <b>Threaded</b> indicates processing of multiple requests simultaneously.	
Thread limit	If you selected threaded processing, then indicate the maximum number of requests that can be processed simultaneously.	

**10.** Click the **PreParser** tab, as shown in Figure 2–28.

File Listener	x
Request	Response Advanced PreParser
User id*	
User pas	sword*
JDE Envir	ronment*
Applicatio	on
Server IP	P address*
Server po	ort *
User role	
Schema	Location
Schema	style ELEMENT_STYLE
	OK Cancel
Fields marke	ed with * are required.

Figure 2–28 File Listener Dialog Preparser Tab

**11.** Enter the system information as specified in the following table:

Parameter	Description
User id	A valid user ID for J.D. Edwards OneWorld.
User password	The password associated with the J.D. Edwards OneWorld user ID.
JDE Environment	The J.D. Edwards OneWorld environment, for example, DU7333. For more information about this parameter, see your J.D. Edwards OneWorld documentation or ask your J.D. Edwards OneWorld system administrator.
Application	The application that is defined in the J.D. Edwards OneWorld environment.
Server IP address	The name of the server on which J.D. Edwards OneWorld is running. This can be the name of the server, for example, JDEOW, or its IP address.
Server port	The port number on which the server is listening, for example, 6009.
User role	Specify *ALL.
Schema Location	The location of the XML schema (.xsd file) that was generated from the event output. For example:
	<pre><adapter_home>\config\configuration_name\schemas\JDEdwards\target_ name\jde-schema.xsd</adapter_home></pre>
	For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.
Schema Style	Choose from one of the following options:
	<ul> <li>ELEMENT_STYLE (default)</li> </ul>
	<ul> <li>ATTRIBUTE_STYLE</li> </ul>

**12.** Click **OK**.

A summary pane is displayed, providing the channel description, channel status, and available ports. All the information is associated with the channel you created.

The channel appears under the channels node in the left pane.

An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

13. Right-click the channel and select Start.

The channel you created becomes active. The X over the icon in the left pane disappears.

14. To stop the channel, right-click the channel and select **Stop**.

#### 2.8.1.4 Editing a Channel

To edit a channel:

- 1. In the left pane, locate the channel you want to edit.
- **2.** Right-click the channel and select **Edit**. The Edit channels pane is displayed.
- 3. Make the required changes to the channel configuration and click Finish.

#### 2.8.1.5 Deleting a Channel

To delete a channel:

- 1. In the left pane, locate the channel you want to delete.
- 2. Right-click the channel and select Delete.

A confirmation dialog is displayed.

3. To delete the channel you selected, click OK.

The channel disappears from the list in the left pane.

### 2.8.2 The J.D. Edwards OneWorld Event Listener

Oracle Application Adapter for J.D. Edwards OneWorld Event Listener is designed specifically to provide J.D. Edwards OneWorld approved access to your business events. The J.D. Edwards OneWorld Event Listener refers to a specialized application that runs with J.D. Edwards OneWorld business functions and is called by the J.D. Edwards OneWorld application system.

The J.D. Edwards OneWorld application system provides the Event Listener with the information required to retrieve the event information for only the desired events. For information about configuring the J.D. Edwards OneWorld environment, see the *J.D. Edwards Interoperability Guide for OneWorld*.

The J.D. Edwards OneWorld Event Listener is called directly from the J.D. Edwards OneWorld application and is passed a Z-file record identifier. This identifier then generates a request document that is passed to the server for processing. The server retrieves the event information from the J.D. Edwards OneWorld system and propagates the information for integration with other application systems.

# 2.8.3 Configuring the J.D. Edwards OneWorld Event Listener

The J.D. Edwards OneWorld Event Listener is installed as part of the basic installation. The J.D. Edwards OneWorld Adapter is automatically installed in the appropriate directory. If the integration server is not installed on the same computer as the J.D. Edwards OneWorld application server, then you must configure the J.D. Edwards OneWorld Event Listener. The J.D. Edwards OneWorld Event Listener is invoked by J.D. Edwards OneWorld for specific transactions as configured in the J.D. Edwards OneWorld environment.

The J.D. Edwards OneWorld Event Listener includes the following components:

The listener event stub, (IWOEvent.dll), is located in the \etc\jde directory.
 For example:

<ADAPTER\_HOME>\etc\jde\iwoevent.dll

The file extension varies depending on your operating system:

- For **Windows**, the event stub is iwoevent.dll.
- For **Sun Solaris**, the event stub is libiwoevent.so.
- For **HP-UX**, the event stub is libiwoevent.sl.
- For **AS/400**, the event stub is iwaysav.sav.
- For IBM AIX, the event stub is libiwoevent.so.
- The listener configuration file (iwoevent.cfg), which must be created by the user.

The J.D. Edwards OneWorld Event listener exit is the function that passes the key fields for a record in the J.D. Edwards OneWorld outbound transaction tables to the integration server for processing by the inbound Oracle Application Adapter for J.D. Edwards OneWorld. The J.D. Edwards OneWorld Event listener is deployed under the J.D. Edwards OneWorld Enterprise Server. The Java class for the J.D. Edwards OneWorld Event listener is called IWOEvent (the file extension depends on the operating system) and is case-sensitive.

1. Create a folder called Outbound under the JDE structure on the JDE Enterprise Sever, for example:

\\JDEdwards\E812\DDP\Outbound

- 2. Copy the iwoevent.dll file in the new Outbound folder.
- **3.** Create an environment variable, *IWOEVENT\_HOME*, to point to the directory containing the iwoevent.dll file.
  - On Windows: Add IWOEVENT\_HOME to the system environment variables.
  - On UNIX: Add the following command to your start-up script:

export IWOEVENT\_HOME =/directory\_name

4. On the J.D. Edwards OneWorld Server, create an iwoevent.cfg file in the defined directory, *IWOEVENT\_HOME*.

The J.D. Edwards OneWorld Event listener requires connection information for the associated adapter to initiate events properly. This information is contained in the iwoevent.cfg file. You must create this file and add the connection information to it. The J.D. Edwards OneWorld Event Listener requires connection information for the associated integration server to function properly. This information is contained in the iwoevent.cfg file. The iwoevent.cfg file has three distinct sections:

Common

The common section of the configuration file contains basic configuration options. Currently, only the trace option is supported.

To set the trace option, select **on** or **off**.

common.trace=on off

Where on sets the tracing to on and off sets the tracing to off. Off is the default value.

Alias

The alias section of the configuration file contains the connection information required to send transactions to specific servers. Currently, the Oracle Application Adapter for J.D. Edwards OneWorld supports 100 entries (alias names) in the configuration file.

The alias values to these entries are as follows:

Alias.aliasname={ipaddress|dsn}:port, trace={on|off}

Where:

aliasname is the symbolic name given to the connection.

ipaddress | dsn is the IP address or DSN name for the server containing Oracle Application Adapter for J.D. Edwards OneWorld (required).

port is the port defined for Oracle Application Adapter for J.D. Edwards OneWorld in the TCP channel configuration (required).

trace={on|off} sets the tracing to on for the particular alias.

Trans

The trans section of the configuration file contains transaction information required to route J.D. Edwards OneWorld transactions to specified servers.

If a particular J.D. Edwards OneWorld transaction is not defined to an alias, then it is sent to all aliases. The trans values to these entries are as follows:

trans.jdeTransactionName=alias1,alias2,aliasn

Where jdeTransactionName is the JDE-defined name for the outbound transaction and alias1, alias2, aliasn is the list of aliases to which the transactions are sent.

The following is a sample entry for iwoevent.cfg that supplies connection information:

common.trace=on

```
alias.edamcs1=172.1.1.1:3694
alias.edamcs1t=172.1.1.1:3694, trace=on
alias.edamcs2=222.2.2:2:1234
```

trans.JDESOOUT=edamcs1t,edamcs2
trans.JDEPOOUT=edamcs1

**5.** Create a folder using the alias names that are specified in the iwoevent.cfg file under the defined directory, *IWOEVENT\_HOME*. For example:

\\JDEdwards\E812\DDP\Outbound\edamcs1

# 2.9 Runtime Overview

After J.D. Edwards OneWorld starts the J.D. Edwards OneWorld Event listener, the listener accesses the configuration file, called iwoevent.cfg (case-sensitive). Based on the information in the configuration file, the listener sends the event notification to

the integration server. All log information is saved in a file called iwoevent.log. The iwoevent.log file is created in the outbound folder where the iwoevent.dll and iwoevent.cfg files are located.

# 2.10 Modifying the JDE.INI File for Outbound and Inbound Processing

This section describes the settings that are required in the JDE.INI file for the XML call object kernel (outbound and inbound processing).

Open the JDE.INI file and modify the [JDENET\_KERNEL\_DEF6] and [JDENET\_KERNEL\_DEF15] sections as follows:

[JDENET\_KERNEL\_DEF6] krnlName=CALL OBJECT KERNEL dispatchDLLName=XMLCallObj.dll dispatchDLLFunction=\_XMLTransactionDispatch@28 maxNumberOfProcesses=1 numberOfAutoStartProcesses=1

[JDENET\_KERNEL\_DEF15] krnlName=XML TRANSACTION KERNEL dispatchDLLName=XMLTransactions.dll dispatchDLLFunction=\_XMLTransactionDispatch@28 maxNumberOfProcesses=1 numberOfAutoStartProcesses=1

The parameters containing an underscore (\_) and @28 are for Windows NT operating systems only. For other operating systems, replace the parameters with the values in the following table:

Operating System	Call Object dispatch DLLName	XML Trans dispatch DLLName
AS400	XMLCALLOBJ	XMLTRANS
HP9000B	libxmlcallojb.sl	libxmltransactions.lo
Sun or RS6000	libxmlcallojb.so	Libxmltransactions.so

**Note:** The J.D. Edwards OneWorld installation for version B7333(XE) does not include [JDENET\_KERNEL\_DEF15]. As a result, if you are using version B7333(XE), you must manually add it to the jde.ini file. For all other J.D. Edwards OneWorld versions, [JDENET\_KERNEL\_DEF15] is included with the installation.

# Oracle WebLogic Server Deployment and Integration

This chapter describes Oracle WebLogic Server (OracleWLS) deployment and integration with Oracle Application Adapter for J.D. Edwards OneWorld. It contains the following topics:

- Section 3.1, "Adapter Integration with Oracle WebLogic Server"
- Section 3.2, "Deployment of Adapter"
- Section 3.3, "Updating Adapter Configuration"

#### See Also:

Oracle Application Server Adapter Concepts Guide

# 3.1 Adapter Integration with Oracle WebLogic Server

Oracle Application Adapter for J.D. Edwards OneWorld is deployed within an OracleWLS container during installation. All client applications run within the OracleWLS environment. In J2CA deployment, the Common Client Interface (CCI) integrates an OracleWLS client application with a resource adapter.

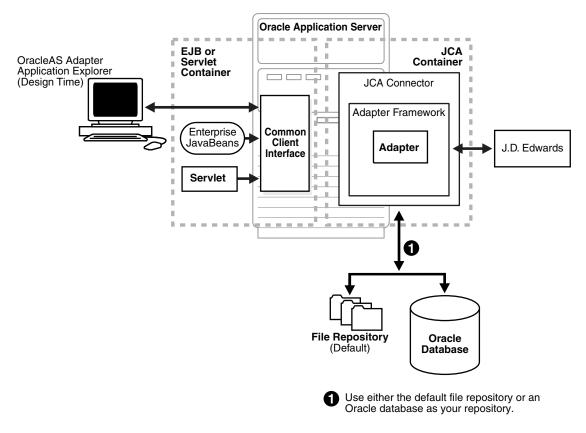
#### See Also:

Oracle Application Server Adapter Concepts Guide

# 3.2 Deployment of Adapter

Figure 3–1 shows deployment of the J2CA Connector to the Oracle Application Server. In a run-time service scenario, an Enterprise Java Bean, servlet, or Java program client makes CCI calls to J2CA resource adapters. The adapters process the calls as requests and send them to the EIS. The EIS response is then sent back to the client.





#### See Also:

Oracle Application Server Adapter Concepts Guide

# 3.3 Updating Adapter Configuration

This section contains the following topics:

- Section 3.3.1, "Creating a Managed Connector Factory Object"
- Section 3.3.2, "Creating Multiple Managed Connector Factory Objects"
- Section 3.3.3, "Modifying WSDL Files for Additional Connection Factory Values"

During the J2CA deployment of Oracle Application Adapter for J.D. Edwards OneWorld, OracleWLS generates a deployment descriptor called ra.xml, located in:

<ADAPTER\_HOME>\iwafjca.rar\META-INF

Your installation contains more than one file named ra.xml. The OracleWLS deployment descriptor that is described in this section is located in the directory specified above.

**Note:** Multiple managed connection factories are supported only for outbound processing (services).

#### 3.3.1 Creating a Managed Connector Factory Object

The ra.xml descriptor provides OracleWLS-specific deployment information for resource adapters. For example, the default jca\_sample configuration in Application Explorer is represented in the ra.xml file as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE connector PUBLIC '-//Sun Microsystems, Inc.//DTD Connector 1.0//EN'
'http://java.sun.com/dtd/connector_1_0.dtd'>
<connector>
  <display-name>IWAFJCA10</display-name>
  <vendor-name>IWAY Software</vendor-name>
  <spec-version>1.0</spec-version>
  <eis-type>IWAF</eis-type>
  <version>1.0</version>
 <license>
   clicense-required>false</license-required>
  </license>
  <resourceadapter>
<managedconnectionfactory-class>com.ibi.afjca.spi.IWAFManagedConnectionFactory</ma
nagedconnectionfactory-class>
<connectionfactory-interface>javax.resource.cci.ConnectionFactory</connectionfacto
rv-interface>
<connectionfactory-impl-class>com.ibi.afjca.cci.IWAFConnectionFactory</connectionf
actory-impl-class>
   <connection-interface>javax.resource.cci.Connection</connection-interface>
<connection-impl-class>com.ibi.afjca.cci.IWAFConnection</connection-impl-class>
   <transaction-support>NoTransaction</transaction-support>
    <config-property>
      <config-property-name>AdapterName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
   </config-property>
    <config-property>
      <config-property-name>Config</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
   </config-property>
    <config-property>
      <config-property-name>IWayHome</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>C:\oracle\Middleware\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters</config-property-value>
   </config-property>
   <config-property>
      <config-property-name>IWayConfig</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>jca_sample</config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoDriver</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
   </config-property>
    <config-property>
      <config-property-name>IWayRepoURL</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
```

```
<config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoUser</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoPassword</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>LogLevel</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>DEBUG</config-property-value>
    </config-property>
    <authentication-mechanism>
      <authentication-mechanism-type>BasicPassword</authentication-mechanism-type>
<credential-interface>javax.resource.spi.security.PasswordCredential</credential-i</pre>
nterface>
    </authentication-mechanism>
    <reauthentication-support>true</reauthentication-support>
  </resourceadapter>
```

</connector>

The parameters defined in the ra.xml file are described in the following table:

Parameter Name	Description
IWayHome	The base installation directory for the OracleWLS packaged application adapter.
IWayConfig	The adapter configuration name as defined in Application Explorer. For example, Oracle Application Adapter for J.D. Edwards OneWorld has a preconfigured jca_sample configuration in Application Explorer.
IWayRepoURL	The URL to use when opening a connection to the database. This is necessary only when using an Oracle database as the repository.
IWayRepoUser	User name to use when connecting to the database. This is necessary only when using an Oracle database as the repository.
IWayRepoPassword	Password. If provided, then it overwrites configuration. This is necessary only when using an Oracle database as the repository.
loglevel	It overwrites the level set by the ManagedConnectorFactory property.

### 3.3.2 Creating Multiple Managed Connector Factory Objects

To establish multiple managed connector factory objects, you must edit the weblogic-ra.xml file and add more <connection-instance> nodes. This file is located in:

<ADAPTER\_HOME>\iwafjca.rar\META-INF

For example, the first jca\_configuration in Application Explorer is represented in the weblogic-ra.xml file as follows:

```
<?xml version="1.0"?>
<weblogic-connector xmlns="http://www.bea.com/ns/weblogic/90">
    <enable-access-outside-app>true</enable-access-outside-app>
    <enable-global-access-to-classes>true</enable-global-access-to-classes>
    <outbound-resource-adapter>
        <default-connection-properties>
        <pool-params>
        <initial-capacity>0</initial-capacity>
        </pool-params>
        <transaction-support>LocalTransaction</transaction-support>
        </default-connection-properties>
        <connection-definition-group>
</connection-factory-interface>javax.resource.cci.ConnectionFactory</connection-factory-interface>
        </connection-instance>
```

```
</onlection-instance>
</connection-instance>
</connection-instance>
</connection-definition-group>
</outbound-resource-adapter>
</weblogic-connector>
```

To create multiple managed connector factory objects, you must add new <connection-instance> nodes in the file. For example:

```
<?xml version="1.0"?>
<weblogic-connector xmlns="http://www.bea.com/ns/weblogic/90">
   <enable-access-outside-app>true</enable-access-outside-app>
   <enable-global-access-to-classes>true</enable-global-access-to-classes>
   <outbound-resource-adapter>
        <default-connection-properties>
        <pool-params>
       <initial-capacity>0</initial-capacity>
       </pool-params>
       <transaction-support>LocalTransaction</transaction-support>
       </default-connection-properties>
        <connection-definition-group>
<connection-factory-interface>javax.resource.cci.ConnectionFactory</connection-fac
tory-interface>
           <connection-instance>
               <jndi-name>eis/OracleJCAAdapter/DefaultConnection</jndi-name>
            </connection-instance>
            <connection-instance>
               <jndi-name>eis/OracleJCAAdapter/DefaultConnection1</jndi-name>
               <connection-properties>
               <properties>
               <property>
<name>IWayHome</name>
<value>C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters</value>
               </property>
                <property>
                <name>IWayConfig</name>
               <value>jca_sample2</value>
               </property>
```

```
<propertv>
    <name>IWayRepoURL</name>
    <value></value>
               </property>
               <property>
     <name>IWayRepoUser</name>
     <value></value>
               </property>
                <property>
     <name>IWayRepoPassword</name>
      <value></value>
               </property>
               <propertv>
     <name>LogLevel</name>
     <value>Debug</value>
               </property>
               </properties>
               </connection-properties>
            </connection-instance>
         </connection-definition-group>
    </outbound-resource-adapter>
</weblogic-connector>
```

If you do not specify a <property> element in the <connection-instance> section, then the value is taken from the ra.xml file. You can specify the default properties in the ra.xml file and then override them as required in the weblogic-ra.xml file. In addition, note that the J2CA configuration (for example, jca\_sample2) must already be created in Application Explorer.

**Note:** When you modify the ra.xml and weblogic-ra.xml files, the application server must be restarted. If the application server is already running, then stop the application server and then restart it.

In addition, the iwafjca.rar file must be redeployed in the Oracle WebLogic Administration Console to activate these changes.

### 3.3.3 Modifying WSDL Files for Additional Connection Factory Values

Application Explorer generates the J2CA properties file using the default connection factory name <code>eis/OracleJCAAdapter/DefaultConnection</code>. If you created additional connection factories, then the WSDLs generated for the additional configuration and connection factory should be changed to reflect the location field of the jca:address section in the J2CA properties file. The default J2CA properties file for the Oracle Application Adapter for J.D. Edwards OneWorld with a configuration of isdsrv2\_conn2 is shown in the following example.

Notice that the J2CA properties file has the following default connection factory: eis/OracleJCAAdapter/DefaultConnection

The connection factory value must be changed to the following: eis/OracleJCAAdapter/DefaultConnection1

For example:

Note that only the value for the location field in the jca:address section should be modified. Do not modify any other field or section.

# Integration With BPEL Service Components in the Oracle SOA Suite

Oracle Application Adapter for J.D. Edwards OneWorld integrates seamlessly with Business Process Execution Language (BPEL) Process Manager to facilitate Web service integration. Oracle BPEL Process Manager is based on the Service-Oriented Architecture (SOA). It consumes adapter services exposed as Web Service Definition Language (WSDL) documents.

This chapter contains the following topics:

- Section 4.1, "Overview"
- Section 4.2, "Deployment of Adapter"
- Section 4.3, "Configuring a New Application Server Connection"
- Section 4.4, "Designing an Outbound BPEL Process for Service Integration (J2CA Configuration)"
- Section 4.5, "Designing an Inbound BPEL Process for Event Integration (J2CA Configuration)"
- Section 4.6, "Designing an Outbound BPEL Process for Service Integration (BSE Configuration)"

# 4.1 Overview

To integrate with Oracle BPEL Process Manager, Oracle Application Adapter for J.D. Edwards OneWorld must be deployed in the same WLS container as Oracle BPEL Process Manager. The underlying adapter services must be exposed as WSDL files, which are generated during design time in Oracle Application Adapter Application Explorer (Application Explorer) for both request-response (outbound) and event notification (inbound) services of the adapter. For more information, see Chapter 2, "Configuring Oracle Application Adapter for J.D. Edwards OneWorld".

The generated WSDL files are used to design the appropriate BPEL processes for inbound or outbound adapter services. A completed BPEL process must be successfully compiled in Oracle JDeveloper and deployed to a BPEL server. Upon deployment to the BPEL server, every newly built process is automatically deployed to the Oracle Enterprise Manager console, where you run, monitor, administer BPEL processes, and listen to adapter events.

# 4.2 Deployment of Adapter

During installation, Oracle Application Adapter for J.D. Edwards OneWorld is deployed as a J2CA 1.0 resource adapter within the WLS container. The adapter must be deployed in the same WLS container as Oracle BPEL Process Manager.

**See Also:** Oracle Application Server Adapter Concepts Guide

# 4.3 Configuring a New Application Server Connection

To configure a new Application Server connection in Oracle JDeveloper:

- 1. Open Oracle JDeveloper on your system.
- **2.** From the menu bar, click **Window** and select **Application Server Navigator**, as shown in Figure 4–1.

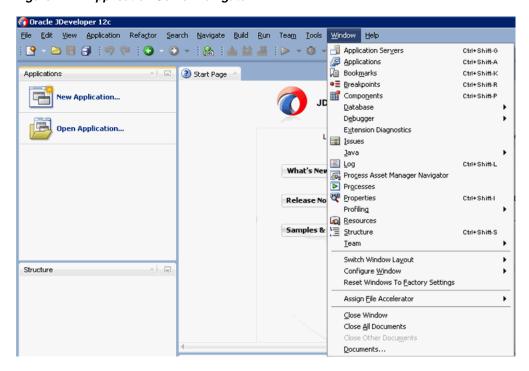


Figure 4–1 Application Server Navigator

The Application Server tab is displayed, as shown in Figure 4–2.

Figure 4–2 Application Server Tab

Application	Application Server
🚱 । 🗶	1
Application Serve	ers
	New Application Server
	Import
	Export
	🔁 Refresh

Right-click Application Servers and select New Application Server.
 The Create Application Server Connection Wizard is displayed, as shown in Figure 4–3.

Figure 4–3 Create Application Server Connection Wizard

Usage	erver Connection - Step 1 of 3
🔍 Usage	Indicate how the application server will be used.
<ul> <li><u>Name and Type</u></li> <li>Finish</li> </ul>	<ul> <li>Standalone Server         A standalone server is not started, stopped, nor configured by JDeveloper. An application must be manually deployed to a standalone server.     </li> </ul>
	Integrated Server
	An integrated server can be started and stopped by JDevloper. Applications can be automatically deployed to the server by the Run or Debug commands. Only WebLogic servers can be used in this way.
Help	

**4.** Accept the default selection (Standalone Server) and click **Next**.

The Name and Type page is displayed, as shown in Figure 4–4.

👩 Create Application Se	rver Connection - Step 2 of 3
Name and Type	
Name and Type	Specify a unique name and type for the connection. The name must be a valid Java identifier. Create connection in: IDE Connections Connection Name: ApplicationServer_Connection Connection Type: WebLogic 12.x
Help	< gack Next > Einish Cancel

Figure 4–4 Name and Type Page

 Specify a new name for the Application Server connection and click Next. The Authentication page is displayed, as shown in Figure 4–5.

Figure 4–5 Authentication Page

Create Application Se Authentication	erver Connection - Step 3 of 6
Q Usage	Specify a username and password to authenticate the connection.
Name and Type	Username: weblogic
Configuration	Password:
ý Test O Finish	
Help	< <u>B</u> ack <u>N</u> ext > <u>Finish</u> Cancel

- **6.** Specify a valid user name (for example, weblogic) and a password (for example, welcome1) for your new connection.
- 7. Click Next.

The Configuration page is displayed, as shown in Figure 4–6.

Figure 4–6	Configuration	Page
------------	---------------	------

Create Application Se	rver Connection - Step 4 of 6	
Configuration		5
Vusage Name and Type Authentication	WebLogic Server connections use a host name and port to establish a connection. Th Domain of the target will be verified Weblogic Hostname (Administration Server): localhost	ie
Configuration	Port: SSL Port:	
🖕 <u>Test</u>	7001 7002	
ù Finish	Always use SSL Weblogic Domain: base_domain	
Help	<back next=""> Einish</back>	Cancel

- **8.** Specify the Oracle WebLogic host name (for example, localhost), which is the system IP where the process must deploy and Oracle WebLogic domain (for example, base\_domain).
- 9. Click Next.

The Test page is displayed, as shown in Figure 4–7.

Figure 4–7 Test Page

Name and Type	Authentication	Configuration	Test		
	tion to determine if he application serve		pecified succes	sfully establi	shes a
<u>T</u> est Connecti	on				
<u>S</u> tatus:					
Testing JSR-1	50 Runtime		success		
Testing JNDI			SUCCESS		
Testing JSR-1	50 DomainRuntim	e	Success		
Testing JSR-1	50 Edit		Success		
Testing HTTP			Success		
Testing HTTP	Authentication		Success		
Testing JSR-8	8		SUCCESS		
Testing JSR-8	8-LOCAL		success		
	r MBeans Model		SUCCESS		
Testing App C			SUCCESS		
Testing JSR-8			SUCCESS		
Testing JSR-8	8-DEP-MGR-LOCAL		SUCCESS		
12 of 12 test	s successful.				

- **10.** Click **Test Connection**.
- **11.** Make sure that the test status is successful.
- 12. Click Next.

The Finish page is displayed, as shown in Figure 4–8.

SCreate Application S	ierver Connection - Step 6 of 6
Finish	
🔍 Usage	You have completed creating the connection.
Name and Type	To open your connection, expand the connection node in the Application Server Navigator.
Authentication	
Configuration	
🖕 <u>Test</u>	
🧅 Finish	
Help	
<u>Teh</u>	

Figure 4–8 Finish Page

13. Click Finish.

The new Application Server connection is listed in the left pane (Application Server tab).

# 4.4 Designing an Outbound BPEL Process for Service Integration (J2CA Configuration)

This section describes how to design an outbound BPEL process for service integration.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\JDEdwards_Samples.zip\JDEdwards_
Samples\BPEL\J2CA\Outbound_Project
```

The following tools are required to complete your adapter design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPEL Designer (JDeveloper)

**Note:** The examples in this chapter demonstrate the use of Oracle JDeveloper.

This section contains the following topics:

- Section 4.4.1, "Generating WSDL for Request/Response Service"
- Section 4.4.2, "Creating an Empty Composite for SOA"

- Section 4.4.3, "Defining a BPEL Outbound Process"
- Section 4.4.4, "Deploying the BPEL Outbound Process"
- Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console"
- Section 4.4.6, "Testing Outbound BPEL and Mediator Processes"

Before you design a BPEL process, you must generate WSDL using Application Explorer. For more information, see "Generating WSDL for Request/Response Service" on page 4-8. The WSDL generated in Application Explorer is used during the BPEL process configuration.

#### 4.4.1 Generating WSDL for Request/Response Service

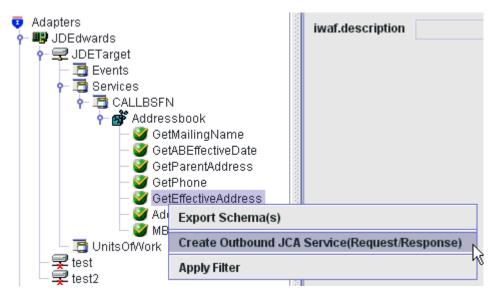
Perform the following steps to generate a WSDL for request/response service:

**1.** Start Application Explorer and connect to a defined J.D. Edwards OneWorld target.

For more information, see "Defining a Target to J.D. Edwards OneWorld" on page 2-5.

2. Expand Services, CALLBSFN, and Addressbook.

Figure 4–9 Create Outbound JCA Service(Request/Response) Option



**3.** Right-click **GetEffectiveAddress**, and then select **Create Outbound JCA Service** (**Request/Response**), as shown in Figure 4–9.

The Export WSDL dialog is displayed, as shown in Figure 4–10.

ame	dapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Outbound_invoke.wsdl
Export to OSB	
ocation	
ost	
ort	
ser	
assword	
	OK Cancel

Figure 4–10 Export WSDL Dialog

4. Accept the default name for the file.

The **.wsdl** file extension is added automatically. By default, the names of WSDL files generated for request-response services end with **\_invoke**.

5. Click OK.

You can now create a new SOA application, which is the first step that is required to define a BPEL outbound process in Oracle JDeveloper.

## 4.4.2 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- **2.** Enter a name for the new SOA Application and click **Next**, as shown in Figure 4–11.

Create SOA Application	- Step 1 of 3	×
Name you <mark>r</mark> applicatio	n 01010101010101010101010101010101010101	<b>B</b> S
Application Name	Application Name:	
Application Name:   Project Name   Project SOA Settings     Application Name:   SoA_Application   Directory:   C:\WORK\mywork\SOA_Application   Browset Application Package Prefix:		
Project Name	Directory:	Browse
<ul> <li>Project SOA Settings</li> </ul>	C:\WORK\mywork\SOA_Application	Browse
	your application         plication Name:         SoA_application         Directory:         C:\/WORK\mywork\SOA_Application         Application Package Prefix:	
Project Name       SOA_Application         Project SOA Settings       Directory:         C:\WORK\mywork\SOA_Application         Application Package Prefix:		
	< <u>B</u> ack Next > Einish	Cancel

Figure 4–11 Name Your Application Page

The Name your project page is displayed, as shown in Figure 4–12.

Figure 4–12 Name Your Project Page

Treate SOA Application	- Step 2 of 3			×
Name your project			01010101010101010404010405	5
Application Name     Project Name	Project Name: Dir <u>e</u> ctory:	2CA_Outbound	tion\J2CA_Outbound	Bro <u>w</u> se
Project SOA Settings	Project Feature	5:		
	SOA Suite is a s	uite of tools to model SOA(Serv	vice Oriented Architecture) app	lications.
Help		< <u>B</u> ack <u>N</u> e	xt > <u>F</u> inish	Cancel

3. Enter a project name and click Next.

The Configure SOA settings page is displayed, as shown in Figure 4–13.

Figure 4–13	Configure SOA	A Settings Page
-------------	---------------	-----------------

Create SOA Application	- Step 3 of 3 🛛 🗙
Configure SOA settin	gs
Project Name Project Name Project SDA Settings	Composite Name: J2CA_Outbound Start from: ① Standard Composite ① SOA Template Empty Composite Composite With Human Task Composite With BPEL Process Composite With Spring Composite With Subprocess Composite With Mediator Composite With Mediator Composite With BPMN Process Composite With Case Management Composite With Business Rule
<u>H</u> elp	Customizable

4. From the Composite Template list, select **Empty Composite** and click **Finish**.

# 4.4.3 Defining a BPEL Outbound Process

This section describes how to define a BPEL outbound process, which consists of the following topics:

- Section 4.4.3.1, "Configuring a Third Party Adapter Service Component"
- Section 4.4.3.2, "Configuring an Outbound BPEL Process Component"
- Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c"

### 4.4.3.1 Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

**1.** Drag and drop the **Third Party Adapter** component from the Service Adapters pane to the External References pane, as shown in Figure 4–14.

	Comp × Resour
J2CA_Outbound	Q.
External References	SOA 🔹
	Kali A
	🕵 REST
	SOAP
	ැ <del>ධි</del> Socket
	UMS
	Applications
<b>(</b>	E-Business Suite
	S JDE World
	Custom/Third Party
	Can Third Party
	*

Figure 4–14 Third Party Adapter Component

The Create Third Party Adapter Service dialog is displayed, as shown in Figure 4–15.

Figure 4–15 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter	Service	5
Create a JCA adapte	r service for a third party adapter.	Th
<u>N</u> ame:	Service	
<u>T</u> ype:	Reference 💌	
WSDL URL:		2
Port Type:		
Operation:		
<u>C</u> allback Port Type:		
Oper <u>a</u> tion:		
<u>J</u> CA File:		1
Help	OK	Cancel

2. Ensure that **Reference** is selected from the Type list (default).

**3.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed, as shown in Figure 4–16.

👩 WSDL Chooser							×
Application Server	File System	Project Libraries	SOA-MDS	UDDI	WSIL		
Location:	C:\12c_50	A\soa\soa\thirdp	arty\ApplicationA	dapters\wsdls		- 0 0 🕏 🗳	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Work Project Application	J2CA_Outb	ound_invoke.ws	dl				
Home	Eile Name: J2C4	4_Outbound_inv	oke.wsdl				
	File <u>Type</u> : Web	) Service Definitio	on Files (*.wsdl)				-
Selection: file:/C:/:	12c_SOA/soa/soa	a/thirdparty/App	licationAdapters/v	vsdls/J2CA_Outb	ound_invoke.wsdl		
Help						ок	Cancel

Figure 4–16 WSDL Chooser Dialog

- Browse and select an outbound WSDL file from the following directory: <adapter\_HOME>\wsdls
- 5. Click OK.

The Localize Files dialog is displayed, as shown in Figure 4–17.

Figure 4–17 Localize Files Dialog

🕜 Localize Files	×
file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Outbound_ir current project. In order to make this file available to your project at runtime, JDev of this file and any dependent files that it imports or includes.	
Copy Options: Venication original directory structure for imported files The following files will be created in directory C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Outbound\SOA :	
WSDLs/J2CA_Outbound_invoke.wsdl WSDLs/J2CA_Outbound_invoke_request.xsd WSDLs/J2CA_Outbound_invoke_response.xsd	
Help	OK Cancel

## 6. Click OK.

The outbound WSDL file and associated request and response XML schema files (.xsd) are imported to the project folder that has been created.

You are returned to the Create Third Party Adapter Service dialog, as shown in Figure 4–18.

Figure 4–18 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter !	Service	4
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
Port Type:	GetEffectiveAddressPortType	
Operation:	GetEffectiveAddress 🗸	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:		1
Help	OK	Cancel

7. Click the **Find JCA file** icon, which is located to the right of the JCA File field.

The Transformation Chooser dialog is displayed, as shown in Figure 4–19.

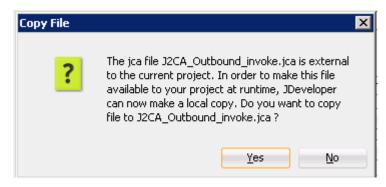
Transformation Chooser				×
File System Project Libraries SOA-MDS				
Location: C:\12c_SOA\soa\soa\thirdparty\ApplicationAdapters\wsdls	- 0	0	<b>1</b>	
image: second system       J2CA_Outbound_invoke.jca         Work       image: second system         Project       image: second system         Application       image: second system         Home       J2CA_Outbound_invoke.jca         File Name:       J2CA_Outbound_invoke.jca         File Iype:       JCA Files (*.jca)         Selection:       File:         Selection:       Selection:				
		ок	Can	cel
		0.0	Can	

Figure 4–19 Transformation Chooser Dialog

- Browse and select the JCA properties file from the following directory: <aDapter\_HOME>\wsdls
- 9. Click OK.

The Copy File message is displayed, as shown in Figure 4–20.

Figure 4–20 Copy File Message



10. Click Yes.

A copy of the JCA properties file is made in the project folder.

You are returned to the Create Third Party Adapter Service dialog, as shown in Figure 4–21.

Create Third Party hird Party Adapter : Create a JCA adapte		×
Name:	Service	
<u>Type:</u>	Reference	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	2
<u>P</u> ort Type:	GetEffectiveAddressPortType	
Operation:	GetEffectiveAddress	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	work/SOA_Application/J2CA_Outbound/SOA/Adapters/J2CA_Outbound_invoke.jca	6
Help	ОК	Cancel

Figure 4–21 Create Third Party Adapter Service Dialog

## 11. Click OK.

The third party adapter service component is created and displayed in the External References pane.

You are now ready to configure an outbound BPEL process component.

## 4.4.3.2 Configuring an Outbound BPEL Process Component

Perform the following steps to configure an outbound BPEL process component:

**1.** Drag and drop the **BPEL Process** component from the Components pane to the Components pane.

The Create BPEL Process dialog is displayed, as shown in Figure 4–22.

👩 Create BPE	L Process
	s cess is a service orchestration, based on the BPEL specification, used to describe/execute a ocess (or large grained service), which is implemented as a stateful service.
BPEL 2.0 Sp	pecification O BPEL 1.1 Specification
<u>N</u> ame:	BPELProcess1
Namespace:	http://xmlns.oracle.com/SOA_Application/J2CA_Outbound/BPELProcess1
Directory:	C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Outbound\SOA\BPEL
<u>T</u> emplate:	😂 Synchronous BPEL Process 🔹 🥥
Ser <u>v</u> ice Name:	bpelprocess1_client
	Expose as a SOAP service
	Transaction: required
	Input: {http://xmlns.oracle.com/SOA_Application/J2CA_Outbound/BPELProcess1}process
	Qutput: ://xmlns.oracle.com/SOA_Application/J2CA_Outbound/BPELProcess1}processResponse
Help	OK Cancel

Figure 4–22 Create BPEL Process Dialog

**2.** In the Name field, enter a name to identify the new outbound BPEL process component or leave it to the default value.

By default, the BPEL 2.0 Specification option is selected.

- 3. From the Template list, select Synchronous BPEL Process.
- **4.** Click the **Browse** icon, which is located to the right of the Input field to select the associated XML request schema file.

The Type Chooser dialog is displayed, as shown in Figure 4–23.

Figure 4–23 Type Chooser Dialog

🌍 Type Chooser		×
	*	1
Type Explorer Project Schema Files J2CA_Outbound_invoke_request.xsd J2CA_Outbound_invoke_response.xsd Project WSDL Files Recent Files		
Iype: :::waysoftware:jde/services/CALLBSFN/Addressbook/GetEffectiveAddre	ss}jdeReqi	uest
<u>Н</u> еlp ОК	Cance	

- **5.** Expand **Project Schema Files**, **J2CA\_Outbound\_invoke\_request.xsd**, and select **jdeRequest**.
- 6. Click OK.

You are returned to the Create BPEL Process dialog.

**7.** Click the **Browse** icon, which is located to the right of the Output field to select the associated XML response schema file.

The Type Chooser dialog is displayed, as shown in Figure 4–24.

Type Chooser			×
		2	0
🔍 Type Explorer			
🖻 🗁 Project Schema Files			
👜 🛃 J2CA_Outbound_invoke_request.xsd			
🖃 🛃 J2CA_Outbound_invoke_response.xsd			
jdeResponse			
🗄 🛅 Project WSDL Files			
🗄 🛅 Recent Files			
ype: are:jde/services/CALLBSFN/Addressbook/GetEffectiveAddr	ess.respons	e}jdeRespo	onse
Show Detailed Node Information			
Help	ок	Cano	
<u>Tieth</u>	OK		3

Figure 4–24 Type Chooser Dialog

- **8.** Expand **Project Schema Files**, **J2CA\_Outbound\_invoke\_response.xsd**, and select **jdeResponse**.
- 9. Click OK.

You are returned to the Create BPEL Process dialog.

- **10.** Click **OK**.
- **11.** Create a connection between the outbound BPEL process component and the third party adapter service component, as shown in Figure 4–25.

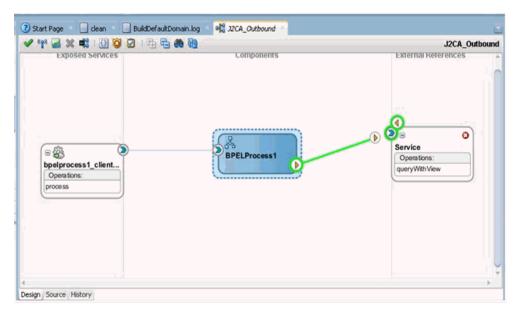
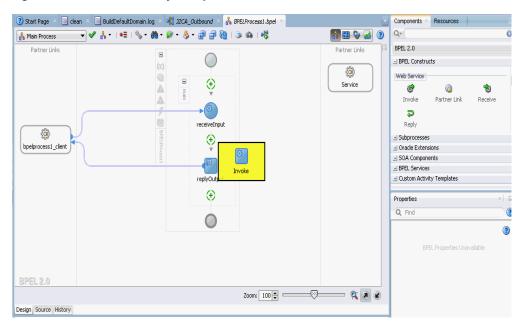


Figure 4–25 Created Connection

- **12.** Double-click the outbound BPEL process component in the Components pane.
- **13.** Drag and drop the **Invoke** activity component under BPEL Constructs Web Service, to the Components pane and place it between the **receiveInput** activity component and the **replyOutput** activity component, as shown in Figure 4–26.



#### Figure 4–26 Invoke Activity Component

**14.** Create a connection between the new Invoke activity component Service and the third party adapter service component (Service), as shown in Figure 4–27.

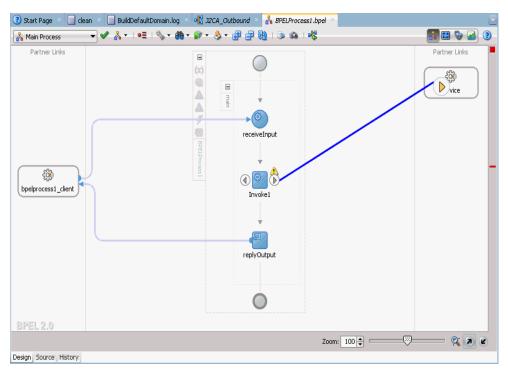


Figure 4–27 Created Connection

The Edit Invoke dialog is displayed.

**15.** Click the **Plus sign** icon, which is located to the right of the Input field to configure a new input variable.

The Create Variable dialog is displayed.

**16.** Accept the default values that are provided for the new input variable and click **OK**.

You are returned to the Edit Invoke dialog, as shown in Figure 4–28.

Edit Invoke			
	mentation Skip Condition	Targets Sources	
General	Correlations Propertie	es Assertions	Annotations
<u>N</u> ame:	Invoke1		
Conversation ID:			
<u>D</u> etail Label:			
	Invoke as Detail		
Interaction T	ype: 🔞 Partner Link 💌 —		
Partner <u>L</u> ink:	Service		٩,
Port <u>T</u> ype:	Free GetEffectiveAddressPortTy	/pe	•
Operation:	e GetEffectiveAddress		•
Input Out	put		
O Argument:	Mapping 💿 Input Variable		0
Input: Invo	e1_GetEffectiveAddress_Input	Variable	<b>₽</b> Q
Help		Apply O	K Cancel

Figure 4–28 Edit Invoke Dialog

**17.** Select the **Output** tab and click the **Plus sign** icon, which is located to the right of the Output field to configure a new output variable.

The Create Variable dialog is displayed.

**18.** Accept the default values that are provided for the new output variable and click **OK**.

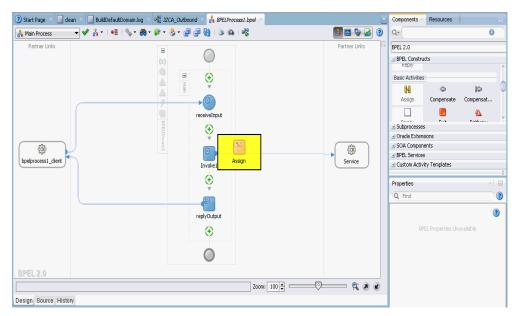
You are returned to the Edit Invoke dialog, as shown in Figure 4–29.

		Condition Targe		
General	Correlations	Properties	Assertions	Annotations
<u>N</u> ame:	Invoke1			
Conversation I	D:			
Detail Label:				
	🔄 Invoke as Del	tail		
<u>I</u> nteraction	n Type: 🔯 Partner	Link 🔻		
Partner <u>L</u> ink	:: Service			Q
Port <u>T</u> ype:	ë GetEffectiveA	ddressPortType		•
Operation:	GetEffective4	ddress		•
Input C	Output			
◯ Argu <u>m</u> e	nts Mapping 💿 <u>O</u> ut	put Variable		0
Output: I	nvoke1_GetEffective	eAddress_OutputVa	riable	
-				

Figure 4–29 Edit Invoke Dialog

- **19.** Click **Apply** and then **OK**.
- **20.** Drag and drop the **Assign** activity under BPEL Constructs Basic Activities component, to the Components pane and place it between the Receive activity component (receiveInput) and the Invoke activity component (Invoke1), as shown in Figure 4–30.

Figure 4–30 Assign Activity Component



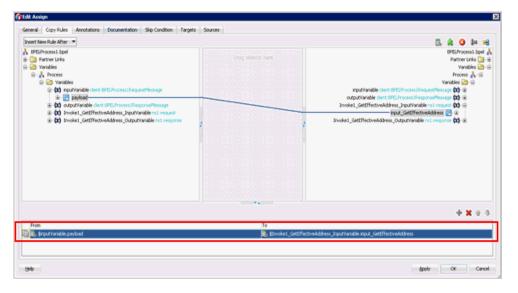
**21.** Double-click the new Assign activity component (Assign1).

The Edit Assign dialog is displayed.

- 22. In the left pane, under Variables, expand InputVariable, and then select payload.
- **23.** In the right pane, under Variables, expand **Invoke1\_GetEffectiveAddress\_ InputVariable**, and then select **input\_GetEffectiveAddress**.
- 24. Drag and map the payload variable to the input\_GetEffectiveAddress variable.

The mapped variables are populated in the highlighted area as shown in Figure 4–31.

Figure 4–31 Edit Assign Dialog



- **25.** Click **Apply** and then **OK**.
- **26.** Drag and drop the **Assign** activity component to the Components pane and place it between the Invoke activity (Invoke1) and the Reply activity (replyOutput).
- **27.** Double-click the new Assign activity component (**Assign2**), as shown in Figure 4–32.

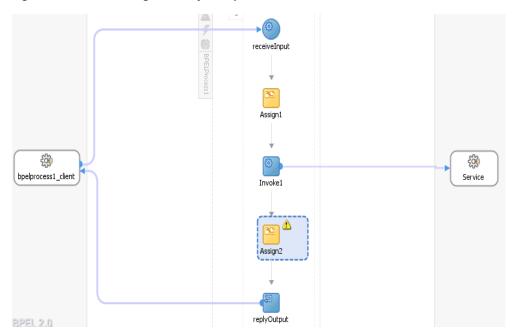


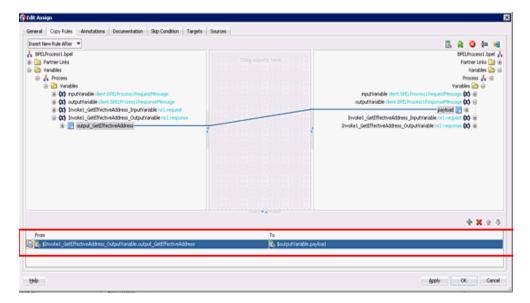
Figure 4–32 New Assign Activity Component

The Edit Assign dialog is displayed.

- **28.** In the left pane, under Variables, expand Invoke1\_GetEffectiveAddress\_ OutputVariable, and then select output\_GetEffectiveAddress.
- 29. In the right pane, under Variables, expand outputVariable and select payload.
- **30.** Drag and map the **output\_GetEffectiveAddress** variable to the **payload** variable.

The mapped variables are populated in the highlighted area as shown in Figure 4–33.

Figure 4–33 Edit Assign Dialog



**31.** Click **Apply** and then **OK**.

You are returned to the Activity component pane, as shown in Figure 4–34.

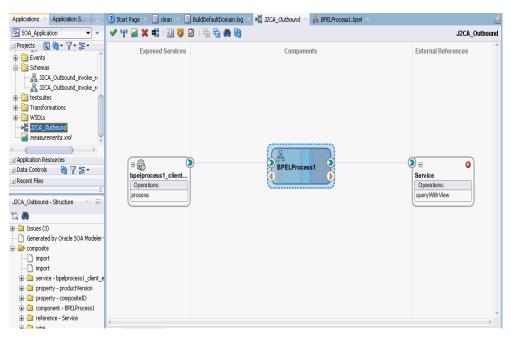


Figure 4–34 Activity Component Pane

**32.** Click the **Save All** icon in the menu bar to save the new outbound BPEL process component that was configured.

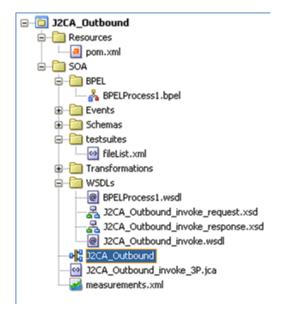
You are now ready to deploy the BPEL outbound process.

## 4.4.3.3 Adjusting for Known Deployment Issues With 12c

Perform the following steps to adjust for known deployment issues with 12c.

 Double-click J2CA\_Outbound (created BPEL process) of the created process, as shown in Figure 4–35.

Figure 4–35 J2CA\_Outbound Node



2. Click the **Source** tab below the opened process, as shown in Figure 4–36.

Fin	d 💦 🖓 🐺 🕅 🙀 🖬 🖬 🖼
	<pre><?xml version="1.0" encoding="UTF-8" 2></pre>
	Generated by Oracle SOA Modeler version 12.1.3.0.0 at [8/22/14 8:55 PM]
	<composite <="" name="J2CA Outbound" td=""></composite>
	revision="1.0"
	label="2014-08-22_20-55-10_886"
	node="active"
	state="on"
	<pre>xmlns="http://xmlns.oracle.com/sca/1.0"</pre>
	xmlns:xs="http://www.w3.org/2001/XHLSchema"
	<pre>xmlns:wsp="http://schemas.xmlsoap.org/ws/2004/09/policy"</pre>
	<pre>xmlns:orewsp="http://schemes.oracle.com/ws/2006/01/policy"</pre>
	<pre>xmlns:ui="http://xmlns.oracle.com/soa/designer/"</pre>
	<pre>xmlns:sca-ext="http://xmlns.oracle.com/sca/1.0-ext"&gt;</pre>
	<pre><import importtype="wsdl" j2ca_outbound_invoke.wsdl"="" namespace="http://xmlns.oracle.com/pcbpel/iWay/wsdl/Siebel/sieb_isdsrvl5_tgt/queryWithW&lt;/pre&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;pre&gt;location=" wsdls=""></import></pre>
	<pre><import location="W&lt;/pre&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;importType=" namespace="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1" wsdl"=""></import></pre>
8	<pre><service name="bpelprocessl_client_ep" ui:wsdllocation="WSDLs/BPELProcessl.wsdl"></service></pre>
	<pre><interface.wsdl application2="" bpelprocessl#wsdl.endpoi<="" http:="" interface="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcessl#ws&lt;/pre&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;dbinding.ws port=" j2ca_outbound="" td="" xmlns.oracle.com=""></interface.wsdl></pre>
	<pre><pre>operty name="productVersion" type="xs:string" many="false"&gt;12.1.3.0.0</pre></pre>
	<pre>opporty name="compositeID" type="xs:string" many="false"&gt;6c2ae802-ba34-4f73-8968-afbddb0108b9</pre>
	<component name="BPELProcess1" version="2.0"></component>
	<pre><implementation.bpel src="BPEL/BPELProcess1.bpel"></implementation.bpel></pre>
	<componenttype></componenttype>
8	<pre><service name="bpelprocess1_client" ui:wsdllocation="WSDLs/BPELProcess1.wsdl"></service></pre>
	<pre><interface.wsdl interface="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess&lt;/pre&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;1&lt;/td&gt;&lt;td&gt;&lt;/service&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;reference name=" service"="" ui:wsdllocation="WSDLs/J2CA_Outbound_invoke.wsdl"></interface.wsdl></pre>
	<pre></pre>

Figure 4–36 Source Tab

**3.** Change the productVersion property value from 12.1.3.0.0 to 11, as shown in Figure 4–37.

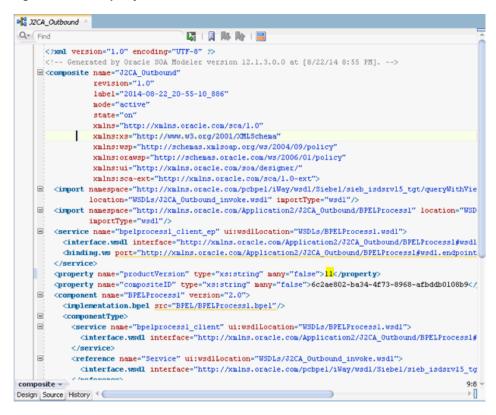


Figure 4–37 Property Value

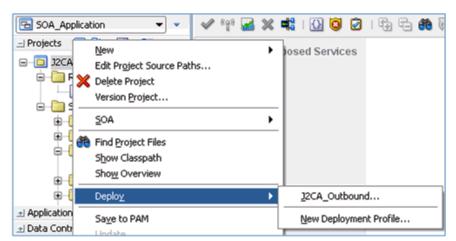
4. Save the changes and proceed to deploy the project.

## 4.4.4 Deploying the BPEL Outbound Process

Perform the following steps to deploy the BPEL outbound process.

1. Right-click the project name in the left pane, select **Deploy**, and then click **J2CA**\_ **Outbound**, as shown in Figure 4–38.

Figure 4–38 J2CA\_Outbound Option



The Deployment Action page is displayed, as shown in Figure 4–39.

Deploy CompanyCode_	GD X
Deployment Action	
Deployment Action Deploy Configuration Summary	Select a deployment action from the list below.  Deploy to Application Server Deploy to SAR  Deploy this archive to SOA configured Application server(s)
Help	< Back Next > Einish Cancel

Figure 4–39 Deployment Action Page

- 2. Ensure that **Deploy to Application Server** is selected.
- 3. Click Next.

The Deploy Configuration page is displayed, as shown in Figure 4–40.

Figure 4–40 Deploy Configurations Page

eploy Configuration		
Deployment Action	9 J2CA_Outbound	
Deploy Configuration	🖃 Composite Rev	ision ID
Select Server	Project:	J2CA_Outbound
Summary	Current Revision ID	1.0
	New Revision ID:	1.0
	🗄 SOA Configurat	ion Plan
	✓ Mark composite revis	ion as default.
		ion as default. ng composites with the same revision ID.
	Overwrite any existing	
	Overwrite any existin	ng composites with the same revision ID.
) ,	Overwrite any existin	ng composites with the same revision ID. ances after redeployment.

4. Leave the default values selected and click Next.

The Select Server page is displayed, as shown in Figure 4–41.

💩 Deploy CompanyCode_	GD	Þ
Select Server	agent roles to 1010 bission	
Deployment Action Deploy Configuration Select Server SOA Servers Summary	Application Servers: IntegratedWebLogicServer (domain unconfigured) axtst166	<b>E</b>
Help	< Back Next > Einisi	h Cancel

Figure 4–41 Select Server Page

 Select an available application server that was configured and click Next. The SOA Servers page is displayed, as shown in Figure 4–42.

Figure 4–42 SOA Servers Page

SOA Servers				
	hoose the target SOA se irchive.	rver(s) and corres	ponding partitions to v	which you want to deploy this
Deploy Configuration	SOA Server:	Partition:	Status:	Server URL:
Select Server	🗸 🧱 soa_server1	default		http://amtex-ch-ga1
😠 SOA Servers				
Summary				
Help			< <u>B</u> ack <u>N</u> ext >	<u>Finish</u> Cancel

6. Select a target SOA server and click Next.

The Summary page is displayed, as shown in Figure 4–43.

Figure 4–43 Summary Page

**7.** Review and verify all the available deployment information for your project and click **Finish**.

The process is deployed successfully, as shown in Figure 4–44.

Figure 4–44 Successful Deployment Message

< Design Source History SOA - Log SOA - Log	> : (
	(
SOA - Log	L. L.
<pre>scac:     [scac] Validating composite : 'C:\JDeveloper\mywork\MySAP_sep23\CompanyCode_G</pre>	nyCode (D) c

## 4.4.5 Invoking the Input XML Document in the Oracle Enterprise Manager Console

Perform the following steps to invoke the input XML document in the Oracle Enterprise Manager console.

- 1. Logon to the Oracle Enterprise Manager console.
- 2. Expand SOA, select soa-infra (soa\_server1), and then click Default.
- **3.** Select an available project (for example, J2CA\_Outbound) and click **Test** as shown in Figure 4–45.

Figure 4–45 Test Button

ORACLE Enterprise Manager Fus	ion Middleware Control 12c
WebLogic Domain  SOA Infrastructure  Target Navigation View	J2CA_Outbound [1.0]      I     I     I     I     SOA Composite      ✓
Application Deployments     SoA     SoA     SoA     Soa_server1)     Go default     Go defa	Active Retre Shut Down Test Settings  Dashboard Composite Definition Flow Instances Unit Tests Policies Components Name BPELProcess1 A Services and References Name Subpelprocess1_clent_ep

- 4. Click the **Request** tab.
- 5. Select XML View from the list, as shown in Figure 4–46.

Figure 4–46 Input Arguments List

Request	Respons	e					
Secur	rity						
Qualit	ty of Serv	vice					
HTTP	Header						
Addit	tional Tes	t Options					
/ Input	t Argume	nts					
XML Vi	iew 🔻	Enable Validation 🔲	Load Payload	Choose File	No file chosen	Save Payload	
<idef xmins=" <calme <para <para </para </para <td>Request ses "urn:iwayso athod trans- ms&gt; m name="p ams&gt; ror abort=" lethod&gt;</td><td>ssionidie="3" type="calm ftware_ide/services/CAU =" app="" returnNulDat onAddressNumber"&gt;4243 yes"&gt;</td><td>ethod" session=" .BSEN/Addressbo a="yes" name="(</td><td>" ok/GetEffective</td><td>ok/SetEffectiveAddress"&gt; vAddress"&gt; kress" runOnError="ves"&gt;</td><td></td><td></td></calme </idef 	Request ses "urn:iwayso athod trans- ms> m name="p ams> ror abort=" lethod>	ssionidie="3" type="calm ftware_ide/services/CAU =" app="" returnNulDat onAddressNumber">4243 yes">	ethod" session=" .BSEN/Addressbo a="yes" name="(	" ok/GetEffective	ok/SetEffectiveAddress"> vAddress"> kress" runOnError="ves">		
						Test Web Servio	te

**6.** Provide an appropriate input XML document in the Input Arguments area and click **Test Web Service**.

The output response is received in the Oracle Enterprise Manager console, as shown in Figure 4–47.

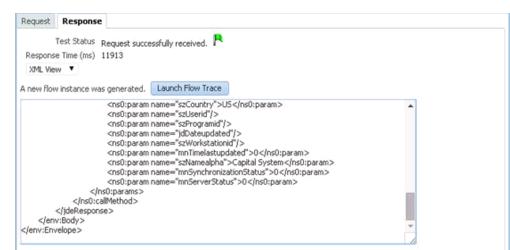


Figure 4–47 Received Output Response

## 4.4.6 Testing Outbound BPEL and Mediator Processes

When testing an outbound BPEL process or an outbound Mediator process from the Oracle Enterprise Manager console, do not use the XML envelopes that are generated by these consoles. Instead, remove them and use the XML payloads that are generated from the schemas, which conform to the WSDLs for namespace qualifications.

The Mediator data flows can be tested using the Enterprise Manager console. When creating a Mediator data flow and interactions, the Web services are created and registered with the Oracle Application Server. For more information on creating a Mediator outbound process, see Chapter 5, "Integration With Mediator Service Components in the Oracle SOA Suite".

# 4.5 Designing an Inbound BPEL Process for Event Integration (J2CA Configuration)

This section illustrates how Oracle Application Adapter for J.D. Edwards OneWorld integrates with J.D. Edwards OneWorld to receive event data. The design-time and run-time configuration procedures are outlined in the following sections.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\BPEL\J2CA\Inbound\_Project

The following tools are required to complete your adapter design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPEL Designer (JDeveloper)

**Note:** The examples in this chapter demonstrate the use of Oracle JDeveloper.

This section contains the following topics:

Section 4.5.1, "Generating WSDL for Event Integration"

- Section 4.5.2, "Creating an Empty Composite for SOA"
- Section 4.5.3, "Defining a BPEL Inbound Process"
- Section 4.5.4, "Deploying the BPEL Inbound Process"
- Section 4.5.5, "Triggering an Event in J.D. Edwards OneWorld"

Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. For more information, see "Generating WSDL for Event Integration" on page 4-34.

## 4.5.1 Generating WSDL for Event Integration

Before you design a BPEL process using Oracle JDeveloper, you must create a separate channel for every J2CA event and select that channel when you generate WSDL for inbound interaction using Application Explorer.

**Note:** If two or more events share the same channel, then event messages may not be delivered to the right BPEL process.

This section contains the following topics:

- Section 4.5.1.1, "Creating a Channel in Application Explorer"
- Section 4.5.1.2, "Generating WSDL for Event Notification (Command Prompt Only)"

#### 4.5.1.1 Creating a Channel in Application Explorer

To create a channel:

- 1. In Application Explorer, expand the **JDEdwards** node.
- 2. Right-click the Channels node, and select Add Channels.

The Add Channel dialog is displayed, as shown in Figure 4–48.

Add Channel			X
Name:			
Description:			
Protocol:			
TCP Listener			-
		Selected Port(s	
TCP Listener Available Port(s)	>>	Selected Port(s	
		Selected Port(s	
	>>	Selected Port(s	
		Selected Port(s	
	>	Selected Port(s	
	۶ ۶	Selected Port(s	

Figure 4–48 Add Channel Dialog

- 3. In the Name field, enter a descriptive name for the channel.
- 4. In the **Description** field, enter a description (optional).
- 5. From the Protocol list, choose a protocol for your channel.
- 6. Click Next.

The dialog is displayed for the selected listener, as shown in Figure 4–49.

Figure 4–49 TCP Listener Dialog

cp Listener	2
Basic PreParser	
Port Number*	
Host/IP Binding	
Synchronization Type	REQUEST_RESPONSE
🗌 Is Length Prefix	
✓ IS XML	
🗌 Is Keep Alive	
	OK Cancel
ields marked with * are r	equired.

- 7. Enter the port number of the channel in the **Port Number** field.
- 8. Enter the location of the server in the Host/IP Binding field.
- 9. Select the Synchronization type from the Synchronization Type list.
- **10.** Select **Is Length Prefix** for events that send data which is not in XML format. The TCP/IP event application must prefix the data with a 4-byte binary length field when writing the data to the TCP/IP port.

- **11.** Select **Is XML** for events that send data back in XML format. No preparser is required.
- **12.** Select **Is Keep Alive** to maintain a continuous communication between the event transaction and the channel.
- **13.** Click the **PreParser** tab, as shown in Figure 4–50.

Figure 4–50 PreParser Tab

Tcp Listener	×
Basic PreParser	
User id*	
User password*	
JDE Environment*	
Application	
Server IP address*	
Server port *	
User role	
Schema Location	
Schema style	ELEMENT_STYLE
	OK Cancel
Fields marked with * a	re required.

Enter values based on the table.

Parameter	Description
User id*	A valid user ID for J.D. Edwards OneWorld.
User password*	The password associated with the user ID.
JDE environment*	Your J.D. Edwards OneWorld environment. For more information about this parameter, see your J.D. Edwards OneWorld documentation or ask your OneWorld system administrator.
Application	XMLInterop or the application name in J.D. Edwards OneWorld. Optional.
Server IP address*	The name of the server on which J.D. Edwards OneWorld is running. This can be the name of the server, for example, JDEOW, or its IP address, for example, 123.45.67.89.
Server Port*	The port number on which the server is listening, for example, 6009.
User Role	Define a user role according to your requirements.

Parameter	Description
Schema Location	The location of the XML schema (.xsd file) that was generated from the event output. For example:
	<pre><adapter_home>\config\configuration_name\schemas\JDEdwards\target_ name\jde-schema.xsd</adapter_home></pre>
	For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.
Schema style	Choose from one of the following options:
	<ul> <li>ELEMENT_STYLE (default)</li> </ul>
	<ul> <li>ATTRIBUTE_STYLE</li> </ul>

#### Click OK.

The channel is created and displayed under the Channels node. An X over the icon indicates that the channel is currently disconnected.

**Note:** The channel you created in Application Explorer is managed by BPEL PM Server. If you start the channel for testing and debugging purposes, then stop it before run-time.

## 4.5.1.2 Generating WSDL for Event Notification (Command Prompt Only)

You cannot generate WSDL for J.D. Edwards OneWorld event notification using Application Explorer. To generate WSDL from the command prompt, you must perform the following steps.

You can create inbound J2CA service only if the node you have selected supports events.

**Note:** The schema validation options (Root, Namespace, Schema) are not applicable for the Oracle Application Adapter for J.D. Edwards OneWorld.

To generate a WSDL file for J.D. Edwards OneWorld event notification:

- 1. Create a channel using Application Explorer under the J.D. Edwards Events node.
- 2. Start the channel.

Do not restart Oracle WebLogic Server after the channel is started.

- 3. Send an inbound message from J.D. Edwards OneWorld.
- **4.** Capture the inbound message payload in the log file, which is located in the following directory based on your adapter installation:

<ADAPTER\_HOME>\config\configuration\_name\log\iwaf\_jca1500.log

Alternatively, you can create a port using the File protocol under the Events node in Application Explorer, which disposes the event message to the file system.

- **5.** Use a third party tool (for example, XMLSpy) to create the XML schema (.xsd file) using the XML payload that was captured in the previous step.
- 6. In the generated XML schema (.xsd file) perform the following modifications:

a. Search for Schemas-jdedwards-com and replace it with iwaysoftware.

```
<xs:schema
targetNamespace="urn:Schemas-jdedwards-com:trans.response.JDESOOUT"
xmlns="urn:Schemas-jdedwards-com:trans.response.JDESOOUT"
xmlns:xs=http://www.w3.org/2001/XMLSchema elementFormDefault="qualified">
```

to:

```
<xs:schema
    targetNamespace="urn:iwaysoftware:trans.response.JDESOOUT"
    xmlns="urn:iwaysoftware:trans.response.JDESOOUT"
xmlns:xs=http://www.w3.org/2001/XMLSchema elementFormDefault="qualified">
```

**b.** Cut the following syntax:

```
<rs:element name="jdeResponse">
<rs:complexType>
</rs:complexType>
</rs:element>
```

**c.** Paste it before the following line:

```
<xs:element name="transaction">
```

**7.** Copy the XML schema (.xsd file) to the following directory based on your adapter installation:

<ADAPTER\_HOME>\config\configuration\_name\schemas\JDEdwards\target\_name\

**Note:** Edit the created channel by providing the location of the schema (.xsd) file (as mentioned in step 7) in the PreParser tab of Application Explorer. For example:

<ADAPTER\_HOME>\config\configuration\_name\schemas\JDEdwards\target\_ name\jde-schema.xsd

8. Open a command prompt and navigate to the following base domain directory:

<ADAPTER\_HOME>\user\_projects\domains\base\_domain\bin

- 9. Execute setDomainEnv.cmd (Windows) or ../setDomainEnv.sh (UNIX/Linux).
- **10.** In the same command prompt, navigate to the following directory:

<ADAPTER\_HOME>\tools\iwae\bin

- 11. Execute the *obadapter.bat* file to set the environment.
- **12.** Based on your adapter installation, navigate to the following directory where the XML schema (.xsd file) is copied:

<ADAPTER\_HOME>\config\configuration\_name\schemas\JDEdwards\target\_name

**13.** Enter the following command to generate a WSDL:

```
java -Diway.oem=oracle12c
com.iwaysoftware.af.container.tools.wsdl.IWayWSILBrowser adapterhome adapter
target channel schemaPrefix wsdlFileName
```

where:

*adapterhome* is the path to your ApplicationAdapters home. For example:

### For SOA:

<ORACLE\_HOME>\soa\soa\thirdparty\ApplicationAdapters

#### For OSB:

<ORACLE\_HOME>\osb\3rdparty\ApplicationAdapters

adapter is the name of the adapter. For example, JDEdwards.

*target* is the name of the adapter target you created in Application Explorer.

channel is the name of the channel you created in Application Explorer.

*schemaPrefix* is the prefix for the XSD schema. The schema file must be in the same directory where the Java command is executed.

Execute the following command to generate the inbound WSDL.

```
java -Diway.oem=oracle12c
com.iwaysoftware.af.container.tools.wsdl.IWayWSILBrowser
C:\12c_SOA\soa\soa\thirdparty\ApplicationAdapters\
JDEdwards JDEConnection JDEchannel jde-schema J2CA_Inbound_receive.wsdl
```

Once the command is executed, the following is displayed in the command window:

```
Running Inbound WSDL generation tool...
-> Generating WSDL...
-> Generating files for OEM oracle12c
-> Done.
```

**Note:** It is good practice to append **\_receive** to the names of WSDL files that are generated for event notification services. This allows you to easily distinguish between them and those generated for request-response services.

**14.** Stop the channel in Application Explorer.

You can now create a new SOA application, which is the first step that is required to define a BPEL inbound process in Oracle JDeveloper.

## 4.5.2 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the new SOA Application and click Next.

The Name your project page is displayed.

**3.** Enter a project name and click **Next**.

The Configure SOA settings page is displayed.

4. From the Composite Template list, select **Empty Composite** and click **Finish**.

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

# 4.5.3 Defining a BPEL Inbound Process

This section describes how to define a BPEL inbound process, which consists of the following topics:

- Section 4.5.3.1, "Creating a Third Party Adapter Service Component"
- Section 4.5.3.2, "Creating an Inbound BPEL Process Component"
- Section 4.5.3.3, "Adjusting for Known Deployment Issues With 12c"

## 4.5.3.1 Creating a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

1. Drag and drop the **Third Party Adapter** component from the Service Adapters pane to the Exposed Services pane, as shown in Figure 4–51.

Figure 4–51 Third Party Adapter Component

📲 J2CA_Inbound	d ×				Comp × Resour
🖌 🕼 🌌 🗙	: 🖏   🚯 🧕 🖉	1 🏝 🗗 🆚 🛍		J2CA_Inbound	Q.* (
Ex	posed Services		Components	External References	SOA MSMQ
					🔞 REST
					କ୍ଷି SOAP
					ැ <u>ධි</u> Socket
					UMS
	~	To create resources, d	rag and drop an icon		Applications
	3	from the component p or select one from the rig			E-Business Suite
					S JDE World
					Custom/Third Party

The Create Third Party Adapter Service dialog is displayed, as shown in Figure 4–52.

0	Create Third Party	Adapter Service	×
Th	nird Party Adapter		4
	Create a JCA adapte	r service for a third party adapter.	-
	<u>N</u> ame:	Service	
	<u>Т</u> уре:	Service	
	WSDL URL:		2
-	Port Type:		
	Operation:	▼	
	<u>C</u> allback Port Type:	▼	
	Oper <u>a</u> tion:	▼	
	<u>J</u> CA File:		1
	Help	OK	Cancel

Figure 4–52 Create Third Party Adapter Service Dialog

- 2. Ensure that **Service** is selected from the Type list (default).
- **3.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed, as shown in Figure 4–53.

Figure 4–53 WSDL Chooser Dialog

Application Server	File System	Project Libraries	SOA-MDS		WSIL		
Location	: 🛅 C:\12c_50	A\soa\soa\third;	oarty\ApplicationA	dapters\wsdls		- 🗘 🛇 な 🖆	
Work Project	J2CA_Inbot	und_receive.wsc	31				
Home	Eile Name: J2C/	A_Inbound_rece	ive.wsdl				
	File <u>Type</u> : Web	) Service Definiti	on Files (*.wsdl)				•
Selection: file: (C:	/12c_SOA/soa/soa	a/thirdparty/App	licationAdapters/	vsdls/J2CA_Inbou	und_receive.wsdl		
Foroccion Inort ci							

4. Browse and select an inbound WSDL file from the following directory:

<ADAPTER\_HOME>\wsdls

5. Click OK.

The Localize Files dialog is displayed, as shown in Figure 4–54.

Figure 4–54 Localize Files Dialog

👩 Localize Files	×
file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Inbound_r project. In order to make this file available to your project at runtime, JDeveloper file and any dependent files that it imports or includes.	
Copy Options: 🔽 Maintain original directory structure for imported files The following files will be created in directory C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Inbound\SOA :	
WSDLs/J2CA_Inbound_receive.wsdl WSDLs/J2CA_Inbound_receive_request.xsd	
Help	OK Cancel

6. Click OK.

The inbound WSDL file and associated receive/request XML schema file (.xsd) are imported to the project folder that has been created.

You are returned to the Create Third Party Adapter Service dialog.

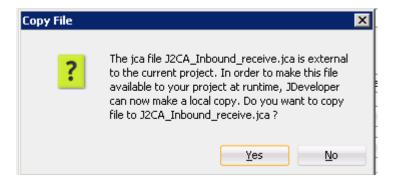
7. Click the Find JCA file icon, which is located to the right of the JCA File field.

The Transformation Chooser dialog is displayed.

- Browse and select the JCA properties file from the following directory: <adapter\_HOME>\wsdls
- 9. Click OK.

A Copy File message is displayed, as shown in Figure 4–55.

Figure 4–55 Copy File Confirmation Message



10. Click Yes.

A copy of the JCA properties file is made in the project folder.

You are returned to the Create Third Party Adapter Service dialog, as shown in Figure 4–56.

Figure 4–56 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter Create a JCA adapte	Service r service for a third party adapter.	÷
<u>N</u> ame:	Service	
<u>Т</u> уре:	Service	
WSDL URL:	SB\WORK\mywork\Application1\Project1\SOA\WSDLs\J2CA_Inbound_receive.wsdl	1
Port Type:	jde_inboundPortType	
Operation:	jde_inbound	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:	5B/WORK/mywork/Application1/Project1/SOA/Adapters/J2CA_Inbound_receive.jca	2
Help	OK	Cancel

**11.** Click **OK**.

The third party adapter service component is created and displayed in the Exposed Services pane.

You are now ready to configure an inbound BPEL process component.

#### 4.5.3.2 Creating an Inbound BPEL Process Component

Perform the following steps to create an inbound BPEL process component:

**1.** Drag and drop the **BPEL Process** component from the Service Components pane to the Components pane.

The Create BPEL Process dialog is displayed, as shown in Figure 4–57.

🕜 Create BPE	L Process	×
BPEL Proces		ea 📫
BPEL 2.0 S	pecification 🔘 BPEL 1.1 Specification	
<u>N</u> ame:	BPELProcess1	
Namespace:	http://xmlns.oracle.com/SOA_Application/J2CA_Inbound/BPELProcess1	
Directory:	C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Inbound\SOA\BPEL	<b>Q</b>
<u>T</u> emplate:	le Base on a WSDL	- 3
Ser <u>v</u> ice Name:	bpelprocess1_client	
	Expose as a SOAP service	
	WSDL URL:	۵ 🙋
	Port Type:	•
	Callback Port Type:	•
Help	OK	Cancel

Figure 4–57 Create BPEL Process Dialog

**2.** In the Name field, enter a name to identify the new inbound BPEL process component or leave to default.

By default, the BPEL 2.0 Specification option is selected.

- 3. From the Template list, select **Base on a WSDL**.
- 4. Uncheck the Expose as SOAP service check box.
- 5. Click the Find existing WSDLs icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed.

6. Select an inbound WSDL file from the following directory:

<ADAPTER\_HOME>\wsdls

7. Click OK.

The Localize Files dialog is displayed, as shown in Figure 4–58.

Localize Files         file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Inbound_receive.wsdl is external to the cur         project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of thi         file and any dependent files that it imports or includes.         Copy Options: <ul> <li>Maintain original directory structure for imported files</li> <li>Rename duplicate files</li> </ul> The following files will be created in directory         C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Inbound\SOA :         WSDLs/J2CA_Inbound_receive_1.wsdl         WSDLs/J2CA_Inbound_receive_request_1.xsd							
roject. In order to make this file available to your project at runtime, "Developer can now make a local copy of this e and any dependent files that it imports or includes. Copy Options:  Maintain original directory structure for imported files Rename duplicate files The following files will be created in directory C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Inbound\SOA : WSDLs/J2CA_Inbound_receive_1.wsdl	Localize File	5					
Rename duplicate files  The following files will be created in directory  C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Inbound\SOA :  WSDLs/J2CA_Inbound_receive_1.wsdl	oject. In ordei	r to make this	file available to you	r project at runtim			
The following files will be created in directory C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Inbound\SOA : WSDLs/J2CA_Inbound_receive_1.wsdl	Copy Options:			ructure for importe	ed files		
				\J2CA_Inbound\S	50A :		
				ł			
Help OK Cancel	Help					OK	Cancel

Figure 4–58 Localize Files Dialog

- 8. Uncheck the Rename duplicate files option.
- 9. Click OK.

You are returned to the Create BPEL Process dialog.

**10.** Click **OK**.

# Figure 4–59 Created Connection

Applications × Application S   = 📲 22CA_Inbound ×		Components ×	Resources		
🔁 504, Application 🔹 👻 🖓 🗟 🗶 🖏   (1) 🤤 😥   🗄 🖶 🏶 🦉 🚽 J2CA_Inb	ound	Qv			0
Injects       Image: Services       Components       External References         BFEL       BEDEnvices/Lippe       External References       External References         BFEL       BEDEnvices/Lippe		SOA Components BPEL Process Mediator Technology BAIN 11g Port - Service - Q, Find Name: Interface Ty Interface Ty Interface: Calback Inter	service pe: wsdl http://xm	Ins.orade.co	
[10:15:32 AM] Successful compilation: 0 errors, 0 warnings.				a	l

**11.** Create a connection between the third party adapter service component and the inbound BPEL process component, as shown in Figure 4–59.

**12.** Double-click **J2CA\_Outbound** in the left pane.

Figure 4–60 Save All Icon

Applications × 🗉	메일 J2CA_Inbound ×	2
🔁 SOA_Application1 🔹 💌	🗸 🖓 🌌 🗶 🖏   🕅 🥘 🖄   🖶 🖶 🏟 🕅	J2CA_Inbound
Projects           Projects <ul> <li>Projects</li> <li></li></ul>	Exposed Services Components	External References
	Design Source History	

**13.** Click the **Save All** icon in the menu bar to save the new inbound BPEL process component that was configured, as shown in Figure 4–60.

You are now ready to deploy the BPEL inbound process.

#### 4.5.3.3 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

# 4.5.4 Deploying the BPEL Inbound Process

Perform the following steps to deploy the BPEL inbound process.

1. Right-click the project name in the left pane, select **Deploy**, and click **J2CA**\_ **Inbound**.

The Deployment Action page is displayed.

- 2. Ensure that **Deploy to Application Server** is selected.
- 3. Click Next.

The Deploy Configuration page is displayed.

4. Leave the default values selected and click Next.

The Select Server page is displayed.

- Select an available application server that was configured and click Next. The SOA Servers page is displayed.
- **6.** Select a target SOA server and click **Next**. The Summary page is displayed.

**7.** Review and verify all the available deployment information for your project and click **Finish**.

The process is deployed successfully.

For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

Once event messages are triggered through J.D. Edwards OneWorld, successful instances are received in the Oracle Enterprise Manager console, as shown in Figure 4–61.

Figure 4–61 Received Instances

arget Navigation	👚 J2CA_Inbound [1.0] 🔞		Log	ged in as <b>weblogic</b>
View 🔻	SOA Composite 👻		Page Refreshed Aug	25, 2014 9:46:52 /
Application Deployments     Deployments     SoA     Soa-infra (soa_server1)     Mill default     IZCA_Inbound [1.0]	Active Retire Shut Down Dashboard Composite Definition Flow Insi Search Results - Instances Created (		95	P Rel
WebLogic Domain     A      base_domain	Actions - View - 🗱 🗔			🔚 Hide Details
AdminServer	Flow ID Initiating Composite	Flow State	Created	Last Updated
📇 soa_server1	80038 J2CA_Inbound [1.0]	🛷 Completed	Aug 25, 2014 10:08:24 AM	Aug 25, 2014 10:
🛅 Metadata Repositories	80037 J2CA_Inbound [1.0] 80036 J2CA Inbound [1.0]	<ul> <li>Completed</li> <li>Completed</li> </ul>	Aug 25, 2014 10:08:22 AM Aug 25, 2014 10:08:20 AM	Aug 25, 2014 10: Aug 25, 2014 10:
Diser Messaging Service	8			
	4			•
	Rows Selected 1 Columns Hidden 2	2		T
	Faults Composite Sensor Values Compo	osites		
	Recover 🕶 View 🔫		Flow	/ Instance 80036
	Error Message	Fault Own	er	Fault Time Reco
	No faults found.	l duk Own	<b>u</b>	r dak fillið Nöc

# 4.5.5 Triggering an Event in J.D. Edwards OneWorld

Events are generated by activity in a database or in an application system. You can use events to trigger an action in your application. To trigger an event in J.D. Edwards OneWorld:

- 1. Log in to your J.D. Edwards OneWorld system.
- **2.** In the **Fast Path** field of the J.D. Edwards OneWorld Explorer window, type **G4211** and press **Enter**, as shown in Figure 4–62.

🌗 J.D. Edwards OneWorld Expl	orer				_ 7 🗙				
File Edit View Tools Applications	Help								
) 🖀 🚅 🖬 🔳 🖪 🖉 🗙 I 🎭	] 🆀 😅 🔙 🔟 🖹 🛬 😳 臨 ☶ 🏢 廢   습   🗢 → 🏘 🛛   Fast Path [G4211] 💽								
⊡ 📻 Master Directory ⊕ 📻 Foundation Systems	Master Directory (G)								
🗄 📻 Financials	Description	Job To Execute	Version						
🕀 📻 Human Resources and Payr	Foundation Systems	GO							
🗄 📻 Distribution / Logistics	📅 Financials	G1							
🗄 📻 Manufacturing	📅 Human Resources and Payroll	G05B							
🗄 📻 Enterprise Asset Manageme	📅 Distribution / Logistics	G4							
	m Manufacturing	G3							
	📅 Enterprise Asset Management	G9							
	_								

Figure 4–62 J.D. Edwards OneWorld Explorer Window

3. Right-click Sales Order Detail (P4210).

Figure 4–63 Sales Order Detail Menu

J.D. Edwards OneWorld Explorer							
File Edit View Tools Applications	Help						
🏠 🚅 🔚 🔲 🔁 🗙 🗠	診 蹠 ∭ 巌   合   ⇔ ⇒ М						
⊡ 📻 Master Directory 亩 📻 Foundation Systems	Sales Order Processing (G4211)						
🗄 📻 Financials	Description	Job To Execute	Version				
	Enter Orders Header	P4210	ZJDE0006				
🗄 📻 Human Resources and Payr 🗐 🥽 Distribution / Logistics	Sales Order D	P4210	ZJDE0001				
🔄 📻 Manufacturing	Print Pick Slip Send To	R42520					
🗄 📻 Enterprise Asset Manageme	Confirm Shipn	P4205	ZJDE0001				
	Print Invoices	R42565					
	€ Release Held	P43070	ZJDE0002				
	Release Back Paste	P42117	ZJDE0001				
	Quotes Create Shortcut	P4210	ZJDE0003				
	Blankets	<u>₽4210</u>	71050004				
	Direct Ships Prompt For	Values					
	Electronic Co	Version					
	Recurring & B	Data Selection					
	Transfers About	Data <u>S</u> election And V	Values				
		G42113					

4. Select **Prompt for**, and then **Values**, as shown in Figure 4–63.

The Processing Options dialog is displayed, as shown in Figure 4–64.

III Processi	ng Options			
Multiples	Interbranch	Interop	Prepayment	• •
1. Transacti	on Type		JDESOOU	T
Blank = Wr	ter Image Process te after image efore and After ima		1	_
<ul> <li>✓ 0</li> </ul>	ĸ	<u>H</u> elj	p	🗙 <u>C</u> ancel

Figure 4–64 Processing Options Dialog

Perform the following steps:

- **a.** Click the **Interop** tab.
- **b.** In the **Transaction Type** field, type **JDESOOUT**.
- c. Verify that the value in the Before/After Image Processing Blank field is 1.
- 5. Click OK.

The **Sales Order Detail - (Customer Service Inquiry)** window is displayed, as shown in Figure 4–65.

Figure 4–65 Sales Order Detail Window

Sales Order Detail - [Customer Service Inquiry]								
2000	erences Form Row Window Help							
	Select Find Add Copy Close Seg New Dis Abo	OLE Internet						
Form Row	Customer Service Inquiry Additional Selections							
Credit	Order Number SO *	Branch/Plant						
Check	Customer PO *							
A/B Informat 😑	Item Number *							
Bold To								
Customer	Sold To *	Г						
Ship To Customer	Ship To *	Γ						
Availabi	Order Number         Or Ty         Order Co         Line Number         Hd Cd         Sold To         Sold To	Description 1						
Configu								

6. Click the Add icon (third icon from left).

7. Enter the values as shown in Figure 4–66.

To move to a different field, use the **Tab** key on your keyboard.

Figure	4–66	Values

✓ × ☆ ☆ W Links ▼ A/B Inf										
Order Number	_	3350	-i [SO	_	00200		Branch/A	Plant	M30	
Sold To		4242		C	apital System		Order Da	ate 6/20/2009	5	
Ship To		4242		¢	apital System		Cust PO			_
Currency		USD	Exchar	nge Ra	ate		Base	USD	Foreign	
Formati Forma	2									
B Quantity Ordered	UoM		tem Imber	Ln Ty	Unit Price	Extended Price	Branch/ Plant	Location	Lot Number	Lin Numi
				s	0.0000					1.

8. Enter a value for Quantity Ordered and Item Number, as shown in Figure 4–67.

Figure 4–67 Sample Values

Det	Detail Revisions 🔲 Line Defaults 🗐							
(	Order Number		3350		so		00200	
8	Sold To		4242			С	apital System	
Ship To 4242 Capital System								
	Currency		USD		Exchar	ige R	ate	
For	mat1 Format2	]						
<b>Ø</b> .	Quantity Ordered	UoM		item Number		Ln Ty	Unit Price	Extended Price
	1		210		Þ	s	0.0000	
						S	0.0000	

**9.** Click the first field in the second row and allow a few seconds for processing, as shown in Figure 4–68.

Figure 4–68	Sample	Values
-------------	--------	--------

Format1 Format2 © Ouantity UoM Item Ln Unit Extended Ordered UoM Number Ty Price Price						
Currency		USD E	xchange R:	ate		
Ship To		4242		Capital System		
Sold To		4242	c	apital System		
Order Number		3350	30	00200		

10. Click OK.

An event is triggered in the J.D. Edwards OneWorld system.

#### Verifying the Results

To verify your results:

- Log in to the Oracle Enterprise Manager console by using the following URL: http://localhost:7001/em
- 2. Click SOA, select soa-infra (soa\_server1), default, and then click J2CA\_Inbound.
- 3. Click Flow Instances.

Instances will be received, as shown in Figure 4–69.

Figure 4–69 Flow Instances

Target Navigation	12CA_Inbound [1.0]		Log	ped in an weblogic
New -	SDA Composite -		Page Profreshed Aug	25, 2014 9:46:52 A
<ul> <li>&gt; A gelication Deployments</li> <li>&gt; SOIL</li> <li>&gt; SOIL</li> <li>&gt; Soil (Backstone (acca_caniver))</li> <li>&gt; </li> <li>&gt; </li> <li>&gt; </li> <li></li> <li></li></ul> <li></li> <li> <li></li> <li> <li></li> <li> <li></li> <li> <ul> <li></li></ul> <li> <li> <li> <li> <li> <li> <li> <li> <li> <ul> <li></li></ul> <li> <li> <li> <li> <li> <li> <li> <li> <ul> <li></li></ul> <ul> <li></li></ul> <ul> <li></li></ul> <ul>&lt;</ul></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li>	Dashboard Composite Definition Flow Instan			SP and
R2(A_inbound[L0]) Webcojic Coman	Search Results - Instances Created (24	Hours) 🧐 Revent Instance	s   Instances With Faults   Re	
- 🔂 bese_dundin	Actional = Vew = 😫 🗔			🔄 Hide Details
AdminGerver	Plaw ID Initiating Composite	Flow State	Created	Lest Updated
a soa server1	80038 32CA_inboard [1.6] 80037 32CA_inboard [1.6]	P Congleted	Aug 25, 2014 10:08:24 AM	Jug 25, 2014 10
D International Control Con	80037 T2CA_irbound[1.6] 800361: >F32CA_irbound[1.4]	Conpleted	Aug 25, 2014 10:08:22 AM Aug 25, 2014 10:08:20 AM	Aug 25, 2014 10 Aug 25, 2014 10
			_	,
	Rovs Selected 1 Columns Hidden 2			100
	Feelts Composite Sensor Volues Composite	65		
	Recover - View -		Row	Instance 90036
	Ever Message No lauts found.	Fault Owner		Fault Time Reco
	THE REAL TAX HE			

# 4.6 Designing an Outbound BPEL Process for Service Integration (BSE Configuration)

This section describes how to design an outbound BPEL process for service integration.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\BPEL\BSE\Outbound\_Project

The following tools are required to complete your adapter design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPEL Designer (JDeveloper)

This section includes the following topics:

- Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service"
- Section 4.6.2, "Creating an Empty Composite for SOA"
- Section 4.6.3, "Defining a BPEL Outbound Process"

Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service".

# 4.6.1 Generating a WSDL File for Request and Response Services Using a Web Service

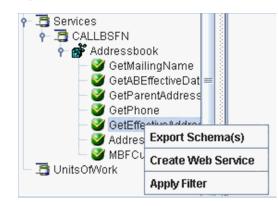
To generate a WSDL file for request and response services using a Web service:

**1.** Start Application Explorer and connect to a defined J.D. Edwards target (BSE configuration).

For more information on defining a target and connecting to J.D. Edwards, see Section 2.4.1, "Defining a Target to J.D. Edwards OneWorld".

- 2. Expand the J.D. Edwards target to which you are connected.
- 3. Expand Services, CALLBSFN, and Addressbook.
- 4. Right-click **GetEffectiveAddress**, and then select **Create Web Service** from the menu, as shown in Figure 4–70.

Figure 4–70 Create Web Service Option



The Create Web Service dialog is displayed.

- 5. Enter a service name, and click Next.
- 6. Click **OK** on the next dialog that is displayed.

Application Explorer switches the view to the Business Services node, and the new Web service is displayed in the left pane.

- 7. Right-click the new Web service and select Save WSDL from the menu.
- 8. Save the WSDL in the wsdls folder and click Save.

You can now create an empty composite for SOA, which is the first step that is required to define a BPEL outbound process in JDeveloper.

# 4.6.2 Creating an Empty Composite for SOA

To create an empty composite for SOA:

- **1.** Create a new SOA application.
- 2. Enter a name for the SOA Application and click Next.

The Name your project page is displayed.

**3.** Enter a project name and click **Next**.

The Configure SOA settings page is displayed.

4. From the Composite Template list, select Empty Composite and click Finish.

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA," on page 4-9.

# 4.6.3 Defining a BPEL Outbound Process

This section describes how to configure a BPEL outbound process component.

This section includes the following topics:

- Section 4.6.3.1, "Creating a Partner Link"
- Section 4.6.3.2, "Creating BPEL Activities and Mappings With the Created Partner Link"

To define a BPEL outbound process:

1. Drag and drop the **BPEL Process** component from the Service Components pane to the Components pane, as shown in Figure 4–71.

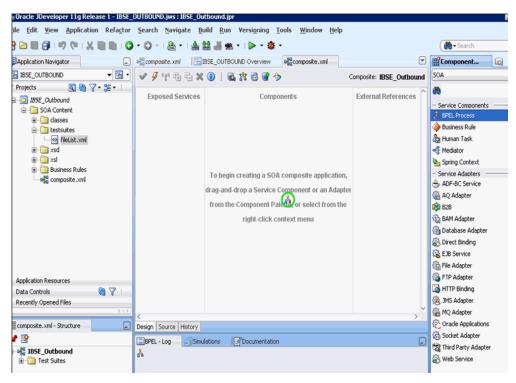


Figure 4–71 BPEL Process Component

**2.** In the Name field, enter a name to identify the new outbound BPEL process component or leave it to the default value.

By default, the BPEL 2.0 Specification option is selected.

- 3. From the Template drop-down list, select **Base on a WSDL**.
- **4.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field, as shown in Figure 4–72.

🕜 Create BPI	EL Process	×
	<b>s</b> cess is a service orchestration, based on the BPEL specification, used to describe/execute a ocess (or large grained service), which is implemented as a stateful service.	2
BPEL 2.0 S	pecification O BPEL 1.1 Specification	
<u>N</u> ame:	BPELProcess1	
Namespace:	http://xmlns.oracle.com/SOA_Application/IBSE_Outbound/BPELProcess1	
Directory:	C:\WORK\mywork\SOA_Application\IBSE_Outbound\SOA\BPEL	Q
<u>T</u> emplate:	Base on a WSDL	- 2
Ser <u>v</u> ice Name:	bpelprocess1_client	
	Expose as a SOAP service	
	WSDL URL:	۵ 🖻
	Port Type:	, k
	Callback Port Type:	·
Help	ОК	Cancel

Figure 4–72 Find Existing WSDLs Icon

The WSDL Chooser dialog is displayed.

**5.** Navigate to the location where the WSDL is exported from Application Explorer, select the WSDL, and click **OK**, as shown in Figure 4–73.

🕌 WSDL Choose	r.	×
Application Server	File System Project Libraries SOA-MDS UDDI WS	
Location	: C:\12c\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\wsdls	- 0 0 🕼 😫 🖽
Work	IBSE_Outbound.wsdl         Elle Name:       IBSE_Outbound.wsdl         File Type:       Web Service Definition Files (*.wsdl)	
<u>S</u> election: file:/C:	/12c/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/IBSE_Outbound.	wsdl
Help		OK Cancel

Figure 4–73 WSDL Chooser Dialog

The Localize Files window is displayed.

**6.** In the displayed Localize Files window, click **OK**. This imports the WSDL file to the project folder, as shown in Figure 4–74.

Figure 4–74 Localize Files Window

🔬 Localize Files	x
file:/C:/wsdls/IBSE_Outbound.wsdl is external to the current project. In order to project at runtime, JDeveloper can now make a local copy of this file and any de includes.	
Copy Options:  Maintain original directory structure for imported files The following files will be created in directory C:\JDeveloper\mywork\IBSE_OUTBOUND\IBSE_Outbound :	
IBSE_Outbound.wsdl	
Help	OK Cancel

The Create BPEL Process window is displayed.

7. In the BPEL Process pane, click **OK**, as shown in Figure 4–75.

👩 Create BPE	L Process		×			
BPEL Process	;		<b></b>			
		estration, based on the BPEL specification, used to describe/execute a ed service), which is implemented as a stateful service.	<u>í</u>			
) BPEL 2.0 Sp	pecification 🔘 BPEL	1.1 Specification				
<u>N</u> ame:	BPELProcess1					
Name <u>s</u> pace:	http://xmlns.oracle.	com/50A_Application/IBSE_Outbound/BPELProcess1				
Directory:	C:\WORK\mywork\S	50A_Application\IBSE_Outbound\SOA\BPEL	Q			
<u>T</u> emplate:	Base on a WSDL					
Ser <u>v</u> ice Name:	bpelprocess1_client					
	Expose as a SOAP service					
	T <u>r</u> ansaction: required					
	WSDL URL:	$wk\SOA\_Application\IBSE\_Outbound\SOA\WSDLs\IBSE\_Outbound.wsdl$	۵ 🏟			
	Port Type:	getdetail_ibseSoap 🔹				
	<u>C</u> allback Port Type:	No Callback				
Help		ОК	Cancel			

Figure 4–75 BPEL Process Pane

The BPEL Process component is created and displayed, as shown in Figure 4–76.

Figure 4–76 BPEL Process Component

Oracle JDeveloper 11g Release 1 - IBSE_	DUTBOUND.jws : IBSE_Outbound.jpr	
le Edit Yiew Application Refactor	Search Navigate Build Run Versioning Tools Window Help	
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Application Navigator	alig composite.xml BISE_OUTBOUND Overview	Component
BIBSE_OUTBOUND - 🔁 -	🖋 🗲 🚏 🖫 🚍 💥 🚯   🗟 🕌 👌 Composite: IBSE_Outbound	SOA
Projects 💽 🇞 🏹 📲 🔹	Exposed Services Components External Referen	<b>60</b>
BSE_Outbound     Content     Content	Exposed services Components External version Belprocess1 GetDetal	- Service Component Service Component Business Rule Business Rule Business Rule Busing Context - Service Adapters Busing Context - Service Adapters Ban Adapter Ban Adapter Database Adapter Database Adapter Ban Database Adapter Ban Database Adapter Ban Database Adapter Ban Bandarder Bandarde
Application Resources		S FTP Adapter
Data Controls 🛛 🗞 🍸		HTTP Binding
Recently Opened Files	· · · · · · · · · · · · · · · · · · ·	(B) JMS Adapter (B) MQ Adapter
composite.xml - Structure	C Design Source History	G Oracle Applicatio
		Cocket Adapter
BSE_Outbound	BPEL - Log Simulations	📸 Third Party Adap

# 4.6.3.1 Creating a Partner Link

This section describes how to create a partner link.

To create a partner link:

- 1. Double-click the outbound BPEL process component in the Components pane.
- **2.** Right-click on the **Partner Links** pane and select **Create Partner Link**, as shown in Figure 4–77.

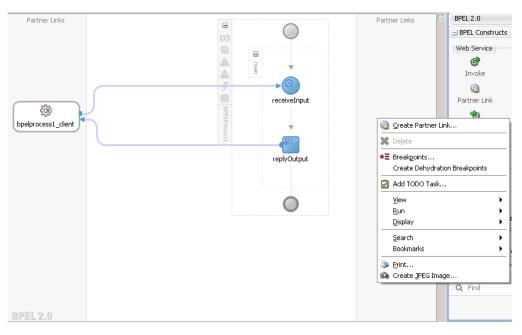


Figure 4–77 Create Partner Link

**3.** In the displayed Create Partner Link window, provide an appropriate name and click on the SOA Resource Browser tool, as shown in Figure 4–78.

Figure 4–78 SOA Resource Browser Tool

٢	Create P	Partner Lir	nk 🛛 🗙
ſ	General	Image	Property
	<u>N</u> ame:	PartnerLin	k1
	Process:		
	-WSDL Se	ttings	
			💁 i 🔊 🔊 🖉
	WSDL U	RL:	SOA Resource Browser
	Partner	Link Type:	
	Partner	Role:	S
	My Role	:	· ·
-			
	Help		Apply OK Cancel

**4.** In the WSDL Chooser dialog that is displayed, navigate to the location where the WSDL is exported from Application Explorer, select the WSDL, and click **OK**, as shown in Figure 4–79.

💰 WSDL Choose								×
wspr choose	r							
Application Server	File System	Project Libraries	SOA-MDS		WSIL			
Location	: 🛅 C:\12a	\Oracle_SOA1\soa\t	hirdparty\Applicat	ionAdapters\wsdls	j	- 0 0	😋 😭	E III
Work	Elle Name: File Type:	utbound.wsd IBSE_Outbound.wsd Web Service Definiti	ion Files (*.wsdl)	ers/wsdls/IBSE Ou	tbound.wsdl			
Help						0		Cancel

Figure 4–79 WSDL Chooser Dialog

**5.** In the displayed Localize Files window, uncheck the **Rename duplicate files** check box and click **OK**, as shown inFigure 4–80.

Figure 4–80 Localize Files Window

Jocalize Files	
Ie:/C:/wsdis/IBSE_Outbound.wsdi is external to the current project. In ord roject at runtime, JDeveloper can now make a local copy of this file and an icludes.	
Copy Options: V Maintain original directory structure for imported files	
Rename duplicate files	
The following files will be created in directory C:\JDeveloper\mywork\IBSE_OUTBOUND\IBSE_Outbound :	
IBSE_Outbound.wsdl	

6. Click Yes in the displayed Partner Link Type window, as shown in Figure 4–81.

Figure 4–81 Partner Link Type



- **7.** In the displayed Create Partner Link window, expand the **Partner Role** drop-down list and select the available partner role.
- 8. Click Apply, and then OK, as shown in Figure 4–82.

Figure 4–82 Create Partner Link

lame: PartnerLink1 rocess: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
Initialize Partner Role	
WSDL Settings	
🔍 🖧 🗟 ।	6
WSDL URL:/WSDLs/IBSE_OutboundWrapper1.wsdl	
Partner Link Type: 🐺 IBSE_OutboundSoap_PLT	•
Partner Role: SIBSE_OutboundSoap_Role	•
My Role: 🧠 Not Specified	-

#### 4.6.3.2 Creating BPEL Activities and Mappings With the Created Partner Link

This section describes how to create BPEL activities and mappings with the created partner link.

To create BPEL Activities and map with the created partner link:

- Drag and drop the Invoke activity component from BPEL Constructs to the Components pane. Place it between the receiveInput activity component and the replyOutput activity component.
- **2.** Create a connection between the new **Invoke** activity component (Invoke1) and the **Partner Link** component (Partner link1), as shown in Figure 4–83.

cle JDeveloper 11g Release 1 - IB5E_ Edit View Application Refactor	UTBOUND.jws:IBSE_Outbound.jpr:E:\JDeveloper\mywork\IBSE_OUTBOUND\IBSE_Outbound\BPEL Search Navigate Build Run Versioning Jools Window Help	process1.bpel
	· ② · I ♣ · I ♣ ✿ ♣ ▲ · I ▷ · ♣ ·	( 🍓 - Seard
	Composite.xml	
	🖋 🎧 (x) 🖏 🚥 🏭 🕕 I 🗵 🖌 🖗 🔸 🌺 🍓 🕐 🚮 BEEL 🔛 Monitor 🔿 🕬 🧷	
ects 💽 🗞 🖓 - 📴 -	Partner Links Partner Links	60
IBSE_Outbound		SPEL Constru
classes		- Web Service
😑 🫅 testsuites		🚱 Invoke
💮 fileList.xml	main 🔹	Partner Link
xsd     xsl		Receive
Summers Rules	receiveInput	<ul> <li>Reply</li> <li>Activities</li> </ul>
BPELProcess1.bpel		Activities -
BPELProcess1.componentType	ParcherLink1	Compensate
composite.xml	boeborcesst clent	Empty
<ul> <li>IBSE_Outbound.wsdl</li> <li>IBSE_OutboundWrapper.wsdl</li> </ul>	bpelprocess1_client	Terminate
IBSE_OutboundWrapper1.wsdl	Invokei	A Throw
		🕑 Wait
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		I Flow
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ication Resources	repro output	Scope
ently Opened Files	· · · · · · · · · · · · · · · · · · ·	Sequence
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LProcess1	Design Source History	👌 While
	BPEL - Log Simulations Scottered E	)

Figure 4–83 Partner Link Component

- **3.** In the displayed Edit Invoke window, click the Plus (+) icon, located to the right of the Input field, to configure a new input variable.
- **4.** Accept the default values that are provided for the new input variable and click **OK**.
- **5.** Click the Plus (+) icon, which is located to the right of the Output field, to configure a new output variable, as shown in Figure 4–84.

General	Correlations	Properties	Assertions	Annotations
<u>N</u> ame:	Invoke1			
<u>C</u> onversation I	iD:			
<u>D</u> etail Label:				
	🔄 Invoke as Detail			
<u>I</u> nteraction	n Type: 🔯 Partner Link	<▼		
Partner <u>L</u> inł	e PartnerLink1			Q,
Port <u>T</u> ype:	TBSE_OutboundSe	oap		•
Operation:	GetEffectiveAddr			
Input (	Dutput			
	ents Mapping () Input V	ariable		2
Input: In	voke1_GetEffectiveAddr	ess_InputVariab	le	_ 🕂 🔍

Figure 4–84 Edit Invoke Window

- **6.** Accept the default values that are provided for the new output variable and click **OK**.
- 7. Click Apply and then OK, as shown in Figure 4–85.

👩 Edit Invoke				×
Headers Docu	umentation Skip	Condition Tar	gets Sources	
General	Correlations	Properties	Assertions	Annotations
<u>N</u> ame:	Invoke1			
Conversation ID:				
Detail Label:				
	📃 <u>I</u> nvoke as De	tail		
Interaction 1	Type: 🔯 Partne	' Link 🔻		
Partner Link:	PartnerLink1			Q.
Port <u>T</u> ype:	🐺 IBSE_Outbou	IndSoap		<b>•</b>
Operation:	GetEffective	Address		-
Input Ou	tput			
O Argument	s Mapping 💿 <u>O</u> u	tput Variable		0
Output: Inv	voke1 GetEffectiv	eAddress Output'	/ariable	🗛 🔍 🗌 🗌
Help			Apply	OK Cancel

**8.** Drag and drop the **Assign** activity component from BPEL Constructs to the Components pane. Place it between the **Receive** activity component (receiveInput) and the **Invoke** activity component (Invoke1), as shown in Figure 4–86.

)racle JDeveloper 11g Release 1 - IBSE	OUTBOUND.jws : IBSE_Outbound.jpr	
<u>Edit View Application Refactor</u>	<u>Search Navigate Build Run Versioning Iools Window H</u> elp	
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Application Navigator	all composite.xml 🔄 IBSE_OUTBOUND Overview all composite.xml 🔏 BPELProcess1.bpel	Component
IBSE_OUTBOUND - 🔁 -	✔ 🍇 🗶 🔁 📖 🏭 🕕   🖉 + 📦 + 👶 + 🍓 🤇 🏟 🐂 🚮 EFEL. 🔛 Monitor. 👘 EFA. 🔞	BPEL 1.1
Projects 💽 🍖 🖓 - 🏣 -	Partner Links Partner Links	<b>8</b> 9
BSE_Outbound		BPEL Constructs
🖻 🛅 SOA Content		- Web Service
I classes		Invoke
testsuites     fileList.xml	mair V	artner Link
·····································		Receive
ter in the second secon		2 Reply
Business Rules	receiveInput	- Activities
BPELProcess1.bpel	<u>₩</u>	Assign
BPELProcess1.componentType	beetprocess client	Compensate
composite.xml		Empty
<ul> <li>IBSE_Outbound.wsdl</li> <li>IBSE_OutboundWrapper.wsdl</li> </ul>	bpelprocess1_client Assign PartnerLink1	Terminate
IBSE_CotboardWrapper.wsdl		A Throw
	$\odot$	🕥 Wait
	Ť	- Structured Activities
		I Flow
	replyOutput	😰 Pick
Application Resources		Scope
Data Controls 🛛 🗞 🍸	€	Sequence
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Figure 4–86 Assign Activity Component

**9.** Double-click the new **Assign** activity component (Assign1), as shown in Figure 4–87.

Figure 4–87 Assign Activity Component

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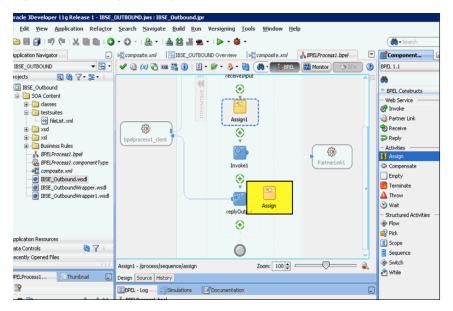
- **10.** In the left pane, under Variables, expand **InputVariable**, and then select **parameters**.
- **11.** In the right pane, under Variables, expand **Invoke1\_GetEffectiveAddress\_ InputVariable**, and then select **parameters**.
- Drag and map the InputVariable parameters to the Invoke1\_ GetEffectiveAddress\_InputVariable parameters, as shown in Figure 4–88.

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Figure 4–88 InputVariable Parameters

- **13.** Click **Apply** and then **OK**.
- **14.** Drag and drop the **Assign** activity component to the Components pane and place it between the **Invoke** activity (Invoke1) and the **Reply** activity (replyOutput), as shown in Figure 4–89.

Figure 4–89 Assign Activity Component



**15.** Double-click the new **Assign** activity component (Assign2), as shown in Figure 4–90.

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an a / x	Design Source History	
receive - receiveInput	BPEL - Log Smulations Cocumentation	

Figure 4–90 New Assign Activity Component

- **16.** In the left pane, under Variables, expand **Invoke1\_GetEffectiveAddress\_ OutputVariable**, and then select **parameters**.
- **17.** In the right pane, under Variables, expand **outputVariable**, and then select **parameters**.
- **18.** Drag and map the **Invoke1\_GetEffectiveAddress\_OutputVariable** parameters to the **outputVariable** parameters, as shown in Figure 4–91.

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Figure 4–91 outputVariable Parameters

**19.** Click **Apply** and then **OK**.

You are returned to the component pane, as shown in Figure 4–92.

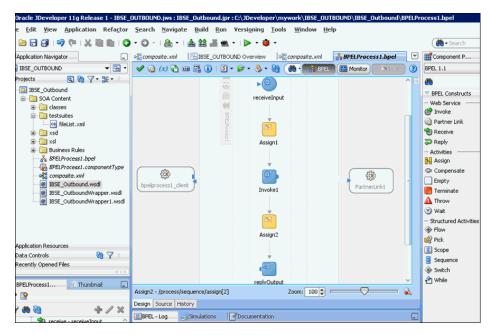


Figure 4–92 Component Pane

**20.** Click the **Save All** icon in the menu bar to save the new outbound BPEL process component that was configured.

You are now ready to deploy the BPEL Outbound process. You can follow the same procedure as in Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

Once deployed you can invoke the input XML, as defined in Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

# Integration With Mediator Service Components in the Oracle SOA Suite

This chapter describes integration with Mediator service components in the Oracle SOA Suite. It contains the following sections:

- Section 5.1, "Configuring a New Application Server Connection"
- Section 5.2, "Configuring a Mediator Outbound Process (J2CA Configuration)"
- Section 5.3, "Configuring a Mediator Inbound Process (J2CA Configuration)"
- Section 5.4, "Configuring a Mediator Outbound Process (BSE Configuration)"

The scenarios shown in this chapter require the following prerequisites.

#### Prerequisites

The following are installation and configuration requirements:

- Oracle Application Adapter for J.D. Edwards OneWorld must be installed on Oracle WebLogic Server.
- J.D. Edwards OneWorld must be configured for inbound and outbound processing.

**See Also:** Oracle Application Server Adapter Concepts Guide

The examples in this chapter present the configuration steps necessary for demonstrating service and event integration with J.D. Edwards OneWorld. Prior to using this material, you must be familiar with the following:

- How to configure Oracle Application Adapter for J.D. Edwards OneWorld for services and events. For more information, see Chapter 2, "Configuring Oracle Application Adapter for J.D. Edwards OneWorld".
- How to configure Oracle JDeveloper. For more information, see Chapter 4, "Integration With BPEL Service Components in the Oracle SOA Suite".

#### **Overview of Mediator Integration**

Mediator provides a comprehensive application integration framework. Oracle Application Adapter for J.D. Edwards OneWorld used with Mediator enables you to seamlessly integrate enterprise software, eliminating the need to write custom code. Functional modeling, as opposed to custom coding solutions, allows for software reuse and reduces the complexity and management challenges that arise over the software lifecycle. This integration model consists of two components--high-level integration logic and low-level platform services. Adapter integration with Oracle WebLogic Server, Mediator is a two-step process:

- 1. Design Time: Oracle Application Adapter for J.D. Edwards OneWorld is configured in Application Explorer for services and events, as described in Chapter 2, "Configuring Oracle Application Adapter for J.D. Edwards OneWorld". Integration logic is modeled in iStudio. Metadata are stored in repositories.
- **2. Runtime:** The underlying platform treats this metadata as run-time instructions to enable the communication between participating applications.

# 5.1 Configuring a New Application Server Connection

For more information on how to configure a new Application Server connection in Oracle JDeveloper, see Section 4.3, "Configuring a New Application Server Connection" on page 4-2.

# 5.2 Configuring a Mediator Outbound Process (J2CA Configuration)

This section describes how to configure a Mediator outbound process to your J.D. Edwards OneWorld system, using a Mediator project in Oracle JDeveloper.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<aDAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\Mediator\J2CA\Outbound\_Project

This section contains the following topics:

- Section 5.2.1, "Creating an Empty Composite for SOA"
- Section 5.2.2, "Defining a Mediator Outbound Process"
- Section 5.2.3, "Deploying the Mediator Outbound Process"
- Section 5.2.4, "Invoking the Input XML Document in the Oracle Enterprise Manager Console"

#### Prerequisites

Before you design a Mediator outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

# 5.2.1 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the new SOA Application and click Next.

The Name your project page is displayed.

**3.** Enter a project name and click **Next**.

The Configure SOA settings page is displayed.

4. From the Composite Template list, select Empty Composite and click Finish.

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

# 5.2.2 Defining a Mediator Outbound Process

This section describes how to define a Mediator outbound process, which consists of the following topics:

- Section 5.2.2.1, "Configuring a Third Party Adapter Service Component"
- Section 5.2.2.2, "Configuring an Outbound Mediator Process Component"
- Section 5.2.2.3, "Configuring the Routing Rules"
- Section 5.2.2.4, "Adjusting for Known Deployment Issues With 12c"

# 5.2.2.1 Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

- **1.** Drag and drop the **Third Party Adapter** component from the Service Adapters pane to the External References pane.
- 2. Enter a name for the third party adapter service.
- 3. Ensure that Reference is selected from the Type drop-down list (default).
- **4.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.
- Browse and select an outbound WSDL file from the following directory: <ADAPTER\_HOME>\wsdls
- 6. Click OK.
- 7. Click OK.

The outbound WSDL file and associated request and response XML schema files (.xsd) are imported to the project folder that has been created.

- 8. Click the Find JCA file icon, which is located to the right of the JCA File field.
- 9. Browse and select the JCA properties file from the following directory:

<ADAPTER\_HOME>\wsdls

**10.** Click **OK**.

A Copy File confirmation message is displayed.

11. Click Yes.

A copy of the JCA properties file is made in the project folder.

👩 Create Third Party	Adapter Service	×
Third Party Adapter		4
Create a JCA adapte	r service for a third party adapter.	- Cr
<u>N</u> ame:	Service	
<u>T</u> ype:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	2
<u>P</u> ort Type:	GetEffectiveAddressPortType	
Operation:	GetEffectiveAddress	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	$[work/SOA\_Application/J2CA\_Outbound/SOA/Adapters/J2CA\_Outbound\_invoke.jca] \label{eq:soarce}$	6
Help	OK	Cancel

Figure 5–1 Create Third Party Adapter Service Dialog

# **12.** Click **OK**.

The third party adapter service component is created in the External References pane.

You are now ready to configure an outbound Mediator process component.

For more information, see Section 4.5.3.1, "Creating a Third Party Adapter Service Component" on page 4-40.

#### 5.2.2.2 Configuring an Outbound Mediator Process Component

Perform the following steps to configure an outbound Mediator process component:

1. Drag and drop the **Mediator Process** component from the Components pane to the Components pane.

The Create Mediator dialog is displayed, as shown in Figure 5–2.

👩 Create	Mediator	×
	r Component a mediator component to perform routing, filtering, and transformations.	¢
<u>N</u> ame:	Mediator1	
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	Input: {http://xmlns.oracle.com/singleString}singleString	<u> </u>
	Output: {http://xmlns.oracle.com/singleString}singleString	Q
Help		DK Cancel

Figure 5–2 Create Mediator Dialog

- **2.** In the Name field, enter a name to identify the new outbound Mediator process component or leave it to the default value.
- 3. From the Template drop-down list, select Synchronous Interface.
- **4.** Click the **Browse** icon, which is located to the right of the Input field to select the associated XML request schema file.

The Type Chooser dialog is displayed, as shown in Figure 5–3.

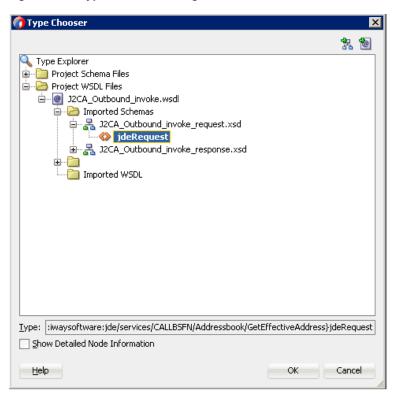


Figure 5–3 Type Chooser Dialog

- 5. Expand Project WSDL Files, J2CA\_Outbound\_invoke.wsdl, Imported Schemas, J2CA\_Outbound\_invoke\_request.xsd, and select jdeRequest.
- 6. Click OK.

You are returned to the Create Mediator dialog.

**7.** Click the **Browse** icon, which is located to the right of the Output field to select the associated XML response schema file.

The Type Chooser dialog is displayed, as shown in Figure 5–4.

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J2CA_Outbound_invoke_response.xsd	
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Help	OK Cancel

Figure 5–4 Type Chooser Dialog

- 8. Expand Project WSDL Files, J2CA\_Outbound\_invoke.wsdl, Imported Schemas, J2CA\_Outbound\_invoke\_response.xsd, and select jdeResponse.
- 9. Click OK.

You are returned to the Create Mediator dialog, as shown in Figure 5–5.

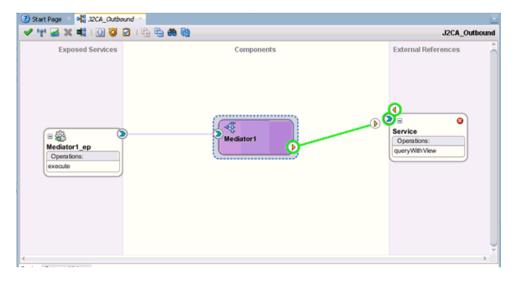
Figure 5–5 Create Mediator Dialog

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<u>T</u> emplate:	😂 Syn	chronous Interface	• 3
	💌 Expo:	se as a SOAP service	
	Input:	i:iwaysoftware:jde/services/CALLBSFN/Addressbook/GetEffectiveAddress}jdeRd	equest 🔍
	<u>O</u> utput:	are:jde/services/CALLBSFN/Addressbook/GetEffectiveAddress.response}jdeRes	sponse 🔍
Help		OK	Cancel

### 10. Click OK.

**11.** Create a connection between the outbound Mediator process component and the third party adapter service component, as shown in Figure 5–6.

Figure 5–6 Created Connection



You are now ready to configure the routing rules.

----

# 5.2.2.3 Configuring the Routing Rules

Perform the following steps to configure routing rules for the Mediator outbound process component:

1. Double-click the outbound Mediator process component in the Components pane.

The Routing Rules dialog is displayed, as shown in Figure 5–7.

Figure 5–7	Routing Rules Dialog	
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		Assign Values		- 🖸	
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Synch	ronous Reply	-	*Initial Caller*::execute:output	0	_
		Transform Using	< <transformation map="">&gt;&gt; reply</transformation>	- 84	
		Assign Values		- 5	

**2.** In the <<Filter Expression>> area, click the icon to the right of the Transform Using field.

The Request Transformation Map dialog is displayed, as shown in Figure 5–8.

Figure 5–8 Request Transformation Map Dialog

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Transformation from request message requestMessage to message request.	
To Part: input_GetEffectiveAddress Mapper File:	<b>♀ +</b> ∕ ×
Help	OK Cancel

**3.** Click the Add (+) icon.

The Create Transformation Map page is displayed.

- 4. Make sure the Type is selected as **XSLT** and click **OK**.
- 5. Click OK.
- Map the ns0:jdeRequest source element to the ns0:jdeRequest target element. The Auto Map Preferences dialog is displayed.
- 7. Retain the default values and click OK.
- **8.** Return to the Routing Rules dialog, as shown in Figure 5–9.

#### Figure 5–9 Routing Rules Dialog

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Callou	it To < <java callout="" class<="" th=""><th>&gt;&gt;</th><th>3</th><th></th><th></th></java>	>>	3		
⊖ < <filter< th=""><th>Expression&gt;&gt;</th><th>8 8</th><th>Service::GetEffectiveAddress</th><th>٢</th><th>Sequential</th></filter<>	Expression>>	8 8	Service::GetEffectiveAddress	٢	Sequential
		Validate Semantic		- 8	
		Translate To Native	< <no needed="" translation="">&gt;</no>		
		Transform Using	jdeRequest_To_jdeRequest1.xsl> input_GetEf	- 81	
		Assign Values		- 🛛	
		Override Using		-	ĺ.
S	ynchronous Reply	-	*Initial Caller*::execute:output	9	
		Transform Using	< <transformation map="">&gt;&gt; reply</transformation>	- 80	
		Assign Values	6	- 5	

**9.** In the Synchronous Reply area, click the icon to the right of the Transform Using field.

The Reply Transformation Map dialog is displayed.

**10.** Click the Add (+) icon.

The create Transformation Page is displayed.

**11.** Make sure the type is selected as **XSLT** and click **OK**.

A mapping page is displayed.

- 12. Click OK.
- **13.** Map the **ns0:jdeResponse** source element to the **ns0:jdeResponse** target element.

The Auto Map Preferences dialog is displayed.

14. Retain the default values and click OK.

The mapping is completed, as shown in Figure 5–10.

Figure 5–10 Completed Mapping

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es <sources></sources>	]		xsl:stylesheet
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Xi g type		ns0	jdeResponse 🚯 😑
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and session	and a second		—xsl:if 🍑 🕀
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and environment			—xsl:if 🍑 💿
do ns0:callMethod	The second se		—xsl:if 🧼 😐
Variables		ns0:c	alMethod 🛟 🛞

**15.** Click the **Save All** icon in the menu bar to save the new outbound Mediator process component that was configured.

# 5.2.2.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

# 5.2.3 Deploying the Mediator Outbound Process

Perform the following steps to deploy the Mediator outbound process.

 Right-click the project name in the left pane, select Deploy, and then click J2CA\_ Outbound.

The Deployment Action page is displayed.

- 2. Ensure that **Deploy to Application Server** is selected.
- 3. Click Next.

The Deploy Configuration page is displayed.

- **4.** Leave the default values selected and click **Next**. The Select Server page is displayed.
- 5. Select an available application server that was configured and click Next.

The SOA Servers page is displayed.

6. Select a target SOA server and click Next.

The Summary page is displayed.

**7.** Review and verify all the available deployment information for your project and click **Finish**.

For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

# 5.2.4 Invoking the Input XML Document in the Oracle Enterprise Manager Console

For more information, see Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

# 5.3 Configuring a Mediator Inbound Process (J2CA Configuration)

This section describes how to configure a Mediator inbound process to your J.D. Edwards OneWorld system, using a Mediator project in Oracle JDeveloper.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\Mediator\J2CA\Inbound\_Project

This section contains the following topics:

- Section 5.3.1, "Creating an Empty Composite for SOA"
- Section 5.3.2, "Defining a Mediator Inbound Process"

#### Prerequisites

Before you design a Mediator inbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

# 5.3.1 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- **1.** Create a new SOA application.
- 2. Enter a name for the new SOA Application and click Next.

The Name your project page is displayed.

**3.** Enter a project name and click **Next**.

The Configure SOA settings page is displayed.

4. From the Composite Template list, select **Empty Composite** and click **Finish**.

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

# 5.3.2 Defining a Mediator Inbound Process

This section describes how to define a Mediator inbound process, which contains the following topics:

- Section 5.3.2.1, "Configuring a Third Party Adapter Service Component"
- Section 5.2.2.2, "Configuring an Outbound Mediator Process Component"
- Section 5.2.2.3, "Configuring the Routing Rules"
- Section 5.3.2.4, "Adjusting for Known Deployment Issues With 12c"

# 5.3.2.1 Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

**1.** Drag and drop the **Third Party Adapter** component from the Service Adapters pane to the Exposed Services pane.

The Create Third Party Adapter Service dialog is displayed.

- 2. Enter a name for the third party adapter service.
- 3. Ensure that Service is selected from the Type drop-down list (default).
- **4.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed.

- Browse and select an inbound WSDL file from the following directory: <adapter\_HOME>\wsdls
- 6. Click OK.

The Localize Files dialog is displayed.

7. Click OK.

The inbound WSDL file and associated receive/request schema file (.xsd) are imported to the project folder that has been created.

You are returned to the Create Third Party Adapter Service dialog.

**8.** Click the **Find JCA file** icon, which is located to the right of the JCA File field.

The Transformation Chooser dialog is displayed.

- **9.** Browse and select the JCA properties file from the following directory: <adapter\_HOME>\wsdls</a>
- **10.** Click **OK**.

The Copy File Confirmation message is displayed.

11. Click Yes.

A copy of the JCA properties file is made in the project folder.

You are returned to the Create Third Party Adapter Service dialog.

12. Click OK.

The third party adapter service component is created in the Exposed Services pane.

You are now ready to configure an inbound Mediator process component.

For more information, see Section 6.5.3.1, "Creating a Third Party Adapter Service Component" on page 6-43.

# 5.3.2.2 Configuring an Inbound Mediator Process Component With a File Adapter

Perform the following steps to configure an inbound Mediator process component with a File adapter.

1. Drag and drop the **Mediator Process** component from the Service Components pane to the Components pane.

The Create Mediator dialog is displayed, as shown in Figure 5–11.

👩 Create	Mediator		×
	<b>Component</b> a mediator component to perform routing, filtering, and transformations.		4
<u>N</u> ame:	Mediator1		
Directory:	C:\WORK\mywork\SOA_Application\JCA_Inbound\SOA\Mediators		Q
<u>T</u> emplate:	i Define Interface Later		• 0
Help		ок	Cancel

Figure 5–11 Create Mediator Dialog

- **2.** In the Name field, enter a name to identify the new inbound Mediator process component.
- 3. From the Template drop-down list, select Define Interface Later.
- 4. Click the OK.

The new Mediator process component is added to the Components pane.

**5.** Drag and drop the **File** component from the Technology Adapters pane to the External References pane.

The File Adapter Configuration Wizard is displayed.

6. Type a name for the new File adapter and click Next.

The Adapter Interface page is displayed.

- **7.** Ensure that the **Define from operation and schema (specified later)** option is selected.
- 8. Click Next.

The Operation page is displayed.

- 9. Click Next.
- **10.** Select **Write File** from the list of Operation Type options and specify an Operation Name (for example, Write).
- 11. Click Next.

The File Configuration page is displayed.

- **12.** Specify a location on your file system where the output file is written.
- **13.** In the File Naming Convention field, specify a name for the output file.
- 14. Click Next.

The Messages page is displayed, as shown in Figure 5–12.

	Figure	5-12	Messages Page
--	--------	------	---------------

📤 Adapter Config	juration Wizard - Step 6 of 7	<
Messages		
defines the message	e for the Write File operation. Specify the Schema File Location and select the Schema Element that les in the outgoing files. Use the Browse button to find an existing schema definition. If you check , then you do not need to specify a Schema.	
-Message Schema-		
Native format t	translation is not required (Schema is Opaque)	
	Define Schema for Native Format	
URL		
<u>S</u> chema Element		
Help	< <u>B</u> ack <u>N</u> ext > Einish Cancel	

**15.** Click **Browse**, which is located to the right of the URL field.

The Type Chooser dialog is displayed, as shown in Figure 5–13.

🕜 Type Chooser			×
	*	e	
Type Explorer  Project Schema Files  Project WSDL  Project WSDL  Project WSDL  Project WSDL  Type: {urn:iwaysoftware:trans.response.JDESOOUT}jdeResponse			
□ Show Detailed Node Information			]
Help	Cano	el	

Figure 5–13 Type Chooser Dialog

- **16.** Expand **Project WSDL Files**, **J2CA\_Inbound\_receive.wsdl**, **Imported Schemas**, **J2CA\_Inbound\_receive\_request.xsd**, and select **jdeResponse**.
- 17. Click OK.

You are returned to the Messages page.

18. Click Next.

The Finish page is displayed.

- 19. Click Finish.
- **20.** Create a connection between the inbound Mediator process component and the third party adapter service component.
- **21.** Create a connection between the inbound Mediator process component and the File adapter component, as shown in Figure 5–14.

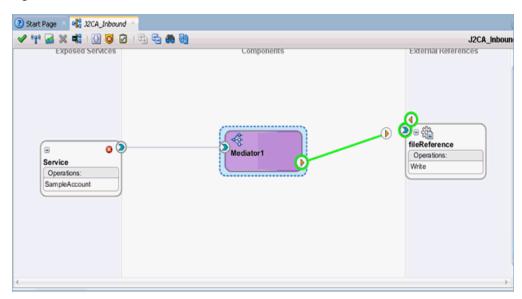


Figure 5–14 Created Connection

You are now ready to configure the routing rules.

#### 5.3.2.3 Configuring the Routing Rules

Perform the following steps to configure routing rules for the Mediator inbound process component:

1. Double-click the inbound Mediator process component in the Components page.

The Routing Rules dialog is displayed, as shown in Figure 5–15.

Figure 5–15 Routing Rules Dialog

Operations					₽ ₽
SampleAccount	Priority 4	🔹 🗌 Validate Syntax (XSD)		7	+ ×
Translate From Native < <no nee<="" td="" translation=""><td>ded&gt;&gt;</td><td></td><td></td><td></td><td></td></no>	ded>>				
Callout To < <java callout="" class=""></java>	>	8			
Resequence Off					
< <fiker expression="">&gt;</fiker>	9 8 →	fileReference::Write		0	Sequential 🕶
Scritter Expression22				140	
	Validate Semantic		-	8	
	Validate Semantic	io Translation Needed>>	-		
	Validate Semantic	io Translation Needed>> (ransformation Map>>> body	•	8	
	Validate Semantic			8	

**2.** In the <<Filter Expression>> area, click the icon to the right of the Transform Using field.

The Request Transformation Map dialog is displayed.

3. Click the Add (+) icon and ensure that the selected Type is XSLT, then click OK.

4. Click OK.

The mapping page is displayed, as shown in Figure 5–16.

Figure 5–16 Mapping Page

<sources></sources>	1	xsi:stylesheet
- W ns0:jdeResponse		xsl:template(match=/)
till user		ns0:jdeResponse 🚯 😑
and type		User III
will session		type III
ssa role		session III
and environment		role 🚥
ms0:transaction		environment III
Variables		ns0:transaction 🥝 🛞

- 5. Click OK.
- 6. Map the **ns0:jdeResponse** source element to the **ns0:jdeResponse** target element.

The Auto Map Preferences dialog is displayed.

7. Retain the default values and click OK.

The mapping is now complete.

**8.** Click the **Save All** icon in the menu bar to save the new inbound Mediator process component that was configured.

#### 5.3.2.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

You are now ready to deploy the Mediator inbound process. You can follow the same procedure in Section 4.5.4, "Deploying the BPEL Inbound Process" on page 4-46.

Once event messages are triggered through J.D. Edwards OneWorld, output XML is received in the location that was specified for the File adapter component. For more information on triggering events in J.D. Edwards OneWorld, see Section 4.5.5, "Triggering an Event in J.D. Edwards OneWorld" on page 4-47.

## 5.4 Configuring a Mediator Outbound Process (BSE Configuration)

This section describes how to configure a Mediator outbound process to your J.D. Edwards OneWorld system, using a Mediator project in Oracle JDeveloper.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\JDEdwards_Samples.zip\JDEdwards_
Samples\Mediator\BSE\Outbound_Project
```

This section contains the following topics:

- Section 5.4.1, "Creating an Empty Composite for SOA"
- Section 5.4.2, "Defining a Mediator Outbound Process"

#### Prerequisites

Before you design a Mediator outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1,

"Generating a WSDL File for Request and Response Services Using a Web Service" on page 4-52.

## 5.4.1 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the SOA Application and click Next.
- 3. Enter a project name (for example, IBSE\_Outbound), and click Next.
- 4. From the Composite Template list, select Empty Composite and click Finish.

For more information, see Section 4.6.2, "Creating an Empty Composite for SOA" on page 4-53.

### 5.4.2 Defining a Mediator Outbound Process

This section describes how to define a Mediator outbound process. The following topics are included:

- Section 5.4.2.1, "Configuring a SOAP Service"
- Section 5.4.2.2, "Creating a Mediator Component"
- Section 5.4.2.3, "Configuring the Routing Rules"

#### 5.4.2.1 Configuring a SOAP Service

Perform the following steps to configure a SOAP Service:

- 1. Drag and drop the **SOAP** node from the Technology Adapters pane to the External References pane.
- **2.** Enter an appropriate name for the SOAP Service and click on the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.
- **3.** In the displayed SOA Resource Browser window, select the File system tab and navigate to the location where the WSDL is exported from the Application Explorer, select the WSDL, and click **OK**.
- 4. In the Create Web Service Window, click OK.
- **5.** In the displayed Localize Files window, click **OK**. This imports the WSDL file to the project folder.

The Web Service is created and displayed.

#### 5.4.2.2 Creating a Mediator Component

Perform the following steps to create a Mediator component:

- 1. Drag and drop the **Mediator** component from the Components pane in to the Components pane.
- **2.** In the Name field, enter a name to identify the new outbound Mediator process component.
- 3. From the Template drop-down list, select Synchronous Interface.
- **4.** Click the **Browse** icon, which is located to the right of the Input field, to select the associated XML request schema file.

**5.** In the Type Chooser dialog, expand **Project WSDL Files**, select **IBSE**\_ **Outbound.wsdl**, and click **GetEffectiveAddress**, as shown in Figure 5–17.

Figure 5–17 Type Chooser Dialog

👩 Type Chooser 🛛 🛛 🗙
* 2
🔍 Type Explorer
🖶 🛅 Project Schema Files
🖮 🗁 Project WSDL Files
🚊 🛯 🕘 IBSE_Outbound.wsdl
Schema - urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress:response Schema - urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress GetEffectiveAddress Schema - urn:schemas-iwaysoftware-com:iwse Imported WSDL
Type: {urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress}GetEffectiveAddress
Show Detailed Node Information
Help OK Cancel

- 6. Click OK.
- **7.** Click the **Browse** icon, which is located to the right of the Output field, to select the associated XML response schema file.
- 8. In The Type Chooser dialog, expand Project WSDL Files, select IBSE\_ Outbound.wsdl, and click GetEffectiveAddressResponse, as shown in Figure 5–18.

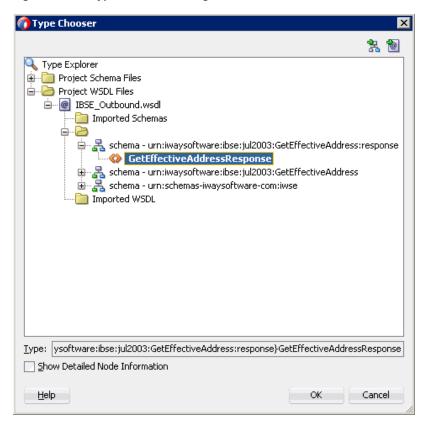


Figure 5–18 Type Chooser Dialog

- 9. Click OK.
- 10. Click OK.

The Mediator component is created and displayed.

**11.** Create a connection between the **Mediator** component and the **SOAP service** component, as shown in Figure 5–19.

stions 👔 🖬 🗶 🛋 1 🔃 🤤 🖂 1 🖶 🖶	<b>8</b> (b)	IBSE_Outbour
Exposed Services	Components	External References

Figure 5–19 Created Connection

#### 5.4.2.3 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

- 1. Double-click the **Mediator** component in the Components pane.
- **2.** In the <<Filter Expression>> area of the Static Routing section, click the icon to the right of the Transform Using field.
- **3.** In the displayed Request Transformation Map window, click the Add (+) icon and make sure the selected Type is **XSLT** in the Create Transformation Map dialog box and click **OK**.
- 4. Click OK.
- **5.** Map the **ns0:GetEffectiveAddress** source element to the **ns0:GetEffectiveAddress** target element, as shown in Figure 5–20.

Figure 5–20 Source and Target Elements

XSLT map 🔹 🗣 🔹 歳 🐼 📓 🔟 🛛	Q. Search XSLT Map XSLT
sources>	xsl:stylesheet 👸
Operation of the second sec	
One of the second	ns0:GetEffectiveAddress 🚯 😑
Variables	

- **6.** In the displayed Auto Map Preferences window, retain the default values and click **OK**.
- **7.** In the Synchronous Reply area, click the icon to the right of the Transform Using field.
- **8.** In the displayed Reply Transformation Map window, click the Add (+) icon and make sure the Type is selected as **XSLT** in the Create Transformation Map dialog box, and then click **OK**.

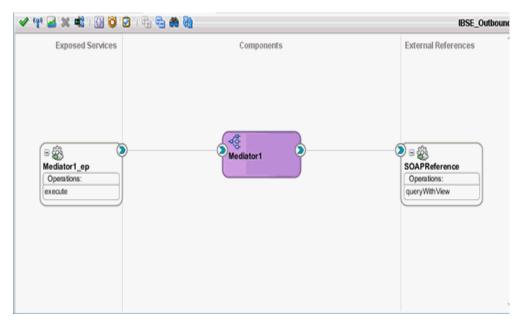
 Map the ns0:GetEffectiveAddressResponse source element to the ns0:GetEffectiveAddressResponse target element, as shown in Figure 5–21.

Figure 5–21 Source and Target Elements

XSLT map 🔹 🛉 🔹 🔝	<b>X</b> 1	Q, Search XSLT Map XSLT
<pre>40 <sources></sources></pre>		xsi:stylesheet 🐰
- O ns0:GetEffectiveAddressResponse		xsl:template(match=/)
- mi cid-		ns0:GetEffectiveAddressResponse 🔇 😑
		oid ma
Variables		ns0;jdeResponse 🔅 🕀

- In the displayed Auto Map Preferences window, retain the default values and click OK.
- **11.** Double-click **composite.xml** in the left pane.
- **12.** Click the **Save All** icon in the menu bar to save the new outbound Mediator component that was configured, as shown in Figure 5–22.

Figure 5–22 Save All Icon



You are now ready to deploy the Mediator IBSE outbound process. You can follow the same procedure found in Section 5.2.3, "Deploying the Mediator Outbound Process" on page 5-10.

Once deployed, you can invoke the input XML, as defined in Section 5.2.4, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 5-11.

## Integration With BPM Service Components in the Oracle SOA Suite

Oracle Application Adapter for J.D. Edwards OneWorld integrates seamlessly with Oracle Business Process Management (BPM) to facilitate Web service integration. Oracle BPM is based on the Service-Oriented Architecture (SOA). It consumes adapter services exposed as Web Service Definition Language (WSDL) documents.

This chapter contains the following topics:

- Section 6.1, "Overview"
- Section 6.2, "Deployment of Adapter"
- Section 6.3, "Configuring a New Application Server Connection"
- Section 6.4, "Designing an Outbound BPM Process Using Transformations for Service Integration (J2CA Configuration)"
- Section 6.5, "Designing an Inbound BPM Process Using Transformations for Event Integration (J2CA Configuration)"
- Section 6.6, "Designing an Outbound BPM Process Using Transformations for Service Integration (BSE Configuration)"

## 6.1 Overview

To integrate with Oracle BPM, Oracle Application Adapter for J.D. Edwards OneWorld must be deployed in the same WLS container as Oracle BPM. The underlying adapter services must be exposed as WSDL files, which are generated during design time in Oracle Adapter Application Explorer (Application Explorer) for both request-response (outbound) and event notification (inbound) services of the adapter. For more information, see "Generating WSDL (J2CA Configurations Only)" on page 2-11.

The generated WSDL files are used to design the appropriate BPM processes for inbound or outbound adapter services. A completed BPM process must be successfully compiled in JDeveloper and deployed to a BPM server. Upon deployment to the BPM server, every newly built process is automatically deployed to the Oracle Enterprise Manager console, where you run, monitor, and administer BPM processes, and listen to adapter events.

## 6.2 Deployment of Adapter

During installation, Oracle Application Adapter for J.D. Edwards OneWorld is deployed as a J2CA 1.0 resource adapter within the WLS container. The adapter must be deployed in the same WLS container as Oracle BPM.

## 6.3 Configuring a New Application Server Connection

For more information on how to configure a new Application Server connection in Oracle JDeveloper, see Section 4.3, "Configuring a New Application Server Connection" on page 4-2.

# 6.4 Designing an Outbound BPM Process Using Transformations for Service Integration (J2CA Configuration)

This section describes how to design an outbound BPM process using transformations for service integration.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\BPM\J2CA\Outbound\_Project The following tools are required to complete your outbound design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPM Designer (JDeveloper)

**Note:** The examples in this chapter demonstrate the use of JDeveloper.

This section contains the following topics:

- Section 6.4.1, "Creating an Empty Composite for BPM"
- Section 6.4.2, "Defining a BPM Outbound Process"
- Section 6.4.3, "Adjusting for Known Deployment Issues With 12c"
- Section 6.4.4, "Deploying the BPM Outbound Process"
- Section 6.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console"

Before you design a BPM process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

#### 6.4.1 Creating an Empty Composite for BPM

Perform the following steps to create an empty composite for BPM:

- 1. Create a new BPM application.
- 2. Enter a name for the new BPM application and click Next.

The Name your project page is displayed.

- **3.** Enter a project name, in the project features select **BPM**, and then click **Next**. The Configure SOA settings page is displayed.
- 4. From the Composite Template list, select Empty Composite and click Finish.

## 6.4.2 Defining a BPM Outbound Process

This section describes how to define a BPM outbound process, which contains the following topics:

- Section 6.4.2.1, "Configuring a Third Party Adapter Service Component"
- Section 6.4.2.2, "Configuring an Outbound BPM Process Component"
- Section 6.4.2.3, "Creating a File Adapter for the Write Operation"

#### 6.4.2.1 Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

- 1. Double-click the created project to load the components.
- **2.** Drag and drop the **Third Party Adapter** component from the Custom/Thirdparty pane to the External References pane.

The Create Third Party Adapter Service dialog is displayed.

- 3. Enter a name for the third party adapter service.
- 4. Ensure that **Reference** is selected from the Type list (default).
- **5.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed.

**6.** Browse and select an outbound WSDL file from the following directory:

<ADAPTER\_HOME>\wsdls

7. Click OK.

The Localize Files dialog is displayed.

8. Click OK.

The outbound WSDL file and associated request and response XML schema files (.xsd) are imported to the project folder that has been created.

You are returned to the Create Third Party Adapter Service dialog.

9. Click the Find JCA file icon, which is located to the right of the JCA File field.

The Transformation Map dialog is displayed.

**10.** Browse and select the JCA properties file from the following directory:

<ADAPTER\_HOME>\wsdls

**11.** Click **OK**.

The Copy File message is displayed.

12. Click Yes.

A copy of the JCA properties file is made in the project folder.

You are returned to the Create Third Party Adapter Service dialog.

13. Click OK.

The third party adapter service component is created and displayed in the External References pane.

You are now ready to configure an outbound BPM process component.

For more detailed information, including screen shots, see Section 4.4.3.1, "Configuring a Third Party Adapter Service Component" on page 4-11.

#### 6.4.2.2 Configuring an Outbound BPM Process Component

This section describes how to configure an outbound BPM process component.

Perform the following steps to configure an outbound BPM process component:

**1.** Drag and drop the **BPMN Process** component from the Components pane to the Components pane.

The Create BPMN Process dialog is displayed, as shown in Figure 6–1.

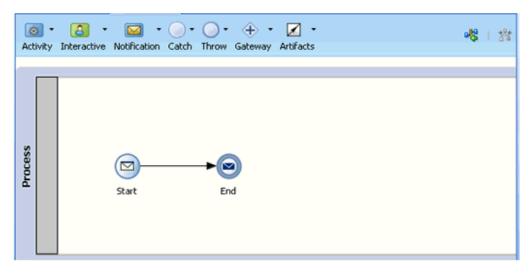
Figure 6–1 Create BPMN Process Dialog

🕜 Bi	PMN 2.0 Process Wiza	rd		×
BPI	MN 2.0 Process W	lizard		
Ŵ	Definition	Name:	Process	۲
ų	Arguments	Description:		۲
ų.	Initial Implementation			
9	Advanced			
		Directory:	C:\WORK\mywork\JCA_Outbound\BpmProject\SOA\processes	٩
		Type:		_
			hronous Service s a process with an asynchronous interface definition	î
			Start End	
		Synchr	onous Service	
		🛛 🔀 Manual	Process	-
	Help		< Back Next > Einish Cance	

**2.** Accept the default option that is selected under the Type area (Asynchronous Service) and click **Finish**.

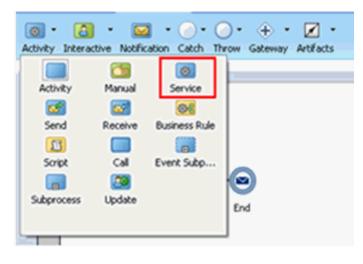
The BPMN process is displayed, as shown in Figure 6–2.

Figure 6–2 BPMN Process



3. Click the Activity drop-down menu and select Service, as shown in Figure 6–3.

Figure 6–3 Activity Drop-down Menu



**4.** Drop the Service icon on the wire between the Start and End event components, as shown in Figure 6–4.

Figure 6–4 Activity Icon

Acti	ivity	Can - Interactive	Notification		O • Throw	~	Artifacts
Process			Start	ş¢‡	En	d d	

The Properties - ServiceTask window is displayed.

- 5. Click the Implementation tab.
- 6. Select Service Call from the Message Exchange Type list, as shown in Figure 6–5.

#### Figure 6–5 Service Call

🖕 Properties - ServiceTask	×
Basic Implementation	
Implementation Type: Service task	•
Message Exchange	
Type: Not Implemented	-
Not Implemented	
💱 Data 😽 Process Call	
Mess Service Call	
Service Call	

7. Click the Browse icon to the right of the Service field, as shown in Figure 6–6.

Figure 6–6 Browse Icon

Properties - ServiceTask Basic Implementation		×
Implementation Type: Service	tack	
Message Exchange	NUMER.	
Type: 🛃 Service Call		-
Conversation: <ul> <li>Default</li> <li>Ad</li> </ul>	vanced	
Service Cal		
Service:		۹ 🖉
Operation:		

The Service dialog is displayed, as shown in Figure 6–7.

👩 Service	2
iearch:	
iearch Results:	
{a Service	

Figure 6–7 Service Dialog

**8.** Select the Third Party Service that has been created and click **OK**.

You are returned to the Properties - ServiceTask dialog, as shown in Figure 6–8.

Figure 6–8 Properties - ServiceTask Dialog

😚 Properties - ServiceTask 🛛 💈 🛐
Basic Implementation
Implementation Type: 🔯 Service task 🔹
Force commit after execution
Message Exchange
Type: 💓 Service Call
Conversation: <ul> <li>Default</li> <li>Advanced</li> </ul>
Service Call
Service: Service 🔍 🗸
Operation: getEffectiveAddress
Data Associations     Docrrelations     Docrrelations
Message Headers
Help OK Cancel
nep Ok Calife

9. Click the Data Associations hyperlink.

The Data Associations dialog is displayed.

**10.** Right-click the **Data Objects** node in the left pane under Process, and select **New** as shown in Figure 6–9.

Figure 6–9 New Option

🍘 Data Associations		×
Input Output		
		🖪 🔜 H
Process       Image: Contract of the second sec	Drag objects here	ServiceTask 🔞 Arguments 😑 🖨 companyCodeGetDetail 🔞 🕀

The Create Data Object dialog is displayed, as shown in Figure 6–10.

Figure 6–10 Create Data Object Dialog

🖕 Cre	ate Data Object	×
Name:	dataObject1	
Type:	abc String	-
🗹 Aut	o initialize	
Help		OK Cancel

**11.** Enter a name in the Name field (for example, Request), click the drop-down button in the Type field, and select **Browse** from the list, as shown in Figure 6–11.

Figure 6–11 Create Data Object Dialog

🕜 Cre	ate Data Object	×
Name:	dataObject1	
Type:	abc string	-
	<>> duration	-
	💼 base64Binary	
Help	199E float	
	999 byte	
	999 short	
	🖄 date	
	🖄 time	
	🔍 Browse	

The Browse Types dialog is displayed, as shown in Figure 6–12.

Browse Types	2
ind:	
999 int	
🦻 boolean	
99E double	1
999 decimal	
🗞 dateTime	
999 long	
🖘 duration	
💼 base64Binary	
39E float	
199 byte	
999 short	
💩 date	
💩 time	
🚰 JdeRequest	
🔏 JdeResponse	
ypes.GetEffectiveAddress.JdeRequest	
Help	OK Cancel

Figure 6–12 Browse Types Dialog

12. Select the first component (for example, JdeRequest) and click OK.

You are returned to the Create Data Object dialog.

**13.** Click **OK**.

The Data Object (for example, Request) that has been created is displayed under the Data Objects node in the Data Associations dialog.

**14.** Create another Data Object by right-clicking the **Data Objects** node in the right pane of the Output tab and selecting **New**, as shown in Figure 6–13.

Data Associations Input Output		×	Resource
		0. 🖬 HI	9.0
ServiceTask CarArguments ⊕ GarArguments ⊕ GarArguments ⊕ Topocess Process	Drag objects here	Process C	⊴ My Cal
		4 8 9 5	1 IDE C
From	To		Business
] Validate target after assigning output d	ata associations		B 👍 B
Help		OK Cancel	

Figure 6–13 Data Associations Dialog

The Create Data Object dialog is displayed.

**15.** Enter a name in the Name field (for example, Response), and then click the drop-down button in the Type field and select **Browse** from the list.

The Browse Types dialog is displayed, as shown in Figure 6–14.

Figure 6–14 Browse Types Dialog

🕜 Browse Types	×
Find:	3
999 int	-
🚫 boolean	
99E double	
939 decimal	
🖄 dateTime	
999 long	
<>> duration	
iii base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
🖄 time	
Request	
🞇 JdeResponse	Ŧ
Types.GetEffectiveAddressResponse.JdeResponse	
Help OK Cano	e

**16.** Select the second component (for example, jdeResponse) and click **OK**. You are returned to the Create Data Object dialog.

#### 17. Click OK.

The Data Object (for example, Response) that has been created is displayed under the Process node in the Data Associations dialog.

**18.** Select the **Request** Data Object under the Data Objects node in the left pane of the Input tab and drag and connect it to JdeRequest under the Arguments node in the right pane, as shown in Figure 6–15.

Figure 6–15 Request Data Object

Contract Contract		
Input Output		D
₫ Process ∃ 🎦 Data Objects	Drag objects here	ServiceTask Arguments 🛅
⊕ - <b>G</b> response ⊕ - <b>G</b> response - <b>G</b> Predefined Variables ⊕ - <b>S</b> projectInfo		jdefrequest 🦓 😟
Copy  From: request	To: jdeRequest	B, + × +
From	То	
request	🦛 jdeRequest	

 Click on the Output tab and select jdeResponse under the Arguments node in the left pane and drag and connect it to the Response Data Object under the Data Objects node, as shown in Figure 6–16.

Copy     From:     JdeResponse     Image: Copy     To	ServiceTask		Process
Process Prodefined Variables Projectinfo Projectinfo	- Carguments		Data Objects 🛅
Copy From: jdeResponse . To: response . To	We we have a segment of the seg		Prederined Variables 🕞 Predefined Variables 🖨 projectInfo
From To	Copy From: jdeRespons		<b>6. + x</b> •
	From		
deResponse de response	a jdeResponse	and response	

Figure 6–16 Response Data Object

#### 20. Click OK.

You are returned to the Properties - ServiceTask dialog.

21. Click OK.

The Service Task is created between the Start and End Event components, as shown in Figure 6–17.

Figure 6–17 Service Task



**22.** Save the process and double-click the Start event component. The Properties - Start dialog is displayed, as shown in Figure 6–18.

Figure 6–18 Properties - Start Dialog

譮 Propertie	s - Start	×
Basic Imp	lementation	
Name:	Start	۲
Description:		۲
Is Draft:		

**23.** Click the **Implementation** tab, as shown in Figure 6–19.

Figure 6–19 Implementation Ta
-------------------------------

sic Implementation			
plementation Type: 0 M Message Exchange	essage		
Type: 🙀 Define I			
Conversation: <ul> <li>Default (</li> </ul>	Advanced		
Define Interface			_
Arguments Definition			🔁 / X
Argunerics Dermouri			
Name		Туре	
		Туре	
Name Operation Name: start	Di <u>Correlations</u>	Туре	E Log Handlers
Name	Service Prop		I Log Handlers
Name Operation Name: start Cata Associations			Con Handlers
Name Operation Name: start Cata Associations			Cos Handlers

24. Click the Plus icon to the right of the Arguments Definition field.

The Create Argument dialog is displayed.

**25.** Enter a name in the Name field (by default, argument1), and then click the drop-down button in the Type field and select **Browse** from the list, as shown in Figure 6–20.

Figure 6–20 Create Argument Dialog

🕜 Edit	Argument X
Name:	argument1
Type:	💩 string 👻
	<>> duration
Help	💼 base64Binary
	99E float
	999 byte
sociations	999 short
Headers	
	🖄 time
	🔍 Browse

The Browse Types dialog is displayed, as shown in Figure 6–21.

Figure 6–21 Browse Types Dialog

😚 Browse Types	×
Find:	3
1999 int S boolean	-
99E double	
1999 decimal 🖄 dateTime	
999 long	
♦ duration base64Binary	
999 float 999 byte	
999 short	
🖄 date 🌇 time	
ZeRequest	
Types.GetEffectiveAddress.JdeRequest	M
Help	OK Cancel

26. Select the first component (for example, JdeRequest) and click OK.

You are returned to the Create Argument dialog.

27. Click OK.

You are returned to the Properties - Start dialog.

**28.** In the Operation Name field, change **start** (default) to **operation** as shown in Figure 6–22.

Note: This change is necessary to work with old BPM payloads.

Properties - Start			
sic Implementation			
plementation Type: 🙆 Me	essage		
Message Exchange	-		
Type: 😡 Define I	interface		•
Conversation: ) Default (	Advanced		
Define Interface			
Arguments Definition			+ / X
Name		Туре	
argument1		JdeRequest	
argument1 Operation Name: operation	on	JdeRequest	
	on  DD <u>Correlation</u> :		Log Handlers
Operation Name: operation	•	i I	E Log Handlers
Operation Name: operation	Correlation:	i I	Log Handlers
Operation Name: operation	Correlation:	i I	E Log Handlers
Operation Name: operation	Correlation:	i I	Log Handlers
Operation Name: operation	Correlation:	i I	Log Handlers

Figure 6–22 Operation Name Field

**29.** Click the **Data Associations** hyperlink.

The Data Associations dialog is displayed.

- **30.** Select **arguments1** under the Arguments node in the left pane and drag and connect it to the **Request** Data Object under Data Objects in the right pane.
- **31.** Click **OK** as shown in Figure 6–23.

💩 Data Associations		×
Output		
		🖪 🖬 🕅
(a) Start		Process 😋
Arguments     Argument1	Drag objects here	Data Objects 🧰 🖨
		Response 2 -
	\$	Predefined Variables 💼 🛞
		Mysap_jca_outbound 😪 🕀
Copy - From: argument1	To: Request	📴 🕂 🗙 🔄 🕹
From	To	
i argument 1	Request	
Validate target after assigning output data associatio	ns	
Help		OK Cancel
neih		OK Cancel

Figure 6–23 OK Button

You are returned to the Properties - Start dialog.

32. Click OK.

You are returned to the Process workspace area, as shown in Figure 6–24.

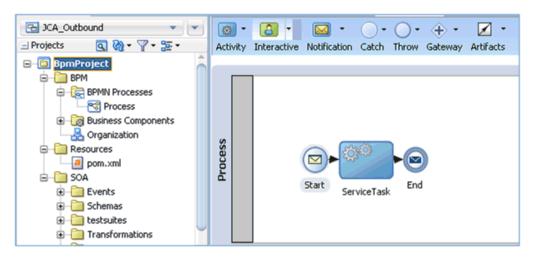


Figure 6–24 Process Workspace Area

- **33.** Double-click the created project to load the components.
- **34.** Click the **Save All** icon in the menu bar to save the new outbound BPM process component that was configured.

You are now ready to create a File adapter for the write operation.

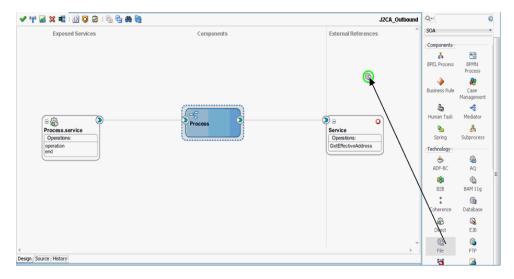
#### 6.4.2.3 Creating a File Adapter for the Write Operation

This section describes how to create a File adapter for the write operation.

Perform the following steps to create a File adapter for the write operation:

1. Drag and drop the **File Adapter** component from the Technology Adapters pane to the External References pane, as shown in Figure 6–25.

Figure 6–25 File Adapter Component



The Adapter Configuration Wizard is displayed.

- 2. Provide a Reference Name (for example, FileWrite).
- 3. Click Next.

The Adapter Interface page is displayed.

- **4.** Ensure that the **Define from operation and schema (specified later)** option is selected.
- 5. Click Next.

The File Server Connection page is displayed.

6. Click Next.

The Operation page is displayed.

- **7.** Select **Write File** from the list of Operation Type options and specify an Operation Name (for example, Write).
- 8. Click Next.

The File Configuration page is displayed.

- 9. Specify a location on your file system where the output file is written.
- **10.** In the File Naming Convention field, specify a name for the output file.
- 11. Click Next.

The Messages page is displayed.

**12.** Click **Browse**, which is located to the right of the URL field.

The Type Chooser dialog is displayed, as shown in Figure 6–26.

Figure 6–26 Type Chooser Dialog

🕜 Type Chooser			×
	*	6	
Type Explorer Project Schema Files J2CA_Outbound_invoke_request.xsd J2CA_Outbound_invoke_response.xsd (deResponse) Project WSDL Files			
Type: are:jde/services/CALLBSFN/Addressbook/GetEffectiveAddress.response}jde	Resp	onse	
Show Detailed Node Information			
Help	Canc	el	1

- 13. Expand Project Schema Files and J2CA\_Outbound\_invoke\_response.xsd.
- 14. Select the available schema (for example, jdeResponse).
- 15. Click OK.

You are returned to the Messages page.

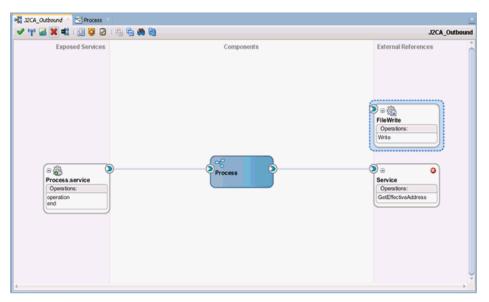
16. Click Next.

The Finish page is displayed.

17. Click Finish.

The File Adapter service is created in the External References pane, as shown in Figure 6–27.

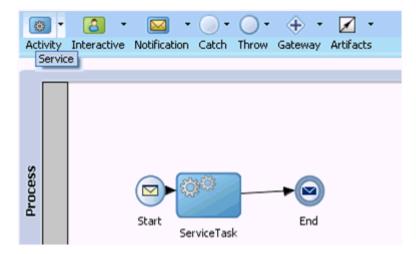
Figure 6–27 File Adapter Service



**18.** Double-click the BPMN Process component.

The BPMN process is displayed, as shown in Figure 6–28.

Figure 6–28 BPMN Process



- **19.** Click the **Activity** icon, and select **Service**.
- **20.** Drop the Service icon on the wire between the Service Task and End event components, as shown in Figure 6–29.

Figure 6–29 Activity Icon

(@ Activ	ity	Canal -		+ )	~	~	Artifacts	
Process			Start	ServiceTa	sk	End	)	

The Properties - ServiceTask1 dialog is displayed.

- **21.** Click the **Implementation** tab.
- **22.** Select **Service Call** from the Type drop-down list in the Message Exchange section, as shown in Figure 6–30.

Figure 6–30 Service Call

Properties - ServiceTask1	×
Basic Implementation	
Implementation Type: 🔯 Service task	•
Message Exchange	
Type: Not Implemented	
Not Implemented	
💱 Data 😪 Process Call	
Mess Service Call	
Service Call	

23. Click the Browse icon to the right of the Service field.

The Service dialog is displayed, as shown in Figure 6–31.

👩 Service	
Search:	
Search Results:	
FileWrite	
Service	
Help	OK Cancel

Figure 6–31 Service Dialog

**24.** Select the service for write operation that has been created (for example, FileWrite) and click **OK**.

You are returned to the Properties - ServiceTask1 dialog, as shown in Figure 6–32.

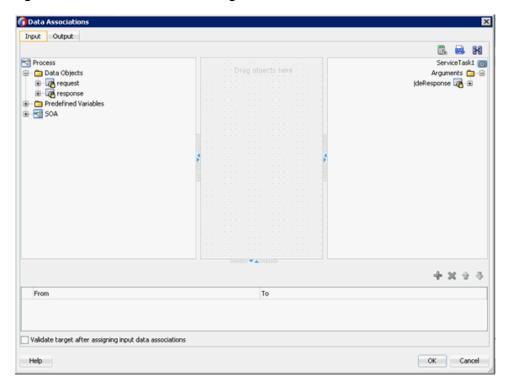
🕜 Properties - Service	:Task1	×
Basic Implementation		
Implementation Type:	👸 Service task	•
Force commit after e	xecution	
Message Exchange —		
Type: 🛃 Se	ervice Call	•
Conversation: 💿 Def	ault 🔘 Advanced	
Service Call		
Service: FileWrite	9	۹. 🥔
Operation: write		
Stata Associations	Correlations	Log Handlers
Message Headers	Service Properties	
Help		OK Cancel

Figure 6–32 Properties - ServiceTask1 Dialog

**25.** Click the **Data Associations** hyperlink.

The Data Associations dialog is displayed, as shown in Figure 6–33.

Figure 6–33 Data Associations Dialog



- **26.** In the Input tab, click the XSL Transformation icon in the top right pane.
- **27.** Drag and drop the XSL Transformation icon to the **jdeResponse** node, as shown in Figure 6–34.

Process		🗓 📾 🔀 ServiceTask1 👔
Process □ Data Objects □ Data Objects □	Drag objects here	Service i aski Argumenks ∳deResponse i i i i i i i i i i i i i i i i i i i
		+ x ± 4
From	То	

Figure 6–34 CompanyCodeJDEResponse Node

The Create Transformation dialog is displayed.

**28.** Select **Response** in the Sources section and click the right arrow symbol.

The Response object is added to the Selected elements area as shown in Figure 6–35.

🍘 Create Transformation		×
Sources		
Sources:	Selected:	
in request	» 🔯 response	
	>>>	
	*	
Target		
Target:	ideResponse	•
Transformation		
<ul> <li>Create</li> </ul>	response_body	
O Use Existing		-
Help	ОК С	ancel

Figure 6–35 Response Object

**29.** Accept the default value selected in the Target drop-down list and the default name in the Create field by clicking **OK**.

You are returned to the Data Associations dialog window with the XSL transformation created, as shown in Figure 6–36.

Figure 6–36 Data Associations Dialog

Drag objects here	E.      E.      ServiceTask1     Arguments     IdeResponse     Ref.
*****	
	+ 🗙 🕁 🤇
То	
ideResponse	
	То

#### **30.** Click **OK**.

You are returned to the Properties - ServiceTask1 dialog.

**31.** Click **OK**.

The Response\_body.xsl tab is displayed.

**32.** Automap the Source and Target elements.

The Auto Map Preferences dialog is displayed.

**33.** Accept the default values and click **OK**.

The transformation is completed, as shown in Figure 6–37.

Figure 6–37 Completed Transformation

(SLT map 🔹 💠 🔹 🛔	s 🖗 📓 🔛 I	Q, Search XSLT Map XS
<sources></sources>		xsistylesheet
- \$\$ ns0:jdeResponse		xsl:template(match=/)
type		ns0:jdeResponse 🚯 😠
and user		type 330 -
and role		user No
No session	and the second se	role 30
sessionide		session 200
and environment		sessionide
. on ns0:calMethod	and the second sec	environment 3
Variables		ns0:callMethod 🔕 🗟

- **34.** Save the transformation.
- **35.** Return to the Process workspace area.

The ServiceTask1 component is created between the ServiceTask component and the End event component.

**36.** Click the **Save All** icon in the menu bar to save the new outbound BPM process component that was configured.

You are now ready to deploy the outbound BPM process.

## 6.4.3 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

## 6.4.4 Deploying the BPM Outbound Process

Perform the following steps to deploy the Mediator outbound process.

1. Right-click the project name in the left pane, select **Deploy**, and then click **J2CA**\_ **Outbound**.

The Deployment Action page is displayed.

- **2.** Ensure that **Deploy to Application Server** is selected.
- 3. Click Next.

The Deploy Configuration page is displayed.

**4.** Leave the default values selected and click **Next**.

The Select Server page is displayed.

5. Select an available application server that was configured and click Next.

The SOA Servers page is displayed.

6. Select a target SOA server and click Next.

The Summary page is displayed.

**7.** Review and verify all the available deployment information for your project and click **Finish**.

For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

#### 6.4.5 Invoking the Input XML Document in the Oracle Enterprise Manager Console

Perform the following steps to invoke the input XML document in the Oracle Enterprise Manager console.

- 1. Logon to the Oracle Enterprise Manager console.
- 2. Expand your domain in the left pane followed by the SOA folder.
- **3.** Select an available project (for example, J2CA\_Outbound).
- 4. Click Test.
- 5. Click the **Request** tab.

#### Figure 6–38 Request Tab



**6.** Provide an appropriate input value in the Value field and click **Test Web Service**, as shown in Figure 6–38.

A response is received in the Response tab to indicate that invocation was successful in the Oracle Enterprise Manager console, as shown in Figure 6–39.

 Request
 Response

 Test Status
 Request successfully received.

 Response Time (ms)
 6657

 A new flow instance was generated.
 Launch Flow Trace

 The web service invocation was successful.

Figure 6–39 Received Response

**7.** Navigate to the defined output directory on your file system and open the XML response document that was received.

The XML response document contains the generated output with values.

# 6.5 Designing an Inbound BPM Process Using Transformations for Event Integration (J2CA Configuration)

This section demonstrates how Oracle Application Adapter for J.D. Edwards OneWorld integrates with J.D. Edwards OneWorld to receive event data.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

```
<abalancesises and a constraint of the second secon
```

The following tools are required to complete your adapter design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPM Designer (JDeveloper)

**Note:** The examples in this chapter demonstrate the use of JDeveloper.

This section contains the following topics:

- Section 6.5.1, "Creating an Empty Composite for BPM"
- Section 6.5.2, "Defining a BPM Inbound Process"

Before you design a BPM process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

#### 6.5.1 Creating an Empty Composite for BPM

For more information on how to configure a new Application Server connection in Oracle JDeveloper, see Section 4.3, "Configuring a New Application Server Connection" on page 4-2.

## 6.5.2 Defining a BPM Inbound Process

This section describes how to define a BPM inbound process, which contains the following topics:

- Section 6.5.2.1, "Configuring a Third Party Adapter Service Component"
- Section 6.5.2.2, "Configuring an Inbound BPM Process Component"
- Section 6.5.2.3, "Creating a File Adapter for the Write Operation"
- Section 6.5.2.4, "Adjusting for Known Deployment Issues With 12c"

#### 6.5.2.1 Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

- 1. Double-click the created project to load the components.
- **2.** Drag and drop the **Third Party Adapter** component from the Custom/Thirdparty pane to the Exposed References pane, as shown in Figure 6–40.

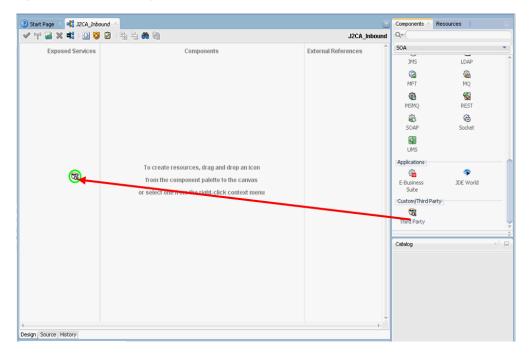


Figure 6–40 Third Party Adapter Component

The Create Third Party Adapter Service dialog is displayed.

- 3. Enter a name for the third party adapter service.
- 4. Ensure that **Service** is selected from the Type list (default).
- 5. Click the Find existing WSDLs icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed.

**6.** Select **File System**, and then browse and select an inbound WSDL file from the following directory:

<ADAPTER\_HOME>\wsdls

7. Click OK.

The Localize Files dialog is displayed.

8. Click OK.

The inbound WSDL file and associated receive\_request XML schema file (.xsd) are imported to the project folder that has been created.

You are returned to the Create Third Party Adapter Service dialog.

9. Click the Find JCA file icon, which is located to the right of the JCA File field.

The Transformation Chooser dialog is displayed.

**10.** Select **File System**, and then browse and select the JCA properties file from the following directory:

<ADAPTER\_HOME>\wsdls

11. Click OK.

The Copy File message is displayed.

12. Click Yes.

A copy of the JCA properties file is made in the project folder.

You are returned to the Create Third Party Adapter Service dialog.

13. Click OK.

The third party adapter service component (matmas) is created in the Exposed References pane.

You are now ready to configure an inbound BPM process component.

For more information, see Section 4.4.3.1, "Configuring a Third Party Adapter Service Component" on page 4-11.

#### 6.5.2.2 Configuring an Inbound BPM Process Component

This section describes how to configure an inbound BPM process component.

Perform the following steps to configure an inbound BPM process component:

**1.** Drag and drop the **BPMN Process** component from the Components pane to the Components pane.

The Create BPMN Process dialog is displayed, as shown in Figure 6–41.

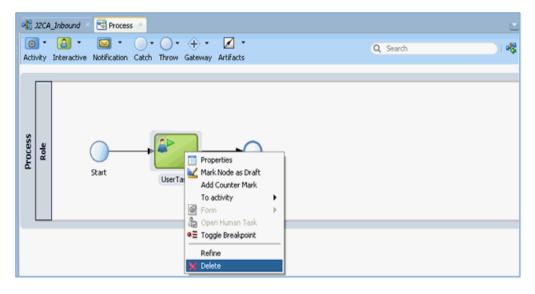
BPMN 2.0 Process Wiza		×
Definition     Initial Implementation     Advanced	Name:     Process       Description:	9
	Directory: :\bpmbeta\WORK\mywork\BpmApplication2\J2CA_Inbound\SOA\processes Type: Synchronous Service	<b>Q</b>
	Manual Process         Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task.         Image: Creates an interactive process based on a user task. <td< th=""><th></th></td<>	
Help	Reusable Process	

Figure 6–41 Create BPMN Process Dialog

- 2. Select Manual Process in the Type section.
- 3. Click Finish.

The BPMN process is displayed, as shown in Figure 6–42.

Figure 6–42 BPMN Process



- 4. Right-click **UserTask** and select **Delete** from the menu.
- 5. Double-click the **Start** event component.

The Properties - Start dialog is displayed.

6. Click the **Implementation** tab.

- 7. Select Message from the Implementation Type list.
- 8. Select Use Interface from the Message Exchange Type drop-down list.
- 9. Click the **Browse** icon to the right of the Reference field, as shown in Figure 6–43.

Figure 6–43 Browse Icon

riopercies	- Start		
lasic Imple	mentation		
mplementation	n Type: 🙆 Mes	sage	
Message Exc	hange		
Type:	🙀 Use Interfa	ace	•
Conversation	n: 💿 Default 🔿	Advanced	
Use Interfa	ace		
Reference	:		۹. 🧳
Operation			•
Message H	leaders	Service Properties	

The Service dialog is displayed, as shown in Figure 6–44.

😚 Service	×
Search:	
Search Results:	
····· @ Service	
Help	OK Cancel

Figure 6–44 Service Dialog

**10.** Select the Third Party Service that has been created and click **OK**.

You are returned to the Properties - Start dialog, as shown in Figure 6-45.

Figure 6–45 Properties - Start Dialog

🍘 Properties - Start	×
Basic Implementation	
Implementation Type: 🔘 Message	•
Message Exchange	
Type: 🙀 Use Interface	<b>•</b>
Conversation: <ul> <li>Default</li> <li>Advanced</li> </ul>	
Use Interface	
Reference: Service	Q <
Operation: jdeInbound	<b>-</b>
Image: Second	landlers
Message Headers	
Help	OK Cancel

#### **11.** Click the **Data Associations** icon.

The Data Associations dialog is displayed, as shown in Figure 6–46.

9 Start - ☐ Arguments ⊕ @ jdeResponse • @ Process	Drag objects here	Process Predefined Variat
		+ x +
From	То	

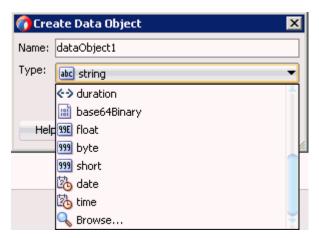
Figure 6–46 Data Associations Dialog

**12.** Right-click the **Data Object** node in the right pane and select **New**.

The Create Data Object dialog is displayed.

**13.** Enter a name in the Name field, and then click the drop-down button in the Type field and select **Browse** from the list, as shown in Figure 6–47.

Figure 6–47 Create Data Object Dialog



The Browse Types dialog is displayed, as shown in Figure 6–48.

👩 Browse Types	×
Find:	3
abc string	
999 int	
S boolean	
99E double	
999 decimal	
alteTime	
999 long	
♦ duration	
iii base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
🖄 time	_
🚰 JdeResponse	Ŧ
Types.UrnIwaysoftwareTransResponseJDESOOUT.JdeResponse	
Help OK Can	cel

Figure 6–48 Browse Types Dialog

14. Select the component and click OK.

You are returned to the Create Data Object dialog.

15. Click OK.

The Data Object that has been created is displayed under the Data Objects node in the Data Associations dialog, as shown in Figure 6–49.

Figure 6–49 Data Associations Dialog

Output       Image: Start       Process       Process       Process       Image: Start       Process       Image: Start       <	🍘 Data Associations		×
Start   Process   Data Objects here   Data Objects ()   Data Objects ()   Data Objects ()   Data Objects ()   Predefined Variables ()   Process   Prom   To   Validate target after assigning output data associations	Output		
Arguments   Drag objects here Data Objects • • • • • • • • • • • • • • • • • • •			E. 💀 N
Image: Selector of the selector of			
Process Process Prodefined Variables  Prodefined Variables Prodefined V			
projectinfo 😪 🖨	⊕ 28 ideResponse		
Copy       From: jdeResponse         From       To: dataObject1         From       To         Image: Copy of the system       Image: Copy of the system         Yaldate target after assigning output data associations       Image: Copy of the system			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			projectinho 😋 🖽
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:		• • • • • • • • • • • • • • • • • • • •	
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
Copy       From:       jdeResponse       Image: To:       dataObject1       Image: To:       dataObject1         From       To       Image: To:			
From     To       To     To       To     To       To     To       Validate target after assigning output data associations     To			
deResponse     detaObject1      Validate target after assigning output data associations	Copy From: jdeResponse	To: dataObject1	💽 🕂 🗙 🕆 🤻
Validate target after assigning output data associations			
	ideResponse 👔	ataObject1	
Help OK Cancel	Validate target after assigning output data associa	ations	
Help OK Cancel			
	Help		OK Cancel

- **16.** Select and drag the **jdeResponse** Argument under the Start node in the left pane and drag it to the Data Object in the right pane.
- 17. Click OK.

You are returned to the Properties - Start dialog.

**18.** Click **OK**.

You are returned to the Process workspace area.

- 19. Double-click the created project to load the components.
- **20.** Click the **Save All** icon in the menu bar to save the new inbound BPM process component that was configured.

You are now ready to create a File adapter for the write operation.

#### 6.5.2.3 Creating a File Adapter for the Write Operation

This section describes how to create a File adapter for the write operation.

Perform the following steps to create a File adapter for the write operation:

1. Drag and drop the **File Adapter** component from the Technology Adapters pane to the External References pane.

The Adapter Configuration Wizard is displayed.

2. Type a name for the new File adapter in the Name field and click Next.

The Adapter Interface page is displayed.

- **3.** Ensure that the **Define from operation and schema (specified later)** option is selected.
- 4. Click Next.

The File Server Connection page is displayed.

5. Click Next.

The Operation page is displayed, as shown in Figure 6–50.

hdapter Conf	iguration Wizard - Step 4	4 of 7				×
Operation					Riber 🗧	65
system, a Write F contents of a file,	supports four operations. Th ile operation that creates ou , and a List Files operation th Only one operation per Ada	tgoing files, a Syn at lists file names i	chronous Read n specified loca	File operation tions. Specify	that reads t	he current
Operation Type:	O Read File					
	Write File					
	◯ Synchronous Read File					
	🔾 List Files					
Operation Name:	Write					
Help			< Back	Next >	Einish	Cancel

Figure 6–50 Operation Page

- **6.** Select **Write File** from the list of Operation Type options and specify an Operation Name (for example, Write).
- 7. Click Next.

The File Configuration page is displayed.

- 8. Specify a location on your file system where the output file is written.
- **9.** In the File Naming Convention field, specify a name for the output file.
- 10. Click Next.

The Messages page is displayed.

**11.** Click **Browse**, which is located to the right of the URL field.

The Type Chooser dialog is displayed, as shown in Figure 6–51.

😚 Type Chooser			×
		<b>4</b> 0	6
🔍 Type Explorer			
📄 🗁 Project Schema Files			
🖮 🛃 J2CA_Inbound_receive_request.xsd			
jdeResponse			
🚽 🚷 key			
🚽 🐼 returnCode			
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>			
🗄 📲 Project WSDL Files			
			_
I <u>Iype</u> : {urn:iwaysoftware:trans.response.JDESOOUT}jdeRespon	se		
Show Detailed Node Information			
Help	ок	Cano	el
		carre	

Figure 6–51 Type Chooser Dialog

- 12. Expand Project Schema Files and J2CA\_Inbound\_receive\_request.xsd.
- **13.** Select the available schema.
- 14. Click OK.

You are returned to the Messages page.

15. Click Next.

The Finish page is displayed.

16. Click Finish.

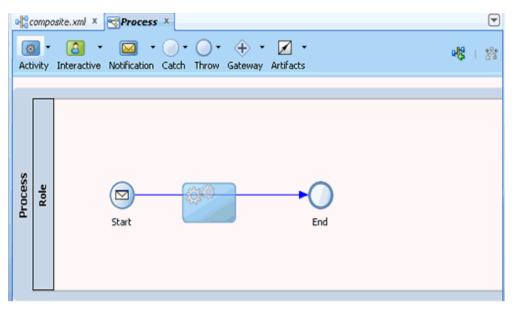
The File Adapter service is created in the External References pane.

17. Double-click the BPMN Process component.

The BPMN process is displayed.

- **18.** Click the **Activity** icon, and select **Service**.
- **19.** Drop the Service icon on the wire between the Start and End event components, as shown in Figure 6–52.

Figure 6–52 Activity Icon



The Properties - ServiceTask dialog is displayed.

- **20.** Click the **Implementation** tab.
- 21. Select Service Task from the Implementation Type list.
- 22. Select Service Call from the Message Exchange Type list.
- **23.** Click the **Browse** icon to the right of the Service field.

The Type dialog is displayed, as shown in Figure 6–53.

Figure 6–53 Type Dialog

👩 Service		×
Search:		
Search Results:		
🙀 FileWrite		
Help	ок	Cancel

24. Select the service for write operation that has been created and click OK.

You are returned to the Properties - ServiceTask dialog, as shown in Figure 6–54.

Figure 6–54	Properties - S	ServiceTasl	k Dialog
-------------	----------------	-------------	----------

🕜 Properties - 9	5erviceTask	×
Basic Impleme	entation	
Implementation 1	Type: 👸 Service task	<b></b>
Force commit	after execution	
-Message Excha	inge	
Туре:	🐲 Service Call	-
Conversation:	<ul> <li>Default</li></ul>	
Service Call -		
Service:	FileWrite	۹. 🧳
Operation:	write	•
🞇 Data Associa	ations IN Correlations	Log Handlers
Message He	_	
Help		OK Cancel

25. Click the Data Associations hyperlink.

The Data Associations dialog is displayed.

**26.** Right-click the **jdeResponse** argument on the right pane and select **XSL Transformation**, as shown in Figure 6–55.

Drag objects       Arguments       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects         Image: Contract objects       Image: Contract objects       Image: Contract objects	То	
Drag objects here     Arguments →      Arguments →      Arguments →      Crag objects here     Arguments →      Arguments →		+ X + 3
The second se		Expand All Child Nodes
Process		Orag objects here         Image: State of the state

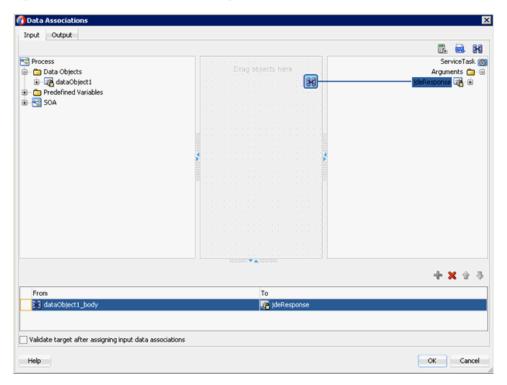
Figure 6–55 XSL Transformation

The Create Transformation dialog is displayed.

- **27.** Select the created data object in the Sources area and click the right arrow icon so that the created data object is added to the Selected elements area.
- 28. Click OK.

You are returned to the Data Associations dialog, as shown in Figure 6–56.

Figure 6–56 Data Associations Dialog



#### 29. Click OK.

You are returned to the Properties - ServiceTask dialog.

**30.** Click **OK**.

The dataobject1\_body.xsl tab is displayed.

**31.** Automap the Source and Target elements.

The Auto Map Preferences dialog is displayed.

**32.** Accept the default values and click **OK**.

The transformation is completed, as shown in Figure 6–57.

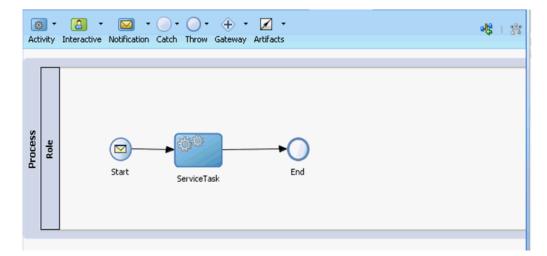
Figure 6–57 Completed Transformation

SLT map 🔹 🕈 🔹 🔂 🔛 🗄	Q, Search XSLT Map XSL
<sources></sources>	xsl:stylesheet (
	xsl:template(match=/)
TEB User	ns0;jdeResponse 🚸 😑
mi type	USER TIB
THE session	type 🚥
wa role	Session UN
- EB environment	role va
	environment uu
Variables	ns0:transaction 🔇 🕀

**33.** Save the transformation.

**34.** Return to the Process workspace area, as shown in Figure 6–58.

Figure 6–58 Process Workspace Area



The ServiceTask component is created between the Start event component and the End event component.

**35.** Click the **Save All** icon in the menu bar to save the new inbound BPM process component that was configured.

#### 6.5.2.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

You are now ready to deploy the inbound BPM process. You can follow the same procedure that is described in Section 4.5.4, "Deploying the BPEL Inbound Process" on page 4-46.

For more information on how to trigger events in J.D. Edwards OneWorld, see Section 4.5.5, "Triggering an Event in J.D. Edwards OneWorld" on page 4-47.

### 6.6 Designing an Outbound BPM Process Using Transformations for Service Integration (BSE Configuration)

This section describes how to configure a BPM outbound process to your J.D. Edwards OneWorld system, using a BPM project in Oracle JDeveloper.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\JDEdwards_Samples.zip\JDEdwards_
Samples\BPM\BSE\Outbound_Project
```

The following tools are required to complete your outbound design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPM Designer (JDeveloper)

This section contains the following topics:

- Section 6.6.1, "Creating an Empty Composite for BPM"
- Section 6.6.2, "Defining a BPM Outbound Process"

#### Prerequisites

Before you design a BPM outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service" on page 4-52.

#### 6.6.1 Creating an Empty Composite for BPM

Perform the following steps to create an empty composite for SOA:

- 1. Create a new BPM application.
- 2. Enter a name for the BPM Application, and click Next.
- 3. Enter a name in the Project Name field, and click Next.
- 4. From the Composite Template list, select Empty Composite and click Finish.

For more information, see Section 4.5.2, "Creating an Empty Composite for SOA" on page 4-39.

#### 6.6.2 Defining a BPM Outbound Process

This section describes how to define a BPM outbound process. It contains the following topics:

- Section 6.6.2.1, "Configuring a Web Service Component"
- Section 6.6.2.2, "Configuring a BPM Process Component"
- Section 6.6.2.3, "Creating a File Adapter for the Write Operation"

#### 6.6.2.1 Configuring a Web Service Component

Perform the following steps to configure a Web Service component:

- 1. Double-click the created project to load the components.
- **2.** Drag and drop the **Web Service** node from the Technology Adapters pane to the External References pane, as shown in Figure 6–59.

Figure 6–59 Web Service Node

185E_Outbound =			Components	Resources
🛷 पुष 🎑 🗶 📢 । 🔯 🔯 । व	à 🔁 🧰 🕸	IBSE_Outbound	Q.e.(	
Exposed Services	Components	External References	SOA	
			Technology	
			٨	۹.
			ACE-BC	AQ
			828	60 SAM 110
				() ()
			Coherence	Database
			8	<b>Q</b>
			Direct	E38
	To create resources, drag and drop an icon		6	8
	from the component palette to the canvas		File	FTP
	or select one from the right-click context menu		Healthcare	La HTTP
			(8	-
			3%	LDAP
		<b>1</b>	6	۵.
			MET	MQ
		$\langle \rangle$	MSHQ	100 REST
			N	6
			SOAP	Socket

- **3.** Enter an appropriate name for the Web Service and click on the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.
- **4.** In the displayed WSDL Chooser window, navigate to the location where the WSDL is exported from the Application Explorer, and select the WSDL.
- 5. Click OK.
- 6. In the Web Service pane, click **OK**, as shown in Figure 6–60.

Figure 6–60 Web Service Pane

😚 Create Web Service		×
SOAP Create a web service for s	ervices external to the SOA composite.	ŝ
<u>N</u> ame:	SOAPReference	
<u>T</u> ype:	Reference 💌	
WSDL URL:	$\label{eq:linear} \fbox{\scaleses} [2c\_SOA\scaleses\scalese$	1
Port Type:	IBSE_OutboundSoap	
<u>C</u> allback Port Type:	No Callback	
✓ copy wsdl and its dependent	endent artifacts into the project.	
Transaction Participation:	WSDLDriven 💌	
<u>V</u> ersion:	DEFAULT -	
Help	OK	Cancel

7. In the displayed Localize Files window, click OK.

This will import the WSDL file to the project folder

#### 6.6.2.2 Configuring a BPM Process Component

This section describes how to configure an outbound BPM process component.

Perform the following steps to configure a BPM Component:

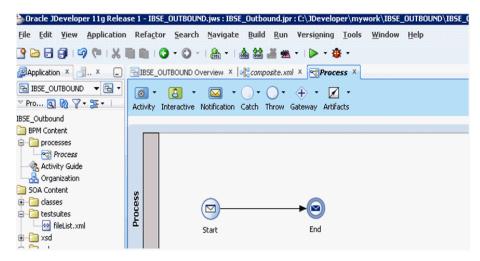
- 1. Drag and drop the **BPMN Process** component from the Components pane in to the Components pane.
- **2.** Accept the default option that is selected under the Type area (Asynchronous Service) and click **Finish**, as shown in Figure 6–61.

Figure	6–61	Type Area	1
--------	------	-----------	---

🕜 BPMN	2.0 Process Wizar	d		×
BPMN	2.0 Process Wi	zard		-
😡 Def	inition	Name:	Process	٩
u Initi	uments al Implementation anced	Description:		٩
		Directory:	C:\WORK\mywork\BpmApplication3\IBSE_Outbound\SOA\processes	٩
		S Async	hronous Service s a process with an asynchronous interface definition	Î
		Synchro Manual	Start End	_
He	lp	j 🔄 Haridai	< Back Next > Einish Cance	

**3.** Double click on the Start Event component, as shown in Figure 6–62.

Figure 6–62 Start Event Component



- 4. In the displayed Properties-start window, click the Implementation tab.
- 5. Click the Plus (+) icon to the right of the Arguments Definition field.

The Edit Argument window is displayed.

- **6.** Enter a name in the Name field, and then click the Type drop-down list and select **Browse**.
- **7.** Select the **Request** component (for example, GetEffectiveAddress), and click **OK**, as shown in Figure 6–63.

😚 Browse Types	×
Find:	
(99E) double	
999 decimal	
🖄 dateTime	
999 long	
♦ duration	
💼 base64Binary	
199E float	
999 byte	
999 short	
🔯 date	
🖄 time	
AdapterExceptionFault	
A GetEffectiveAddress	
GetEffectiveAddressResponse	
Adapterexception	<b>•</b>
${\sf Types}. {\sf UrnIways of tware IbseJul 2003 Get Effective {\sf Address}. Get Effective {\sf Address}. Get Effective {\sf Address}. Get Effective {\sf Address}. Get $	Address
Help	K Cancel

Figure 6–63 Request Component

- In the Edit Argument window that is displayed, click OK.
   The Properties Start window is displayed.
- **9.** In the Operation Name field, change the default entry from **start** to **operation**.
- **10.** Click the **Data Associations** hyperlink, as shown in Figure 6–64.

operties - Start		
Implementation		
lementation Type: 🙆 Me	essage	
essage Exchange		
/pe: 🛛 😡 Define I	interface	
onversation: 🧿 Default (	🔵 Advanced	
Define Interface		
Arguments Definition		÷ //
		1
Name		Туре
Name argument1		Type GetEffectiveAddress
	on	
argument1	on	GetEffectiveAddress
operation Name: operation	•	GetEffectiveAddress
argument1 Operation Name: operation Data Associations	<u> DD</u> <u>Correlations</u>	GetEffectiveAddress
argument1 Operation Name: operation Data Associations	<u> DD</u> <u>Correlations</u>	GetEffectiveAddress
argument1 Operation Name: operation Data Associations	<u> DD</u> <u>Correlations</u>	GetEffectiveAddress
argument1 Operation Name: operation Data Associations	<u> DD</u> <u>Correlations</u>	GetEffectiveAddress

Figure 6–64 Properties - Start Window

**11.** Right-click the **Data Objects** node in the right pane, under Process, and select **New**, as shown in Figure 6–65.

Figure 6–65 Data Objects Node

Dutput		
		🖪 🖬 🕅
) Start		Process 😒
- Ca Arguments		Data Object
in the area menti		Predefined Variable 🎴 New
Process		projectInfo 😪 🛞
	2 A REAL PRODUCT OF A REAL	
	🔊	

The Create Data Object window is displayed.

**12.** Enter a name in the Name field, click the Type drop-down list, and select **Browse**.

**13.** Select the **Request** component (for example, GetEffectiveAddress) and click **OK**, as shown in Figure 6–66.

🕜 Browse Types	×
Find:	1
99E double	-
999 decimal	
🖄 dateTime	
999 long	
←→ duration	
iii base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
🖄 time	
AdapterExceptionFault	
RefectiveAddress	
RefectiveAddressResponse	
Adapterexception	<b>-</b>
$\label{eq:constraint} Types. UrnIways of tware IbseJul 2003 Get Effective Address. Get Effective Address$	
Help OK Cano	el

Figure 6–66 Request Component

14. In the Create Data Object window, click OK.

The Data Associations window is displayed.

- **15.** Select **argument1** under the Arguments node in the left pane and drag and connect it to **dataObject1**, under Data Objects, in the right pane.
- **16.** Click **OK**, as shown in Figure 6–67.

		R. 🖬 1
Start D Arguments		Process Data Objects 🧰
Process		dataobjace1 🖓 🕢 Predefined Variables 🗁 projectInfo 😪
Copy  From: argument1	📆 To: dataObject1	📆 🕂 🗙 👉
From 🌃 argument 1	То	
	🦛 dataObject1	

Figure 6–67 Data Associations

17. In the Properties - Start window that is displayed, click **OK**.

You are returned to the Process workspace area.

- 18. Click the Activity drop-down menu and select Service.
- 19. Drop the Service icon on the wire between the Start and End event components.
- 20. In the displayed Properties ServiceTask window, click the Implementation tab.
- 21. Select Service Call from the Message Exchange Type list.
- 22. Click the Browse icon to the right of the Service field, as shown in Figure 6–68.

👩 Properties - ServiceTa	sk	×
Basic Implementation		
Implementation Type: 👩	Service task	•
Force commit after exec	ution	
Message Exchange		
Type: 🛃 Servi	ce Call	•
Conversation: 💿 Defaul	: 🔿 Advanced	
Service Call		
Service:		🧠 🧳
Operation:		•
🗱 Data Associations	DD <u>Correlations</u>	Log Handlers
* Message Headers	Service Properties	
Help		OK Cancel
		h

Figure 6–68 Browse Icon

The Service window is displayed.

**23.** Select the Web Service that has been created and click **OK**, as shown in Figure 6–69.

👩 Service	×
Search:	
Search Results:	
Help	OK Cancel

Figure 6–69 Created Web Service

**24.** In the Properties - ServiceTask window that is displayed, click the **Data Associations** hyperlink.

The Data Associations window is displayed.

**25.** Create response Data Object by right-clicking the **Data Objects** node in the right pane of the Output tab and selecting **New**, as shown in Figure 6–70.

Figure 6–70 Data Objects Node

	Pred	Data C JataObjec lefined Va E	cess State
ere	Pred	lefined Va E	
	Pred	lefined Va E	
	Pred		xpand All Child Nodes
	Pred		xpand All Child Nodes
		proji	
1 1 1 1 1 1 1 <b>1</b>			

The Create Data Object window is displayed.

- 26. Enter a name in the Name field, click the Type drop-down list, and select Browse.
- **27.** Select the Response component (for example, GetEffectiveAddressResponse) and click **OK**, as shown in Figure 6–71.

Figure 6–71 Response Component

🕜 Browse Types 🛛 🔀
Find:
1995 double
999 decimal
🖄 dateTime
999 long
<>> duration
iii base64Binary
99E float
999 byte
999 short
🖄 date
🖄 time
AdapterExceptionFault
RefectiveAddress
RefectiveAddressResponse
Adapterexception
$\label{eq:constraint} Types. Urn Iways of tware Ibse Jul 2003 Get Effective Address Response. Get Effective Address Response and the set of t$
Help OK Cancel

28. In the Create Data Object window, click OK.

The Data Associations window is displayed.

**29.** Select **dataObject1**, under the Data Objects node in the left pane of the Input tab, and drag and connect it to the **getEffectiveAddress** node, under the Arguments node in the right pane, as shown in Figure 6–72.

Figure 6–72 Data Associations

	Arguments 🛅
	petEffectiveAddress
	🗒 🕂 🗙 🕁
То	
getEffectiveAddress	
	To To RegetEffectiveAddress

- **30.** Click on the **Output** tab and select **GetEffectiveAddressResponse** under the Arguments node in the left pane and drag and connect it to **dataObject2** under the Data Objects node.
- **31.** Click **OK**, as shown in Figure 6–73.

Figure 6–73 Output Tab

👩 Data Associations		×
Input Output		
		D. 🖬 HI
ServiceTask. ⊡ — Arguments ⊕	Drag objects here	Process 😋 Data Objects 🍋 🖨 dataObject1 🔯 🖨
-		jdeResponse 🔇 🕀 cid 臧 Predefined Variables 🗀 🕀 projectInfo 😋 🖶
		projeccino 🖼 🗃
	•	
Copy   From: effectiveAddressResp	onse 📴 To: dataObject2	💽 🕂 🗙 🕁 🤴
From	То	
i affectiveAddressResponse	🧱 dataObject2	
Validate target after assigning output data associations		
Help		OK Cancel

- 32. In the Properties ServiceTask window that is displayed, click OK.
- **33.** Click the **Save All** icon in the menu bar to save the new outbound BPM process component that was configured.
- **34.** Double-click the **composite.xml** node in the left pane.

#### 6.6.2.3 Creating a File Adapter for the Write Operation

This section describes how to create a File adapter for the write operation.

Perform the following steps to create a File adapter for the write operation:

- **1.** Drag and drop the **File Adapter** component from the Technology Adapters pane to the External References pane, and provide a name for the File Adapter.
- 2. In the Adapter Interface pane that is displayed, ensure that the **Define from operation and schema (specified later)** option is selected, and click **Next**.
- Click Next.
- **4.** In the Operation pane that is displayed, select **Write File** from the list of Operation Type options, and click **Next**, as shown in Figure 6–74.

Operation			*
system, a Write F contents of a file,	supports four operations. There is a Ree file operation that creates outgoing files, and a List Files operation that lists file n Only one operation per Adapter Service	a Synchronous Read File operation that ames in specified locations. Specify the	at reads the current
Operation Type:	○ <u>R</u> ead File		
	Write File		
	○ Synchronous Read File		
	○ List Files		
Operation Name:	Write		
☐ Add <u>Q</u> utput H	eader		
Help		< <u>B</u> ack <u>N</u> ext >	inish Cancel

The File Configuration pane is displayed.

- **5.** In the Directory for Outgoing Files (physical path) field, specify a location on your file system where the output file is written.
- 6. In the File Naming Convention field, specify a name for the output file.
- 7. Click Next, as shown in Figure 6–75.

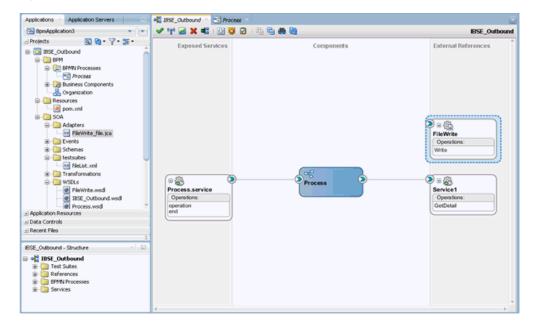
Figure 6–75 File Configuration Pane

	Wizard - Step 5 of 7		The second se
e Configuration			*
ecify the parameters for the Wri	te File operation.		
rectory specified as	ysical Path 🔿 Logical Name		
rectory for Outgoing Files (physic			
:\output			Browse
Append to existing file	these conditions are met-		
Number of Messages Equals:	1		
Elapsed Time Exceeds:	1	minutes	-
		kilobytes 👻	

The Messages pane is displayed.

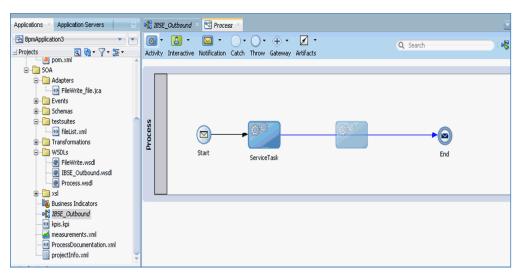
- 8. Click the Browse, which is located to the right of the URL field.
- In the displayed Type Chooser window, expand Project WSDL Files, IBSE\_ Outbound.wsdl, Inline Schemas and then select GetEffectiveAddressResponse.
- 10. Click OK.
- 11. In the Messages pane, click Next.
- 12. In the Finish pane that is displayed, click Finish.
- **13.** Double-click the **BPMN Process** component, as shown in Figure 6–76.

Figure 6–76 Composite.xml Tab



- **14.** Click the **Activity** icon.
- **15.** Drop the **Activity** icon on the wire between the **Service Task** and **End** event components, as shown in Figure 6–77.

Figure 6–77 Activity Icon



- 16. In the displayed Properties-ServiceTask1 window, click the Implementation tab
- 17. Select Service Call from the Type drop-down list in the Message Exchange section.
- 18. Click the Browse icon to the right of the Service field.
- **19.** Select the service for write operation that has been created and click **OK**, as shown in Figure 6–78.

Figure 6–78 Service Window

👩 Service	×
Search:	
Search Results:	
Service1	
Help	OK Cancel

**20.** In the Properties - ServiceTask1 window, click the **Data Associations** hyperlink, as shown in Figure 6–79.

Properties - Se Basic Implement		
Implementation Typ	pe: 👩 Service task	
Force commit al		
Message Exchang	je	
Type:	📌 Service Call	•
Conversation:	Default 🔿 Advanced	
Service Call		
Service: File	eWrite	۹. 🧳
Operation:	ite	•
🎼 <u>Data Associatir</u> 🗌 <u>Message Head</u>		Log Handlers
Help		OK Cance

Figure 6–79 Data Associations

- 21. In the Input tab, click the XSL Transformation icon in the top right pane.
- **22.** Drag and drop the **XSL Transformation** icon to the **GetEffectiveAddressResponse** node, as shown in Figure 6–80.

Figure 6–80 GetEffectiveAddressResponse Node

Process To Data Objects  Code State Colored State  Code State Sta	Orag objects here	GetEffectiveAddressResponse
		+ X +
From	То	

- **23.** In the displayed Create Transformation window, select **dataObject2** in the Sources section and click the right arrow symbol.
- **24.** Accept the default value selected in the Target drop-down list and the default name in the Create field by clicking **OK**.
- **25.** In the Data Associations window, click **OK**, as shown in Figure 6–81.

🕜 Data Associatio Input Output 🖪 🔜 H Process ServiceTask1 @3 😑 🛅 Data Objects Arguments 🛅 🚊 Image dataObject1
 Image dataObject2 R e 🙀 🗄 Predefined Variables
 SOA + 🗙 🕆 🗄 From To All dat. 79 Validate target after assigning input data associations Help OK Cancel

Figure 6–81 Data Associations Window

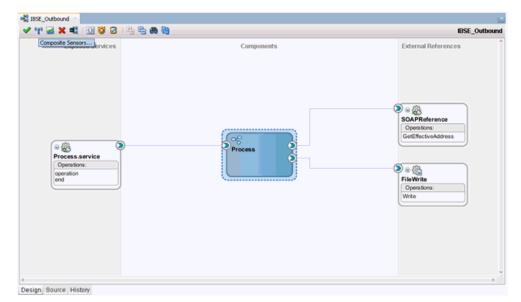
- **26.** In the Properties ServiceTask1 window, click **OK**.
- **27.** In the response\_body.xsl tab, map the **ns0:GetEffectiveAddressResponse** source element to the **ns0:GetEffectiveAddressResponse** target element.
- **28.** In the displayed Auto Map Preferences window, retain the default values and click **OK**.
- **29.** Return to the Process workspace area and double-click the **End** event component.
- **30.** In the displayed Properties End window, click the **Implementation** tab.
- **31.** Select **None** from the Implementation Type drop-down list.
- **32.** Click **OK**, as shown in Figure 6–82.

Figure 6–82 Implementation Tab

🖕 Properties - End	×
Basic Implementation	
Implementation Type: None	-
Help	OK Cancel

**33.** Click the **Save All** icon in the menu bar to save the new outbound BPM component that was configured, as shown in Figure 6–83.

Figure 6–83 Save All Icon



You are now ready to deploy the BPM BSE Outbound process. You can follow the same procedure as Section 6.4.4, "Deploying the BPM Outbound Process" on page 6-25.

Once deployed, you can invoke the input XML as defined in Section 6.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 6-26.

7

# Configuring Outbound and Inbound Processing Using Oracle Service Bus

Oracle Application Adapter for J.D. Edwards OneWorld integrates seamlessly with Oracle Service Bus (OSB) to facilitate Web service integration. OSB is based on the Service-Oriented Architecture (SOA). It consumes adapter services exposed as Web Service Definition Language (WSDL) documents.

This chapter contains the following topics:

- Section 7.1, "Overview of Application Adapter Integration with Oracle Service Bus"
- Section 7.2, "Configuring an Outbound Process Using Sbconsole (J2CA Configuration)"
- Section 7.3, "Configuring an Inbound Process Using sbconsole (J2CA Configuration)"
- Section 7.4, "Configuring an Outbound Process Using Sbconsole (BSE Configuration)"
- Section 7.5, "Configuring JMS Proxy Services Using Oracle Service Bus (J2CA Configuration)"
- Section 7.6, "Configuring HTTP Proxy Services Using Oracle Service Bus (J2CA Configuration)"

## 7.1 Overview of Application Adapter Integration with Oracle Service Bus

To integrate with Oracle Service Bus (OSB), Oracle Application Adapter for J.D. Edwards OneWorld must be deployed in the same Oracle WebLogic Server as OSB. The underlying adapter services must be exposed as WSDL files, which are generated during design time in Oracle Adapter Application Explorer (Application Explorer) for both request-response (outbound) and event notification (inbound) services of the adapter.

# 7.2 Configuring an Outbound Process Using Sbconsole (J2CA Configuration)

This section describes how to configure an outbound process using sbconsole for J2CA configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\OSB\J2CA\JDEdwards\_Sample\_J2CA\_OSB\_Outbound\_Project

This section includes the following topics:

- Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders"
- Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus"
- Section 7.2.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus"
- Section 7.2.4, "Configuring a WSDL-based Business Service"
- Section 7.2.5, "Configuring a File Type Business Service"
- Section 7.2.6, "Configuring a Pipeline With Proxy Service"

#### 7.2.1 Starting Oracle Service Bus and Creating Project Folders

This section describes how to start Oracle Service Bus (OSB) and create project folders.

Perform the following steps to start Oracle Service Bus and create project folders:

- 1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
- **2.** Open the Oracle Service Bus Console in a Web browser by entering the following URL:

http://hostname:port/sbconsole

Where *hostname* is the name of the machine where Oracle WebLogic Server is running and *port* is the port for the domain you are using.

The Oracle Service Bus Console logon page is displayed.

**3.** Log on to the Oracle Service Bus Console using a valid user name and password.

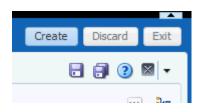
The Oracle Service Bus Console home page is displayed, as shown in Figure 7–1.

Figure 7–1 Oracle Service Bus Console Home Page

ORACLE' Service Bus Console	12c	Links 👻	Help 🕶	weblogic 🗸	0
			Crei	ate Discard	Exit
	default ×			8 8 3	•
Resources Admin	Project Definition				- 3-
	lo default Vev ▼ 2%				
		All Types	۲		
	Name	Туре	,	Actions	
	<b>1</b> ···	Project			

**4.** Click **Create** in the right pane of the Oracle Service Bus session, as shown in Figure 7–2.

Figure 7–2 Oracle Service Bus Session



**5.** Select **All Projects**, click the down arrow in the left pane, and select **Project**, as shown in Figure 7–3.

Figure 7–3 All Projects Folder

ORACLE' Service Bus Console :	12c
	defa
Resources Admin	All Vie

The Create a new Project window is displayed, as shown in Figure 7-4.

Figure 7–4 Create New Project Window

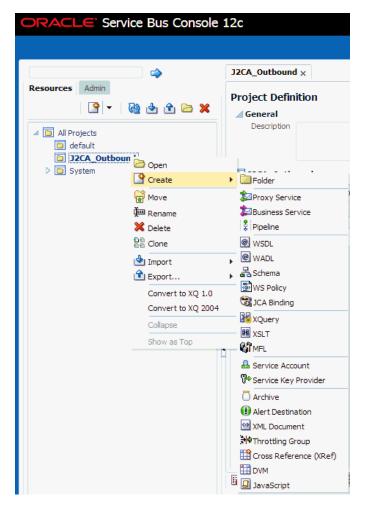
Create a new Project ×						
* Resource Name	J2CA_Outbound					
Description			h			
3		Create	Cancel			

**6.** Provide a valid name for the new project (for example, J2CA\_Outbound) in the Resource Name field, and click **Create**.

The new project is successfully created and listed.

**7.** Right-click the newly created project, select **Create**, and click **Folder**, as shown in Figure 7–5.

Figure 7–5 Create Option



The Create a new Folder window is displayed.

- 8. In the Resource Name field, type Business Service and click Create.
- 9. Repeat steps 7 and 8 to create folders with the names Proxy Service and Wsdls.

The Business Service, Proxy Service, and Wsdls folders are listed in the left pane below the project node, as shown in Figure 7–6.



Figure 7–6 Project Node

**10.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–7.

Figure 7–7 Activate Button



**11.** In the Confirm Session Activation page, click **Activate** to save the changes, as shown in Figure 7–8.

Figure 7–8 Confirm Session Activation Window

Confirm Ses	sion Activation	×
	weblogic weblogic	
Description		
	Activate Cancel	

## 7.2.2 Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus

Before starting and using Application Explorer to publish a WSDL directly to the Oracle Service Bus (OSB) Console (project/folder), OSB users must perform the following steps:

- 1. Open the command prompt window.
- 2. Navigate to the following directory:

<ORACLE\_HOME>\user\_projects\domains\base\_domain\bin

3. Execute setDomainEnv.cmd (Windows) or . ./setDomainEnv.sh (UNIX/Linux).

This command sets the class path for Application Explorer to access the Oracle WebLogic Server APIs to publish the WSDLs to the OSB Console.

- **4.** Do not close the command prompt window.
- 5. Navigate to the following directory:

<ADAPTER\_HOME>\tools\iwae\bin

**6.** Execute **ae.bat** (Windows) or **iwae.sh** (UNIX/Linux) to start Application Explorer.

You are now ready to publish WSDLs from Application Explorer to the OSB Console.

#### 7.2.3 Publishing a WSDL From Application Explorer to Oracle Service Bus

Perform the following steps to publish a WSDL from Application Explorer to Oracle Service Bus:

**1.** Start Application Explorer, connect to a J2CA configuration, and connect to a J.D. Edwards OneWorld target.

For more information, see Chapter 2, "Configuring Oracle Application Adapter for J.D. Edwards OneWorld".

- 2. Expand the J.D. Edwards OneWorld target to which you are connected.
- **3.** Right-click a method and then select **Create Outbound JCA Service** (**Request/Response**) from the menu.

The Export WSDL dialog is displayed, as shown in Figure 7–9.

Export WSDL		X
Name	dapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Outbound_invoke.wsd	Browse
Export to OSB		
Location	J2CA_Outbound/Wsdls	
Host	localhost	
Port	7001	
User	weblogic	
Password	••••••	
	OK Cancel	

Figure 7–9 Export WSDL Dialog

- **4.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.
- 5. Select the Export to OSB option.
- **6.** In the Location field, enter the folder name in Oracle Service Bus where you want to publish the WSDL document.

The location is composed of an Oracle Service Bus project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

- **7.** In the Host field, enter the name of the machine where Oracle Service Bus is installed.
- 8. In the Port field, enter the port that is being used by Oracle Service Bus.
- **9.** In the User field, enter your username to access Oracle Service Bus.
- **10.** In the Password field, enter your password to access Oracle Service Bus.
- 11. Click OK.

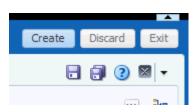
The WSDL is published to the location specified in the Export WSDL dialog and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

#### 7.2.4 Configuring a WSDL-based Business Service

Perform the following steps to configure a WSDL-based Proxy Service:

1. Open the Oracle Service Bus Console and click **Create** in the right pane of the Oracle Service Bus session, as shown in Figure 7–10.





**2.** Double-click the created WSDL folder in the left pane (for example, Wsdls) and ensure that the exported WSDL is listed in the right pane, as shown in Figure 7–11.

Figure 7–11 Wsdls Folder

🛅 Wsdls		
View 🗸 🐹 🚮 Detach		
	All Types 🔹	
Name	Туре	Actions
<b>全</b>	Folder	
😭 J2CA_Outbound_invoke	JCA Binding	2
J2CA_Outbound_invoke	WSDL	
묥 J2CA_Outbound_invoke_request	Schema	
₽ J2CA_Outbound_invoke_response	Schema	

3. Click the icon that corresponds to the JCA Binding in the Actions column.

The Generate WSDL and Service window is displayed, as shown in Figure 7–12.

Figure 7–12 Generate WSDL and Service Window

Generate Wsdl and Service			×
-	J2CA_Outbound_invoke		
* New WSDL Name	J2CA_Outbound_invoke_wsdl		
* New Business Service Name	J2CA_Outbound_invoke_BS		
Destination			
View 👻 🖶 🖶			
🔺 🛅 All Projects			
🛅 default			
⊿ 🛅 J2CA_Outbound			
🛅 Business Servi	ce		
🛅 Proxy Service			
🛅 Wsdls			
		Generate	Cancel

- **4.** Provide a new WSDL name and a new Business Service name in the corresponding fields.
- **5.** In the Destination area, select an available project and the sub-folder that is designated for Business Services.
- 6. Click Generate.
- **7.** Expand **Business Service** under the project folder and check if the generated WSDL and Business Service are listed, as shown in Figure 7–13.

Figure 7–13 Business Service Folder

Resources	Admin		
🔮 - 🚯 🖢 î 🔀 🗙			
🔺 🛅 All Pro	vjects		
🖸 de	fault		
🔺 🛅 J2	CA_Outbound		
a 🗋	Business Service		
	J2CA_Outbound_invoke_BS		
	J2CA_Outbound_invoke_wsdl		
	Proxy Service		
4 🛅	Wsdls		
	📸 J2CA_Outbound_invoke		
	J2CA_Outbound_invoke		
32CA_Outbound_invoke_request			
	32CA_Outbound_invoke_response		
🕒 🗅 Sy	stem		

#### 7.2.5 Configuring a File Type Business Service

Perform the following steps to configure a File type Business Service:

**1.** Right-click the **Business Service** folder you created in the left pane, select **Create**, and click **Business Service** as shown in Figure 7–14.

Service Bus Console 12c Proxy Service 🗙 🛛 Wsdl ⇔ Resources Admin Folder Definition - 🖌 Ӿ 📥 한 🎍 🕷 ⊿ General Description 🔺 🛅 All Projects 🗀 default 🔺 🛅 J2CA\_Inbound 🛅 Business Se 🚞 Wsdls 🔁 Open Proxy Service Create Folder D 🛅 Wsdls 👂 🛅 System Move Proxy Service Business Service È Rename Pipeline X Delete 20 Clone WSDL @ WADL 📥 Import Þ 📇 Schema 🟦 Export... ¥. WS Policy Collapse 📆 JCA Binding Show as Top XQuery XQuery KSLT 🖏 MFL

Figure 7–14 Business Service Folder

The Create Business Service window is displayed.

**2.** In the Resource Name field, provide a name for the Business Service, select the **File** option in the Transport section under Service Definition, and click **Next**, as shown in Figure 7–15.

Create Type Transport  Create Service  * Resource Name File_Out Description  Service Definition  WSDL Based Service Name	
Create Service * Resource Name File_Out Description Service Definition WSDL Based Service	le le
* Resource Name File_Out Description Service Definition WSDL Based Service	le le
Description Service Definition WSDL Based Service	le le
Service Definition	
WSDL Based Service	
-	
Name	
	9
Path	
Port/Binding	
Transport file	
Bac	ck Next Create Cancel
Dav	

Figure 7–15 Service Definition

**3.** In the Service Type section, select **Messaging Service**. By default, the Request Type is set to XML, and the Response Type is set to None. Then click **Next**, as shown in Figure 7–16.

Figure 7–16 Service Type Configuration Page

Create Business Service	×
Create Type Transport	
Service Type	
O WSDL Based Service	
Any SOAP Service	
Any XML Service	
Messaging Service	
Request Type XML 🔻	
Schema Name	2
Path	
Element/Type	
Response Type None 🔻	
Back Next Create	Cancel

**4.** Enter the path to a destination folder on your file system in the Endpoint URI field.

- **5.** Click **Create**, as shown in Figure 7–17.
- Create Business Service

   Create Type Transport

   Transport

   Protocol file

   Load Balancing Algorithm Round Robin

   Endpoint URIs

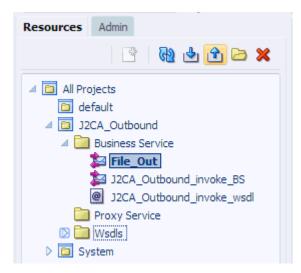
   \* URIs (file:///root-dir/dir 1)
   # Marking Coulput

   \* URIs (file:///coulput

Figure 7–17 Transport Page

The Business Service **File\_Out** is created and listed under Business Service, as shown in Figure 7–18.

Figure 7–18 File\_Out Business Service



**6.** Double-click **File\_Out**, click **Transport Detail** in the left pane, and enter the prefix and suffix for the output file to be received, as shown in Figure 7–19.

rigule / - is mansport Detai	Figure	7–19	Transport Detai
------------------------------	--------	------	-----------------

Business Service Definit	tion	
Configuration SLA Alert Ru	iles	
General Transport	Transport Detail	
Transport Detail	Prefix Suffix	outbound
Message Handling	Request encoding	utf-8
Performance		

7. Click the Save or Save All icon in the right corner, as shown in Figure 7–20.

Figure 7–20 Save/Save All Icons



#### 7.2.6 Configuring a Pipeline With Proxy Service

Perform the following steps to configure a Pipeline:

1. Right-click the Proxy Service folder, select **Create** and click **Pipeline**, as shown in Figure 7–21.

Figure 7–21 Pipeline Option

ORACLE Service Bu	us Console 12c
Resources Admin	
<ul> <li>All Projects</li> <li>default</li> <li>J2CA_Inbound</li> <li>Business Service</li> <li>File_Out</li> <li>Proxy Senvice</li> <li>J2CA_Int</li> <li>Creation</li> <li>J2CA_Int</li> <li>Creation</li> <li>System</li> <li>System</li> <li>Cone</li> <li>Cone</li> <li>Cone</li> <li>Cone</li> <li>Cone</li> <li>Timped</li> <li>Experies</li> </ul>	e Steele WSDL

The Create Pipeline window is displayed.

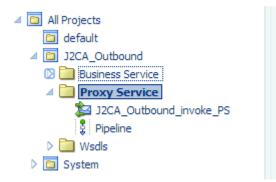
**2.** Enter a name in the Pipeline Name field. By default, **Expose as a Proxy Service** is selected. If you wish to change the Proxy Service Name, change it and set Transport as **file**, and click **Create** as shown in Figure 7–22.

Figure 7–22 Create Pipeline Window

Create Pipeline		×
General		
* Pipeline Name	Pipeline	
Description		li li
Service Type		
WSDL Bas	ed Service	
Any SOAP	Service	
Any XML S	ervice	
Messaging	Service	
🖌 Expose as a	Proxy Service	
Name J20	CA_Outbound_invoke_PS	
Location J2	CA_Outbound/Proxy Service 🥒	
Transport (file	T T	
		Create Cancel

The created Pipeline and the Proxy Service is listed under Proxy Service, as shown in Figure 7–23.

Figure 7–23 Pipeline Node



**3.** Double-click the created proxy service and click **Transport** in the left pane. Provide the input location in the Endpoint URI field, as shown in Figure 7–24.

Figure 7–24 Transport

Proxy Service	Definitio	on 🖪 😼 🕨	
Configuration	Security	SLA Alert Rules	
General		Transport	
Transport		Protocol	
Transport Details			file:///c:/input Format: file:///root-dir/dir1
			Actions - Actions - Contract Detach Header No data to display

**4.** Click **Transport Details** in the left pane and provide the location for the Stage Directory and the Error Directory fields, as shown in Figure 7–25.

Figure 7–25 Transport Details

CA_Outbound_invoke_PS	×			
Proxy Service Definition 🛛 4 📷 🕨				
Configuration Security 9	SLA Alert Rules			
General	Transport Details - P	rotocol: file		
Transport	* File Mask	*,*		
Transport Details	* Polling Interval	60		
	* Read Limit	10		
	Sort By Arrival			
	Scan SubDirectories			
	Pass By Reference			
	* Post Read Action	delete 🔻		
	* Stage Directory	c:\stage		
	Archive Directory			
	* Error Directory	c:\error		
	Request encoding	utf-8		
	Request encoding	utf-8		

5. Click the Save All icon in the right corner, as shown in Figure 7–26.

Figure 7–26 Save All Icon



**6.** Double-click the **Pipeline** node and click the **Open Message Flow** icon on the right pane to open the message flow, as shown in Figure 7–27.

Figure 7–27 Open Message Flow Icon

Pipeline Definition		•	B 🛛 🖬 🛏 🛛
Configuration SLA Alert Rule	6		Open Message Flow
General	General		
Service Type	Description		
Message Handling			
	Service Type	Anv 30% Service	

**7.** Click the Proxy Service icon and select **Add Pipeline Pair** from the menu, as shown in Figure 7–28.

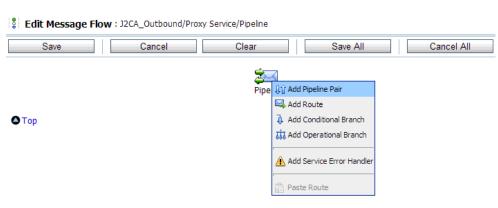


Figure 7–28 Add Pipeline Pair Option

**8.** Click the **PipelinePairNode1** icon and select **Add Route** from the menu, as shown in Figure 7–29.

Pipeline			
PipelinePa	Edit Name and Comments		
Request Pipeline	↓ Add Pipeline Pair → Add Route → Add Conditional Branch		
	Add Operational Branch		

Figure 7–29 Add Route Option

The RouteNode1 icon is added below the PipelinePairNode1 icon.

**9.** Click the RouteNode1 icon and select **Edit Route** from the menu, as shown in Figure 7–30.

#### Figure 7–30 Edit Route Option

Pipeline			
PipelinePairNode1			
Request Pipeline Response Pipeline			
Route	Edit Route		
	Add Route Error Handler		
	of Cut 聞 Copy î Delete		

The Edit Stage Configuration workspace area is displayed.

**10.** Click **Add an Action**, select **Communication** and click **Routing**, as shown in Figure 7–31.

Edit Stage Configuration : Route Node Save Validate Cancel Clear Save All Cancel All @ View All Comments Add an Action Communication ۲ Dynamic Routing Flow Control Routing ٠ 🛆 Тор Routing Table

Figure 7–31 Edit Stage Configuration Workspace Area

**11.** Click **<Service>**, as shown in Figure 7–32.

Figure 7–32 Actions



The Select Service dialog is displayed.

**12.** Select the WSDL type Business Service configured for J.D. Edwards OneWorld and click on **Submit**, as shown in Figure 7–33.

Figure 7–33 Select Service Dialog

2	a Select Service				
2	Search: Name: Path: Path:	Search View All			
		Items 1-4 of 4	4  ⊲ ⊲ 1 ▷ ▷		
	Name 🛆	Path	Resource Type		
$\bigcirc$	File_Out	J2CA_Outbound/Business Service	Business Service		
۲	J2CA_Outbound_invoke_BS	J2CA_Outbound/Business Service	Business Service		
$\bigcirc$	J2CA_Outbound_invoke_PS	J2CA_Outbound/Proxy Service	Proxy Service		
$\bigcirc$	Pipeline	J2CA_Outbound/Proxy Service	Pipeline		
	Items 1-4 of 4 4 4 1 0 0				
	Submit Cancel				

- **13.** Select the name of the J.D. Edwards OneWorld business object as the operational attribute from the list, and click **Save**.
- **14.** Click the Response Pipeline icon and select **Add Stage** from the menu, as shown in Figure 7–34.

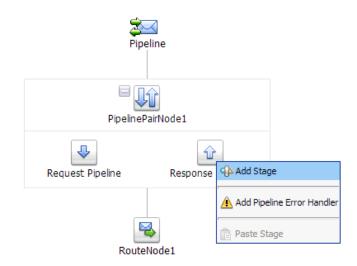
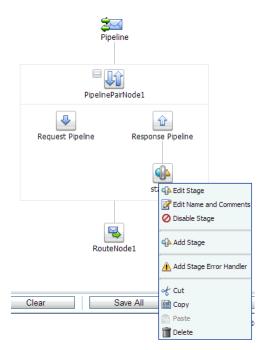


Figure 7–34 Response Pipeline Icon

The Stage1 icon is added below the Response Pipeline icon.

**15.** Click the Stage1 icon and select **Edit Stage** from the menu, as shown in Figure 7–35.





The Edit Stage Configuration workspace area is displayed.

**16.** Click **Add an Action**, select **Communication**, and then click **Publish**, as shown in Figure 7–36.

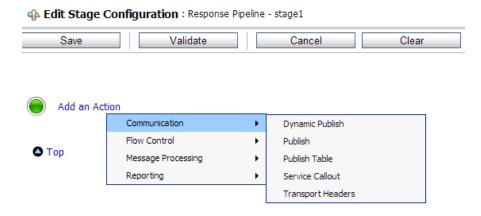


Figure 7–36 Edit Stage Configuration Workspace Area

**17.** Click **<Service>**, as shown in Figure 7–37.

Figure 7–37 <Service> Action

<b>e</b>	Publish to <service>*</service>
	Request Actions:
	Add an Action

**18.** In the Select Service dialog, select a File type Business Service and click **Submit**, as shown in Figure 7–38.

Figure 7–38 Select Service Dialog

2	🝃 Select Service				
<b>i</b> (	Search: Name: Path: Path:	Search	View All		
			Items 1-4 of 4		
	Name 🛆	<u>Path</u>		Resource Type	
۲	File_Out	J2CA_Outbound/Business Service		Business Service	
$\bigcirc$	J2CA_Outbound_invoke_BS	J2CA_Outbound/Business Service		Business Service	
$\bigcirc$	J2CA_Outbound_invoke_PS	J2CA_Outbound/Proxy Service		Proxy Service	
$\bigcirc$	Pipeline	J2CA_Outbound/Proxy Service		Pipeline	
	Items 1-4 of 4 4 4 1 1 1 Items				
Submit Cancel					

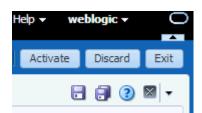
**19.** Click **Save All**, as shown in Figure 7–39.

#### Figure 7–39 Save All Button

Save	Validate Cancel Clear	Save All Cancel All
		@ View
@	Publish to File_Out <sup>*</sup>	
	Request Actions:	
	Add an Action	

**20.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–40.

Figure 7–40 Activate Button



**21.** Click **Activate** to save the changes, as shown in Figure 7–41.

Confirm Ses	sion Activation	
	weblogic weblogic	
Description		

Activate Cancel

Figure 7–41 Confirm Session Activation

**22.** Copy and paste an input XML file in the input folder you have configured (for example, C:\input). Output is received in the configured output location (for example, C:\output).

# 7.3 Configuring an Inbound Process Using sbconsole (J2CA Configuration)

This section describes how to configure an inbound process using sbconsole for J2CA configurations.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\OSB\J2CA\JDEdwards\_Sample\_J2CA\_OSB\_Inbound\_Project

This section includes the following topics:

- Section 7.3.1, "Starting Oracle Service Bus and Creating Project Folders"
- Section 7.3.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus"
- Section 7.3.3, "Generating WSDL for Event Integration"
- Section 7.3.4, "Configuring a WSDL-based Proxy Service"
- Section 7.3.5, "Configuring a File Type Business Service"
- Section 7.3.6, "Configuring a Pipeline"

#### 7.3.1 Starting Oracle Service Bus and Creating Project Folders

For more information on starting Oracle Service Bus and creating project folders, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders" on page 7-2.

## 7.3.2 Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus

For more information on setting the class path for Application Explorer to integrate with Oracle Service Bus, see Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus" on page 7-6.

### 7.3.3 Generating WSDL for Event Integration

You cannot publish inbound WSDL for J.D. Edwards OneWorld event notification using Application Explorer. To generate WSDL from the command prompt, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

#### 7.3.4 Configuring a WSDL-based Proxy Service

Perform the following steps to select the inbound WSDL from the File system and configure a WSDL-based Proxy Service:

1. Open the Oracle Service Bus Console and click **Create** in the right pane of the Oracle Service Bus session, as shown in Figure 7–42.

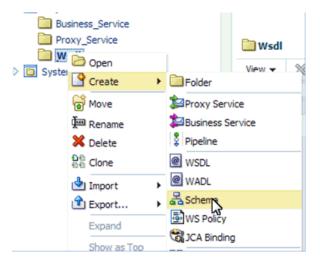
Create Discard Exit

Figure 7–42 Create Button

2. Right-click the WSDL folder, select **Create**, and click **Schema**, as shown in

Figure 7–43 Schema Option

Figure 7–43.



**3.** In the displayed window, click **Choose File** and select the available schema file (for example, J2CA\_Inbound\_receive\_request.xsd), as shown in Figure 7–44.

Figure 7–44 Choose File Button

Create Schema	×
* Resource Name	
Description	li
File Upload	Choore File No file chosen
3	Create Cancel

The Resource Name will be added by default.

4. Click Create, as shown in Figure 7–45.

Figure 7–45 Create Button

Create Schema		×
* Resource Name	J2CA_Inbound_receive_request	
Description		
File Unload	J2CA_Inbound_receive_request.xsd Updat	te
(?)	Cr ste Ca	ancel

- **5.** Right-click the WSDL folder, select **Create**, and click **WSDL**. Repeat the steps and select the WSDL file.
- **6.** Right-click the WSDL folder, select **Create**, and click **JCA Binding**. Repeat the steps and select the JCA file.
- **7.** Double-click the created WSDL folder in the left pane (for example, Wsdls), and ensure that the WSDL is listed in the right pane, as shown in Figure 7–46.

Figure 7–46 Exported WSDL

	🔄 Wsdls					
Vie	View 🗸 🐹 🚮 Detach					
		All Types 🔻				
	Name	Туре	Actions			
	<b>û</b>	Folder				
	😭 J2CA_Inboundreceive	JCA Binding	2			
	J2CA_Inboundreceive	WSDL				
	J2CA_Inboundreceive_request	Schema				

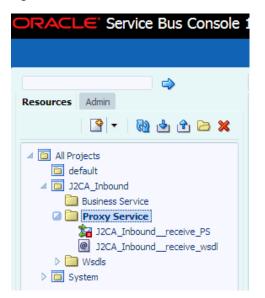
Click the icon that corresponds to the JCA Binding in the Actions column.
 The Generate WSDL and Service page is displayed, as shown in Figure 7–47.

	e	
JCA Binding Name	J2CA_Inboundreceive	
* New WSDL Name	J2CA_Inboundreceive_wsdl	
* New Proxy Service Name	J2CA_Inboundreceive_PS	
Destination		
View 👻 🖶		
All Projects		
🛅 default		
J2CA_Inbound		
🚞 Business Servio	e	
🛅 Proxy Servic	e	
🛄 Wsdls		
		Generate Cance

Figure 7–47 Generate WSDL and Service Page

- **9.** Provide a new WSDL name and a new Proxy Service name in the corresponding fields.
- **10.** In the Destination area, select an available project and the sub-folder that is designated for Proxy Services.
- 11. Click Generate.
- **12.** Expand **Proxy Service** under Project Explorer and check if the generated WSDL and Proxy Service are listed, as shown in Figure 7–48.

Figure 7–48 Generated WSDL



### 7.3.5 Configuring a File Type Business Service

Perform the following steps to configure a File type Business Service:

1. Right-click the Business Service folder you created in the left pane, select **Create**, and click **Business Service**, as shown in Figure 7–49.

Figure 7–49 Business Service Folder

ORACLE' Service Bus Console 12c				
			Proxy Service $\times$	Wsd
Resources Admin	🕅 🖕 🛧 🗁	×	Folder Definit	tion
<ul> <li>All Projects</li> <li>default</li> <li>j2CA_Inbound</li> </ul>			Description	
Business S	··· 2 0		🚞 Wsdls	
Visit Wind Service	Create	•	Folder	
🗅 🛅 System	😭 Move	*	Proxy Service	
	麺 Rename	8	Business Service	
	X Delete	9	Pipeline	
	원원 원원 Clone	@	WSDL	
	실 Import	•	WADL	
	館 Export	-	Schema	
	Collapse	_	WS Policy	
	Show as Top		JCA Binding	
			XQuery	

The Create Business Service window is displayed.

**2.** In the Resource Name field, provide a name for the Business Service and select the **File** option from the Transport drop-down list in the Service Definition area, as shown in Figure 7–50.

Figure 7–50 Create Business Service Window

Create Business Service		×
Create Type Transport		
Create Service		
* Resource Name File_Out		
Description	li li	
Service Definition		
WSDL Based Service		
Name	G.	
Path		
Port/Binding 🔍		
Transport file		
	Back Next Create Cancel	
		_

3. Click Next.

**4.** In the Service Type area, select **Messaging Service** as the service type, as shown in Figure 7–51.

 Create Business Service

 Create Type Transport

 Service Type

 WSDL Based Service

 Any SOAP Service

 Any XML Service

 Messaging Service

Figure 7–51 Service Type Area

5. Click Next.

The Transport page is displayed, as shown in Figure 7–52.



Create Business Service	×
Create Type Transport	
Transport	
Protocol file	
Load Balancing Algorithm Round Robin	
Endpoint URIs	
+ × · ·	
* URIs (file:///root-dir/dir 1)	
file:///c:/output	
Back Next Create Cance	

**6.** Enter the path to a destination folder on your file system in the Endpoint URI field and click **Create**.

The Business Service File\_Out is created and listed under Business Service, as shown in Figure 7–53.

Figure 7–53 File\_Out Business Service

ORACL	Service Bus Console 1			
	⇒			
Resources	Admin			
	🖹 🕅 🖢 î 🖻 🗙			
🔺 🛅 All Pro	ojects			
🛅 de	efault			
🔺 🛅 J2	J2CA_Inbound			
	Business Service			
	🔁 File_Out			
> 🚞	Proxy Service			
> 🚞	Wsdls			
D 🖸 Sy	/stem			

**7.** Double-click **File\_Out**, click **Transport Detail** in the left pane, and enter the prefix and suffix for the output file to be received, as shown in Figure 7–54.

Figure 7–54 Transport Detail Page

File_Out ×				
Business Service Definition				
Configuration SLA Alert Ru	les			
General Transport	Transport Detail	(thread		
Transport Detail Suffix .xml				
Message Handling	Request encoding	utf-8		
Performance				

8. Click the Save or Save All icon in the right corner, as shown in Figure 7–55.



## 7.3.6 Configuring a Pipeline

Perform the following steps to configure a Pipeline:

1. Right-click the proxy service you created and select **Create**, and then click **Pipeline**, as shown in Figure 7–56.

Figure 7–56 Pipeline Option

ORACLE' Service	e Bus Con	sole 12c
	4	
Resources Admin		
₩ <b>▼</b>	) 🕹 仓 🗁	×
	) Open	Folder
	Rename	Business Service
	Delete	Pipeline
	Clone	WSDL
	] Import 💦 🕨	@ WADL
	Export •	暑 Schema 圖WS Policy
		CA Binding

The Create Pipeline window is displayed.

2. In the Pipeline Name field, enter a name and select the Service Type as WSDL Based Service, as shown in Figure 7–57.

Figure 7–57 Create Pipeline Window

Create Pipeline		×
General		
* Pipeline Name Description	Pipeline	
besciptori		/
Service Type		
WSDL Bas	ed Service	
Nam	e	Q
Pat	h	
Bindin	۹ (	T
Any SOAF	Service	
Any XML 5	Service	
Messaging	g Service	
🕑 Expose as a	Proxy Service	
Name Pip	eline-proxy	
Location J2	CA_Inbound/Proxy Service 🥖	
Transport (ht	tp 🔻	
		Create Cancel

**3.** Click the Search icon, and in the displayed Search and Select: WSDL Resource window, select **J2CA\_Inbound\_receive\_wsdl**, and click **OK**, as shown in Figure 7–58.

Figure 7–58 Search and Select: WSDL Resource Window

Search and Select: WSDL Resou	rce	×
Name		
Path		
Namespace		
		Search Reset
Name	Path	Namespace
J2CA_Inboundreceive_wsdl	J2CA_Inbound/Proxy Service	http://xmlns.oracle
J2CA_Inboundreceive	J2CA_Inbound/Wsdls	http://xmlns.oracle
		OK Cancel

The Create Pipeline window opens.

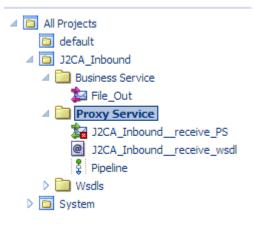
**4.** Clear the check box for **Expose as a Proxy Service**, and click **Create**, as shown in Figure 7–59.

Create Pipeline		×
General		
* Pipeline Name	Pipeline	
Description		4
Service Type		
WSDL Bas	ed Service	
Name	e J2CA_Inboundreceive_wsdl	2
Pat	J2CA_Inbound/Proxy Service	
Bindin	g (MATMAS01PortType-binding (binding)	•
Any SOAP	Service	
Any XML S	ervice	
Messaging	Service	
Expose as a	Proxy Service	
Name Pip	eline-proxy	
Location J2	CA_Inbound/Proxy Service 🥒	
Transport htt	tp 🔻	
		Create Cancel

Figure 7–59 Create Pipeline Window

The pipeline is created and listed under Proxy Service, as shown in Figure 7–60.

Figure 7–60 Proxy Service Pipeline



**5.** Double-click the **J2CA\_Inbound\_receive\_PS** node under Proxy Service in the left pane and click the **Search** icon in the Target area in right pane, as shown in Figure 7–61.

Figure 7–61 Proxy Service Definition Window

	Pipeline × J2CA_Inbound_	receive_P5 ×		
Resources Admin	Proxy Service Definitio	n 🛛 🗟 🕨		
C 🕅 🖢 🖆 🔀	Configuration Security	SLA Alert Rules		
All Projects     default     J2CA_Inbound	General Transport	General Description		
Business Service     Business Service     Bengunt     File_Out     Proxy Service	Transport Details	0000,000		h
J2CA_Inboundreceive_PS J2CA_Inboundreceive_wsdl	Operation Selection		jca WSDL Based Service - SOAP 1.1 J2CA_Inbound/Proxy Service/J2CA_Inbound_receive_wsdl	
§   Pipeline ▷ 📴 Wsdls			MATMAS01PortType-binding	
D 🖸 System		Target		
		Name Path Type		4
		XQuery Processing		
		Version for snippets	1.0 •	

The Search and Select: Service Resource window appears.

**6.** From the Resource Type drop-down list, select **Pipeline** and then click the **Search** button.

The Pipeline is listed, as shown in Figure 7–62.

Figure 7–62 Search and Select: Service Resource Window

Search and Sele	ect: Service Resource	×
<b>⊿</b> Search		Basic
Name		
Path		
Resource Type	Pipeline 🔻	
		Search Reset
Name	Path	Resource Type
Pipeline	J2CA_Inbound/Proxy Service	Pipeline
		OK Cancel

- 7. Select the Pipeline and click **OK**.
- 8. Click the Save or Save All icon in the right corner, as shown in Figure 7–63.

Figure 7–63 Save and Save All Icons



**9.** In the left pane, double-click **Pipeline** under the Proxy Service folder and click the down-pointing icon on the right pane to open the message flow, as shown in Figure 7–64.

Figure 7–64 Message Flow

□ ↓		Pipeline x			<b>-</b> 🗊 💿 🛛 🔻
Resources Admin	) 🗅 X	Pipeline Definit			() 🖓 №
⊿ 🔁 All Projects		General		Service Type	
<ul> <li>✓ 3 J2CA_Inbound</li> <li>&gt; → Business Service</li> <li>✓ → Proxy Service</li> </ul>		Service Type Message Handling		WSDL Based Service     Name J2CA_Inbound_receive_wsdl	
J2CA_Inbound_rece J2CA_Inbound_rece Pipeline		Operation Selection Resequencer	n	Path JZCA_Inbound/Proxy Service Binding (MATMAS01PortType-binding (binding ▼)	
<ul> <li>Wsdls</li> <li>System</li> </ul>				O Any SOAP Service	

**10.** Click the displayed Proxy service icon and select **Add Route** from the menu, as shown in Figure 7–65.

Figure 7–65 Add Route Option

#### ORACLE: Service Bus Console 12c

Shared Variables	Cdit Message Flow : J2CA_Inbound/Proxy Service/Pipeline
Map of Message Flow	Save Cancel Clear Save All Cancel All
\$⊒ Pipeline	Top
	Save Cancel Clear Save All Cancel All Concel All Oracle Save Reis 12: Concrete 6: 2004. 2013. Oracle additions addit

The RouteNode1 icon is added.

**11.** Click the RouteNode1 icon and select **Edit Route** from the menu, as shown in Figure 7–66.

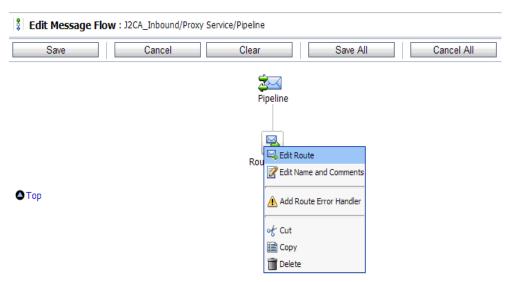


Figure 7–66 Edit Route Option

The Edit Stage Configuration workspace area is displayed.

**12.** Click **Add an Action**, select **Communication** from the menu, and then click **Routing**, as shown in Figure 7–67.

Figure 7–67 Edit Stage Configuration Workspace

Edit Stage Configuration : Route Node						
Save	Validate		Cancel	Clear	Save All	Cancel All
						@ View All Comments
🔵 Add an	Communication	•	Dynamic Routing			
	Flow Control	•	Routing			
🛆 Тор			Routing Table			

**13.** Click **<Service>**, as shown in Figure 7–68.

Figure 7–68 Service Route Actions

1

<b>\$</b>	Route to <service>*</service>				
	Request Actions:				
	Add an Action				
	Response Actions:				
	Add an Action				

The Select Service dialog is displayed.

14. Select the File\_Out Business service and click Submit as shown in Figure 7–69.

Figure 7–69 Select Service Dialog

<u>.</u>	Search: Name: Path: Path:	Search View All	
		Items 1-3	of 3 🗐 🗐 1 🕨 🕅
	Name 🛆	Path	Resource Type
۲	File_Out	J2CA_Inbound/Business Service	Business Service
0	J2CA_Inboundreceive_PS	J2CA_Inbound/Proxy Service	Proxy Service
	Pipeline	J2CA_Inbound/Proxy Service	Pipeline
		Items 1-3 (	of 3 🗐 🔍 1 🕨 🕅

You are returned to the Edit Stage Configuration workspace area.

**15.** Click Save All, as shown inFigure 7–70.

Figure 7–70 Edit Stage Configuration Workspace Area

Save	Validate	Cancel	Clear	Save All	Cancel All
					@ View All Comme
e 😣	Route to File_Out*				
	Request Actions:				
	Add an Action				
	Response Actions:				
	Add an Action				

**16.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–71.

Figure 7–71 Activate Button

Help - we	blogic 🗸	0
Activate	Discard	Exit
	1 🗐 📀	<b>X</b>

The Confirm Session Activation window appears.

**17.** Click Activate to save the changes, as shown in Figure 7–72.

Confirm Ses	sion Activation	×
User	weblogic weblogic	
Description		10
	Activate Cancel	

Figure 7–72 Confirm Session Activation Window

**18.** Trigger an event from the J.D. Edwards OneWorld system and check if the output is received in the configured output location.

For more information on triggering an event, see Section 4.5.5, "Triggering an Event in J.D. Edwards OneWorld" on page 4-47.

# 7.4 Configuring an Outbound Process Using Sbconsole (BSE Configuration)

This section describes how to configure an outbound process using sbconsole for BSE configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\OSB\BSE\JDEdwards\_Sample\_BSE\_OSB\_Outbound\_Project

This section includes the following topics:

- Section 7.4.1, "Starting Oracle Service Bus and Creating Project Folders"
- Section 7.4.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus"
- Section 7.4.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus"
- Section 7.4.4, "Configuring a File Type Business Service"
- Section 7.4.5, "Configuring a WSDL-based Business Service"
- Section 7.4.6, "Configuring a Pipeline With Proxy Service"

#### 7.4.1 Starting Oracle Service Bus and Creating Project Folders

For more information on starting Oracle Service Bus and creating project folders, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders" on page 7-2.

## 7.4.2 Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus

For more information on setting the class path for Application Explorer to integrate with Oracle Service Bus, see Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus" on page 7-6.

### 7.4.3 Publishing a WSDL From Application Explorer to Oracle Service Bus

This section describes how to publish a WSDL from Application Explorer (BSE configuration) to Oracle Service Bus.

- **1.** Start Application Explorer, connect to a BSE configuration, and connect to a J.D. Edwards OneWorld target.
- 2. Expand Services, CALLBSFN, and then AddressBook business object.
- 3. Right-click GetEffectiveAddress and select Create Web Service from the menu.

The Create Web Service dialog is displayed, as shown in Figure 7–73.

Figure 7–73 Create Web Service Dialog

📓 Create Web Service		×
Existing Service Names:	<new service=""></new>	-
Service Name:	IBSE_Outbound	
Service Description:		
	Next Cancel	

- 4. Enter a service name and click Next.
- 5. Click **OK** on the next dialog that is displayed.

Application Explorer switches the view to the Business Services node, and the new Web service appears in the left pane.

6. Right-click the new Web service and select Export WSDL from the menu.

The Export WSDL dialog is displayed, as shown in Figure 7–74.

Figure 7–74 Export WSDL Dialog

Name	IBSE_Outbound.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	••••••
	OK Cancel

**7.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

**8.** In the Location field, enter the location where you want to publish the WSDL document.

The location is composed of an Oracle Service Bus project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

- **9.** In the Host field, enter the name of the machine where Oracle WebLogic Server is running.
- **10.** In the Port field, enter the port for the domain you are using.
- 11. In the User field, enter your username to access Oracle Service Bus.
- **12.** In the Password field, enter your password to access Oracle Service Bus.
- **13.** Click **OK**.

The WSDL is published to the location specified in the Export WSDL dialog and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

#### 7.4.4 Configuring a File Type Business Service

For more information on configuring a file type business service, see Section 7.2.5, "Configuring a File Type Business Service" on page 7-9.

#### 7.4.5 Configuring a WSDL-based Business Service

This section describes how to configure a WSDL type Business Service using the Oracle Service Bus Console.

Perform the following steps to configure a WSDL-based Proxy Service:

1. Right-click on the Business Service folder in the left pane and select **Business Service**.

The Create Business Service window is displayed, as shown in Figure 7–75.

reate Business Se	rvice		×
Create Type	Transport		
Create Service			
* Resource Name	BSE_Outbound_BS		
Description			
Service Definition	on		
🖲 WSDL Based S	ervice		
Nam	2		9
Pat	י י		
Port/Bindin	] 🔽		
O Transport ht	ф▼		
		Back Next Creat	e Cancel

Figure 7–75 Create Business Service Window

**2.** Provide a name for the Business Service, and in Service Definition area, select the WSDL Based Service option and click the search icon.

The Search and Select: WSDL Resource window is displayed, as shown in Figure 7–76.

Figure 7–76 Search and Select: WSDL Resource Window

Search and Select: WSD	L Resource	×
Name		
Path		
Namespace		
		Search Reset
Name	Path	Namespace
BSE_Outbound_invoke	BSE_Outbound/	urn:schemas-iwa
		OK Cancel

**3.** Click the **Search** button, select the BSE Outbound WSDL, and click **OK**.

You are returned to the Create Business Service window.

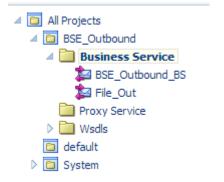
- 4. Click Next.
- 5. Accept the default values and click the **Create** button, as shown in Figure 7–77.

Create Business Service	×
Create Type Transport	
Transport	
Protocol (http	
Load Balancing Algorithm Round Robin	
* URIs (http://host:port/someService)	
http://localhost:7101/bse/IBSEServlet/XDSOAPRouter	
Back Next Create Cance	

Figure 7–77 Create Business Service Window

The created WSDL-based Business Service is listed under the Business Service folder, as shown in Figure 7–78.

Figure 7–78 WSDL-based Business Service



#### 7.4.6 Configuring a Pipeline With Proxy Service

This section describes how to configure a Proxy Service using the Oracle Service Bus Console.

1. Right-click the Proxy Service folder, select **Create** and click **Pipeline**, as shown in Figure 7–79.

<ul> <li>All Projects</li> <li>BSE_Outbound</li> </ul>	1		Description
Business Se     Proxy Sei     Wsdis	ervice		Carls Wsdls
default	🗳 Create	<ul> <li>Image: Image: Ima</li></ul>	Folder
D 🔁 System	Move Move Rename Delete Clone	<b>\$</b> 1	Proxy Service Business Service Pipeline WSDL
	Import Export Collapse Show as Top		WADL Schema WS Policy JCA Binding

Figure 7–79 Pipeline Option

The Create Pipeline window is displayed.

**2.** Enter a name in the Pipeline Name field. By default, **Expose as a Proxy Service** is selected. If you wish to change the Proxy Service Name, change it and set Transport to **file**, and click **Create** as shown in Figure 7–80.

Figure 7–80 Create Pipeline Window

Create Pipeline			×
General			
* Pipeline Name	Pipeline		
Description			
			,
Service Type			
WSDL Bas	ed Service		
Any SOAP	Service		
Any XML S	ervice		
Messaging	Service		
🕑 Expose as a	Proxy Service		
Name BSE	E_Outbound_invoke_PS		
Location BS	E_Outbound/Proxy Service 🥖		
Transport file	<b>•</b>		
		Create	Cancel

The created Pipeline and the Proxy Service is listed under Proxy Service, as shown in Figure 7–81.

Figure 7–81 Pipeline Node

🔺 🛅 All Projects
BSE_Outbound
Business Service
Proxy Service
😹 BSE_Outbound_invoke_PS
🕴 Pipeline
D 🛄 Wsdls
🛅 default
D 🖸 System

**3.** Double-click the created proxy service and click **Transport** in the left pane. Provide the input location in the Endpoint URI field, as shown in Figure 7–82.

Figure 7–82 Transport

Proxy Service Defini	tion 🛛 🔀 🕨			
Configuration Security	SLA Alert Rules			
General	Transport			
Transport	Protocol file			
Transport Details	Endpoint URI file:///c./input Format: file:///root-dir/dir1			
	Headers 🔘 Get All Headers			
	Get Specified Headers			
	Actions 🗸 💠 💥 🚮 Detach			
	Header			
	No data to display			

**4.** Click **Transport Details** in the left pane and provide the location for the Stage Directory and the Error Directory fields, as shown in Figure 7–83.

J2CA_Outbound_invoke_PS	×	
Proxy Service Definition	n 🛛 🔯 🕨	
Configuration Security !	SLA Alert Rules	
General	Transport Details - P	Protocol: file
Transport	* File Mask	* *
Transport Details	* Polling Interval	60
	* Read Limit	10
	Sort By Arrival	
	Scan SubDirectories	
	Pass By Reference	
	* Post Read Action	delete 🔻
	* Stage Directory	c:\stage
	Archive Directory	
	* Error Directory	c:\error
	Request encoding	utf-8

Figure 7–83 Transport Details

5. Click the Save All icon in the right corner, as shown in Figure 7–84.

Figure 7–84 Save All Icon



**6.** Double-click the **Pipeline** node and click the **Open Message Flow** icon on the right pane to open the message flow, as shown in Figure 7–85.

Figure 7–85 Open Message Flow Icon

Pipeline Definition		۲	o » 😰 🛏 🛛
Configuration SLA Alert Rule			Open Message Flow
General	General		
Service Type Message Handling			
	Service Type Anv 30% Service		

**7.** Click the Proxy Service icon and select **Add Pipeline Pair** from the menu, as shown in Figure 7–86.

Edit Message Flow : J2CA_Outbound/Proxy Service/Pipeline					
Save Cancel Clear	Save All Cancel All				
ріра Ріра	Add Pipeline Pair Add Route Add Conditional Branch Add Operational Branch Add Service Error Handler Paste Route				

Figure 7–86 Add Pipeline Pair Option

**8.** Click the **PipelinePairNode1** icon and select **Add Route** from the menu, as shown in Figure 7–87.

Figure 7–87 Add Route Option

Pipeline			
PipelineP	Edit Name and Comments		
Request Pipeline	↓ û Add Pipeline Pair S Add Route À Add Conditional Branch		
	Add Operational Branch		
	Delete		

The RouteNode1 icon is added below the PipelinePairNode1 icon.

**9.** Click the RouteNode1 icon and select **Edit Route** from the menu, as shown in Figure 7–88.

Pipeline				
PipelineF	airNode1			
Request Pipeline	Response Pipeline			
Route	Edit Route			
	Add Route Error Handler			
	o∱ Cut I Copy I Delete			

Figure 7–88 Edit Route Option

The Edit Stage Configuration workspace area is displayed.

**10.** Click **Add an Action**, select **Communication** and click **Routing**, as shown in Figure 7–89.

Figure 7–89 Edit Stage Configuration Workspace Area

Save	Validate		Cancel	Clear	Save All	Cancel A
						@ View All Com
	1 K					
Add an	Action Communication	•	Dynamic Routing			
Add an .		•	Dynamic Routing Routing			

**11.** Click **<Service>**, as shown in Figure 7–90.

Figure 7–90 Actions

<b>\$</b>	Route to <service>*</service>
	Request Actions:
	Add an Action
	Response Actions:
	Add an Action

The Select Service dialog is displayed.

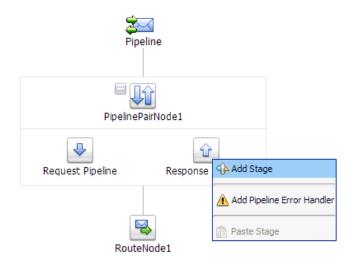
**12.** Select the WSDL type Business Service configured for J.D. Edwards OneWorld and click on **Submit**, as shown in Figure 7–91.

Figure 7–91 Select Service Dialog

2	a Select Service					
<u>i</u>	Gearch: Name: Path: Path:	Search	View All			
	Items 1-4 of 4 4 4 1 4 1					
	Name 🛆	<u>Path</u>		Resource Type		
۲	BSE_Outbound_BS	BSE_Outbound/Business Service		Business Service		
0	BSE_Outbound_invoke_PS	BSE_Outbound/Proxy Service		Proxy Service		
$\bigcirc$	File_Out	BSE_Outbound/Business Service		Business Service		
0	Pipeline	BSE_Outbound/Proxy Service		Pipeline		
			Items 1-4 of 4			
	Submit Cancel					

- **13.** Select the name of the J.D. Edwards OneWorld business object as the operational attribute from the list, and click **Save**.
- **14.** Click the Response Pipeline icon and select **Add Stage** from the menu, as shown in Figure 7–92.

Figure 7–92 Response Pipeline Icon



The Stage1 icon is added below the Response Pipeline icon.

**15.** Click the Stage1 icon and select **Edit Stage** from the menu, as shown in Figure 7–93.

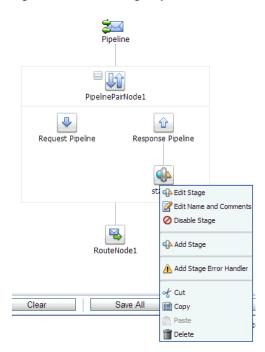
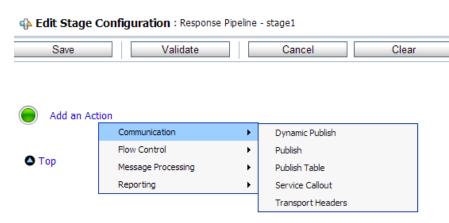


Figure 7–93 Edit Stage Option

The Edit Stage Configuration workspace area is displayed.

**16.** Click **Add an Action**, select **Communication**, and then click **Publish**, as shown in Figure 7–94.

### Figure 7–94 Edit Stage Configuration Workspace Area



**17.** Click **<Service>**, as shown in Figure 7–95.

Figure 7–95 <Service> Action

<b>8</b>	Publish to <service>*</service>
	Request Actions:
	Add an Action

**18.** In the Select Service dialog, select a File type Business Service and click **Submit**, as shown in Figure 7–96.

Figure 7–96 Select Service Dialog

2	a Select Service				
23 :	Search: Name: Path: Search View All				
	Items 1-4 of 4 4 4 1 🖗 🕨				
	Name 🛆	Path		Resource Type	
$\bigcirc$	BSE_Outbound_BS	BSE_Outbound/Business Service		Business Service	
$\odot$	BSE_Outbound_invoke_PS	BSE_Outbound/Proxy Service		Proxy Service	
۲	File_Out	BSE_Outbound/Business Service		Business Service	
$\odot$	Pipeline	BSE_Outbound/Proxy Service		Pipeline	
	Items 1-4 of 4 4 4 1 🕨 🔛				
	Submit Cancel				

**19.** Click **Save All**, as shown in Figure 7–97.

Figure 7–97 Save All Button

Save	Validate	Cancel	Clear	Save All	Cancel All
					@ View
<b>*</b>	Publish to File_Out*				
	Request Actions:				
	Add an Action				

**20.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–98.

Figure 7–98 Activate Button



**21.** Click Activate to save the changes, as shown in Figure 7–99.

Confirm Ses	sion Activation	×
Session	weblogic weblogic	
Description		
	Activate Cancel	

Figure 7–99 Confirm Session Activation

**22.** Copy and paste an input XML file in the input folder you have configured (for example, C:\input).

Output is received in the configured output location (for example, C:\output).

# 7.5 Configuring JMS Proxy Services Using Oracle Service Bus (J2CA Configuration)

This section describes how to configure JMS Proxy Services using Oracle Service Bus for a J2CA configuration.

1. Start Oracle Service Bus and create the required project folder.

For more information, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders" on page 7-2.

**2.** Generate and publish the WSDL from Application Explorer to the created project folder. Using the published WSDL, create a Business Service.

For more information, see Section 7.2.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus" on page 7-6.

**3.** Open the Service Bus Console page, as shown in Figure 7–100.

Figure 7–100 Service Bus Console

ORACLE' Serv	ice Bus 11gR1				^
Change Center	Welcome, weblogic Cor	nnected to : bas	e_domain	🕼 Home   Oracle WLS Console   Logout   Help   Oracle Su	
<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	😂 Adapter/Busines	ssService			
Create Discard Ext;	References	0	Descriptio		
Project Explorer	Referenced By	0	Edit De	scription	
Projects - Adapter - BusinessService	C° Folders				
ProxyService wsdis	Enter New Folder Na	me:		Add Folder	
i∎- default				II II	t
	Name 🛆				
				No Folders to display.	
				Л	t
	Delete.				
					~

**4.** Select the ProxyService project folder in the left pane, and click **Create**, as shown in Figure 7–101.

Figure 7–101 Proxy Service

View Changes							
View All Sessions	😂 Adapter/ProxySe	C Adapter/ProxyService					
Create Discard Edit	References	0	Description - no description -				
Project Explorer Projects	Referenced By	0	Edit Description				
Adapter     BusinessService	😂 Folders						
- ProxyService - wsdis	Enter New Folder Name	me:	Add Folder				
🖻- default				It			
	Name 🛆						
			No Folders to display.				
				It			
	Delete.						
	Resources						
	Create Resource: S	elect Resource Ty	ype v				
				It			

**5.** In the right pane, select **Proxy Service** from the Create Resource list, as shown in Figure 7–102.

Figure 7–102 Create Resource Menu

Cracle Service Bus : Adapter/ProxySe	rvice			🟠 •	🔊 🕤 📑 🖶 🔻 Page 🕶	Safety - Tools -	r 🕜 <del>-</del>
Change Center	Trecomer menogic	Connected to . pase_aom		a nome i order	e mes console i logodi		THERE BE
weblogic session				weblogic session	Created 5/5/11 6:25 AM	No Conflicts	No C
No Conflicts			_	<b>j</b>			
<ul> <li>View Changes</li> </ul>	😂 Adapter/Pro	oxyService					
View All Sessions	References	Select Resource Type Service	tior				
Activate Discard Exit		Proxy Service	rip	tion -			
Project Explorer	Referenced By	Business Service Split-Join	De	scription			
Projects - Adapter	🗳 Folders	Interface WSDL XML Schema					
BusinessService ProxyService	▷ Enter New Fold				Add Folder		
E- default		Transformation XQuery					🗄 It
	Name 🛆	XSLT MFL File					
		Security Service Account Service Key Provider		No Folder	rs to display.		
		Utility JAR					It
	Delete	Alert Destination XML Document					
	Resources	Bulk Resources from URL Zipped Resources					
	Create Resource	ce: Select Resource Type	~				1

6. Enter an appropriate name in the Service Name field, as shown in Figure 7–103.

weblogic session			weblogic session	Created 5/5/11 9:25 AM	No Conflicts
<ul> <li>No Conflicts</li> </ul>					· · · · ·
<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	🍃 💱 Create a Proxy S	Service (Adapter/Proxy	Service/)		
	General Configurati	ion			
Activate Discard Exit	Service Name*	Adapter_outbound_PS		]	
Project Explorer	Description			*	
rojects 3- Adapter BusinessService				*	
ProxyService	Service Type*	Create a New Servic	æ	<b></b>	
- default		O WSDL Web Service			В
		_			(port or l
		C Transport Typed S			
		C Messaging Service			
		C Any SOAP Service	SOAP 1.1	•	
		Any XML Service			
		Create From Existin	g Service		
		C Business Service			В
		C Proxy Service			В
	Next >>	Last >>	Cancel		

Figure 7–103 Service Name

**7.** In the Service Type section, under Create From Existing Service, select the **Business Service** radio button and click **Browse**, as shown in Figure 7–104.

Figure 7–104 Business Service

hanges	🝃 Create a Proxy Serv	rice (Adapter/ProxyService/)		
I Sessions	General Configuration			
	Service Name*	Adapter_outbound_PS		
Explorer essService	Description			
vService	Service Type*	Create a New Service C WSDL Web Service D (port or binding) Transport Typed Service Messaging Service Any SOAP Service SOAP 1.1 C Any XML Service Create From Existing Service		
		Business Service     Browse     Proxy Service     Browse		
	Next >>	Last >> Cancel		

8. Select the existing business service and click **Submit**, as shown in Figure 7–105.

Figure 7–105 Existing Business Service

s S	earch: Name: Path:	Search View All	
		Items 1-4 of 4	
	Name 🗠	Path	Resource Type
۲	adapter_outbound_BS	Adapter/BusinessService	Business Service
0	fileout	default/business service	Business Service
0	isdsrv22_samp_node_call_invoke_bs	default/business service	Business Service
0	isdsrv22_samp_node_invoke_bs	default/business service	Business Service
		Items 1-4 of 4	
0		default/business service	Business Se

**9.** Click **Next**, as shown in Figure 7–106.

Figure 7–106 Next

hanges	🍃 Create a Proxy Servic	Create a Proxy Service (Adapter/ProxyService/)			
Discard Exit	General Configuration				
	Service Name*	Adapter_outbound_PS			
Explorer essService	Description		×		
yService	Service Type*	Create a New Service WSDL Web Service Transport Typed Service Messaging Service Any SOAP Service Any SOAP Service Create From Existing Service	SOAP 1.1	Browse (port or binding)	
		<ul> <li>Business Service</li> <li>Proxy Service</li> </ul>	Adapter/BusinessService/adapter_outbound_8	Browse Browse	
	Next >>	Last >> Ca	ancel		

10. Select jms from the Protocol list and click Next, as shown in Figure 7–107.

Figure 7–107 F	Protocol List
----------------	---------------

View Changes	🍃 🍃 Edit a Proxy Sei	Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)						
View All Sessions  Activate Discard Exit	Transport Configur	ration						
Accivate Discard Exit	Protocol*	jms 💌						
roject Explorer jects Adapter	Endpoint URI*	Format: jms://((host:port)(,(host:port))*) ((host:port)?)/FactoryJndiName/QueueJn jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adapter_outbound_PSRequest						
Haapter BusinessService ProxyService wsdls default	Get All Headers	C Yes No Header Add						
		HEADER ACTION						
		There are no headers configured.						
	<< Prev.	Next >> Last >> Cancel						

- **11.** Provide the following parameters, as shown in Figure 7–108.
  - a. Select Queue in the Destination Type section.
  - **b.** Enable the **Is Response Required** check box.
  - **c.** Select **Text** in the Response Message Type section.
  - **d.** In the Response URI field, provide the Endpoint URI used in the Transport Configuration and change Request to Response.

For example:

jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adap ter\_outbound\_PSResponse

Figure 7–108 Edit a Proxy Service

🝃 Edit a Proxy Service (Ad	🍃 Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)					
JMS Transport Configuration	JMS Transport Configuration					
Destination Type	© Queue C Topic					
Is Response Required	R					
Response Pattern	<ul> <li>JMSCorrelationID</li> <li>JMSMessageID</li> </ul>					
Response Message Type	C Bytes © Text					
Dispatch Policy	default					
Request Encoding	UTF-8					
Response Encoding	UTF-8					
Client Response Timeout	300					
Response URI	tionFactory/Adapter_outbound_PSResponse					
JMS Service Account	Browse					
Advanced Settings						
<pre>&lt;&lt; Prev. Nex</pre>	xt >> Last >> Cancel					

### 12. Click Next.

The Operation Selection Configuration pane appears, as shown in Figure 7–109.

Figure 7–109	<b>Operation Selection</b>	n Configuration Pa	ane

Operation Selection Config	Operation Selection Configuration					
Selection Algorithm	C Transport Header C SOAPAction Header C WS-Addressing C SOAP Header © SOAP Body Type					
C <prev. ne<="" th=""><th>ext&gt;&gt; Last&gt;&gt; Cancel</th></prev.>	ext>> Last>> Cancel					

- **13.** Ensure the **SOAP Body Type** is selected and click **Next**.
- 14. Enable the Transaction Required box and click Next, as shown in Figure 7–110.

Figure 7–110 Message Handling

Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)					
Message Handling					
Transaction Required	✓ Enabled				
Same Transaction For Response	Enabled				
Content Streaming	<ul> <li>Enabled</li> <li>Buffer Type         <ul> <li>Memory Buffer</li> <li>Disk Buffer</li> </ul> </li> <li>Compression         <ul> <li>Enabled</li> </ul> </li> </ul>				
<< Prev. Next >>	Last >> Cancel				

**15.** Click **Save**, as shown in Figure 7–111.

Use SSL	Disabled	^		
Is Response Required	Enabled			
Request Encoding	UTF-8			
Response Encoding	UTF-8			
Response Pattern	JMSCorrelationID			
JNDI Timeout	0			
Response URI	jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adapter_outbound_BSResponse			
Response Message Type	Text			
Client Response Timeout	300			
Is XA Required	False			
Operation Selection Configuration		[		
Selection Algorithm	SOAP Body Type			
Message Handling Configuration		[		
Transaction Required	Enabled			
Same Transaction For Response	Disabled			
Content Streaming	Disabled			
<< Prev. Save	Cancel			

### Figure 7–111 Save

The created Proxy Service is saved, as shown in Figure 7–112.

Figure 7–112 Proxy Service

Projects - Adapter	😫 Folders		
BusinessService ProxyService	Enter New Folder Name:     Add Folder		
wsdls ⊞ default			Items 0-0 of
	Name 🛆		
	No Folders to display.		
			Items 0-0 of
	Delete		
	🌡 Resources		
	Create Resource: Select Resource Type		
			Items 1-1 of 1
		Resource Type	Actions
Operations	Adapter_outbound_PS	Proxy Service	\$ 🎄 🖾
			Items 1-1 of 1
Resource Browser	Delete		
> Project Explorer			

**16.** In the left pane, click **Activate**, and then **Submit**, as shown in Figure 7–113.

Figure 7–113 Activate Session

vehice is session					T
reblogic session			weblogic session	Created 2/11/11 4:52 AM	No C
No Conflicts			·	·	
View Changes	🔳 Activate Sessi	on			
View All Sessions	Session Name	weblogic			
Activate Discard Exit	User	weblogic			
roject Explorer Djects	Description				
· default · JDE					
MYSAP					
ProxyService wsdls					
· PSFT · SIEBEL					
Contraction of the Contraction o					
	Submit	]			

**17.** In the left pane, click **ProxyService** under the Projects folder, as shown in Figure 7–114.

Figure 7–114 Adapter/ProxyService

States Adapter/ProxyService					
References	0	Description - no description -			
Referenced By	0	Edit Description			
Folders  Folder Name		Add Folder.			
	References Referenced By	References     0       Referenced By     0			

 Click the Launch Test Console icon for the created Proxy Service, as shown in Figure 7–115.

Figure 7–115 Launch Test Console Icon

🖁 Resources						
⊳ Cr	eate Resource: Select Resource Typ 💌					
			Items 1-1 of 1	1		
	Name 🛆	Resource Type	Actions	Option		
Π	Adapter_outbound_PS	Proxy Service	🕴 🏇 🗳	aje 🔐 💱		
Iten[Launch Test Console] 1						
Delete						

- **19.** Provide the input values for **Payload**, uncheck the **Direct Call** box, and click **Execute**.
- **20.** Review the Response document, and then click **Close**.
- **21.** Click the **Oracle WLS Console** tab, as shown in Figure 7–116.

Figure 7–116	ProxyService
--------------	--------------

E' Servi	ce Bus 11gR1									-
	Welcome, weblogic Connecte	d to : base	_domain	🟠 Home	Oracle WNS Console	Logout	Help	Oracle Support	About Service Bus	Г
ons	😂 MYSAP/ProxyService				Open Oracle W	LS Console			(	
d Exit	References	30 Ref(s)	Description							٦
er	Referenced By	0	E dit De	escription						•
	😂 Folders								🕆 Up to MYSAF	•
	▷ Enter New Folder Name:				Add Folder					
rvice e								Items 0-1	D of 0 🛛 🗐 🖗 🕨	
	Name 🛆								Option	s
				1	lo Folders to display.					
								Items 0-	D of 0 🖂 🔄 🕨 🖗	
	Delete									
	🔓 Resources									]-
	Create Resource: Select	Resource Ty	ype 💌							

**22.** In the Oracle WLS Console, expand **Services**, expand **Messaging**, and click **JMS Modules**, as shown in Figure 7–117.

Figure 7–117 Oracle WLS Console

ORACLE WebLogic Server® Administration Console											
Change Center		ሰ н	lome Log Out Preferences 🔤 Record Help	٩	w	elcome, weblogic	Connected to: base_doma				
View changes and restarts		Hom	e >Summary of Deployments								
Click the Lock & Edit button to modify, add or delete items in this domain.		Sumn	ummary of Deployments								
Lock & Edit		Con	Control Monitoring								
Release Configuration Domain Structure	-	app	s page displays a list of Java EE applications and st dications and modules can be started, stopped, up d using the controls on this page.								
base_domain Environment Deployments	1	To install a new application or module for deployment to targets in this domain, click the Install button.									
- Services		🖗 Cu:	stomize this table								
		Deployments           Install         Update         Delete         Start v         Stop v         Showing 1 to 100 of 112         Previous         Next									
E Bridges	2		Name 💫	State	Health	Туре	Deployment Order				
Data Sources Persistent Stores			adf.oracle.businesseditor(1.0,11.1.1.2.0)	Active		Library	100				
Foreign JNDI Providers	•	Г	C Cade.domain(1.0,11.1.1.2.0) Active Library 100								
How do I	•		adf.oracle.domain.webapp(1.0,11.1.1.2.0)	Active		Library	100				
Install an Enterprise application			ALDSP Transport Provider	Active	🖋 ОК	Web Application	161				
Configure an Enterprise application		Г	Maldsp_transport-l10n(3.0,3.0)	Active		Library	160 Recorder Panel				

**23.** Click **jmsResources**, as shown in Figure 7–118.

Figure 7–118 JMS Modules

ORACLE WebLogic Server® Administration Console							
Change Center	Home Log Out Preferences Record Help     Home >Summary of Deployments >JMS Medules	Welcome, weblogic Connected to: base_domain					
View changes and restarts	Home sourinary of Depoyments surth Houses						
Click the Lock & Edit button to modify, add or delete items in this domain.	JMS Modules						
Lock & Edit	JMS system resources are configured and stored as modules similar to standard J2EE modules connection factories, templates, destination keys, quota, distributed queues, distributed topic (SAF) parameters. You can administratively configure and manage JMS system modules as glo This page summarizes the JMS system modules that have been created for this domain.	s, foreign servers, and JMS store-and-forward					
base_domain	<ul> <li>Customize this table</li> <li>JMS Modules</li> <li>Click the <i>Lock &amp; Edit</i> button in the Change Center to activate all the buttons on this page.</li> </ul>						
Store-and-Forward Agents Modules	New Delete	Showing 1 to 2 of 2 Previous   Next					
Path Services     Bridges	□ Name ↔	Туре					
Data Sources	imsResources	System					
Persistent Stores Foreign JNDI Providers	WseeJmsModule	System					
Work Contexts	New Delete	Showing 1 to 2 of 2 Previous   Next					
How do I							
Configure JMS system modules							

**24.** Click Lock & Edit, as shown in Figure 7–119.

Figure 7–119 Configuration Settings

ORACLE WebLogic Server®	Administration Console					õ				
Change Center	A Home Log Out Prefere	🏦 Home Log Out Preferences 🔤 Record Help								
View changes and restarts	Home >Summary of Deploy	Home >Summary of Deployments >JMS Modules >jmsResources								
Click the Lock & Edit button to modify, add or delete items in this domain.	Settings for jmsResources									
Lock & Edit	Configuration Subdep	Configuration Subdeployments Targets Security Notes								
Release Configuration	This page displays genera existing resources.		tem module and its		allows you to configure new reso	urces and access				
base_domain	Name:	jmsResource:		The	name of this JMS system module.	More Info				
⊡Deployments ⊖-Services ⊕-Messaging	Descriptor File Name:	Descriptor File Name: jms/xbusResource			xml The name of the JMS module descriptor file. More Info					
		This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.								
Data Sources Persistent Stores	Custon ze this table									
Foreign JNDI Providers     Work Contexts	Summary of Resource	5								
How do I	Click the Lock & Edit but	ton in the Change Center to	activate all the butto	ons on this page.						
Configure JMS system modules	New Delete				Showing 1 to 10 of 1	6 Previous   Next				
Configure subdeployments in JMS system	☐ Name ↔		Туре	JNDI Name		Recorder Panel				

**25.** Click the appropriate request link, for example, **Adapter\_outbound\_PSRequest**, as shown in Figure 7–120.

How do I Summary of Resources						
Configure JMS system modules	Ne	New Delete Showing 1 to 10 of 14 Previous   Next				
Configure subdeployments in JMS system     modules		Name 🏟	Туре	JNDI Name		
Configure resources for JMS system modules		Adapter outbound PSRequest-1531625329	Queue	Adapter_outbound_PSRequest		
Sustem Status		Adapter_outbound_PSResponse2015668417	Queue	Adapter_outbound_PSResponse		
System Status		QueueIn	Queue	QueueIn		
Health of Running Servers		QueueIn.Quota	Quota	N/A		
Failed (0) Critical (0)		TemporaryTmplt	Template	N/A		
Overloaded (0) Warning (0)		weblogic.wlsb.jms.transporttask.QueueConnectionFactory	Connection Factory	weblogic.wlsb.jms.transporttask.QueueC		
OK (2)		wli.reporting.jmsprovider.ConnectionFactory	Connection Factory	wli.reporting.jmsprovider.ConnectionFact		
		wli.reporting.jmsprovider.queue	Queue	wli.reporting.jmsprovider.queue		
		wli.reporting.jmsprovider_error.queue	Queue	wii.reporting.jmsprovider_error.queue		
		wli.reporting.purge.queue	Queue	wil.reporting.purge.queue		
	Ne	W Delete	1	Showing 1 to 10 of 14 Previous   Next		

Figure 7–120 Adapter\_outbound\_PSRequest

- **26.** Click the **Monitoring** tab, as shown in Figure 7–121.
- Figure 7–121 Monitoring Tab

ORACLE WebLogic Server	Administration Console
Change Center	🏠 Home Log Out Preferences 🔤 Record Help
View changes and restarts	Welcome, weblogic Connected to: base_dom
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >jmsResources >Adapter_outbound_BSRequest412119836 >JMS Modules >jmsResources >placeholder >Adapter_outbound_PSRequest-1531625329 >placeholder >JMS Modules >jmsResources > <b>Adapter_outbound_P5Request-1531625329</b>
Lock & Edit	Settings for Adapter_outbound_PSRequest-1531625329
Release Configuration	Configuration Monitoring Control Security Subdeployment Notes
Domain Structure	General Thresholds Monitoring-Tab Overrides Logging Delivery Failure
base_domain P Environment	Save
	Use this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.
Store-and-Forward Agents JMS Modules Path Services	Name: Adapter_outbound_PSRequest-1531625329     The name of this JMS     queue. More Info
Pridges     Data Sources     Persistent Stores     Foreign JNDI Providers	JNDI Name: Adapter_outbound_PSRequest The global JNDI name used to look up the destination within the JNDI namespace. More Info
How do I	Template: None The JMS template from which

**27.** Enable the check box and click **Show Messages**, as shown in Figure 7–122.

Figure 7–122 Adapter Settings

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >jmsResources >Adapter_outbound_BSRequest412119836 >JM5 Modules >jmsResources >placeholder >Adapter_outbound_PSRequest-1531625329 >placeholder >JM5 Modules >jmsResources > <b>Adapter_outbound_PSRequest-1531625329</b>									
Lock & Edit	Setting	Settings for Adapter_outbound_PSRequest-1531625329								
Release Configuration	Config	Configuration Monitoring Control Security Subdeployment Notes								
Domain Structure       base_domain       ⊕ "Environment       >> Deployments       ⊕ "Services       ⊕ Messaging       *** 3MS Servers	A JMS destination identifies a queue (Point-To-Point) or a topic (Pub/Sub) that is targeted to a JMS server. This page summarizes the active JMS destinations that have been created for this JMS module.									
Store-and-Forward Agents MS Modules Path Services	_	ow Message	Filtered - More	) Column	15 EXISTJ			Showing 1	Lto 1 of 1 Pre	evious   Next
⊡-Bridges *Data Sources		Name 🙈			Messages Durrent	Messages Pending	Messages Total	Consumers Current	Consumers High	Consumers Total
""Persistent Stores     ""Foreign JNDI Providers     ""Work Contexts     ""	•	jmsResour Adapter_o -15316253	outbound_PSRe	aquest 0	)	0	0	16	16	16
How do I	Sho	ow Messagi	es					Showing 1	Lto 1 of 1 Pro	evious   Next
Manage queue messages     Configure queues	(									
System Status										

**28.** Click **New**, as shown in Figure 7–123.

Figure 7–123 JMS Messages

No pending changes exist. Click the Release Configuration button to allow others to edit the	Summary of JMS Messages					
domain.	This page summarizes the available messages for a stand-alone queue, a distri message details, create new messages, delete selected messages, move mess format to another file, import XML formatted message contents from another fi Click on a message to view its contents.	ages to another destination, export message contents in XML				
base_domain ▲ ⊕ "Environment → Deployments ⊕ "Services ⊕ "Messaging → 3M5 Servers	Message Selector:	Apply				
	Customize this table					
Path Services	JMS Messages (Filtered - More Columns Exist)					
Tata Sources	New Delete V Move V Import Export V	Showing 1 to 0 of 0 Previous   Next				
Foreign JNDI Providers	☐ ID ↔ CorrId Time Stamp State String	JMS Delivery Mode Message Size				
	There are no items to	display				
How do I 😑	New Delete V Move V Import Export V	Showing 1 to 0 of 0 Previous Next				
<ul> <li>Manage queue messages</li> </ul>		Recorder Panel				

**29.** Provide the input payload in the **Body** field and click **OK**.

A Success message appears, as shown in Figure 7–124.

<i>Figure</i> 7–124	JMS Success Me	ssage
---------------------	----------------	-------

DRACLE WebLogic Server®	Administration Console							
nange Center	🕜 Home Log Out Preferences 🔤 Record Help							
iew changes and restarts	Welcome, weblogic Connected to: base_domain							
o pending changes exist. Click the Release onfiguration button to allow others to edit ne domain.	Home >Adapter_outbound_BSRequest412119836 >JMS Modules >jmsResources >placeholder >Adapter_outbound_PSRequest- 1531625329 >placeholder >JMS Modules >jmsResources >Adapter_outbound_PSRequest-1531625329 > <b>Summary of JMS</b> Messages							
Lock & Edit Release Configuration	Messages <ul> <li>MS message sent successfully.</li> </ul>							
	Summary of JMS Messages							
omain Structure								
se_domain "Environment "Deployments "Services "Intersaging "MS Servers "Store-and-Forward Agents "	This page summarizes the available messages for a stand-alone queue, a distributed queue, or a topic durable subscriber. Use this page to view message details, create new messages, delete selected messages, move messages to another destination, export message contents in XIML format to another file, import XIML formatted message contents from another file, or drain all the messages from a destination. Click on a message to view its contents.							
	Message Selector:							

**30.** In the Oracle WLS Console, expand **Services**, expand **Messaging**, and click **JMS Modules**, as shown in Figure 7–125.

Figure 7–125 JMS Modules

	ORACLE WebLogic Server® Administration Console										
Change Center		쉺 Ho	ne Log Out Preferences 🔤 Record Help	٩	Welcome, weblogic	Connected to: base_domain					
View changes and restarts		Home >Summary of Deployments									
Click the Lock & Edit button to modify, add delete items in this domain.	or	Summa	ry of Deployments								
Lock & Edit		Contr	Control Monitoring								
Release Configuration		appli	vage displays a list of Java EE applications and stand-alone application ations and modules can be started, stopped, updated (redeployed), or sing the controls on this page.	nodules that h deleted from i	ave been installed to this do the domain by first selecting	nain. Installed the application name					
base_domain  Conversion  Deployments	-	To install a new application or module for deployment to targets in this domain, click the Install button.									
-Services -Messaging			omize this table								
Store-and-Forward Agents <u>MS Modules</u> Path Services		Deployments           Install         Update         Delete         Start v         Stop v   Showing 1 to 100 of 112 Previous   Next									
Pridges	6		Name 🔗	State He	alth Type	Deployment Order					
Data Sources Persistent Stores			adf.oracle.businesseditor(1.0,11.1.1.2.0)	Active	Library	100					
Foreign JNDI Providers	•		C Cade.domain(1.0,11.1.1.2.0) Active Library 100								
How do I			Cadf.oracle.domain.webapp(1.0,11.1.1.2.0)	Active	Library	100					
Install an Enterprise application			ALDSP Transport Provider	Active 🗸	OK Web Application	161					
Configure an Enterprise application		П	Addsp_transport-110n(3.0,3.0)	Active	Library	160 Recorder Panel					

**31.** Click **jmsResources**, as shown in Figure 7–126.

Figure 7–126 jmsResources

ORACLE WebLogic Server® Administration Console										
Change Center	🔒 Home Log Out Preferences 🔤 Record Help	Welcome, weblogic Connected to: base_domain								
View changes and restarts	Home >Summary of Deployments >JMS Modules	Home >Summary of Deployments >JMS Modules								
Click the Lock & Edit button to modify, add or delete items in this domain.	JM5 Modules	MS Modules								
Lock & Edit	JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources.									
Domain Structure	This page summarizes the JMS system modules that have been created for this domain.									
base_domain	© Eustomize this table									
	Click the Lock & Edit button in the Change Center to activate all the buttons on this pag	e.								
Store-and-Forward Agents 	New Delete	Showing 1 to 2 of 2 Previous   Next								
Path Services     Bridges	🗖 Name 🗞	Туре								
Data Sources	imsResources	System								
Persistent Stores Foreign JNDI Providers	WseeJmsModule System									
Work Contexts	New Delete Showing 1 to 2 of 2 Previous   Next									
How do I										
Configure JMS system modules										

**32.** Click the appropriate response link, for example, **Adapter\_outbound\_ PSResponse**, as shown in Figure 7–127.

Figure 7–127 Summary of Resources

🖕 Favorites   🍰 🏀 Suggested Sites 👻 🖉 Web Site Gallery 🔹							
Settings for jmsResources - base_domain - WLS Console		hand the second					
Store-and-Forward AgentsJMS ModulesPath Services BBridgesData SourcesPorta SourcesPortigon JNDI ProvidersWork Contexts How do I	file. More Info This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.  Customize this table Summary of Resources						
Configure JMS system modules	Ne	Delete	9	Showing 1 to 10 of 14 Previous   Next			
Configure subdeployments in JMS system     modules		Name 🚕	Туре	JNDI Name			
Configure resources for JMS system modules		Adapter_outbound_PSRequest-1531625329	Queue	Adapter_outbound_PSRequest			
System Status		Adapter outbound PSResponse2015668417	Queue	Adapter_outbound_PSResponse			
System status –		QueueIn	Queue	QueueIn			
Health of Running Servers		QueueIn.Quota	Quota	N/A			
Failed (0) Critical (0)		TemporaryTmplt	Template	N/A			
Overloaded (0) Warning (0)		weblogic.wlsb.jms.transporttask.QueueConnectionFactory	Connection Factory	weblogic.wlsb.jms.transporttask.QueueC			
OK (2)		wil.reporting.jmsprovider.ConnectionFactory	Connection Factory	wii.reporting.jmsprovider.ConnectionFact			
		wil.reporting.jmsprovider.queue	Queue	wli.reporting.jmsprovider.queue			
		wli.reporting.jmsprovider_error.queue	Queue	wli.reporting.jmsprovider_error.queue			
		wil.reporting.purge.queue	Queue	wli.reporting.purge.queue			
New Delete Showing 1 to 10 of 14 Previous Next							

**33.** Click the **Monitoring** tab, as shown in Figure 7–128.

Figure 7–128	Monitoring	Tab
--------------	------------	-----

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Modules >jmsRes	ler >Adapter_outbo sources >Adapter_o sources > <b>Adapter_</b>	itbound_PSRequ	est-1531625	329 >Summary		sages >JMS
Lock & Edit	Settings for Ad	apter_outboun	I_PSRespons	e2015668	417		
Release Configuration	Configuration	Monitoring	Control Sec	urity Sub	deployment	Notes	
Domain Structure	General Thr	esholds and Quot	Tab Override:	Logging	Delivery F	ailure	
base_domain ⊕ Environment	Save						
Deployments		to define the ger ges as they arrive		ion paramet	ers for this qu	ueue, such	as selecting a destination key for
Store-and-Forward Agents     JMS Modules     Path Services	街 Name: Ad	apter_outbound_	PSResponse20	15668417			The name of this JMS queue. More Info
Bridges     Data Sources     "Persistent Stores     "Foreign JNDI Providers	JNDI A	dapter_outbour	id_PSRespo	nse			The global JNDI name used to look up the destination within the JNDI namespace. More Info
How do I Configure queues Configure 105 templates	Template: N	one	•				The JMS template from which the destination is derived. A template provides an efficient means of defining multiple destinations with similar configuration values. <b>More</b>

**34.** Enable the check box and click **Show Messages**, as shown in Figure 7–129.

### Figure 7–129 Destination Messages

Change Center	🚹 Hame Lag Out Preferences 🔤 Record Help
View changes and restarts	Welcome, weblogic Connected to: base_dom
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >placeholder >Adapter_outbound_PSRequest-1531625329 >placeholder >JM5 Modules >jmsResources >Adapter_outbound_PSRequest-1531625329 >Summary of JMS Messages >JMS Modules >jmsResources > <b>Adapter_outbound_PSResponse2015668417</b>
Lock & Edit	Settings for Adapter_outbound_PSResponse2015668417
Release Configuration	Configuration Monitoring Control Security Subdeployment Notes
	This page summarizes the active JMS destinations that have been created for this JMS module.
""Deployments     Services     Messaging     ""JMS Servers     ""Store-and-Forward Agents     "JMS Modules	This page summarizes the active JMS destinations that have been created for this JMS module.  Customize this table Destinations (Filtered - More Columns Exist)  Show Messages Showing 1 to 1 of 1 Previous   Next
Deployments     Services     Hessaging     MS Servers     Store-and-Forward Agents	Customize this table Destinations (Filtered - More Columns Exist)
Toeployments     Services     Messaging     Mis Servers     Store-and-Forward Agents     Mis Modules     Math Services     B-Bridges     Data Sources     "Persistent Stores     "Foreign 1NDI Providers	Customize this table     Destinations (Filtered - More Columns Exist)     Show Messages Showing 1 to 1 of 1 Previous Next     Tri Name      Messages Messages Messages Consumers Consumers
Services  Messaging  Messaging  Misservers  Misserver	Customize this table     Destinations (Filtered - More Columns Exist)     Show Messages     Showing 1 to 1 of 1 Previous Next     V     Name      Name      Current Pending Total     Total

**35.** Click the **ID** link, as shown in Figure 7–130.

Figure 7–130 JMS Messages

<ul> <li>Environment</li> <li>Deployments</li> </ul>		Click on a me	ssage to view its content	5.					
Services     Gressaging     MS Servers     Servers     Store-and-Forward Agents     MS Modules		Message Selector:						-	
Horback Services Horback Services Horback Sources Horback Stores Horback Stores Horback Sources Horback Horback Horback Horback Horba	V		his table es (Filtered - More Colu ete v Move v Impo		t) ort v	Show	ring 1 to 1 of 1	Previous   Next	
How do I	•	🗖 ID 🗞		CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size	
Manage queue messages     Manage distributed queue messages		□ <u>ID:&lt;85</u>	1920.1304596143994.0>		Thu May 05 07:49:03 EDT 2011	visible	Persistent	2043	
Manage topic durable subscribers		New De	ete 🗸 🛛 Move 🗸 🛛 Impo	ert Expo	ort.~	Show	/ing1to1of1	Previous   Next	
System Status	Ξ	•							

The response document is shown under the Text field.

## 7.6 Configuring HTTP Proxy Services Using Oracle Service Bus (J2CA Configuration)

This section describes how to configure HTTP Proxy Services using Oracle Service Bus for a J2CA configuration.

1. Start the Oracle Service Bus and create the required project folders.

For more information, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders" on page 7-2.

**2.** Generate and publish the WSDL from Application Explorer to the created project folder, and create a Business Service using the published WSDL.

For more information, see Section 7.2.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus" on page 7-6.

**3.** Open the Service Bus console page, as shown in Figure 7–131.

ORACLE' Serv	vice Bus 11gR1				1				
Change Center	Welcome, weblogic Con	nected to : bas	e_domain	Home Oracle WLS Console Logout Help Orac	:le Su				
<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	😂 Adapter/Busines	C Adapter/BusinessService							
Create Discard Ett.	References	0	Description - no descrip						
Project Explorer Projects	Referenced By	0	Edit De	scription.	_				
Adapter BusinessService	😂 Folders				_				
ProxyService wsdls	Enter New Folder Nam	ne:		Add Folder					
⊕- default				[	11 (I				
	Name 🛆								
				No Folders to display.					
					It				
	Delete								
					_				

Figure 7–131 Service Bus Console Page

**4.** In the Project Explorer, select the **ProxyService** project folder, and click **Create**, as shown in Figure 7–132.

Figure 7–132 Project Explorer

View Changes			
View All Sessions	😂 Adapter/ProxySe	rvice	
Create Distanti Est.	References	0	Description - no description -
Project Explorer Projects	Referenced By	0	Edit Description.
Adapter     H- Adapter     H- BusinessService	😂 Folders		
ProxyService	Enter New Folder Nam	e:	Add Folder.
⊕- default			1
	Name 🛆		
			No Folders to display.
			п
	Delete.		-
	Resources		
	▶ Create Resource: Set	ect Resource 1	Type 🚬
			1 🗊

**5.** In the Create Resource list on the right pane, select **Proxy Service**, as shown in Figure 7–133.

iange oentei 🔤 🔤	The come the bogie	connected to . base_doma		a nome i order	- ++EO CONDOLC : EOGOGE	1 Hop 1 Of	ucic
eblogic session			Γ	weblogic session	Created 5/5/11 6:25 AM	No Conflicts	No
No Conflicts				-			
View Changes	😂 Adapter/Prox	yService					
View All Sessions	References	Select Resource Type Service	tion				
ctivate Discard Exit		Proxy Service	riptio	n -			
oject Explorer	Referenced By	Business Service Split-Join	Descr	iption			
ects idapter	🗳 Folders	Interface WSDL XML Schema					
BusinessService ProxyService	Enter New Folder	WS-Policy JCA Binding			Add Folder		
wsdls		Transformation					Ē
efault	Name 🛆	XQuery XSLT MFL File					
		Security Service Account Service Key Provider		No Folder	s to display.		
		Utility JAR					
	Delete	Alert Destination XML Document					
		Bulk					
	Resources	Resources from URL Zipped Resources					

Figure 7–133 Proxy Service

6. In the Service Name field, enter an appropriate name, as shown in Figure 7–134.

Figure 7–134 Service Name

weblogic session		weblogic session Created 5/5/11 9:25 AM No	Conflicts N							
No Conflicts		······································								
View Changes	2 Create a Proxy Service (Adapter/ProxyService/)									
View All Sessions	General Configuration									
Activate Discard Exit	Service Name*	Adapter_outbound_PS								
Project Explorer Projects  - Adapter - BusinessService	Description	× •								
ProxyService wsdls	Service Type*	Create a New Service								
⊕- default		C WSDL Web Service	(port or bi							
		C Transport Typed Service								
		C Messaging Service								
		C Any SOAP Service SOAP 1.1 -								
		Any XML Service								
		Create From Existing Service								
		O Business Service	Bro							
		O Proxy Service	Bro							
	Next >>	Last >> Cancel	~							

**7.** In the Service Type section, under Create From Existing Service, select the **Business Service** radio button and click **Browse**, as shown in Figure 7–135.

S Exit	General Configurat	on	
	Service Name*	Adapter_outbound_PS	
e <b>r</b>	Description		
	Service Type*		Browse binding)
		Business Service	Browse Browse

Figure 7–135 General Configuration

8. Select the existing Business Service and click Submit, as shown in Figure 7–136.

Figure 7–136 Business Service

Orac	e Service Bus : Select Business Service - Windows Inter	net Explorer		
≱ s	Select Business Service			
🛐 Si	earch: Name: Path:		Search	View All
			Items 1-4 of 4	4 1 ▶ №
	Name 🛆	Path .		Resource Type
(	Adapter_outbound_BS	Adapter/BusinessService		Business Service
С	fileout	default/business service		Business Service
0	isdsrv22_samp_node_call_invoke_bs	default/business service		Business Service
Ċ.	isdsrv22_samp_node_invoke_bs	default/business service		Business Service
			Items 1-4 of 4 🛛	4 1 ▶ №
	Submit Cancel			

**9.** Click **Next**, as shown in Figure 7–137.

Dreate a Proxy Service (Adapter/ProxyService/)						
General Configuration						
Service Name*	Adapter_outbound_PS					
Description	×					
Service Type*	Create a New Service       Browse         WSDL Web Service       (port or binding)         Transport Typed Service       Messaging Service         Messaging Service       SOAP 1.:         Any SOAP Service       SOAP 1.:         Any XML Service       SOAP 1.:         Create From Existing Service       Browse         Business Service       Browse					
	Proxy Service     Browse					
Next >>	Last >> Cancel					

Figure 7–137 General Configuration

**10.** Select **http** in the Protocol list and click **Next**, as shown in Figure 7–138.

Figure 7–138 Transport Configuration

Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)							
Transport Configuration							
Protocol*	http 💌						
Endpoint URI*	Format: /someName /Adapter/ProxyService/Adapter_outbound_PS						
Get All Headers	C Yes No Header Add						
	HEADER ACTION						
	There are no headers configured.						
<< Prev. Next >> Last >> Cancel							

**11.** Click **Next**, as shown in Figure 7–139.

Figure 7–139	HTTP	Transport	Configuration
--------------	------	-----------	---------------

View Changes	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)		
View All Sessions     Activate Discard Exit      Project Explorer      Projects     Adapter     BusinessService     ProxyService     wsdls	HTTP Transport Configuration		
	HTTPS required		
	Authentication	None     Basic     Cilent Certificate     Custom Authentication (See Advanced Settings)	
⊕- default	Dispatch Policy	default	
	Request Encoding		
	Response Encoding		
	Advanced Settings		
	<< Prev. N	ext >> Last >> Cancel	

**12.** Click **Next**, as shown in Figure 7–140.

Figure 7–140 Operation Selection Configuration

	View Changes	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)		
View Changes     View All Sessions     Activate Discard Exit	Operation Selection Config	uration		
	Enforce WS-I Compliance			
	Project Explorer Projects - Adapter - BusinessService - ProxyService - wsdls - default	Selection Algorithm	<ul> <li>C Transport Header</li> <li>C SOAPAction Header</li> <li>C WS-Addressing</li> <li>C SOAP Header</li> <li>© SOAP Body Type</li> </ul>	
		<< Prev.	lext >> Cancel	

**13.** Enable the **Transaction Required** check box and click **Next**, as shown in Figure 7–141.

Figure 7–141 Message Handling

<ul> <li>View Changes <ul> <li>View All Sessions</li> </ul> </li> <li>Activate Discard Exit</li> </ul> Project Explorer Projects <ul> <li>Adapter</li> <li>BusinessService</li> <li>ProxyService</li> <li>wsdls</li> <li>default</li> </ul>	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
	Message Handling			
	Transaction Required	Finabled		
	Content Streaming	Enabled Buffer Type Memory Buffer Disk Buffer Compression Enabled		
	XOP/MTOM Support	Enabled     Include Binary Data by Reference     Include Binary Data by Value		
	Attachments	Page Attachments to Disk		
	<< Prev.	Next >> Last >> Cancel		

**14.** Click **Save**, as shown in Figure 7–142.

Figure 7–142 Save

		Ξ.
Protocol	http	
Endpoint URI	/Adapter/ProxyService/Adapter_outbound_PS	
Get All Headers	No	
Headers		
HTTP Transport Configuration		Z
HTTPS required	No	
Authentication	None	
Operation Selection Configuration		Ż
Enforce WS-I Compliance	No	
Selection Algorithm	SOAP Body Type	
Message Handling Configuration		Ż
Transaction Required	Enabled	
Content Streaming	Disabled	
XOP/MTOM Support	Disabled	
Page Attachments to Disk	No	
<< Prev. Save	Cancel	

The created Proxy Service is saved, as shown in Figure 7–143.

Project Explorer Projects D- Adapter H- BusinessService H- ProxyService	References     2 Ref(s)       Referenced By     0       C Folders	- no description -		
wsdls ⊕- default	Enter New Folder Name:	Add Folder		
er delault				Items 0-0 of (
	Name 🛆			
		No Folders to display.		
				Items 0-0 of (
	Delete			
	🖁 Resources			
	Create Resource: Select Resource T	уре 💌		
				Items 1-1 of 1 🕅
	□ <u>Name</u> △		Resource Type	Actions
Operations	Adapter_outbound_PS		Proxy Service	\$ <b>≫</b> ⊿ +
Resource Browser				Items 1-1 of 1 🕅
> Project Explorer	Delete			

Figure 7–143 Proxy Service

**15.** Click **Activate** in the left pane, and then **Submit** on the right pane, as shown in Figure 7–144.

Figure 7–144 Activate Session

Change Center 🛛 🕅	Welcome, weblogic C	onnected to : base_domain	🟠 Home	Oracle	e WLS Console	Logou	it
weblogic session		[	weblogic sessi	on Cr	reated 5/5/11 10	:45 AM	N
<ul> <li>No Conflicts</li> <li>View Changes</li> </ul>	I Activate Sessio	'n					
View All Sessions     Activate Discard Exit	Session Name	weblogic					
	User	weblogic					
Project Explorer Projects	Description					A	
<ul> <li>Adapter</li> <li>HousinessService</li> <li>ProxyService</li> <li>wsdls</li> <li>⊕- default</li> </ul>							
	Submit	to activate current session					
	▲ Top						

**16.** Click **ProxyService** in the Projects folder on the left pane, as shown in Figure 7–145.

Figure 7–145 ProxyService

<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	😂 Adapter/ProxySe	ervice	
Create Discard Exit	References	0	Description - no description -
Project Explorer	Referenced By	0	Edit Description.
Projects - Adapter - BusinessService ProxyService - wsdls - default		ne:	Add Folder.

**17.** Click the **Launch Test Console** icon for the created Proxy Service, as shown in Figure 7–146.

Figure 7–146 Launch Test Console

💑 Resources					
Create Resource: Select Resource Typ					
			Ttems 1-1 of 1	1	
Γ	Name 🗠	Resource Type	Actions	Option	
	adapter_outbound_PS	Proxy Service	🕴 🐝 🗳	ale 🔐 💱	
			Iten[Launch Test C	onsole 1	
	Delete				

- **18.** Uncheck the **Direct Call** check box, provide the input values for **Payload**, and click **Execute**.
- **19.** Review the **Response Document**.

## Configuring an Outbound and Inbound Process for Oracle Service Bus Using JDeveloper

Oracle Application Adapter for J.D. Edwards OneWorld integrates seamlessly with Oracle JDeveloper to facilitate Web service integration.

This chapter contains the following sections:

- Section 8.1, "Configuring an OSB Outbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.2, "Configuring an OSB Inbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.3, "Configuring an OSB Outbound Process Using JDeveloper (BSE Configuration)"
- Section 8.4, "Configuring a JMS Inbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.5, "Configuring a JMS Outbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.6, "Configuring an HTTP Outbound Process Using JDeveloper (J2CA Configuration)"

## 8.1 Configuring an OSB Outbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure an OSB outbound process to your J.D. Edwards OneWorld system, using Oracle JDeveloper for J2CA configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_Samples\OSB\_ Jdeveloper\J2CA\JDEdwards\_Sample\_J2CA\_OSB\_Outbound\_Project

This section includes the following topics:

- Section 8.1.1, "Creating a Service Bus Application for OSB"
- Section 8.1.2, "Defining an OSB Outbound Process"
- Section 8.1.3, "Deploying the OSB Outbound Process"

### Prerequisites

Before you design an OSB outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

### 8.1.1 Creating a Service Bus Application for OSB

Perform the following steps in JDeveloper to create a service bus application for OSB.

- **1.** Create a new OSB application.
- **2.** Enter a name for the OSB Application (for example, J2CA\_Outbound) and click **Finish**, as shown in Figure 8–1.

Figure 8–1 Name Your Application Pane

👩 Create Service Bus Apj	plication - Step 1 of 1	×
Name your application	on	<b>F</b>
Application Name	Application Name: [2CA_Outbound Directory: [C:\soabeta\WORK\mywork\J2CA_Outbound Application Backage Prefix:	Browse
Help	< Back Next > Einish	Cancel

**3.** Enter a project name (for example, JCA\_Outbound), and click **Finish**, as shown in Figure 8–2.

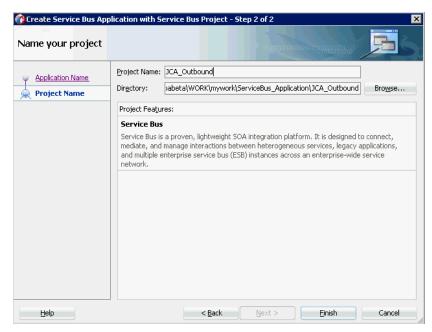


Figure 8–2 Name Your Project Pane

### 8.1.2 Defining an OSB Outbound Process

This section describes how to define an OSB outbound process. The following topics are included:

- Section 8.1.2.1, "Configuring a Third-Party Adapter Service Component"
- Section 8.1.2.2, "Configuring a File Transport Type Business Service"
- Section 8.1.2.3, "Creating a Proxy Service With Pipeline"
- Section 8.1.2.4, "Configuring the Routing Rules"

#### 8.1.2.1 Configuring a Third-Party Adapter Service Component

Perform the following steps to create a third party adapter service component along with the Business Service:

1. Drag and drop the **Third Party Adapter** component from the Service Bus Components pane to the External Services pane, as shown in Figure 8–3.

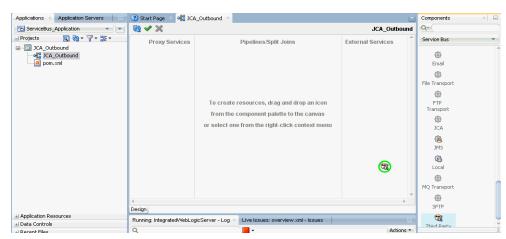


Figure 8–3 Third Party Adapter Component

The Create Third Party Adapter Service dialog is displayed, as shown in Figure 8–4.

Figure 8–4 Create Third Party Adapter Service Pane

🍘 Create Third Party	Adapter Service	×
Third Party Adapter : Create a JCA adapte	Service r service for a third party adapter.	÷
Name:	Service	
<u>Type:</u>	Reference 💌	
WSDL URL:		1
Port Type:	•	
Operation:		
<u>C</u> allback Port Type:		
Operation:		
<u>]</u> CA File:		1
Help	OK	Cancel

- **2.** Enter an appropriate name for the Third Party Adapter Service which will be used as the Business Service name.
- **3.** Ensure that **Reference** is selected from the Type drop-down list (by default).
- **4.** Click the Find existing WSDLs icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed, as shown in Figure 8–5.

😚 WSDL Chooser	r						×
Application Server	File System	Project Libraries	SOA-MDS		WSIL		
Location:	C:\12c_	SOA\soa\soa\thirdp	arty\ApplicationAc	dapters\wsdls		- 0 0 0	9 🗉 🗉
Work	■ J2CA_0	utbound_invoke.wsi	H				
Project							
Application J	Eile Name: D	2CA_Outbound_inv	oke.wsdl				
	File Type:	Veb Service Definitio	on Files (*.wsdl)				•
Selection: file:/C:/	/12c_50A/soa/	'soa/thirdparty/Appl	icationAdapters/w	sdls/J2CA_Outbo	und_invoke.wsdl		
Help						ОК	Cancel

Figure 8–5 WSDL Chooser Dialog

- **5.** Select the **File System** tab, then browse, and select an outbound WSDL file from the WSDL directory.
- 6. Click OK.

The Import Service Bus Resources dialog is displayed.

7. Click Next, as shown in Figure 8–6.

Figure 8–6 Source Pane

Import Service Bus R Source		
Source	Specify source an	id select an import destination.
T	Resource Type:	WSDL
Configuration	Source URL:	C:\ApplicationAdapters\wsdls\JCA_OB_invoke.wsdl
	Resource Name:	JCA_OB_invoke.wsdl
	Import Location:	C:\soabeta\WORK\mywork\ServiceBus_Application\JCA_Outbound\Resources
Help		< Back Next > Einish Cancel

**8.** In the Configuration pane, click **Finish**.

You are returned to the Create Third Party Adapter Service Dialog.

- **9.** Click the Find JCA file icon which is located to the right of the JCA File field. The Transformation Chooser dialog is displayed.
- **10.** Select the JCA properties file from the WSDL directory.
- 11. Click OK. The Copy File message is displayed.
- 12. Click Yes.

A copy of the JCA properties file is made in the project folder.

You are returned to the Create Third Party Adapter Service dialog, as shown in Figure 8–7.

Figure 8–7 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter : Create a JCA adapte	Service r service for a third party adapter.	
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
Port Type:	GetEffectiveAddressPortType	
Operation:	GetEffectiveAddress	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	work/SOA_Application/J2CA_Outbound/SOA/Adapters/J2CA_Outbound_invoke.jca	6
Help	ОК	Cancel

#### 13. Click OK.

The Business service component is created in the External Services pane.

## 8.1.2.2 Configuring a File Transport Type Business Service

Perform the following steps to create a File Transport Business Service:

**1.** Drag and drop the **File Transport** component from the Advanced pane to the External Services pane.

The Create Business Service dialog is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service (for example, FileOut), and click **Next**, as shown in Figure 8–8.

Create Service  Type Transport  Cocation:  Description  Definition  Transport  Definition  Transport	e: FileOut
	t <mark>file</mark>
Messages:	

Figure 8–8 Create Service Pane

The Type pane is displayed. The Any XML option is selected by default.

**3.** Click **Next**, as shown in Figure 8–9.

Figure 8–9 Type Pane

eate Business Ser e	vice - Step 2 of 3	
<u>Create Service</u> Type <u>Transport</u>	Service Type: Any XML O Any XML Messaging: Reguest: Response:	
Help	< Back	Next > Einish Cancel

The Transport pane appears.

**4.** Provide the output location in the Endpoint URI field (for example, c:/output) and click **Finish**, as shown in Figure 8–10.

vice - Step 3 of 3					×
Service Type	: Messaging				
<u>T</u> ransport	file				•
Endpoint <u>U</u> RI:	file:///C:/output				
	Format: file:///root-dir/dir1				
		< Back	Next >	Finish	Cancel
	Service Type Iransport	Service Type: Messaging       Iransport       File       Endpoint URI:       File:///C:/output	Service Type: Messaging           Iransport         file           Endpoint URI:         file:///C:/output	Service Type: Messaging         Iransport         Endpoint URI:         File:///C:/output         Format:         file:///root-dir/dir1	Service Type: Messaging         Iransport       file         Endpoint URI:       file:///C:/output         Format:       file:///root-dir/dir1

Figure 8–10 Transport Pane

The File Transport Business service Fileout is created and displayed.

**5.** Double-click the created Business service **Fileout** and provide the values for the Prefix and Suffix fields in the Transport Details Tab, as shown in Figure 8–11.

Figure 8–11 Transport Details

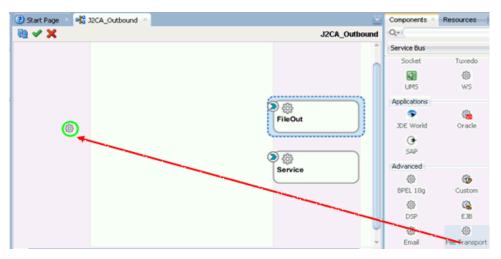
Applications × Application Servers	🕐 Start Page 🔺 📲 🤉	CA_Outbound 🗵 🍃	FileOut.bix ×		
🔁 ServiceBus_Application 🔹 💌				?	1
Projects  Projects  CA_Outbound  Projects  CA_Outbound  Projects  Projects  Projects  Project  Project Project Project  Project Project  Project	General Transport <b>Transport Details</b> Message Handling Performance	FILE Transport Use this page to con Prefix Suffix Request encoding	figure the transport information for this service} JCA_Outboundxml		

# 8.1.2.3 Creating a Proxy Service With Pipeline

Perform the following steps to create a Proxy Service with Pipeline:

1. Drag and drop the File Transport component from the Advanced Components pane to the Proxy Services pane, as shown in Figure 8–12.

Figure 8–12 File Transport Component



The Create Proxy Service pane is displayed.

- **2.** In the Service Name field, enter any name you wish for the Proxy service (for example, JCA\_Outbound\_PS). By default, **Generate Pipeline** is selected.
- **3.** Click **Next**, as shown in Figure 8–13.

Figure 8–13 Create Service Pane

Create Proxy Service	e - Step 1 of 3					
reate Service					010394939493	
Create Service Type Transport	General Service Name: Location: Description	JCA_Outbound_PS  [C:\soabeta\WORK\myworl	<th>n\JCA_Outbound</th> <th></th> <th></th>	n\JCA_Outbound		
	••• Definition •••• • <u>T</u> ransport	file				
	✓ <u>G</u> enerate Pipeline Name:	Pipeline JCA_Outbound_PSPipeline				
	Messages:					
<u>H</u> elp			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

The Type pane is displayed.

**4.** Select the **Messaging** option, set the Request to **XML** and Response as **None**, and then click **Next**, as shown in Figure 8–14.

🕜 Create Proxy Service - S	tep 2 of 3							×
Туре								
Type     Iransport	Service Type Any ML Messaging: <u>Messages</u> :	XML Schema:	type / element:					
<u>H</u> elp			<	<u>B</u> ack	<u>N</u> ext :	>	Einish	Cancel

Figure 8–14 Type Pane

The Transport window is displayed.

**5.** Provide the input location in the Endpoint URI field (for example, c:/input) and click **Finish**, as shown in Figure 8–15.

Figure 8–15 Transport Window

🍘 Create Proxy Service -	Step 3 of 3					×
Transport						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Create Service	Service Type	e: Any XML				
	<u>T</u> ransport	file				•
💩 Transport	Endpoint <u>U</u> RI:	file:///C:/input				
		Format: file:///root-dir/dir1				
Help			< <u>B</u> ack	Next >	Einish	Cancel

The Proxy service along with the pipeline is created and displayed.

**6.** Double-click the created Proxy Service (for example: JCA\_Outbound\_PS), as shown inFigure 8–16.

Figure 8–16	i Proxy	Service	Edit
-------------	---------	---------	------

Start Page      Pit 32CA_Outbound	
🕲 🗸 🗙	J2CA_Outbound
JCA_Outbound_Ps	FileOut Service

**7.** In the displayed Proxy Service configuration page, select **Transport Details** and provide the values for Stage and Error Directory, as shown in Figure 8–17.

Figure 8–17 File Transport Configuration

ServiceBus_Application			
Projects C. Qutbound C. C. Qu	General Transport Transport Details Security	EILE Transport Use this page to confi File Mask* Managed Server Polling Interval* Read Limit* Sort By Arrival Scan SubDirectories Pass By Reference Post Read Action* Stage Directory* Archive Directory Error Directory* Beauest encoding	gure the transport information for this service)
	warm right worker		

**8.** Save and close the Proxy Service configuration page.

# 8.1.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

1. Connect the Pipeline to the Business Service (for example, Service) as shown in Figure 8–18.

Start Page

Image: Start Page

Image: Start Page

Image: Image

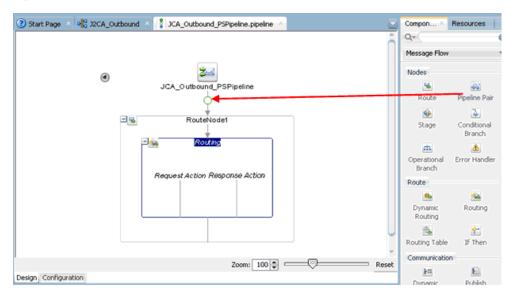
Figure 8–18 Business Service Pipeline

**2.** Double-click on the pipeline (for example, JCA\_Outbound\_PSPipeline) in the Pipelines/Split Joins pane.

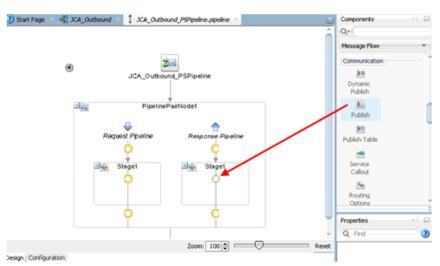
The Pipeline configuration page is displayed.

**3.** Drag and drop the **Pipeline Pair** node from Nodes pane to the area below the Pipeline (for example: JCA\_Outbound\_PSPipeline), as shown in Figure 8–19.

Figure 8–19 Pipeline Pair Node



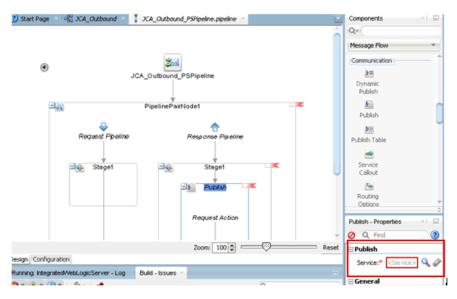
**4.** Drag and drop the **Publish** node from the Communication pane to the area beneath Stage1 of the Response Pipeline, as shown in Figure 8–20.



#### Figure 8–20 Publish Node

**5.** Click on the browse icon to the right of the Service field in the right pane of Publish Properties, as shown in Figure 8–21.

#### Figure 8–21 Browse Icon



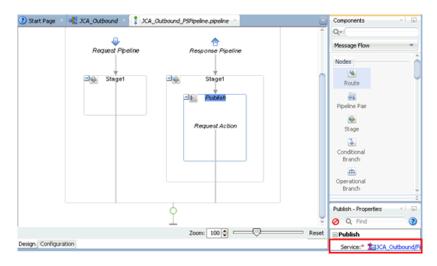
**6.** In the displayed Resource Chooser window, select the **Fileout.bix** File Transport Business service and click **OK**, as shown in Figure 8–22.



🕜 Resource Chooser	×
Resource Chooser Pipeline	
Selection: [file:/C:/Jdeveloper/WORK/mywork/ServiceBusApplication/J2CA_Outbound/fileout.bix Help	OK Cancel

In the right pane, the selected service is configured in the Publish pane, as shown in Figure 8–23.

Figure 8–23 Publish Pane



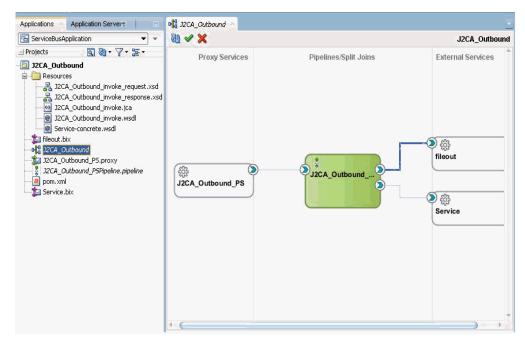
**7.** Click on the Routing to verify the Service is selected properly, as shown in Figure 8–24.

② Start Page × a 3 JCA_Outbound × 3 JCA_Outbound_PSPipeline.pipeline		Components		×  🖃
	*	Q*		
		Message Flow		•
		Route		^
			<u>se</u>	
		Dynamic Routing	Routing	1
RouteNode1		<u>6</u>	2	
		Routing Table	If Then	J
De Routing		Communication		
		30	E	
Request Action Response Action		Dynamic Publish	Publish	
		<b>ME</b>	-	
		Publish Table	Service Callout	
		5.4	-	*
		Routing - Propert	ties	× 🗖
	ž,	🧿 🔍 Find		- 2
Zoom: 100 💭 Res	set	Routing		
Design Configuration		Service:*	CA_Outbound	DCA_OB
Running: Integrated/VebLogicServer - Log Build - Issues ×	GT.)	Operation:*	-	
👧 n 🚯 n 🔞 n 🖉 n 🖉 n		operation.	acricial	

Figure 8–24 Pipeline Configuration

- **8.** Save and Close the Pipeline configuration page.
- **9.** Double-click the overview.xml file (for example: JCA\_Outbound), and click **Save** All in the menu bar to save the OSB process, as shown in Figure 8–25.

Figure 8–25 Save All Icon



# 8.1.3 Deploying the OSB Outbound Process

Perform the following steps to deploy the OSB outbound process.

 Right-click the OSB project, select Deploy, and then select OSB\_Project1\_ ServiceBusProjectProfile..., as shown in Figure 8–26.

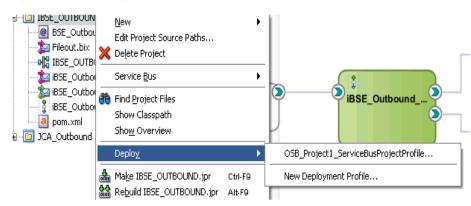


Figure 8–26 Deploy Option

The Deployment Action page is displayed.

2. Click Next, as shown in Figure 8–27.

#### Figure 8–27 Deployment Action Page

Deployment Action	ServiceBusProjectProfile
Deployment Action	Select a deployment action from the list below.
Select Server	Deploy to Service Bus Server
	Deploy a Service Bus project to a Weblogic server which includes a Service Bus runtime.
Help	<pre>&lt; Back Next &gt; Finish Cancel</pre>

The Select Server page is displayed.

**3.** Select an available application server that was configured and click **Next**, as shown in Figure 8–28.

Deploy OSB_Project1_	ServiceBusProjectProfile	×
Select Server		
Deployment Action	Application Servers: IntegratedWebLogicServer	🖶 😫 🖶
Summary		
	○ Overwrite modules of the same name	
Help	Cverwrite modules of the same name       < Back	ish Cancel

Figure 8–28 Select Server Page

The Summary page is displayed, as shown in Figure 8–29.

Figure 8–29 Summary Page

opeloy 058_Project1_ Summary	ServiceBusProjectProfile
Deployment Action Select Server Summary	Deployment Summary            → Service Bus Deployment Summary            → Server Name: IntegratedWebLogicServer            → Server Platform: Weblogic 12.x            ⊕ Service Bus Application Deployment Settings
Help	< Back Next > Finish Cancel

**4.** Review and verify all the available deployment information for your project and click **Finish**.

The process is deployed successfully, as shown in Figure 8–30.

Figure 8–30 Successful Deployment Message

Deployment - Log⇒	Build - Issues	-
Q		
[10:52:18 AM]	Deployment started	
[10:52:18 AM]	Target platform is Standard Java BE.	
[10:52:18 AM]	Elapsed time for deployment: l second	
[10:52:18 AM]	Deployment finished	

**5.** Copy and paste an input XML file in the input folder you have configured (for example, C:\input).

The output is received in the configured output location (for example, C:\output).

# 8.2 Configuring an OSB Inbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure an OSB inbound process to your J.D. Edwards OneWorld system, using Oracle JDeveloper for J2CA configurations.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\JDEdwards_Samples.zip\JDEdwards_Samples\OSB_
Jdeveloper\J2CA\JDEdwards_Sample_J2CA_OSB_Inbound_Project
```

This section includes the following topics:

- Section 8.2.1, "Creating a Service Bus Application for OSB"
- Section 8.2.2, "Defining an OSB Inbound Process"
- Section 8.2.3, "Deploying the OSB Inbound Process"

#### Prerequisites

Before you design an OSB inbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

# 8.2.1 Creating a Service Bus Application for OSB

To configure an OSB inbound process, you must create service bus application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.

# 8.2.2 Defining an OSB Inbound Process

This section describes how to define an OSB inbound process. The following topics are included:

- Section 8.2.2.1, "Configuring a Third-Party Adapter Service Component"
- Section 8.2.2.2, "Creating a Pipeline"
- Section 8.2.2.3, "Configuring a File Transport Type Business Service"

Section 8.2.2.4, "Configuring the Routing Rules"

#### 8.2.2.1 Configuring a Third-Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

1. Drag and drop the **Third Party** adapter component from the Service Bus Components Pane to the Proxy Services, as shown in Figure 8–31.

Figure 8–31 Third Party Adapter Service Component

rt Page 👘 🖓 JCA_Out	bound 🔌 👫 JCA_Inbound 🐣		Components	,
Proxy Services	Pipelines/Split Joins	JCA_Inbound	Q.+	
PTOXY SERVICES	sahamnasishin oomis	Evicinal Sci W.CS	@ BPEL 10g	Custom
			DSP @	E38
	create resources, drag and drop an icon		Email	File Transport
	om the component palette to the canvas elect one from the right-click context menu		Ngr FTP Transport	JCA
<b>1</b>			C A A A A A A A A A A A A A A A A A A A	Cocal
			@ MQ Transport	SFTP
			Third Party	

The Create Third Party Adapter Service dialog is displayed.

- **2.** Enter any name you wish for the Third Party Adapter Service or leave it to the default value.
- 3. Ensure that Service is selected from the Type drop-down list (by default).
- **4.** Click the Find existing WSDLs icon, which is located to the right of the WSDL URL field, as shown in Figure 8–32.

👩 Create Third Party	Adapter Service	×
Third Party Adapter	Service	5
Create a JCA adapte	er service for a third party adapter.	ay
Name:	Service	
<u>Type:</u>	Service	
WSDL URL:		9
Port Type:		
Operation:	<b></b>	
Callback Port Type:		
Operation:		
JCA File:		
Help	OK Can	cel

Figure 8–32 Third Party Adapter Service Dialog

The WSDL Chooser dialog is displayed.

- **5.** Select the File system folder, then browse and select an inbound WSDL file from the WSDL directory.
- 6. Click OK.

The Import Service Bus Resources dialog is displayed.

- 7. Click Next.
- 8. In the Configuration window, click Finish.

You are returned to the Create Third Party Adapter Service dialog.

- **9.** Click the Find JCA file icon, which is located to the right of the JCA File field. The Transformation Chooser dialog is displayed.
- **10.** Select the JCA properties file from the WSDL directory.
- 11. Click OK.

The Copy File message is displayed.

12. Click Yes.

A copy of the JCA properties file is created in the project folder.

You are returned to the Create Third Party Adapter Service dialog, as shown in Figure 8–33.

rd Party Adapter	Adapter Service Service r service for a third party adapter.	4
<u>N</u> ame:	Service	
<u>T</u> ype:	Service	
<u>W</u> SDL URL:	SB\WORK\mywork\Application1\Project1\SOA\WSDLs\J2CA_Inbound_receive.wsdl	1
Port Type:	jde_inboundPortType	
Operation:	jide_inbound	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	5B/WORK/mywork/Application1/Project1/SOA/Adapters/J2CA_Inbound_receive.jca	@

Figure 8–33 Create Third Party Adapter Service Dialog

#### **13.** Click **OK**.

The third party adapter service component is created in the Proxy Services pane.

### 8.2.2.2 Creating a Pipeline

Perform the following steps to generate inbound proxy service with Pipeline:

- 1. Under Service Bus, click **Resources**.
- 2. Drag and drop the Pipeline to the Pipelines/Split Joins pane.
- **3.** Provide a name for the Pipeline and click next, as shown in Figure 8–34.

Create Pipeline Servi Create Service	ce - Step 1 of 2	Paratososososososososososososososososososos	2
Create Service	General Service Name: Location: Description	J2CA_Inbound_Pipeline C:\Jdeveloper_SOA\work\mywork\OS8_Application\JCA_Inbound	Q
	Definition		
Help	Messages:	< Back Next > Enish Car	ncel

Figure 8–34 Create Service Page

- **4.** In the Create Pipeline Service window, select the **WSDL** option and click on the WSDL URL.
- Select Application in the WSDL chooser window, then select service-concrete.wsdl in the appropriate OSB project, and then click OK, as shown in Figure 8–35.

Figure 8–35 Select WSDL Page

🕜 Select WSDL							×
Application	Application Server	File System	Project Libraries	SOA-MDS		WSIL	
	n Inbound						
Selection: file:/C:/	Jdeveloper_SOA	/work/mywork/OS	B_Application/JC	A_Inbound/Reso	urces/Service-con	crete.wsdl	
Help						ок	Cancel

**6.** Clear the Expose as a Proxy Service check box and click **Finish**, as shown in Figure 8–36.

Туре			
<u>Create Service</u>	Service Type: W	/SDL-based service	
Type		JCA_Inbound/Resources/Service-concrete	1 🔁 🥥
		Binding: MATMAS01PortType-binding -	]
	O Any SOAP:	SOAP 1.1	
	○ Any ½ML		
	O Messaging:	Reguest:	
		Resgonse:	
	Proxy Name:	Proxy Service J2CA_Inbound_PipelineProxyService	1
	Proxy Location:	C:\Jdeveloper_SOA\work\mywork\OSB_Application\JCA_Inbound	
	Proxy Transport:	http	
	Messages:		
Help		< gack Next > Einish (	ancel

Figure 8–36 Type Page

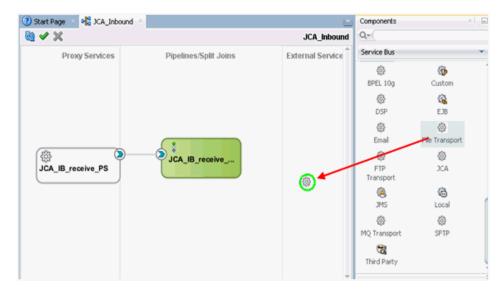
7. Drag and drop the Proxy Service to the Pipelines/Split Joins pane.

# 8.2.2.3 Configuring a File Transport Type Business Service

Perform the following steps to create the File Transport Type Business Service:

1. Drag and drop the File Transport component from the Advanced pane to the External Services pane, as shown in Figure 8–37.

Figure 8–37 File Transport Node



The Create Business Service dialog is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service (for example, FileOut), and click **Next**.

In the displayed Type Window, the Any XML option is selected by default.

- 3. Click Next.
- **4.** In the displayed Transport window, provide the output location in the Endpoint URI field (for example, c:\output), and click **Finish**, as shown in Figure 8–38.

🕜 Create Business Servic	e - Step 3 of 3					X
Transport						×~
Create Service <u>Type</u> Transport	Service Type Iransport Endpoint URI:	:: Any XML file file:///C:/output Format: file:///root-dir/dir1				
Нер			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–38 Transport Pane

The FileOut Business service is created.

5. Double-click the FileOut Business service, as shown in Figure 8–39.

Figure 8–39 FileOut Business Service

pplications × Application Servers	🕐 Start Page 🔺 📲 JCA_Inbo	und ×		Components	×
🗟 ServiceBus_Application 🔹 💌	🔞 🗸 🗙		JCA_Inbound	Q.	
Projects 🔍 🖓 🕶 🏹 🕶 🖛	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	
CA_Inbound     Resources     FileOut.bix				BPEL 10g	tustom
				₿ DSP	Kana ang Kan
CA_IB_receive_PS-concrete.wsdl     CA_IB_receive_PSPipeline.pipeline     GA_IB_receive_PSPipeline.xsd			() etc	லි Email	🚱 File Transport
OCA_IB_receive.wsdl     JCA_Inbound     OcA_nnbound     pom.xml	A_IB_receive_PS	JCA_IB_receive	FileOut	FTP Transport	() JCA
				C MS	🙃 Local
				綴 MQ Transport	() SETP
				😪 Third Party	

The Configuration page is displayed.

**6.** Navigate to the Transport Details tab and provide the values for the Prefix and Suffix fields, as shown in Figure 8–40.

Applications × Application Servers	🕐 Start Page 🔺 🙀 🤈	CA_Inbound 🛛 🍃 I	FileOut.bix 🐣	
Applications Application Servers	Start Page      Page     General     Transport     Transport Details     Message Handling     Performance	1 FILE Transpor	rt Configuration figure the transport information for this service} [JCA_Inbound [.xm]	3
JCA_IB_receive_request.xsd JCA_IB_receive.wsdl				

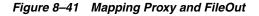
Figure 8–40 File Transport Configuration

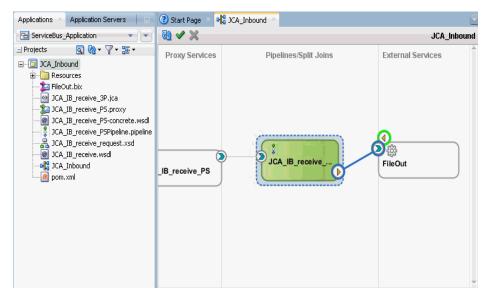
7. Save and close the Configuration page.

#### 8.2.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules.

 Create a connection between the Pipeline (for example, JCA\_IB\_receive\_ PSPipeline) and the File Type Business Service (for example, FileOut), as shown inFigure 8–41.





- 2. Double-click the Pipeline (for example, J2CA\_Inbound\_receive\_PSPipeline).
- **3.** Click the Routing pane and ensure that the File Type Business Service (for example, FileOut) is properly configured in the Service field, as shown in Figure 8–42.

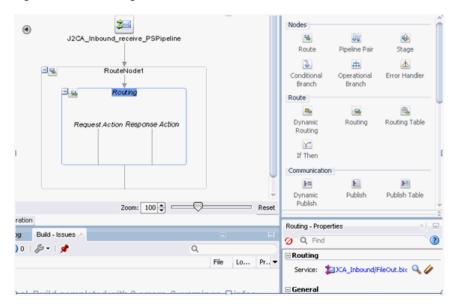
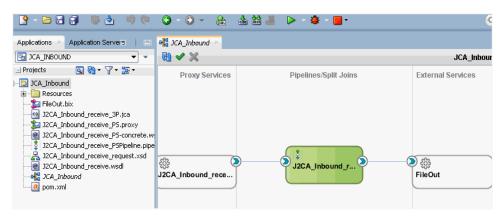


Figure 8–42 Routing Pane

- 4. Save and close the Pipeline configuration page.
- **5.** Double-click on the overview.xml file (for example, JCA\_Inbound) and click **Save All** in the menu bar to save the OSB process, as shown in Figure 8–43.

Figure 8–43 Save All



# 8.2.3 Deploying the OSB Inbound Process

To deploy the created OSB inbound process, see steps 1 - 4 in Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-15.

Once the OSB inbound process is deployed successfully, trigger an event from the J.D. Edwards OneWorld system and check if the output is received in the configured output location (for example, C:\output).

For more information on triggering an event, see Section 4.5.5, "Triggering an Event in J.D. Edwards OneWorld" on page 4-47.

# 8.3 Configuring an OSB Outbound Process Using JDeveloper (BSE Configuration)

This section describes how to configure an OSB outbound process to your J.D. Edwards OneWorld system, using Oracle JDeveloper for BSE configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\JDEdwards\_Samples.zip\JDEdwards\_ Samples\OSB\BSE\JDEdwards\_Sample\_BSE\_OSB\_Outbound\_Project

This section includes the following topics:

- Section 8.3.1, "Creating a Service Bus Application for OSB"
- Section 8.3.2, "Defining an OSB Outbound Process"
- Section 8.3.3, "Deploying the OSB Outbound Process"

#### Prerequisites

Before you design an OSB outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service" on page 4-52.

# 8.3.1 Creating a Service Bus Application for OSB

To configure an OSB outbound process, you must create a service bus application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.

# 8.3.2 Defining an OSB Outbound Process

This section describes how to define an OSB outbound process. The following topics are included:

- Section 8.3.2.1, "Configuring a WSDL-based Business Service"
- Section 8.3.2.2, "Creating a Proxy Service With Pipeline"
- Section 8.3.2.3, "Configuring a File Transport Type Business Service"
- Section 8.3.2.4, "Configuring the Routing Rules"

#### 8.3.2.1 Configuring a WSDL-based Business Service

Perform the following steps to configure a WSDL-based Business Service:

1. Drag and drop the **HTTP** component from the Technology Components pane to the External Services area, as shown in Figure 8–44.

Figure 8–44 HTTP Component

n Team Iools Window Help A 22 A > •		<b>⊟lē</b> Qv( Search
A DAUDERLOS	<u>لة</u>	Components
🍓 🗸 🗙	IBSE-OUTBOUND	Q+(
Proxy Services	Pipelines:Split Joins External Sarvices	Service Bus Luccose Direct @ FIP FIP HTTP & X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @

The Create Business Service window is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service and click **Next**, as shown in Figure 8–45.

Figure 8–45 Create Business Service

🕜 Create Business Serv	ice - Step 1 of 3					×
Create Service					01/7898989856	
Create Service  Type Transport	General Service N <u>a</u> me: Location: Description	iBSE_Outbour C:\soabeta\W	 erviceBus_Applica	tion\iBSE_Outbound		Q
	<ul> <li>Definition</li> <li>Iransport</li> </ul>	http	 			<b></b>
	Messages:					
Help			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

**3.** In the displayed Service Type window, select the WSDL option and click the **Select WSDL** icon, as shown in Figure 8–46.

Create Service		WSDL-based service	
Туре	() WSDL:	Binding / Port:	1
Transport	0.1		•
	○ Any SOAP:	[50AP 1.1	<b>v</b>
	<ul> <li>○ Any ½ML</li> <li>○ Messaging:</li> </ul>	Bernarde	
	O messaging:		
		Response:	*
	Messages:		

Figure 8–46 Type Pane

The Select WSDL window is displayed.

**4.** Select the File System folder icon, browse to the iBSE WSDL file and select it from the WSDL location, and then click **OK**, as shown in Figure 8–47.

Select WSDL							
Application	Application Server	File System	Oracle Acadia Server	Project Libraries	SOA-MDS		WSIL
Location:	C:\Applica	itionAdapters\ws	dls			- 0 0 4	o 🖻 📰 🖿
Work Project		IPANYCODE_GET ceive.wsdl woke.wsdl	LIST_invoke.wsdl LIST_receive.wsdl				
Home	File Name: Ou	tbound_ibse.wsc					
	File <u>Type</u> : We	iDL Files (*.wsdl)					•
election: file:/C:/	ApplicationAdap	ters/wsdls/Outbo	ound_ibse.wsdl				
Help						ОК	Cancel

Figure 8–47 Select WSDL Window

5. In the displayed Source pane, click Next, as shown in Figure 8–48.

Import Service Bus	Resources - Step 1 (	of 2				
ource						
Source	Specify source an	id select an import desti	nation.			
<u>Configuration</u>	Resource Type:	WSDL				-
	Source URL:	C:\ApplicationAdapters	s\wsdls\Outbound_i	ibse.wsdl		(
	Resource Name:	Outbound_ibse.wsdl				
	Import Location:	C:\soabeta\WORK\my	work\ServiceBus_A	pplication\iBSE_Out	bound	
Help			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

Figure 8–48 Source Pane

6. In the displayed Configuration pane, click Finish, as shown in Figure 8–49.

Figure 8–49 Configuration Pane

nfiguration			
Source	Select the resources to import.		
Configuration			<b>F</b> a <b>F</b> a
	Resource	Operation	URL
	E      EserviceBus_Application     in BSE_Outbound		
	🕑 🙋 Outbound_ibse.wsdl	Create	file:/C:/ApplicationAdapter

You are returned to the Create Business Service window.

7. In the displayed Type pane, click **Next**, as shown in Figure 8–50.

🕜 Create Business Sei Type	rvice - Step 2 of 3	×
Create Service Type Transport	Service Type: WSDL-based service             • WSDL: IBSE_OUTBOUND/BSE_Outbound_invoke         Pgrt: (Port) BSE_OutboundSoap1         • Any goAP: SOAP 1.1         • Any gML         • Any gML         • O Any gML	] 🐿 🧼 • •
	Alty Ant     Messaging: Reguest:     Response:	-) -)
Help	<u>Back</u> <u>N</u> ext > Einish	Cancel

Figure 8–50 Type Pane

**8.** In the displayed Transport window, you can modify the Endpoint URI field if the hostname and port number varies, and then click **Finish**, as shown in Figure 8–51.

Figure 8–51 Transport Pane

👩 Create Business Servi	ice - Step 3 of 3	3	X
Transport		01010101010101010101010101010101010101	
Create Service <u>Type</u> Transport	Service Type       Iransport       Endpoint URI:	pe: WSDL-based service http	
Нер	Messages:	< Back Next > Einish	Cancel

The Business Service is created and displayed in the External Services pane, as shown in Figure 8–52.

Applications × Application Servers	No IBSE-OUTBOUND ×		i.
E ServiceBus Applications	🕅 🗸 🗙		IBSE-OUTBOUND
Projects  BEE_Outbound  BEE_Outbound  BEE_Outbound BS bax  BEE_Outbound BS bax  BEE_Outbound_bax  BEE	Proxy Services	Pipelines:Split Joins	External Services

Figure 8–52 External Services Pane

#### 8.3.2.2 Creating a Proxy Service With Pipeline

Perform the following steps to create a Proxy Service with Pipeline:

1. Drag and drop the **File Transport** component from the Advanced Components pane to the Proxy Services pane, as shown in Figure 8–53.

Figure 8–53 File Transport Component

<b>Oracle JDeveloper 12c - ServiceBus_Ap</b> Se Edit Yow <u>Application</u> Refactor Se		and.jpr n Tea <u>m I</u> oois <u>Wi</u> ndow Help			-	8
9 🕫 🕹 🦉 📢 🖷 🕙 🕐	O - &	🎍 🔮 🧸 🕨 🖉 🖉 📕 •		Qr (Search		
Applications	🕐 Start Page 🛛 🔩 858	Outbound		Components		8) - F
15 ServiceBus_Application	3 ✓ X		iBSE_Outbound	Q.		
Projects     Step Cotbound     Step Cotbou	Proxy Services	Pipelines:Split Joins	External Services	Service Bus Advanced	Gustom	•
La pontoni	0		9 <u>8</u>	© 059 ©	(%) E78	
			IBSE_Outbound_BS	Email © FTP Transport	File Transport	
				<b>(8</b> ,745	Cocal Local	
				MQ Transport	© SFTP	
Application Resources				<b>3</b> 2		
Data Controls Recent Files				Properties		ah.

The Create Proxy Service pane is displayed.

- **2.** In the Service Name field, enter any name you wish for the Proxy service (for example, JCA\_Outbound\_PS). By default, **Generate Pipeline** is selected.
- **3.** Click **Next**, as shown in Figure 8–54.

🈚 Create Proxy Service -	Step 1 of 3						×
Create Service							
Create Service	General Service N <u>a</u> me: Location: Description	IBSE_Outbound_PS C:\soabeta\WORK\		eBus_Applicat	ion\jBSE_Outbound		Q
	<ul> <li>Definition</li> <li>Transport</li> <li>Generate</li> <li>Pipeline Name:</li> </ul>	file Pipeline IBSE_Outbound_PS	Pipeline				<b>-</b>
	Messages:						
Help				< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

Figure 8–54 Create Service Pane

The Type pane is displayed.

**4.** Select the **Messaging** option, set the Request to **XML** and Response as **None**, and then click **Next**, as shown in Figure 8–55.

Treate Proxy Service -	Step 2 of 3						×
Туре							1
Create Service Type Transport	Service Type Any XML Messaging: Messages:	XML Schema:	type / element:				
Help			< <u>B</u> a	ck 📔	<u>N</u> ext >	Einish	Cancel

Figure 8–55 Type Pane

The Transport window is displayed.

**5.** Provide the input location in the Endpoint URI field (for example, c:/input) and click **Finish**, as shown in Figure 8–56.

🎁 Create Proxy Servio Transport	:e - 5tep 3 of 3			0.01010101010	11010294329625co -	, 201
Q Create Service	Service Type	e: Any XML				
	Transport	file				•
Transport	Endpoint <u>U</u> RI:	file:///C:/input				
		Format: file:///root-dir/dir1				
Help			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

Figure 8–56 Transport Window

The Proxy service along with the pipeline is created and displayed.

**6.** Double-click the created Proxy Service (for example: iBSE\_Outbound\_PS), as shown inFigure 8–57.

Figure 8–57 Proxy Service Edit

Applications × Application Servers	3 Start Page 🔺 📲 iBSE_Outbound	• • • • • • • • • • • • • • • • • • •	2	Components	×
🔠 ServiceBus_Application 🔹 👻	🔁 🗸 💥		iBSE_Outbound	Q.*	
Projects  Proje	Proxy Services	Pipelines/Split Joins	External Services	Service Bus Advanced BPEL 10g BSP	Custom Custom EDB
	BSE_Outbound_PS	BSE_Outbound	SE_Outbound_I     I     SE_Outbound_I     I	Email Email FTP Transport IMS Email IMS	الله File Transport ش JCA Local
Application Resources				MQ Transport	SFTP

**7.** In the displayed Proxy Service configuration page, select **Transport Details** and provide the values for Stage and Error Directory, as shown in Figure 8–58.

ServiceBusApplication3		• •			
Projects BSE_Outbound SSE_Outbound SSE_Outbound SSE_Outbound SSE_Outbound SSE_Outbound SSE_Outbound SSE_Outbound SSE Outbound SSE Outbound SSE SSFroject	5.praxy SPipeline.pipeline	• 3 •	General Transport Transport Details Security	FILE Transport 1 Use this page to config File Mask* Managed Server Polling Interval* Read Limit* Sort By Arrival Scan SubDirectories Pass By Reference Post Read Action* Stage Directory* Archive Directory*	gure the transport information for this service)           •.•           60           10

Figure 8–58 File Transport Configuration

- 8. Save and close the Proxy Service configuration page.
- **9.** Double-click the overview.xml file (for example, iBSE\_Outbound).

The Proxy service is updated and displayed, as shown in Figure 8–59.

Figure 8–59 Proxy Service

Applications × Application Servers	BSE_Outbound			Components	
🖺 ServiceBusApplication3 🔹 💌	0 ✓ X		iBSE_Outbound	Qv	
∃ Projects 💽 🖓 • 🖓 • 🦉 •	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	
BSE_Outbound     BSE_Outbound     BSE_Outbound g5.bix     BSE_Outbound g5.bix     BSE_Outbound g5.prony     BSE_Outbound g5.prony     BSE_Outbound g5.prony     Doutbound g6.prony     BO Outbound g6.prony     SSProject	Proxy services	Pipelines.spirf.Jons	External Services	BPEL 10g BPEL 10g BP BP Email B FTP Transport B MQ Transport C Third Party	Custom EJB EJB EICA CA CA ECCA ECCA

#### 8.3.2.3 Configuring a File Transport Type Business Service

Perform the following steps to create a File Transport Type Business Service:

1. Drag and drop the File Transport component from the Advanced pane to the External Services pane, as shown in Figure 8–60.

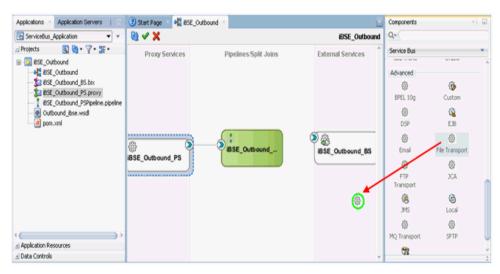


Figure 8–60 File Transport Component

The Create Business Service dialog is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service (for example, FileOut), and click **Next**, as shown in Figure 8–61.

Figure 8–61 Create Service Pane

👩 Create Business Serv	ice - Step 1 of 3						×
Create Service						1729696939340	
Create Service	General Service Name: Location: Description	Fileout C:\soabeta\WORK\	mywork\ServiceBus_	Application\iBSE_	Outbound		•••••••••••••••••••••••••••••••••••••••
	<ul> <li>Definition</li> <li>Transport</li> </ul>	file					•
Help	Messages:		< <u>B</u> a	ck Nex	t >	Einish	Cancel

The Type pane is displayed. The Any XML option is selected by default.

3. Click Next.

The Transport pane appears.

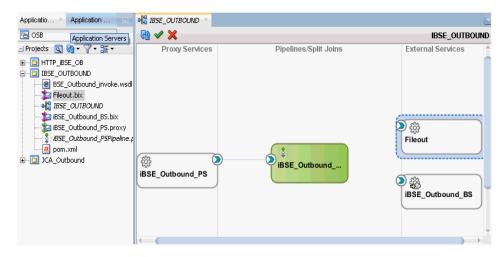
**4.** Provide the output location in the Endpoint URI field (for example, c:/output) and click **Finish**, as shown in Figure 8–62.

🕜 Create Business Servic	e - Step 3 of 3					×
Transport						
Q Create Service	Service Type	e: Messaging				
	Transport	file				•
🧅 Transport	Endpoint <u>U</u> RI:	file:///C:/output				
	1	Format: file:///root-dir/dir1				
	]					
Help			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–62 Transport Pane

The File Transport Business service Fileout is created and displayed, as shown in Figure 8–63.

Figure 8–63 Fileout Business Service



**5.** Double-click the created Business service **Fileout** and provide the values for the Prefix and Suffix fields in the Transport Details Tab, as shown in Figure 8–64.

General	눌 FILE Transpor	t Configuration	
Transport		figure the transport information for this service}	
Transport Details			
Message Handling	Prefix	iBSE_Outbound_out	
Performance	Suffix	.xml	
	Request encoding	utf-8	

Figure 8–64 Transport Details

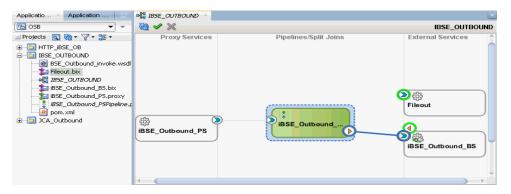
**6.** Save and close the configuration page, and double-click on overview.xml (for example, iBSE\_Outbound).

#### 8.3.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

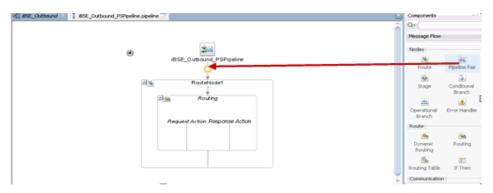
 Create a connection between the Pipeline Component (for example, iBSE\_ Outbound\_PSPipeline) and the WSDL based Business Service (for example, iBSE\_ Outbound\_BS), as shown in Figure 8–65.

Figure 8–65 Pipeline Component



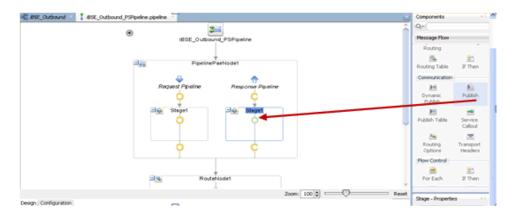
- **2.** Double-click on the **Pipeline** component (for example, iBSE\_Outbound\_ PSPipeline) in the Pipelines/Split Joins pane.
- **3.** Drag and drop the **Pipeline Pair** node from Nodes pane to the area between the Pipeline (for example: iBSE\_Outbound\_PSPipeline) and RouteNode1, as shown in Figure 8–66.

Figure 8–66 Pipeline Pair Node



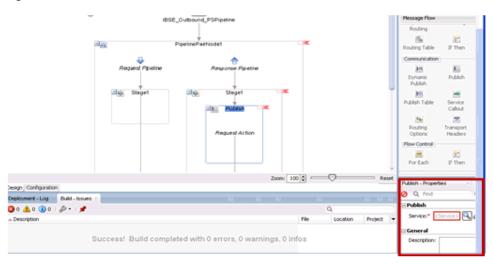
**4.** Drag and drop the **Publish** node from the Communication pane to the area beneath Stage1 of the Response Pipeline, as shown in Figure 8–67.

Figure 8–67 Publish Node



**5.** Click on the browse icon to the right of the Service field in the right pane of Publish Properties, as shown in Figure 8–68.

Figure 8–68 Browse Icon



**6.** In the displayed Resource Chooser window, select the **Fileout.bix** File Transport Business service and click **OK**, as shown in Figure 8–69.

Figure 8–69 Resource Chooser

🕅 Resource Chooser 🛛 🛛 🗙
Resource Chooser Pipeline BissE_Outbound_BS.bix BissE_Outbound BissE_Outbound_BS.bix BissE_Outbound_PS.proxy BissE_Outbound_PS.proxy BissE_Outbound_PSPipeline.pipeline BissE_Outbound
Selection: file:/C:/soabeta/WORK/mywork/ServiceBusApplication3/iBSE_Outbound/Fileout.bix
Help OK Cancel

You are returned to the Pipeline configuration page.

In the right pane, the selected service is configured in the Publish pane, as shown in Figure 8–70.

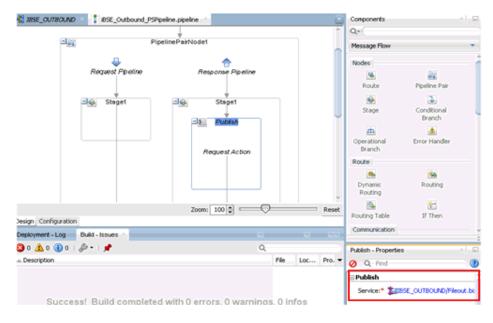


Figure 8–70 Publish Pane

- 7. Save and close the Pipeline configuration page.
- **8.** Double-click the overview.xml file (for example: iBSE\_Outbound), and click **Save All** in the menu bar to save the OSB process, as shown in Figure 8–71.

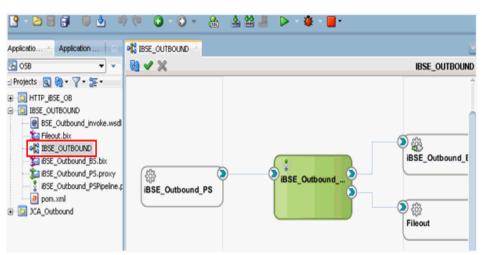


Figure 8–71 Save All Icon

#### 8.3.3 Deploying the OSB Outbound Process

To deploy the created OSB outbound process and invoke the input XML document, see Section 8.1.3, "Deploying the OSB Outbound Process".

# 8.4 Configuring a JMS Inbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure a JMS inbound process to your J.D. Edwards OneWorld system, using Oracle JDeveloper for J2CA configurations.

- Before you design a JMS process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.
- **2.** Start the Oracle JDeveloper and create a Service Bus Application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.
- **3.** Create a Third Party Adapter Service Component. For more information, see Section 8.2.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-19.
- **4.** Create a Proxy Service along with the pipeline from the JCA Binding File. For more information, see Section 8.2.2.2, "Creating a Pipeline" on page 8-21.
- 5. Create a JMS Transport Business Service and perform the following steps:
  - **a.** Drag and drop the **JMS Transport** component from the Technology Components pane to the External Services pane, as shown in Figure 8–72.

J Start Hage Q+ 🔁 🖌 🗶 JMS\_In Service Bus Proxy Services **Pipelines/Split Joins** External Services 8 ÷ Split Join 1 6 BAM AQ MATMASO1 PSPI 23 6 儆 MATMAS01\_PS Direct 63 8 ۲ 0 100 621 🖲 JMS Tr Create a JMS proxy or business service Design Properti 5 ٥ Q, Find 1 LINS

Figure 8–72 JMS Transport Component

The Create Business Service dialog is displayed.

**b.** In the Service Name field, enter any name you wish for the Business service (for example, JMS\_BS) and click **Next**, as shown in Figure 8–73.

Figure 8–73 Create Service Pane

Create Business Servi reate Service				010101010101	otoralgagagaga	
Treate Service	General Service N <u>a</u> me: Location: Description	JMS_BS C:\soabeta\work\myw	ork(OSB_Application\JMS	Inbound		Q
	Definition     Transport	jms				
	Messages:					

**c.** In the displayed Type window, select **Any XML** and then click **Next**.

The Transport window is displayed.

d. Modify the appropriate hostname and port number by replacing DestJndiName with QueueIn in the Endpoint URI field (for example, jms://localhost:7003/weblogic.jms.XAConnectionFactory/Queu eIn), and then click Finish, as shown in Figure 8–74.

👩 Create Business Service	e - Step 3 of 3	X
Transport		CIERCE AND
Create Service	Service Type Iransport Endpoint URI:	e: Any XML jms
Help	]	< Back Next > Einish Cancel

Figure 8–74 Transport Window

The JMS Business service is created and displayed.

e. Double-click JMS\_BS as shown in Figure 8–75.

Figure 8–75 JMS Business Service

Applications × Application Servers	3 Start Page 🛛 📲 JMS_Inbound 🐣			Resources	Components ×	
🔁 OSB_Application 🔹 💌	M ✓ X		JMS_Inbound	Qv		
∃ Projects 💽 🍓 • 🍸 • 🧏 •	Proxy Services	Pipelines/Split Joins	External Services	Service Bus		
This Inbound     The Sources     The Resources     The Resour		, kanan dan sana		Resources Pipeline Technology	spit Join	
				rechnology		<b>1</b>
MATMASO1_PSPipeline.pipeline			۵ 🍇	400 AQ	A5/400	BAM
	MATMAS01_PS	MATMAS01_PSPI	JMS_BS	<b>S</b>	Database	- 🍪 Direct
- a pom.xml			Reference: JMS_BS Binding: JMS Transport		8	\$
🗄 🛅 IM5_Outbound				File	FTP	HTTP
				i a a a a a a a a a a a a a a a a a a a	CMS JMS Transport	ldap
				-	<b>a</b>	1
			-	MQ	MSMQ	REST
🗄 Data Controls 🛛 🔞 🏹 💯			)	÷	÷6	÷
. Hecent Files			× •	SB	Socket	Tuxedo
JMS Inbound - Stru JMS Inbound - R ×	Properties			•	÷	
	Q, Find		0	UMS	WS	
				Applications		
				Part in the second seco		
Current selection is not a valid Service Bus resource				JDE World	Oracle	
				Advanced	1	ca
					<b>*</b>	÷

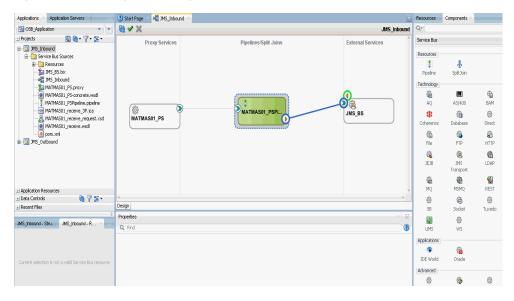
**f.** In the displayed Business Service configuration page, provide the following parameters in the Transport Details tab, as shown in Figure 8–76.

0	) Start Page 🔺 📲 🌶	15_Inbound 💉 눌 JMS_85.bii	
	Start rage - IN St		
	General Transport	and the second s	rration transport information for this service}
	Transport Details Message Handling	Destination Type	Queue O Topic
	Performance	Message Type	O Bytes () Text
		Response Queues	● None ○ One for all Request URIs ○ One per Request URI
		Dispatch Policy	SBDefaultResponseWorkManager
		Request Encoding	UTF-8
		JMS Service Account	<not selected=""> 🔍 🥔</not>
		Advanced Settings	
		Use SSL	
		Expiration	0
		Enable Message Persistence	✓
		Unit Of Order	
		Pass Caller's Subject	
		JNDI Timeout	0

Figure 8–76 JMS Transport Configuration

- g. In the Destination Type section, select Queue.
- h. In the Message Type section, select Text.
- 6. Save and close the Configuration page of the business service.
- Create a connection between Pipeline (for example, xxxx\_PSPipeline) and JMS Business Service (for example, JMS\_BS) as shown in figure Figure 8–77.

Figure 8–77 Configuration Page



8. Double-click Pipeline.

The Pipeline Configuration page is displayed as shown in Figure 8–78.

	_
Start Page 🐘 🦞 JMS_Inbound 👘 💈 MATMAS01_PSPipeline.pipeline 🗡	
MATMASO1_PSPipeline RouteNode1 Routing Request Action Response Action	
Zoom: 100 🗢 🤍 Reset	t
ign Configuration	
uting - Properties 🛛 👘 🗐	Ē
Q Find	
uting Service:* 加JM5_Inbound/JM5_B5.bkx 🔍 🏈	

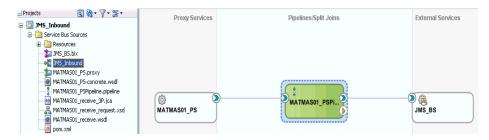
Figure 8–78 Pipeline Configuration

**9.** Check that the details are configured properly, and then save and close the Pipeline configuration page.

You are returned to the composite editor window.

**10.** Click **Save All** in the menu bar to save the OSB JMS process, as shown in Figure 8–79.

Figure 8–79 Save All Icon



- **11.** Deploy the OSB JMS inbound process. For more information, see Section 8.2.3, "Deploying the OSB Inbound Process" on page 8-26.
- **12.** Once the process is deployed successfully, trigger the event messages. For more information, see Section 4.5.5, "Triggering an Event in J.D. Edwards OneWorld" on page 4-47.
- **13.** Log on to the Oracle WLS console.
- In the Oracle WLS console, expand Services, click Messaging, select JMS Modules, and then click jmsResources.
- **15.** Click the appropriate response link (for example, QueueIn) as shown in Figure 8–80.

#### Figure 8–80 Queueln Response Link

Home >Summary	of Deployments >Sum	mary of 3M	S Modules »;	insResources >Summary of IMS Modules >insReso	surces >Summary of IMS Modules >jmsResources >QueueIn >Summary of IMS Modules > <b>jmsResources</b>	
Settings for jmsResources						
Configuration	Subdeployments	Targets	Security	Notes		
This page displa	ys general informatio	n about a l	JMS system	module and its resources. It also allows you to o	configure new resources and access existing resources.	
Name:				jmsResources	The name of this JMS system module. More Info	
Descriptor File	Name:			jms/xbusResources-jms.xml	The name of the 3M5 module descriptor file. More Info	

This page summaines the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and forward parameters.

Þ	Cust	tomize this table								
1	Sum	mary of Resources								
1	Click the Leark & Editbutton in the Change Center to activate all the buttons on this page.									
	New Delete Showing 1 to 10 of 15 Previous   Next									
		Name 🗠		Туре	JNDI Name	Subdeployment	Targets			
1	•	JMS_ProxyRequest-21	43324722	Queue	JMS_ProxyRequest	JM5_ProxyRequest-2143324722	wisb3MSServer			
ļ	8	JMS_ProxyResponse23	0658500	Queue	JMS_ProxyResponse	JMS_ProxyResponse230658500	wisb3MSServer			
I		QueueIn		Queue	QueueIn	wisb.JMSServer	wlsb3MSServer			
1	Ξ.	QueueIn.Quota		Quota	N/A	N(A	N/A			
		TemporaryTmpR		Template	N/A	N/A	N/A			

**16.** Click the Monitoring tab, as shown in Figure 8–81.

#### Figure 8–81 Monitoring Tab

ttings for Queu	eln					
onfiguration	Monitoring	Control	Security	Subdeployment	Notes	
General Three	iholds and Qu	stas 0	verrides	Logging Delive	ry Failure	
Click the Lock &	Eale button in	the Char	nge Center t	o modify the setti	ngs on this p	
Save						
Use this page to	define the ger	veral conf	figuration pa	rameters for this	queue, such	a destination key for sorting messages as they arrive on the queue.
🔁 Name:	QueueIn					The name of this JMS queue. More Info
NDI Name:	Queuel	n				The global 3401 name used to look up the destination within the 3401 namespace. More Info
(emplate:	None		٠			The JMS template from which the destination is derived. A template provides an efficient means of defining multiple destinations with similar configuration values. None infer.
Destination Key Available:	-		Chose	anc .		The list of potential destination keys for sorting the messages that arrive on a destination. <b>Hore Info</b>
			>			
			32			
			8			
			42			

**17.** Select the check box and click the **Show Messages** button, as shown in Figure 8–82.

Figure 8–82 Show Messages Button

tings for Que	ueIn									
onfiguration	Monitoring	Control	Security	Subdeployment	Notes					
A 3MS destination identifies a queue (Point-To-Point) or a topic (Pub/Sub) that is targeted to a 3MS server. This page summarizes the active 3MS destinations that have been created for this 3MS module. Customize this table										
Customize thi restinations ()		re Colum	ns Exist)							
	Filtered - Mo	re Colum	ns Exist)						Showing 1 to	1 of 1 Previous   Ne
estinations (I	Filtered - Mo		ns Exist) ages Curre	nt Message	s Pending	Messages Total	Consumers Current	Consumers High	Showing 1 to Consumers Total	1 of 1 Previous   Ne Messages High

**18.** Click the ID link with the appropriate time and date.

The response document is shown under the Text field.

# 8.5 Configuring a JMS Outbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure a JMS outbound process to your J.D. Edwards OneWorld system, using Oracle JDeveloper for J2CA configurations.

- 1. Before you design a JMS process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.
- **2.** Start the Oracle JDeveloper and create a Service Bus Application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.
- **3.** Create a Third Party Adapter Service Component. For more information, see Section 7.3.2.1, "Configuring a Third Party Adapter Service Component" on page 7-13.
- 4. Create a WSDL-based Business Service from the JCA Binding File. For more information, see Section 8.1.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-3.
- 5. Create a JMS Proxy Service with a Pipeline and perform the following steps:
  - **a.** Drag and drop the **JMS Transport** component from the Technology Components pane to the Proxy Services pane, as shown in Figure 8–83.

Figure 8–83 JMS Transport Component

nt Page 👘 📲 JMS_Outbound			Components ~	Resources	
X		JMS_Outbound	Q.		
Proxy Services	Pipelines-Split Joins To create resources, drag and drop an icon from the component patetle to the canvas	External Services	Service Bus Ppeline Technology AQ St Coherence Ga File	SpitJoin AS(400 Gig Database FTP	A R R A
-	or select one from the right-click context menu		X.R (Create a JM	RS Transport S prony or busine Social	ess sen Ture

The Create Business Service dialog is displayed.

- **b.** In the Service Name field, enter any name you wish for the Proxy service (for example, JMS\_Proxy). By default, Generate Pipeline is selected.
- c. Click Next, as shown in Figure 8–84.

oreate Proxy Service	- Step 1 of 3	×
Create Service  Type Type Transport	General           Service Name:         JMS_Proxy           Location:         C:\soabeta\work\058_Application\JM5_Outbound           Description         Image: Contemporation Con	
	Definition         Iransport         Ims         Ims <tr< th=""><th>•</th></tr<>	•
	Messages:	
Help	< <u>B</u> ack <u>N</u> ext > Einish Ca	ancel

Figure 8–84 Create Proxy Service Pane

d. In the displayed Type window, select Any XML and then click Next.

The Transport window is displayed.

**e.** Modify the appropriate hostname and port number by replacing the Endpoint URI field (for example,

jms://localhost:7003/weblogic.jms.XAConnectionFactory/JMS\_ ProxyRequest), and then click Finish, as shown in Figure 8-85.

Figure 8–85 Transport Window

🌀 Create Proxy Service - Transport	- Step 3 of 3	
Create Service <u>Type</u> Transport	Service Type Iransport Endpoint <u>U</u> RI:	jms v
Help		< <u>Back</u> Next > Einish Cancel

The JMS Proxy service along with the pipeline is created and displayed.

f. Double-click the created Proxy Service (for example, JMS\_Proxy), as shown in Figure 8–86.

Figure 8–86 JMS Proxy Service

Applications × Application Servers	3 Start Page 🔺 📲 JMS_Outbound 🐣		6
🔁 OSB_Application 🔹 💌	🔁 🗸 💥		JMS_Outbound
_ Projects Q Q + ♥ + № +	Proxy Services	Pipelines/Split Joins	External Services
⊡ 🛅 JMS_Outbound		, hoursely course	
🖻 🛅 Service Bus Sources			
Resources			
GetDetail_B5.bix			
GetDetail_invoke_3P.jca			
GetDetail_invoke_request.xsd			
GetDetail_invoke.wsdl	( <u>&amp;</u> )		
JMS_Outbound	JMS_Proxy	JMS_ProxyPipeli	
- 🔀 JMS_Proxy.proxy			
pom.xml			
•			
Application Resources			
🗄 Data Controls 🛛 🖓 🏆 🖘			
H Recent Files	4		•

**g.** In the displayed configuration page of the Proxy Service, provide the following parameters in the Transport Details tab, as shown in Figure 8–87.

Figure 8–87 JMS Transport Configuration

🕐 Start Page 🔺 📲 :	IMS_Outbound 🛛 🏂 JMS_Pr	oxy.proxy ×		_
		(	?	â
General Transport	JMS Transport Configue	uration transport information for this service}		
Transport Details		,		
Security	Destination Type	Queue O Topic		
	Is Response Required	V		
	Response Pattern	IMSCorrelationID ○ JMSMessageID		
	Response Message Type	⊖ Bytes ⊚ Text		
	Dispatch Policy	default		
	Request Encoding	UTF-8		
	Response Encoding	UTF-8		
	Client Response Timeout	300		
	Response URI	jms://localhost:7003/weblogic.jms.XAConnectionF		
	JMS Service Account	<not selected=""> 🔍 🖉</not>		
	Advanced Settings			0
	Use SSL			
	Message Selector			
	Client ID			

- **h.** In the Destination Type section, select **Queue**.
- i. Select the Is Response Required check box.
- j. In the Response Message Type section, select **Text**.
- **k.** In the Response URI field, provide the Endpoint URI used in the JMS Transport Configuration and change Request to Response. For example,

jms://localhost:7003/weblogic.jms.XAConnectionFactory/JMS\_ ProxyResponse

- 6. Save and close the Configuration page of the Proxy service.
- 7. Configure the Routing Rules and proceed with the following steps:
  - **a.** Double-click on the pipeline (for example, JMS\_ProxyPipeline) in the Pipelines/Split Joins pane.

The Pipeline configuration page is displayed.

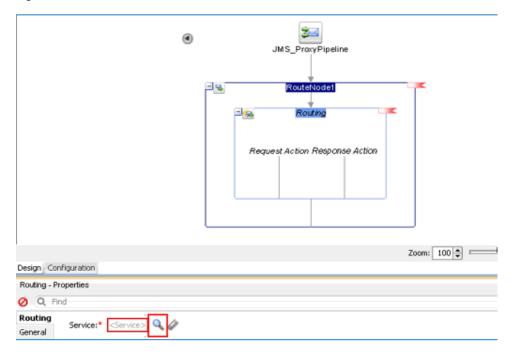
**b.** Drag and drop the **Routing** component from the Route section to the area below the Pipeline (for example, JMS\_ProxyPipeline), as shown in Figure 8–88.

Figure 8–88 Routing Component



**c.** In the Pipeline Configuration page, select **Routing** and click the browse icon to the right of the Service field in the Routing Properties pane, as shown in Figure 8–89.





**d.** In the displayed Resource Chooser window, select the WSDL-based Business service (for example, xxxxx\_BS.bix) and click **OK**.

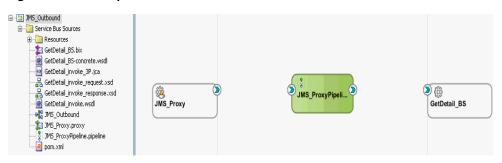
You are returned to the Pipeline configuration page.

**e**. Save and Close the Pipeline configuration page.

You are returned to the composite editor window.

f. Click **Save All** in the menu bar to save the OSB JMS process, as shown in Figure 8–90.

Figure 8–90 Transport Window



- **8.** Deploy the OSB JMS outbound process. For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-15.
- 9. Once the process is deployed successfully, log on to the Oracle WLS Console.
- In the Oracle WLS console, expand Services, click Messaging, select JMS Modules, and then click jmsResources, as shown in Figure 8–91.

Figure 8–91 JMS Resources

Change Center	Home Log Out Preferences Record Help	
View changes and restarts	Home »Summary of Deployments »Summary of 3MS Modules	
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of JMS Modules	
Lock & Edit Release Configuration	JMS system resources are configured and stored as modules similar to standard J2EE modules. Su distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can admin This page summarizes the JMS system modules that have been created for this domain.	
Domain Structure		
base_domain_osb P=Environment	₽ Customize this table	
Deployments	JMS Modules	
E-Messaging	Click the Lock & Edit button in the Change Center to activate all the buttons on this page.	
3MS Servers Store-and-Forward Agents	New	
DMS Modules     Path Services     Bridges	🔲 Name 🔅	
Data Sources	msResources	
Persistent Stores	OSBAQJMSServer	
Foreign JNDI Providers	UMSAQ3MSSystemResource	
How do I	UMSJMSSystemResource	
	WseeJmsModule	
<ul> <li>Configure JMS system modules</li> </ul>	New Delete	

**11.** Click the appropriate request link (for example, JMS\_ProxyRequest) as shown in Figure 8–92.

Figure 8–92 JMS\_ProxyRequest Link

Configuration       Subdeployments       Targets       Security       Notes         This page displays general information about a 3MS system module and its resources. It also allows you to configure new resources and access existing resources.         Name:       jmsResources       The name of this 3MS system module.       More Inf         Descriptor File Name:       jms/busResources-jms.xml       The name of the 3MS module descriptor file.       Mc	D1=1
This page displays general information about a 3MS system module and its resources. It also allows you to configure new resources and access existing resources.           Name:         pssResources         The name of this 3MS system module.         More Inf	0
ame: jnsResources The name of this JMS system module. More Inf	0
	o
escriptor File Name: ms/xbusResources-ms.xml The name of the IMS module descriptor File. Mo	
	are Info
iummary of Resources Ild. the <i>Lock &amp; Edit</i> button in the Change Center to activate all the buttons on this page.	
New Delete Sh	owing 1 to 10 of 15 Previous
🗉 Name 🔅 Type INDI Name Subdeployment	t Targets
JMS_ProxyRequest-214324722 Queue JMS_ProxyRequest JMS_ProxyRequest	R-2143324722 wisb3M55er
<ul> <li>no"univiralities</li> <li>dene</li> <li>no"univiralities</li> <li>no"univiralities</li> </ul>	se230658500 wisb3MSSer
Mo_max/modulex         Mo_max/modulex         Mo_max/modulex         Mo_max/modulex           3Mo_max/modulex         3Mo_max/modulex         3Mo_max/modulex         3Mo_max/modulex	
	wisbJMSSer

**12.** Click the Monitoring tab, as shown in Figure 8–93.

Figure 8–93 Monitoring Tab

in none tog of	ut Preferences 🚹	Record Help		Q	Welcome, weblogi
Home >Summary	of Deployments >S	ianmary of 3MS Mc	dules »jmsResourc	is >JMS_PrexyR	equest-2143324722
ettings for JMS	S_ProxyRequest	-2143324722			
Configuration	Monitoring Co	ontrol Security	Subdeployment	t Notes	
General Thr	esholds and Quota	s Overrides	Logging Deliver	ry Falure	
Click the Lock (	& Edit button in the	e Change Center	to modify the setti	ngs on this page.	
Save					
Use this page b	o define the genera	al configuration pa	rameters for this o	queue, such as se	electing a destination key for sorting messages as they arrive on the queue.
🛃 Name:	JMS_ProxyRe	equest-21433247	22		The name of this JMS queue. More Info
🛃 Name: INDI Name:		equest-21433247 xyRequest	22		The name of this JHS queue. More Info The global JNDI name used to look up the destina namespace. More Info

**13.** Select the check box and click the **Show Messages** button, as shown in Figure 8–94.

Figure 8–94 Show Messages Button

	Out Preferences	Record	Help		Q			Actions?	incompte Connected	to: base_doma
Home >Summa	ry of Deployments	»Summary o	of IMS Mod	ules »įmsResources »	JMS_PresyRequest-2	43324722				
ettings for JP	15_ProxyReque	st-214332	24722							
Configuration	Monitoring	Control 1	Security	Subdeployment	Notes					
tris page su	imarizes the activi	e JMS destin	hations that	t have been creater	for this JMS module.					
Customize				t have been creater	f for this 3MS module.					
Customize	this table s (Filtered - Mor			t have been created	I for this IMS module.				Showing 1 to 1 o	f 1 Previous   N
Customize	this table (Filtered - Mor ages			t have been create		ling Messages Total	Consumers Current	Consumers High	Showing 1 to 1 o	
Customize Custom	this table (Filtered - Mor ages	re Columns	: Exist)	Messages Curro		fing Messages Total	Consumers Current	Consumers High 16		f 1 Previous   N Messages Hig 0

14. Click New, as shown in Figure 8–95.

elected messages, nation.
elected messages, adion.
of 0 Previous   N

Figure 8–95 JMS Messages

- **15.** Provide the input payload in the Body field and click **OK**.
- **16.** In the Oracle WLS console, expand **Services**, click **Messaging**, select **JMS Modules**, and then click **jmsResources**.
- 17. Click the appropriate response link (for example, JMS\_ProxyResponse).
- **18.** Click the Monitoring tab.
- **19.** Select the check box and click **Show Messages**, as shown in Figure 8–96.

Figure 8–96 Destination Messages

← → C 🗋 localhost: 7001/cor	nsole/console.portal?_nfpb=true&_pageLa	bel=JMSQueueN	1onitorBook&har	ndle=com.bea.	console.handles.J	MXHandle%28	"com.bea%3AN	lame%3DJM 🖒
	Administration Console 12c							Ç
Change Center	🔒 Home Log Out Preferences 🔤 Record Help	G	L			Welcome,	weblogic Connected	to: base_domain_o
View changes and restarts	Home »Summary of Deployments »Summary of JMS Mode	ules >imsResources >JMS	ProxyRequest-214332472	2 >Summary of JMS M	essages »Summary of JMS I	Aodules »jmsResources	»JMS_ProxyResponse	230658500
Click the Lock & Edit button to modify, add or delete items in this domain.	Settings for JMS_ProxyResponse230658500							
Lock & Edit	Configuration Monitoring Control Security	Subdeployment Note	5					
Release Configuration Domain Structure base_domain_osb	A JMS destination identifies a queue (Point-To-Point) o This page summarizes the active JMS destinations that			rver.				
Environment     Deployments     Services	Customize this table							
Messaging     MS Servers     Store-and-Forward Agents     MS Modules	Destinations (Filtered - More Columns Exist) Show Messages           Name	Messages Current	Messages Pending	Messages Total	Consumers Current	Consumers High	Showing 1 to 1	of 1 Previous   Next
Path Services     Bridges	✓ jmsResources!.™5_ProxyResponse230658500	1	0	1	16	16	16	1
Data Sources Persistent Stores Foreign JNDI Providers Work Contexts	Show Messages					1	Showing 1 to 1	i of 1 Previous   Next
How do L.    Manage queue messages  Configure queues  System Status  Health of Running Servers  Failed (0)  Critical (0)  Overloaded (0)								

**20.** Click the ID link with the appropriate time and date, as shown in Figure 8–97.

	insole/console.portal?]ms]MSM	lessageTableP	ortletreturi	nTo=JMSQueueMonitorBook8	3.JmsDestinations.JMSQ	ueueMonitorPortlethandle	
ORACLE WebLogic Server	Administration Console 12c						Q
Change Center	🔒 Home Log Out Preferences 🔤 F	Record Help		Q		Welcome, weblogic Co	nnected to: base_domain_os
View changes and restarts	Home »Summary of Deployments »Sum JMS Messages	mary of JMS Module	s >jmsResources	»JMS_ProxyRequest-2143324722 »Summary (	of JMS Messages >Summary of JMS	Modules >jmsResources >JMS_ProxyRes	ponse230658500 >Summary of
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of JMS Messages						
Lock & Edt Release Configuration				a distributed queue, or a topic durable sub: format to another file, import XML formati			
Domain Structure	Click on a message to view its conten	its.					
base_domain_oob  Bit Environment Dopolymments Dopolymments Differences Differe	Message Selector: © Customize this table 3M5 Messages (Filtered - More C	Columns Exist)			Ap	19	
Data Sources	New Delete v Move v Imp	iort Export v				Showing	1 to 1 of 1 Previous   Next
Foreign JNDI ProvidersWork Contexts	. D 🏟		CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size
How do I	D:<357562.1400618107339.0	l≽		Tue May 20 13:35:07 PDT 2014	visible	Persistent	1914
Manage queue messages     Manage distributed queue messages	New Delete v Move v Imp	iort Export v				Showing	pitolofi Previous   Next
Manage topic durable subscribers							
System Status	1						
Health of Running Servers							
Failed (0) Critical (0)							

Figure 8–97 Summary of JMS Messages Window

The response document is shown under the Text field.

# 8.6 Configuring an HTTP Outbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure HTTP Outbound process to your J.D. Edwards OneWorld system, using Oracle JDeveloper for J2CA configurations.

- Before you design an HTTP Outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.
- Start the Oracle JDeveloper and create a Service Bus Application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.
- **3.** Create a Third Party Adapter Service Component. For more information, see Section 8.1.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-3.
- **4.** Create an HTTP Proxy Service with a Pipeline and perform the following steps:
  - **a.** Drag and drop the **HTTP** component from the Technology Components pane to the Proxy Services pane, as shown in Figure 8–98.

art Page R HTTP_Outbound			Resources	Components ~		
✓ 30		HTTP_Outbound				
Proxy Services	Pipelines/Split Joins	External Services	Service Bus			
			Resources			
			1	赤		
			Pipeline	Split.Join		
			Technology			
			<b>@</b>			
			AQ	A5/400		
			Scherence	() Database		
8	To create resources, drag and drop an icon		6	<u>()</u>	- ,	
	from the component palette to the canvas		<u>(</u>	(8)		
	or select one from the right-click centext menu		36.36	3MS		
	or select one if one right cities context intern			Transport		
			<u>@</u>	6		
			MQ	MSMQ		
			0	6		
			58	Socket	Tu	

Figure 8–98 HTTP Component

The Create Proxy Service dialog is displayed.

- **b.** In the Service Name field, enter any name you wish for the Proxy service (for example, HTTP\_Proxy). By default, Generate Pipeline is selected.
- **c.** Click **Next**, as shown in Figure 8–99.

Figure 8–99 Create Proxy Service Pane

😚 Create Proxy Service	e - Step 1 of 3		×
Create Service			
Create Service	General Service N <u>a</u> me: Location: Description	HTTP_Proxy C:\soabeta\work\mywork\OSB_Application\HTTP_Outbound	 
	Definition     Iransport	http	-
	✓ Generate Pipeline Name:	Pipeline HTTP_ProxyPipeline	
	Messages:		
Help		Cance Search Einish Cance	el

- **d.** In the displayed Type window, select **Any XML** and then click **Next**. The Transport window is displayed.
- e. Leave the default values and then click Finish, as shown in Figure 8–100.

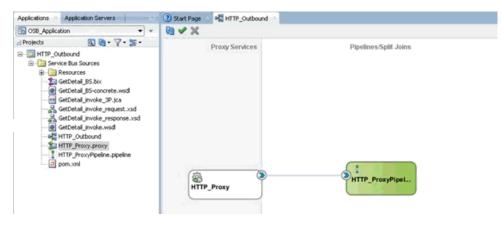
🍘 Create Proxy Service Transport	e - Step 3 of 3			01010101010	10101739013939310	×
A Create Service	Service Type					
y <u>Type</u>	Transport	http				•
🧅 Transport	Endpoint URI:	/HTTP_Outbound/HTTP_Prox	У			
		Format: /someName				
Help			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–100 Transport Window

The HTTP Proxy service along with the pipeline is created and displayed.

f. Double-click the created pipeline (for example, HTTP\_ProxyPipeline) in the Pipelines/Split Joins pane, as shown in Figure 8–101.

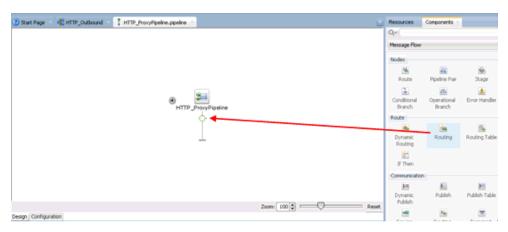
Figure 8–101 Proxy Service



The Pipeline Configuration page is displayed.

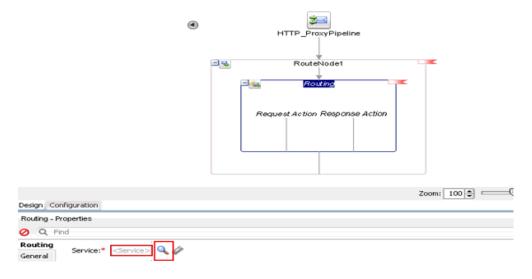
- 5. Configure the Routing Rules and proceed with the following steps:
  - **a.** Drag and drop the **Routing** component from the Route section to the area below the Pipeline (for example, HTTP\_ProxyPipeline), as shown in Figure 8–102.

Figure 8–102 Routing Component



 In the Pipeline Configuration page, select Routing and click the browse icon to the right of the Service field in the Routing Properties pane, as shown in Figure 8–103.





**c.** In the displayed Resource Chooser window, select the WSDL-based Business service (for example, xxxxx\_BS.bix) and click **OK**.

You are returned to the Pipeline configuration page.

d. Save and Close the Pipeline configuration page.

You are returned to the composite editor window.

**e.** Click **Save All** in the menu bar to save the OSB HTTP process, as shown in Figure 8–104.

Figure 8–104 Transport Window

🔁 OSB_Application 🔹 👻	₩ 🗸 🗙		HTTP_Outbound
Projects       Q	Proxy Services	Pipelines/Split Joins	External Services
	HTTP_Proxy	HTTP_ProxyPipel	کې دې: GetDetail_BS

- **6.** Deploy the OSB HTTP outbound process. For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-15.
- 7. Once the process is deployed successfully, log on to the Service Bus Console.
- **8.** In the Service Bus console, click on the deployed HTTP Outbound project (for example, HTTP\_Outbound), as shown in Figure 8–105.

#### Figure 8–105 Service Bus Console

→ C D localhost: 7001/servi	icebus/faces/resources	<u>ث</u>
RACLE' Service Bus Conso	le 12c	Unia + Help + weblogic +
		Greate Discard Di
	HTTP_Outbound ×	E 3 9 9
sources Admin Al Projects Al Projects Al HTTP Outbound	Project Definition "General Desoption	(C)
GetDetal_85 GetDetal_85-concrete GetDetal_invole	CHTP_Dubbond	
🙀 GetDetal_Invoka_3P	Ø	AI Types *
🔏 GetDetal jiniske jequest 🔏 GetDetal jiniske jesponse	Nane	Type Actions
HTTP_Proxy	★ ···	Project
HTTP_ProxyPipeline	1 GetDetal_B5	Business Service 🍃 📩
> 🔯 System	GetDetal_85-concrete	WSDC
	GetDetal_invoke	WSDL
	To CatCetal_involue_3P	XA tinding 💒
	& GetDetal_Invoke_request	Schema
	& GetDetal invoke response	Schema
	Santie Proxy	Proxy Service
	1 HTP_hox/Poeine	
	S (un the Tatowide Bernin	Pipelne 🕨 🚺

**9.** Click on the Test OSB Console icon for the created pipeline, as shown in Figure 8–106.

All Projects     default     G MTTP_Outbound	koudulpowi	
🕼 GetDetal_BS @ GetDetal_BS-concrete	D HTTP_Outbound	
GetDetal_invoke	View 🛩 💥 🛃 🛃 Detach	
GetDetal_invoke_3P	4	All Types 🔻
GetDetal_invoke_request	Name	Type Actions
A GetDetall_invoke_response	<b>*</b>	Project
HTTP_ProxyPipeline	g GetDetal_BS	Business Service
> 🔯 System	GetDetail_B5-concrete	WSDL
	@ GetDetal_invoke	WSDL
	C GetDetal_invoke_3P	JCA Binding
	SetDetal_invoke_request	Schema
	SetDetal_invoke_response	Schema
	HTTP_Proxy	Proxy Service
	HTTP_ProxyPipeline	Pipeline 💽

Figure 8–106 Test OSB Console Icon

**10.** In the displayed Test OSB Console page, provide the input XML and click the **Execute** button.

In the displayed Test OSB Console page, the response is received.

## **Key Features**

This chapter describes key features for the Oracle Application Adapter for J.D. Edwards OneWorld. This chapter contains the following topics:

- Section 9.1, "Exception Filter"
- Section 9.2, "Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)"
- Section 9.3, "Credential Mapping for Oracle Service Bus (OSB)"

### 9.1 Exception Filter

This section describes how to configure exception filter functionality for the Oracle Application Adapter for J.D. Edwards OneWorld and includes a sample testing scenario.

This section contains the following topic:

Section 9.1.1, "Configuring the Exception Filter"

The exception filter is supported only for outbound processes that use J2CA configurations. This feature is not supported for BSE configurations and inbound processes that use J2CA configurations.

The exception filter uses the com.ibi.afjca.oracle.AdapterExceptionFilter class to filter the generated exceptions. This class filters the exceptions and categorizes them into the following categories:

- PCRetriableResourceException
- PCResourceException

The following exceptions are represented in the fault policies file:

- PCRetriableResourceException A remote fault.
- PCResourceException A binding fault.

#### 9.1.1 Configuring the Exception Filter

Exception filter configuration consists of the following steps and topics:

- 1. Section 9.1.1.1, "Generating a WSDL File"
- 2. Section 9.1.1.2, "Creating a BPEL process With Exception Filter Functionality"
- 3. Section 9.1.1.3, "Creating Fault Policies and Fault Binding Files"
- 4. Section 9.1.1.4, "Adjusting for Known Deployment Issues With 12c"

**5.** Section 9.1.1.5, "Deploying and Testing the BPEL Process With Exception Filter Functionality"

#### 9.1.1.1 Generating a WSDL File

To generate the WSDL file:

1. Open Application Explorer and create a J2CA configuration.

For more information, see "Creating a Configuration for J2CA" on page 2-3.

**2.** Create a target for the PeopleSoft adapter and then connect to the target.

For more information, see "Establishing a Connection (Target) for J.D. Edwards OneWorld" on page 2-5.

**3.** Generate a WSDL for the appropriate object.

For more information, see "Generating WSDL (J2CA Configurations Only)" on page 2-11.

#### 9.1.1.2 Creating a BPEL process With Exception Filter Functionality

To create a BPEL process with exception filter functionality:

**1.** Open JDeveloper and create a new SOA application.

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

- 2. Create a new SOA project (for example, Exception\_Filter).
- **3.** Create a third party adapter service component.

For more information, see Section 4.4.3.1, "Configuring a Third Party Adapter Service Component" on page 4-11.

Once the third party adapter service component is created, the WSDL file (with corresponding schemas and JCA file) is imported to the JDeveloper project.

For more information, see Section 4.4.3, "Defining a BPEL Outbound Process" on page 4-11.

- **4.** Modify the imported JCA file.
  - **a.** Right-click the imported JCA file and select **Open** from the menu, as shown in Figure 9–1.

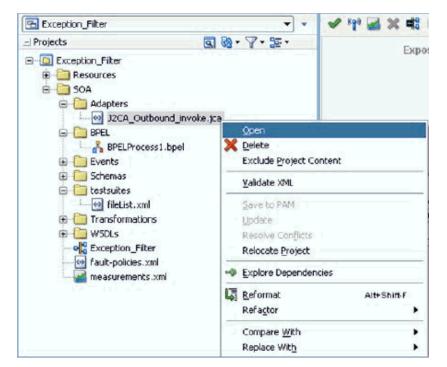


Figure 9–1 Application Navigator Tab

**b.** In the <interaction-spec> element, add the ExceptionFilter property. For example:

```
<property name="FunctionName" value="PROCESS"/><property
name="ExceptionFilter"
value="com.ibi.afjca.oracle.AdapterExceptionFilter"/></interaction-spec>
```

- **c.** Save the modified JCA file.
- **5.** Once the third party adapter service component is created and the JCA file is modified, continue with the remainder of the BPEL process creation.

For more information, see Section 4.4.3, "Defining a BPEL Outbound Process" on page 4-11.

#### 9.1.1.3 Creating Fault Policies and Fault Binding Files

To create fault binding files:

1. Right-click the created SOA project (for example, Exception\_Filter), select New, and then click From Gallery, as shown in Figure 9–2.

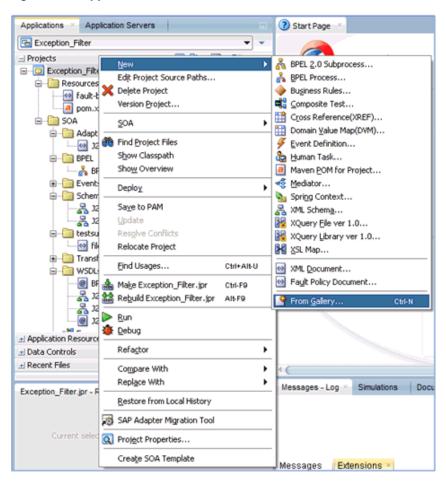


Figure 9–2 Applications Tab

The New Gallery dialog is displayed. Under the General category, click **XML**, as shown in Figure 9–3.

ategories:	Items:	Show All Description
-General	RXSD Schema	
Applications	ML Document	
Connections Deployment Descriptors Deployment Profiles Diagrams	Opens the Create XML File dialog, in white a new XML file that includes only the 7xm enable this option, you must select a pro Application Navigator.	
Java	MIL Document from XML Schema	
Maven Projects	ML Localization File (XLIFF)	
UML	몱 XML Schema	
XML BPM Tier	R XML Schema from XML Document	
Activity Guide	🐻 XQuery File	
Business Components Case Management	XQuery File ver 1.0	
Simulation	XQuery Library ver 1.0	
-Business Tier 	XSL Map	
-Business Rules Contexts and Dependency Injection	XSL Map From XSL Stylesheet	

Figure 9–3 New Gallery Dialog

2. Select XML Document under Items and then click OK.

The Create XML File dialog is displayed, as shown in Figure 9–4.

Figure 9–4 Create XML File Dialog

Create XML File	×
Enter the details of your new file.	<>>
Eile Name:  fault-bindings.xml	
Directory:	
C:\12c_Jdeveloper_SOABPM\WORK\mywork\Exception_Filter\Exception_F	Filter Browse
Help	Cancel

- 3. In the File Name field, type fault-bindings.xml and click OK.
- 4. Add the appropriate fault binding functions in the **fault-bindings.xml** file.

To view a sample **fault-bindings.xml** file, see "Sample Fault-Bindings.xml File" on page 9-6.

**Note:** The parameter in the <name> element is the name of the created BPEL process.

5. Save the fault-bindings.xml file.

#### Sample Fault-Bindings.xml File

```
<?xml version="1.0" encoding="UTF-8" ?>
<faultPolicyBindings version="2.0.1"
xmlns="http://schemas.oracle.com/bpel/faultpolicy"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<component faultPolicy="bpelFaultHandling">
<component faultPolicy="bpelFaultHandling">
</component faultPolicy="bpelFaultHandling">
</component</pre>
```

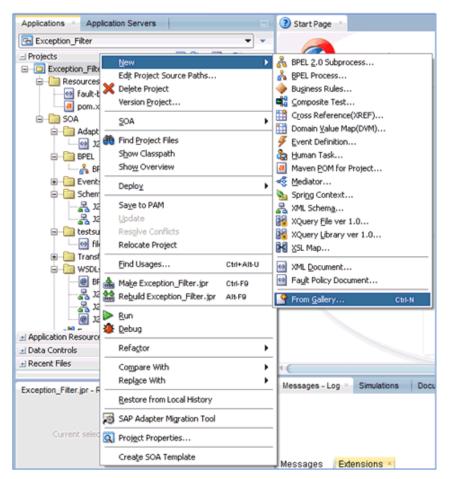
```
</faultPolicyBindings>
```

#### **Creating Fault Policies Files**

To create fault policies files:

1. Right-click the created SOA project (for example, Exception\_Filter), select New, and then click From Gallery, as shown in Figure 9–5.

Figure 9–5 Applications Tab



The New Gallery dialog is displayed. Under the SOA Tier category, select **Faults**, as shown in Figure 9–6.

Categories:	Items:	Show All Description
Database Files     Database Objects     Offline Database Objects     OEP Tier	Fault Policy Document Creates new fault-policies.xml document.	
OEP Files  Service Bus Tier  Services  Interfaces  Transformations/Translations  Security  Utility  System  Transformations		
SOA Tier  SoA Tier  Taults  Therfaces  Service Components  Tests  Transformations/Translations		
-Web Tier		

Figure 9–6 New Gallery Dialog

- 2. Select Fault Policy Document under Items and then click OK.
- **3.** In the fault-policies.xml tab, select **bpelx:bindingFault** from the Fault Name drop-down list and **[retry] default-retry** from the Default Action drop-down list, as shown in Figure 9–7.

Figure 9–7 Fault-policies.xml Tab

ault Policy: policy1			. <b>.</b> .
			<b>T</b>
bpelx:bindingFau	lt		
Fault Name:	🛆 bpelx:bindingFault		- Q
Description:			
Default Action	🦛 [rotul dofarit-rotu		• 0.00 • d
Default Action	(retry] default-retry		→ ① (0) → ④
Default Action	[retry] default-retry		• ① (0) • 4
			• <u>A</u> (0) • 4
Default Action Alerts Actions	[retry] default-retry Properties		
Alerts Actions		Time	▲ (0) - 4
Alerts Actions	Properties	Туре	
Alerts Actions		Туре	
Alerts Actions	Properties	Туре	

4. Click the Actions tab and then double-click default-retry.

The Retry Properties dialog box is displayed, as shown in Figure 9–8.

Image: Second	Q,
bpek:bindingFault         Fault Name:	Q,
Description:       Default Action       Alerts     Actions       Properties       ID       ID       default-termination       default-termination       default-termination       default-human       default-java	Q
Description:       Retry Properties         Default Action       ID         Alerts       Actions         Properties       ID *:         default-retry         ID       Retry Count *:         idefault-termination       Retry Interval *:         default-human       Exponential Backoff:         default-java       Retry Success Action:	• ~
Default Action       Tetry default-retry         Alerts       Actions       Properties         ID       ID *:       default-retry         ID       Retry Count *:       3         default-termination       Retry Interval *:       2         default-human       Exponential Backoff:	
Retry Properties       ID       ID       Retry Count *:       3       default-termination       default-human       Exponential Backoff:       default-java	
Alerts     Actions     Properties       ID     ID *:     default-retry       ID     Retry Count *:     3       default-termination     Retry Interval *:     2       default-human     Exponential Backoff:	▼ ⚠ (0) - 💠
Alerts     Actions     Properties       ID     ID *:     default-retry       ID     Retry Count *:     3       default-termination     Retry Interval *:     2       default-human     Exponential Backoff:	
ID Retry Count *: 3 default-termination Retry Interval *: 2 default-human Exponential Backoff: default-java Retry Success Action: Statement default-t	×
default-termination Retry Interval *: 2 default-human Exponential Backoff: default-java Retry Success Action: Stabort default-t	
default-human Exponential Backoff: default-java Retry Success Action: Sabort1 default-t	
default-java Retry Success Action: 13 [abort] default-t	
Retry Success Action: 1. I abort I default-t	
default-replay	rmination
default-rethrow Retry Failure Action:	on] default-human 🔹
default-ws	
default-enqueue Help	
default-file	Ok Cancel
default-retry 🖆 retry	

Figure 9–8 Retry Properties Dialog Box

- **5.** Select **[abort] default-termination** from the Retry Success Action drop-down list and **[humanIntervention] default-human** from the Retry Failure Action drop-down list.
- 6. Click OK.
- 7. Click Add to create another fault handler, as shown in Figure 9–9.

Figure 9–9 Fault-policies.xml Tab

• ×	
ault Policy: policy1	
Fault Handlers	🖶 🗶
bpelx:bindingFault	Creates
Fault Name: A bpelx:bindingFault	↓ Q
Description:	
	0 (m)
Const Const Const	tion 👻 🗋 (0) - 💠
Const Const Const	tion • (0)• •
Canada and an and a second second	
Alerts Actions Properties	<b>+</b> · / ×
Alerts Actions Properties	Туре
Alerts Actions Properties	Type
Alerts Actions Properties ID default-termination default-human default-java	Type
Alerts Actions Properties ID default-termination default-human default-java default-replay	Type  Type  Abort  humanIntervention  S javaAction
Alerts Actions Properties	Type  Type  Abort  humanIntervention  Type  Type Type

- 8. In the fault-policies.xml tab, select **bpelx:remoteFault** from the Fault Name drop-down list and **[abort] default-termination** from the Default Action drop-down list.
- 9. In the Actions tab, click Add and then select retry, as shown in Figure 9–10.

Figure 9–10 Actions Tab

fault-policies.xm/ ×			Compo
F X			Q(
Fault Policy: policy1			Fault
- Fault Handlers		+ x	1
to the second second second second			al
bpelx:bindingFault bpelx:remoteFault			
Fault Name: 🙆 bpelx:remoteFault		- 🤍	A
Description:			
-			Con
Default Action [33] [abort] default-termin	nation 👻	<u>(0)</u> - 🛖	
Consid on our country	· · · · · · · · · · · · · · · · · · ·		
			expon
Alerts Actions Properties			expon
		<b>•</b> • / X	expon
	Туре	💠 🗸 💥	expon
Alerts Actions Properties	Type	abort	expon faultF
Alerts Actions Properties		🔛 abort	expon faultF
Alerts Actions Properties	abort	abort humanIntervent javaAction freplayScope	expon faultF
Alerts Actions Properties ID default-termination default-human	abort abort	abort     a	expon faultF
Alerts Actions Properties ID default-termination default-human default-java	Cabort burnanIntervention baveAction	abort abort brunnanIntervent brunnanInt	expon faultF
Alerts Actions Properties ID default-termination default-human default-java default-replay	Call abort ઢ humanIntervention ⓒ javaAction 에 replayScope	abort abort brumanIntervent b	expon faultF
Alerts Actions Properties ID default-termination default-raplay default-replay default-rethrow	abort abort abort brainfervention brainferven	abort abort brunnanintervent brunnanint	expon faultF faultF

The Retry Properties dialog is displayed, as shown in Figure 9–11.

Figure 9–11 Retry Properties Dialog Box

Retry Properties	×
ID *:	remote_retry
Retry Count *:	5
Retry Interval *:	2
Exponential Backoff:	
Retry Success Action:	🔀 [abort] default-termination 🔹
Retry Failure Action:	🚨 [humanIntervention] default-human 🗾 👻
Help	Ok Cancel

- 10. Provide values for the ID, Retry Count, and Retry Interval fields.
- **11.** Select **[abort] default-termination** from the Retry Success Action drop-down list and **[humanIntervention] default-human** from the Retry Failure Action drop-down list.
- **12.** Click **OK**.

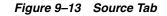
The created Retry ID will be listed under the Actions tab.

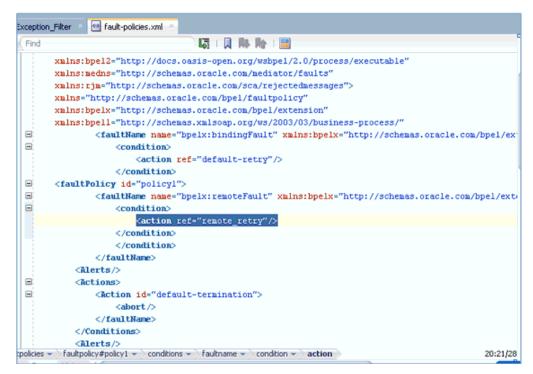
From the Default Action drop-down list, select the newly created Retry ID (for example, remote\_retry) as shown in Figure 9–12.

Figure 9–12 Fault-policies.xml Tab

ault Policy: policy1		
Fault Handlers		+ ×
bpelx:bindingFault bpelx:remo	oteFault	
Fault Name: 🙆 bpelx:rem	noteFault 👻	Q
Description:		
Default Action (retry) ren	mote_retry • ① (0) •	4
Default Action (retry) ren		<b>+</b>
Default Action (retry) ren	mote_retry • ① (0) •	+ / %
Default Action (retry) ren		+
Default Action (retry) ren Alerts Actions Properties ID default-enqueue	ф • и	+
Default Action (retry) ren Alerts Actions Properties ID Default-enqueue default-file	Type	+
Default Action (retry) ren	Type (), enqueue fileAction	+

- 13. Click Save All.
- **14.** Click the **Source** tab to verify that the fault polices are added properly, as shown in Figure 9–13.





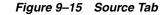
**15.** Double-click the **Exception\_Filter** project and then click **Edit Composite Fault Policies**.

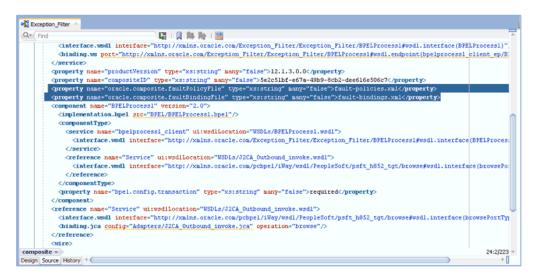
The Composite Fault Policies window is displayed. Ensure that the Fault Policy and the fault-bindings are selected properly, as shown in Figure 9–14.

Exposed S	Composite Fau	lt Policies		
			ual policies to composite artif nose at higher levels	acts.
	Fault Policy File:	ilter\Exception_	Filter\SOA\fault-policies.xml	Q
	Fault Binding File:	ter\Exception_F	ilter\SOA\fault-bindings.xml	
	Artifact		Policy	
□ ∰	କ <mark>ରୁ</mark> Composite			
bpelprocess1	Components			
Operations: process	A BPELProcess1			
(Freedow)	References			
	Service			
	Services			
	bpelprocess1_	client_ep		
sign Source History				

Figure 9–14 Composite Fault Policies Window

- 16. Click Save All.
- Click the Source tab to verify that the *fault-bindings.xml* and *fault-policies.xml* files are added properly, as shown in Figure 9–15.





#### 9.1.1.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

#### 9.1.1.5 Deploying and Testing the BPEL Process With Exception Filter Functionality

To deploy and test the BPEL process with exception filter functionality:

1. Deploy the created BPEL process.

For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

- **2.** Simulate a communication error by disconnecting the system (where the servers are running) from the network.
- 3. Invoke the deployed BPEL process with a valid input.

For more information, see Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

**4.** Select the process ID.

You can observe the BPEL process being retried or aborted based on the configuration of the **fault-policies.xml** file.

### 9.2 Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)

This section describes how to configure credential mapping functionality for the Oracle Application Adapter for J.D. Edwards OneWorld in a configuration that uses Oracle SOA Suite (BPEL, Mediator, or BPM). A sample testing scenario is also included. This section contains the following topic:

Section 9.2.1, "Configuring Credential Mapping"

Credential mapping is supported only for outbound processes that use J2CA configurations. This feature is not supported for BSE configurations and inbound processes that use J2CA configurations.

**Note:** The J2CA connector is common to all four application adapters (SAP R/3, PeopleSoft, Siebel, and J.D. Edwards OneWorld). If credential mapping is required, then ensure that only one application adapter is used in a particular instance. For example, in one adapter instance only the J.D. Edwards OneWorld application adapter can be used. Credential mapping cannot be configured at the individual adapter level. If you require the use of credential mapping for two adapters, then both adapters must be running in two independent adapter instances.

To pass user credentials to the J2CA resource adapter, create a credential map from the Oracle WebLogic Server user credentials to the EIS user credentials (J.D. Edwards OneWorld adapter). Then associate a credential policy with a BPEL, Mediator, or BPM Web service and invoke the Web service using Oracle WebLogic Server user credentials. These credentials are mapped to the EIS user credentials and then passed to the J2CA container, which uses them to connect with the EIS adapter (J.D. Edwards OneWorld).

### 9.2.1 Configuring Credential Mapping

This section discusses configuring credential mapping, and consists of the following steps and topics:

**1.** Deploy the adapter.

For more information, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

2. Associate Oracle WebLogic Server credentials with EIS credentials.

For more information, see Section 9.2.1.1, "Associating Oracle WebLogic Server Credentials With EIS Credentials" on page 9-14.

**3.** Generate a WSDL file.

For more information, see Section 9.2.1.2, "Generating a WSDL File" on page 9-17.

4. Create and deploy an outbound process.

For more information, see Section 9.2.1.3, "Creating and Deploying an Outbound Process" on page 9-17.

5. Invoke and verify that the EIS credentials have passed.

For more information, see Section 9.2.1.4, "Verifying the EIS Credentials" on page 9-18.

#### 9.2.1.1 Associating Oracle WebLogic Server Credentials With EIS Credentials

To associate Oracle WebLogic Server credentials with EIS credentials:

- 1. Log in to the Oracle WebLogic Server Administration Console.
- **2.** In the Domain Structure section in the left pane, click **Deployments**, as shown in Figure 9–16.

		Mexicapter
System Status		
Health of Running Servers		FtpAdapter
Failed (0) Critical (0)		🗈 🦲 ibse
Overloaded (0) Warning (0)		<mark>⊘iwafica</mark>
OK (2)		🛨 🦲 iwafjca, Level 1, 13 of 33
		🐼 JmsAdapter
		MQSeriesAdapter
	П	CracleAppsAdapter

Figure 9–16 Deployments Page

3. Click the **iwafjca** resource adapter.

The Settings for iwafjca page is displayed, as shown in Figure 9–17.

Figure 9–17 Settings for iwafjca Page

iys	for iwafjo	a																
Overviev	v Deplo	yment Plan	Configuration	Security	Targets	Control	Testing	Monitoring	Notes									
Roles	Policies	Outbound	Credential Ma	ppings I	Inbound Prin	cipal Mapp	ings Princ	cipals										
outbou	nd creden	tial mappings	s let you map We s for all outbound s for this resource	connection														
	mize this		inas															
		table ential Mapp	ings											Shov	ving 0 to	0 of 0	Previo	us   Neo
Outbou	und Crede	ential Mapp	ings		EIS User			Out	bound Co	nnection F	ool			Shov	ving O to	D of O	Previo	us   Nex
Outbou	Delete	ential Mapp	ings		EIS User		Th	Outl	a site e		rool			Shov	ving 0 to	D of O	Previo	us   Ner

**4.** Click the **Outbound Credential Mappings** tab under the Security tab, and then click **New**.

The Create a New Security Credential Mapping page is displayed, as shown in Figure 9–18.

Create	a New Security Credential Mapping
Bac	K Next Finish Cancel
Out	bound Connection Pool
	th Outbound Connection Pool would you like the credential map to be associated w resource adapter. Each Outbound Connection Pool can then configure themselves
🖗 Cus	tomize this table
Crea	ite a New Security Credential Map Entry for:
	Outbound Connection Pool 🔅
	eis/OracleJCAAdapter/DefaultConnection
	Resource Adapter Default
Bac	k Next Finish Cancel

Figure 9–18 Create a New Security Credential Mapping Page

**5.** Select the outbound connection pool.

For example:

eis/OracleJCAAdapter/DefaultConnection

6. Click Next.

The WebLogic Server User page is displayed, as shown in Figure 9–19.

Figure 9–19 WebLogic Server User Page

Create a New Security Credential Mapping
Back Next [Frink] [Carcel]
WebLogic Server User
Select the WebLopic Server User that you would like to map an EIS user to. Selecting 'User for creating initial connections' will configure the user that will be used for creating the initial connections when the resource adapter is first tarted. Selecting Default User' will configure the user that will be used as the default for any automiticated WebLopic Server user that does not have a credential mapping specifically for them. Selecting User for unsubtracted user' will configure the user that will be used for an unsutheriticated WebLopic Server user. If you select 'Configured User' you must type in the WebLopic Server user that you are configureng. This user must be a configured WebLopic Server user.
(i) User for creating initial connections
Default User
Inauthenticated WLS User
© Configured User Name
WebLogic Server User Name:
Back Next Freih Carcel

**7.** Select **Default User**, enter a valid Oracle WebLogic Server user name, and then click **Next**.

The EIS User Name and Password page is displayed, as shown in Figure 9–20.

Create a New Security Credential Mapping	
Back Next Finish Cancel	
EIS User Name and Password	
Configure the EIS User Name and Password that you wout * Indicates required fields	uld like to map the WebLogic Server User to:
Enter the EIS User Name:	
* EIS User Name::	iwayqa
Enter the EIS Password:	
* EIS Password::	•••••
* Confirm Password::	•••••
Back Next Finish Cancel	

Figure 9–20 EIS User Name and Password Page

8. Enter the user name and password for the EIS and click Finish.

The credentials for an Oracle WebLogic Server user are now mapped with an EIS user (J.D. Edwards OneWorld). The mapping is invoked automatically before invoking the J2CA service.

### 9.2.1.2 Generating a WSDL File

To generate a WSDL file:

1. Open Application Explorer and create a J2CA configuration.

For more information, see Section 2.3.2, "Creating a Configuration for J2CA" on page 2-3.

**2.** Create a target for the J.D. Edwards OneWorld adapter and then connect to the target.

For more information, see Section 2.4, "Establishing a Connection (Target) for J.D. Edwards OneWorld" on page 2-5.

**3.** Generate a WSDL for the appropriate object.

For more information, see Section 2.6, "Generating WSDL (J2CA Configurations Only)" on page 2-11.

### 9.2.1.3 Creating and Deploying an Outbound Process

This section describes how to configure an outbound process. For demonstration purposes, specific references to the BPEL outbound process are made. However, the same steps apply to Mediator and BPM outbound processes.

For more information about creating a Mediator outbound process, see Chapter 5, "Integration With Mediator Service Components in the Oracle SOA Suite".

For more information about creating a BPM outbound process, see Chapter 6, "Integration With BPM Service Components in the Oracle SOA Suite".

To create a BPEL outbound process, see the following sections:

- Section 4.4.2, "Creating an Empty Composite for SOA"
- Section 4.4.3, "Defining a BPEL Outbound Process"
- Section 4.4.4, "Deploying the BPEL Outbound Process"

### 9.2.1.4 Verifying the EIS Credentials

Invoke the input XML and ensure that the EIS target credentials are overridden with the credentials configured in the WebLogic Administration Console for the Default User as described in this section.

1. Invoke the deployed BPEL outbound process with a valid input.

For more information, see Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

**2.** Check the J2CA log files and locate the encrypted password, which shows that the user credentials have been passed to the EIS through Oracle WebLogic Server.

For example:

```
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(78) InLoop:
User-iwayqa:Password-ENCR(310931173183113182333215315332323192322731773172)
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(90) Use the system PasswordCredential:
User-iwayqa:Password-ENCR(310931173183113182233215315332323192322731773172)
```

# 9.3 Credential Mapping for Oracle Service Bus (OSB)

This section describes how to configure credential mapping functionality for the Oracle Application Adapter for J.D. Edwards OneWorld in a configuration that uses Oracle Service Bus (OSB). A sample testing scenario is also included. This section contains the following topic:

Section 9.3.1, "Configuring Credential Mapping"

Credential mapping is supported only for outbound processes that use J2CA configurations. This feature is not supported for BSE configurations and inbound processes that use J2CA configurations.

**Note:** The J2CA connector is common to all four application adapters (SAP R/3, PeopleSoft, Siebel, and J.D. Edwards OneWorld). If credential mapping is required, then ensure that only one application adapter is used in a particular instance. For example, in one adapter instance only the J.D. Edwards OneWorld application adapter can be used. Credential mapping cannot be configured at the individual adapter level. If you require the use of credential mapping for two adapters, then both adapters must be running in two independent adapter instances.

To pass user credentials to the iWay J2CA resource adapter, create a credential map from the Oracle WebLogic Server user credentials to the EIS user credentials (J.D. Edwards OneWorld adapter). Then associate a credential policy with a Web service and invoke the Web service using Oracle WebLogic Server user credentials. These credentials are mapped to the EIS user credentials and then passed to the iWay J2CA container, which uses them to connect with the EIS adapter (J.D. Edwards OneWorld).

# 9.3.1 Configuring Credential Mapping

Configuring credential mapping consists of the following steps and topics:

**1.** Deploy the adapter.

For more information, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

2. Associate Oracle WebLogic Server credentials with EIS credentials.

For more information, see Section 9.3.1.1, "Associating Oracle WebLogic Server Credentials With EIS Credentials".

**3.** Generate a WSDL file.

For more information, see Section 9.3.1.2, "Generating a WSDL File".

4. Create an Oracle Service Bus (OSB) outbound process.

For more information, see Section 9.3.1.3, "Creating an Oracle Service Bus (OSB) Outbound Process" on page 9-22.

### 9.3.1.1 Associating Oracle WebLogic Server Credentials With EIS Credentials

To associate Oracle WebLogic Server credentials with EIS credentials:

- 1. Log in to the Oracle WebLogic Server Administration Console.
- **2.** In the Domain Structure section in the left pane, click **Deployments**, as shown in Figure 9–21.

### Figure 9–21 Domain Structure Section

Change Center	😰 Home Log Out Preferences 🚵 Record Help				
View changes and restarts	Home >Summary of Deployments				
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of Deployments				
Lock & Edit	Control Monitoring				
Release Configuration Domain Structure	This page displays a list of Java EE applications and applications and modules can be started, stopped, u and using the controls on this page.				
oase_domain ⊕-Environment Deployments	and using the controls on this page. To install a new application or module for deployment				
Services     Security Realms	Customize this table				
Interoperability	Deployments				
Diagnostics	Install Lindate Delete Start Ston -				

The Deployments page is displayed, as shown in Figure 9–22.

Figure 9–22	Deployments	Page
-------------	-------------	------

		(@hieedapter
System Status		
Health of Running Servers		
Failed (0)		FtpAdapter
Critical (0)		🗈 🧿ibse
Overloaded (0) Warning (0)		<mark>⊘iwafica</mark>
OK (2)		🖅 🧃 iwafjca, Level 1, 13 of 33
		🔯 JmsAdapter
		MQSeriesAdapter
		A Oracle Apps Adapter

**3.** Click the **iwafjca** resource adapter.

The Settings for iwafjca page is displayed, as shown in Figure 9–23.

Figure 9–23 Settings for iwafjca Page

Settings	for iwafj	ta								
Overvie	w Depk	yment Plan	Configuration	Security	Targets	Control	Testing	Monitoring	Notes	
Roles	Policies	Credentia	Mappings	Principals						
creder mappi	itial mappir	gs for all out resource ada table	bound connection							to which you want it for individual conne
New	Delete									
	WLS User	~		E	(S User			Outbound	Connectio	n Pool
							There a	e no items to	display	
New	Delete									

4. Click the Credential Mappings tab under the Security tab, and then click New.

The Create a New Security Credential Mapping page is displayed, as shown in Figure 9–24.

#### Figure 9–24 Create a New Security Credential Mapping Page

**5.** Select the outbound connection pool.

For example:

eis/OracleJCAAdapter/DefaultConnection

6. Click Next.

The WebLogic Server User page is displayed, as shown in Figure 9–25.



Create a New Security Credential Mapping	
Back Next Finish Cancel	
WebLogic Server User	
Select the WebLogic Server User that you would like to map an EIS user the resource adapter is first started. Selecting 'Default User' will configu specifically for them. Selecting 'User for unauthenticated user' will config WebLogic Server user that you are configuring. This user must be a con-	ire the user that will be used as the default for any a gure the user that will be used for an unauthenticate
C User for creating initial connections	
C Default User	
C Unauthenticated WLS User	
Configured User Name	
WebLogic Server User Name:	weblogic
Back Next Finish Cancel	

**7.** Select Configured User Name, enter a valid Oracle WebLogic Server user name, and then click **Next**.

The EIS User Name and Password page is displayed, as shown in Figure 9–26.

Create a New Security Credential Mapping	
Back Next Finish Cancel	
EIS User Name and Password	
Configure the EIS User Name and Password that you we * Indicates required fields	ould like to map the WebLogic Server User to:
Enter the EIS User Name:	
* EIS User Name::	iwayqa
Enter the EIS Password:	
* EIS Password::	•••••
* Confirm Password::	•••••
Back Next Finish Cancel	

Figure 9–26 EIS User Name and Password Page

8. Enter the user name and password for the EIS and click Finish.

The credentials for an Oracle WebLogic Server user are now mapped with an EIS user (J.D. Edwards OneWorld). The mapping is invoked automatically before invoking the J2CA service.

### 9.3.1.2 Generating a WSDL File

To generate a WSDL file:

**1.** Set the class path for Application Explorer to integrate with Oracle Service Bus (OSB).

For more information, see Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus" on page 7-6.

2. Open Application Explorer and create a J2CA configuration.

For more information, see Section 2.3.2, "Creating a Configuration for J2CA" on page 2-3.

**3.** Create a target for the J.D. Edwards OneWorld adapter and then connect to the target.

For more information, see Section 2.4, "Establishing a Connection (Target) for J.D. Edwards OneWorld" on page 2-5.

4. Generate a WSDL for the appropriate object.

For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

#### 9.3.1.3 Creating an Oracle Service Bus (OSB) Outbound Process

For more information on creating an Oracle Service Bus (OSB) outbound process, see Section 8.1.2, "Defining an OSB Outbound Process" on page 8-3.

1. Configure a Service account by right-clicking the OSB Project, selecting New, and then clicking Service Account, as shown in Figure 9–27.

Applications × App	olication Servers	(?	) Start Page 🔺 📲 OSB_Credential 🐣
OSB, Application	· · · · · · · · · · · · · · · · · · ·		
- Projects	<b>■ №</b> • <b>∀</b> • <b>№</b> •	Г	
HTTP_Outbou	nd fadd		
E-Resourc	New	•	(]) Alert Destination
File_out	Edit Project Source Paths		<ul> <li> <sup>™</sup> Business Service         <sup>™</sup> Cross Reference(XREF)         <sup>™</sup> <sup>™</sup></li></ul>
GetDeta	Service <u>B</u> us	۲	Domain Value Map(DVM)
GetDeta ( GetDeta GetDeta	Eind Project Files Show Classpath Show Overview		MFL MQ Connection
		•	Maven POM for Project       NXSD Schema       Pipeline
± Application Resour	Find Usages Ctrl+Alt-U		Pipeline Template
	▶ <u>R</u> un ∰ Debug		<ul> <li>Proxy Server</li> <li>Proxy Service</li> </ul>
OSB Credential.jpr -	Refactor	•	SOA WSDL Document
	Compare Wit <u>h</u> Repl <u>a</u> ce With	•	Ser <u>v</u> ice Account P Service Key Provider
	Restore from Local History		튧 Split-Join 행 Throttling Group
6	🔍 Project Properties		UDDI Registry
Current select	Import Export	_	<u>W</u> S-Policy File     WSDL D <u>o</u> cument <u>R</u> XML Sc <u>h</u> ema
		P	XQuery File ver <u>1</u> .0 XQuery Library ver 1.0 XX XSL Map
Opened nodes (12); Sa	aved files(2)		From Gallery Ctrl-N

Figure 9–27 Select Service Account Option

The Create Service Account pane is displayed, as shown in Figure 9–28.

Figure 9–28 Create Service Account Pane

🗊 Create 9	Service Accour	nt - Step 1 of	F1				
Create S	ervice Acco	unt				0101010101010101010101	1
General							
<u>N</u> ame:	OSB_static						
Location:	C:\soabeta\wo	rk\mywork\OS	B_Application	OSB_Credenti	al		Q
Description							
<u>M</u> essages:							
<u>H</u> ossages.							
<u>H</u> elp				< <u>B</u> ack	[ <u>N</u> ext >	<u> </u>	Cancel

2. Provide a name for the Service Account and click Finish.

The configuration page of Service Account is displayed.

- **3.** In the Resource Type section, select **Static**.
- **4.** Provide a valid user name and password for the Oracle WebLogic Server, as shown in Figure 9–29.

Applications 🕺 Application Servers 🛛 💷 🖃	② Start Page × 🖓 OSB_Credential × 🔒 OSB_static.sa ×
🔁 OSB_Application 🔹 💌	
Projects       Q       Q       Y       S         Image:	Service Account Create a Service Account Resource  Description:  Resource Type: Pass Ihrough  Static Mapping
GetDetail_PS.proxy	Static User Configuration
GetDetail_PSPipeline.pipeline J OSB_Credential	User Name: weblogic
	Password: ••••••
Application Resources	Confirm Password: ••••••
🗄 Data Controls 🛛 🚷 🍸 🎫 🗤	

Figure 9–29 Service Account Configuration Page

- **5.** Save and close the configuration page.
- **6.** In the composite Editor window, double-click the created WSDL-based Business Service from step 3.

The configuration page of the WSDL-based Business Service is displayed.

**7.** Select the Transport Details tab, as shown in Figure 9–30.

eneral ransport	🝃 JCA Transport Configuratio			
ransport Details	Use this page to configure the tran	sport information for this service	ř –	
lessage Handling	JCA File	Credential/GetDeta	il_invoke_3P.jca 🔍 🥜	
erformance	Adapter Name	Way ERP Adapter		
olicies	Adapter Type	iway		
	Dispatch Policy	SBDefaultResponseWork	lanager	
	JNDI Service Account	<not selected=""> 🔍 🖉</not>		
	EndPoint Properties			+ >
		property	value	
	Dynamic EndPoint Properties			<b>4</b> )
		property	value	<b>T</b> 4

Figure 9–30 Transport Details Tab

8. In the JNDI Service Account section, click the Browse icon.

The Select Service Account window is displayed.

9. Select the created service account and click OK, as shown in Figure 9–31.

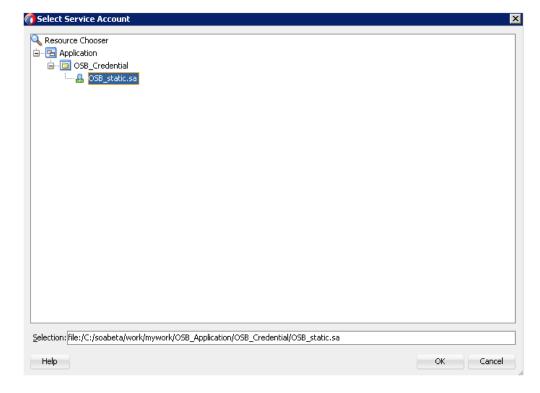


Figure 9–31 Select Service Account

**10.** Save and close the configuration page, as shown in Figure 9–32

최 삶 해 🔋	> → 🎕 → OSB_Credential × 🎾 GetDetail_	85.bix ×			
General Transport <b>Transport Details</b>		ation ransport information for this service			
Message Handling Performance	Adapter Name				
Policies	Adapter Type	iway			
	Dispatch Policy	SBDefaultResponseWork	Manager		
	JNDI Service Account	& OSB_Credential/OSB_st	atic.sa 🔍 🥜		
	EndPoint Properties			4	
		property	value		

Figure 9–32 Business Service Configuration Page

**11.** Deploy the OSB process.

For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.

- **12.** Once the process is deployed successfully, copy and paste a valid input XML file in the input folder you configured, and check to see that the output is received in the configured output location.
- **13.** Check the J2CA log files and locate the encrypted password, which shows that the user credentials have been passed to the EIS through Oracle WebLogic Server.

For example:

```
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(78) InLoop:
User-iwayqa:Password-ENCR(318931973183113218233321532332323192322731773252)
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(90) Use the system PasswordCredential:
User-iwayqa:Password-ENCR(3109313331831131702333215320132323192322731773236)
```

# **Troubleshooting and Error Messages**

This chapter explains the limitations and workarounds when connecting to J.D. Edwards OneWorld. It contains the following topics:

- Section 10.1, "Troubleshooting"
- Section 10.2, "BSE Error Messages"

The adapter-specific errors listed in this chapter can arise whether using the adapter with an Oracle Adapter J2CA or with a Oracle Adapter Business Services Engine (BSE) configuration.

# 10.1 Troubleshooting

This topic provides troubleshooting information for J.D. Edwards OneWorld, and contains the following topics:

- Section 10.1.1, "Application Explorer"
- Section 10.1.2, "J.D. Edwards One World"
- Section 10.1.3, "Oracle Adapter J2CA"

Log file information that can be relevant in troubleshooting can be found in the following locations based on your adapter installation:

The Oracle Adapter J2CA trace information can be found under the following directory:

<ADAPTER\_HOME>\config\configuration\_name\log

BSE trace information can be found under the following directory:

<ORACLE\_HOME>\user\_projects\domains\base\_domain\servers\soa\_
server1\stage\ibse.war\ibselogs

• The log file for Application Explorer can be found under the following directory:

<ADAPTER\_HOME>\tools\iwae\bin

## **10.1.1 Application Explorer**

This topic discusses the different types of errors that can occur when using Application Explorer.

Error	Solution			
Cannot connect to Oracle Application Adapter for J.D. Edwards OneWorld from Application Explorer: Problem activating adapter.	<ul> <li>Ensure that:</li> <li>J.D. Edwards OneWorld is running.</li> <li>The J.D. Edwards OneWorld user ID and password is correct.</li> </ul>			
(Failed to connect to J.D.Edwards OneWorld, check system availability and configuration parameters:) Check logs for more information.	<ul> <li>The port number is correct.</li> </ul>			
The following error message appears: java.lang.IllegalStateException: java.lang.Exception: Error Logon to J.D. Edwards OneWorld System	You have provided invalid connection information for J.D. Edwards OneWorld or the wrong JAR file is in the lib directory.			
J.D. Edwards OneWorld does not appear in the Application Explorer Adapter node list.	Ensure that the J.D. Edwards OneWorld JAR files, are added to the lib directory.			
Logon failure error at run-time.	If the password for connecting to your J.D. Edwards OneWorld system is not specified when creating a target or with the Edit option in Application Explorer, then you are unable to connect to J.D. Edwards OneWorld. The connection password is not saved in repository.xml. Update the password using the Edit option in Application Explorer, then restart the application server.			
The following exception occurs when you start Application Explorer by activating ae.bat (not iaexplorer.exe):	This is a benign exception. It does not affect adapter functionality. Download BouncyCastle files from:			
<pre>java.lang.ClassNotFoundException: org.bouncycastle.jce.provider.Boun</pre>	<pre>ftp://ftp.bouncycastle.org/pub</pre>			

cyCastleProvider

Error	Solution
Unable to start Application Explorer in a Solaris environment. The following exception is thrown in the console:	JAVACMD is not set on the user system. Before starting Application Explorer, export JAVACMD as follows:
<pre>javax.resource.ResourceException: IWAFManagedConnectionFactory: License violation.at com.ibi.afjca.spi.IWAFManagedConne ctionFactory.createConnectionFacto ry(IWAFManagedConnectionFactory.ja va:98)at com.iwaysoftware.iwae.common.JCATr ansport.getConnectionFactory(JCATr ansport.java:133) at com.iwaysoftware.iwae.common.JCATr ansport.initJCA(JCATransport.java: 69)at com.iwaysoftware.iwae.common.JCATr ansport.</pre>	JAVACMD=/ <jdk_home>/bin/java, where <jdk_home> is the directory where JDK is installed on your system.</jdk_home></jdk_home>
Could not create the connection factory.	

# 10.1.2 J.D. Edwards One World

Error	Cause	Solution		
Action code invalid	In the Sales Order request, the Action code appears as "H," an invalid action code.	Use: "I" for inquiry. "C" for change. "D" for delete. "A" to add a new record.		
Invalid address number.	The address number does not exist in the Address Book Master file (F0101).	Enter an address number using the Address Book Revisions program (PO1051). Ensure that the number entered is correct.		
Record invalid	The record being processed either already exists for an ADD function or does not exist for an INQUIRY, CHANGE, or DELETE function.	If you are attempting to inquire, change, or delete a record you added previously, then there could be database problems in your production library. Contact your data processing department.		
Item Branch record does not exist.	An Item Branch record (F4102) does not exist for this item in the Branch/Plant specified.	Correct the Branch or enter an Item Branch record for this item in Branch Plant Item Information (P41026).		
&1 does not match any of the valid values.	The &1 does not match any of the valid values specified in the Data Dictionary for this field.	Enter a valid value.		

Error	Cause	Solution
Date out of range.	The Last Service Date and the Inspection Date must be within the range of the effective dates of the Service Contract.	Change the date to be greater than or equal to the beginning effective date and less than or equal to the ending effective date of the Service Contract.
Jde.net timeout exception	Net timeout is set to a wrong value	Verify that net timeout is set to 180 at jde.ini of [NETWORK QUEUE SETTINGS], for example
		JDENETTimeout=180
Cannot connect to EnterpriseOne	Missing required library files	Kernel.jar and Connector.jar are required for version B7333.
Version 8.10		<pre>jdeutil.jar and log4j.jar are required for EnterpriseOne Version 8.10, in addition to Kernel.jar and Connector.jar.</pre>

## 10.1.3 Oracle Adapter J2CA

Error	Solution
In Application Explorer, the following error message appears when you attempt to connect to an Oracle Adapter J2CA configuration:	In the Details tab in the right pane, ensure that the directory specified in the Home field points to the correct directory, for example: <adapter home="">\tools\iwae\bin\\</adapter>
Could not initialize JCA	

# 10.2 BSE Error Messages

This section discusses the different types of errors that can occur when processing Web services through BSE.

This section contains the following topics:

- Section 10.2.1, "General Error Handling in BSE"
- Section 10.2.2, "Adapter-Specific Error Handling"

## 10.2.1 General Error Handling in BSE

BSE serves as both a SOAP gateway into the adapter framework and as the engine for some of the adapters. In both design time and run-time, various conditions can cause errors in BSE when Web services that use adapters run. Some of these conditions and resulting errors are exposed the same way, regardless of the specific adapter; others are exposed differently, based on the adapter being used. This topic explains what you can expect when you encounter some of the more common error conditions on an adapter-specific basis.Usually the SOAP gateway (agent) inside BSE passes a SOAP request message to the adapter required for the Web service. If an error occurs, then how it is exposed depends on the adapter and the API or interfaces that the adapter uses. A few scenarios cause the SOAP gateway to generate a SOAP fault. In general, anytime the SOAP agent inside BSE receives an invalid SOAP request, a SOAP fault element is generated in the SOAP response. The SOAP fault element contains fault string and fault code elements. The fault code contains a description of the SOAP agent error. The following SOAP response document results when BSE receives an invalid SOAP request:

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
```

```
<SOAP-ENV:Body>
<SOAP-ENV:Fault>
<faultcode>SOAP-ENV:Client</faultcode>
<faultstring>Parameter node is missing</faultstring>
</SOAP-ENV:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

In this example, BSE did not receive an element in the SOAP request message that is mandatory for the WSDL for this Web service.

## 10.2.2 Adapter-Specific Error Handling

This section contains the following topics:

- Section 10.2.2.1, "Invalid SOAP Request"
- Section 10.2.2.2, "Empty Result From Oracle WebLogic Server Adapter Request"
- Section 10.2.2.3, "Error Logging In"
- Section 10.2.2.4, "Empty Result From Oracle WebLogic Server Adapter Request"
- Section 10.2.2.4, "Empty Result From Oracle WebLogic Server Adapter Request"

When an adapter raises an exception during run-time, the SOAP agent in BSE produces a SOAP fault element in the generated SOAP response. The SOAP fault element contains fault code and fault string elements. The fault string contains the native error description from the adapter target system. Since adapters use the target system interfaces and APIs, whether an exception is raised depends on how the target systems interface or API treats the error condition. If a SOAP request message is passed to an adapter by the SOAP agent in BSE, and that request is invalid based on the WSDL for that service, then the adapter may raise an exception yielding a SOAP fault.

While it is almost impossible to anticipate every error condition that an adapter may encounter, the following is a description of how adapters handle common error conditions and how they are then exposed to the Web services consumer application.

### 10.2.2.1 Invalid SOAP Request

If Oracle WebLogic Server Adapter receives a SOAP request message that does not conform to the WSDL for the Web services being executed, then the following SOAP response is generated.

```
<?xml version="1.0" encoding="ISO-8859-1"
    ?>
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:Body>
    <SOAP-ENV:Fault>
        <faultcode>SOAP-ENV:Server</faultcode>
        <faultstring>RPC server connection failed: Connection refused:
        connect</faultstring>
        </SOAP-ENV:Fault>
        </SOAP-ENV:Fault>
        </SOAP-ENV:Body>
        </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

### 10.2.2.2 Empty Result From Oracle WebLogic Server Adapter Request

If Oracle WebLogic Server Adapter executes a SOAP request using input parameters passed that do not match records in the target system, then the following SOAP response is generated.

Note: The condition for this adapter does not yield a SOAP fault.

### 10.2.2.3 Error Logging In

If Oracle WebLogic Server Adapter executes an invalid SOAP log in request, then the following SOAP response is generated.

```
[2004-07-19T16:28:56:718Z] DEBUG (SOAP1) W.SOAP1.2: POST received
[2004-07-19T16:28:56:718Z] DEBUG (SOAP1) W.SOAP1.2: in XDSOAPHTTPWorker agentName
is [XDSOAPRouter]
[2004-07-19T16:28:56:718Z] DEBUG (SOAP1) W.SOAP1.2: before parse:
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<SOAP-ENV:Header>
<m:ibsinfo xmlns:m="urn:schemas-iwaysoftware-...[861]</pre>
[2004-07-19T16:28:56:718Z] ERROR (SOAP1) W.SOAP1.2: Attempting string, no encoding
recognized in document
[2004-07-19T16:28:56:734Z] DEEP (SOAP1) W.SOAP1.2: parse complete in 16 msecs
[2004-07-19T16:28:56:859Z] DEEP (SOAP1) W.SOAP1.2: ST_NODICT
[2004-07-19T16:28:56:859Z] DEEP (SOAP1) W.SOAP1.2: ST_FINISH
[2004-07-19T16:28:56:859Z] DEBUG (SOAP1) extractControl - edaDoc: false
[2004-07-19T16:28:56:859Z] DEBUG (SOAP1) now: 2004-07-19T16:28:56Z expires:
2004-07-20T16:28:56Z
[2004-07-19T16:28:56:859Z] DEBUG (SOAP1) W.SOAP1.2: checking for cached agent
[2004-07-19T16:28:56:859Z] DEBUG (SOAP1) W.SOAP1.2: pushagent: adding agent
com.ibi.iwse.XDSOAPRouter
[2004-07-19T16:28:56:875Z] DEBUG (SOAP1) W.SOAP1.2: inside worker the soap Action
is [B0100033.GetEffectiveAddressRequest#test##]
[2004-07-19T16:28:56:875Z] DEBUG (SOAP1) W.SOAP1.2: precedence: 1
[2004-07-19T16:28:56:875Z] DEBUG (SOAP1) W.SOAP1.2: precedence: 1
[2004-07-19T16:28:56:875Z] DEBUG (SOAP1) W.SOAP1.2: numagents: 1
[2004-07-19T16:28:56:890Z] DEBUG (SOAP1) W.SOAP1.2: running agent 1 name
com.ibi.iwse.XDSOAPRouter document 1
[2004-07-19T16:28:56:890Z] INFO (manager) MGR00X01: Adding active worker:
W.SOAP1.2
[2004-07-19T16:28:56:890Z] DEBUG (SOAP1) W.SOAP1.2: <?xml version="1.0"
encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
```

```
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <SOAP-ENV:Header>
      <m:ibsinfo xmlns:m="urn:schemas-iwaysoftware-com:iwse">
         <m:service>B0100033</m:service>
         <m:method>GetEffectiveAddress</m:method>
         <m:license>test</m:license>
         <m:Username>user</m:Username>
         <m:Password>password</m:Password>
      </m:ibsinfo>
   </SOAP-ENV:Header>
   <SOAP-ENV:Body>
      <m:GetEffectiveAddress
xmlns:m="urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress">
         <m:jdeRequest type="callmethod">
            <m:callMethod name="GetEffectiveAddress">
               <m:params>
                  <m:param name="mnAddressNumber">12345</m:param>
               </m:params>
               <m:onError/>
            </m:callMethod>
         </m:jdeRequest>
      </m:GetEffectiveAddress>
   </SOAP-ENV:Body>
   <SOAPAction agentName="XDSOAPRouter"
cid="1FF3D44E0B0AFB2A4E9538ED42B71437">B0100033.GetEffectiveAddressRequest#test##<
/SOAPAction>
</SOAP-ENV:Envelope>
[2004-07-19T16:28:56:890Z] DEBUG (SOAP1) W.SOAP1.2: business method:
m:GetEffectiveAddress
[2004-07-19T16:28:56:906Z] DEBUG (SOAP1) W.SOAP1.2: input:
[2004-07-19T16:28:56:906Z] DEBUG (SOAP1) W.SOAP1.2: <?xml version="1.0"
encoding="UTF-8" ?><jdeRequest xmlns:xsd="http://www.w3.org/2001/XMLSchema"
type="callmethod" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><callMethod
name="GetEffectiveAddress"><params><param name="mnAddressNumber">12345</param>
      </params><onError/></callMethod></jdeRequest>
[2004-07-19T16:28:58:234Z] DEBUG (SOAP1) W.SOAP1.2: Agent returned success
[2004-07-19T16:28:58:234Z] INFO (manager) MGR00X02: Removing active worker:
W.SOAP1.2
[2004-07-19T16:28:58:234Z] DEBUG (SOAP1) W.SOAP1.2: doing docTran, docVal,
listTran for agent(1)
[2004-07-19T16:28:58:250Z] DEBUG (SOAP1) W.SOAP1.2: sendToAll reply to XDReply:
[protocol=http */null]
[2004-07-19T16:28:58:250Z] DEBUG (SOAP1) W.SOAP1.2: preemitters from doc: null
[2004-07-19T16:28:58:250Z] DEBUG (SOAP1) W.SOAP1.2: no preemitters, emitting
contents of doc, usestream=false encoding=UTF-8
[2004-07-19T16:28:58:250Z] DEBUG (SOAP1) W.SOAP1.2: writeEntity, len: 670 data:
<?xml version="1.0" encoding="UTF-8" ?><SOAP-ENV:Envelope
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><SOAP-ENV:Body><GetEffective
AddressResponse xmlns="urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress:response"
cid="1FF3D44E0B0AFB2A4E9538ED42B71437"><jdeResponse user="USER" type="callmethod"
session="" environment="DV7333"><returnCode code="12">Environment
' DV7333' could not be initialized for user, check user, pwd and
environment attribute
values</returnCode></jdeResponse></GetEffectiveAddressResponse></SOAP-ENV:Body></S
OAP-ENV:Envelope>
```

```
[2004-07-19T16:28:58:2502] DEBUG (SOAP1) W.SOAP1.2: writeString: HTTP/1.0
[2004-07-19T16:28:58:2502] DEBUG (SOAP1) W.SOAP1.2: writeString: 200
[2004-07-19T16:28:58:2502] DEBUG (SOAP1) W.SOAP1.2: writeString: OK
[2004-07-19T16:28:58:2502] DEBUG (SOAP1) W.SOAP1.2: writeString: Content-Type:
[2004-07-19T16:28:58:2502] DEBUG (SOAP1) W.SOAP1.2: writeString: text/xml
[2004-07-19T16:28:58:2502] DEBUG (SOAP1) W.SOAP1.2: writeString: Content-Length:
[2004-07-19T16:28:58:2652] DEBUG (SOAP1) W.SOAP1.2: writeString: 670
[2004-07-19T16:28:58:2652] INFO (SOAP1) W.SOAP1.2: writeString: 670
[2004-07-19T16:28:58:2652] INFO (SOAP1) W.SOAP1.2: writeString writeString: 670
[2004-07-19T16:28:58:2652] DEEP (SOAP1) W.SOAP1.2: storing used socket
[2004-07-19T16:28:58:2652] DEEP (SOAP1) W.SOAP1.2: entering waitforDocument
[2004-07-19T16:28:58:2652] DEEP (SOAP1) W.SOAP1.2: cleanup: closing sockets(0)
```

### 10.2.2.4 Empty Result From Oracle WebLogic Server Adapter Request

If Oracle WebLogic Server Adapter executes a SOAP request using input parameters passed that do not match records in the target system, then the following SOAP response is generated.

**Note:** The condition for this adapter does not yield a SOAP fault.

```
[2004-07-19T16:27:05:640Z] DEBUG (SOAP1) W.SOAP1.2: POST received
[2004-07-19T16:27:05:640Z] DEBUG (SOAP1) W.SOAP1.2: in XDSOAPHTTPWorker agentName
is [XDSOAPRouter]
[2004-07-19T16:27:05:640Z] DEBUG (SOAP1) W.SOAP1.2: before parse:
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<SOAP-ENV:Body>
<m:GetEffectiveAddress xmlns:m="urn:iwaysoftwar...[590]</pre>
[2004-07-19T16:27:05:640Z] ERROR (SOAP1) W.SOAP1.2: Attempting string, no encoding
recognized in document
[2004-07-19T16:27:05:640Z] DEEP (SOAP1) W.SOAP1.2: parse complete in 0 msecs
[2004-07-19T16:27:05:781Z] DEEP (SOAP1) W.SOAP1.2: ST_NODICT
[2004-07-19T16:27:05:781Z] DEEP (SOAP1) W.SOAP1.2: ST_FINISH
[2004-07-19T16:27:05:781Z] DEBUG (SOAP1) extractControl - edaDoc: false
[2004-07-19T16:27:05:781Z] DEBUG (SOAP1) now: 2004-07-19T16:27:05Z expires:
2004-07-20T16:27:05Z
[2004-07-19T16:27:05:781Z] DEBUG (SOAP1) W.SOAP1.2: inside isAsync() the soap
Action is ["B0100033.GetEffectiveAddressRequest#test##"]
[2004-07-19T16:27:05:781Z] DEBUG (SOAP1) W.SOAP1.2: inside isAsync() the soap
Action is [B0100033.GetEffectiveAddressRequest#test##]
[2004-07-19T16:27:05:781Z] DEBUG (SOAP1) W.SOAP1.2: checking for cached agent
[2004-07-19T16:27:05:796Z] DEBUG (SOAP1) W.SOAP1.2: pushagent: adding agent
com.ibi.iwse.XDSOAPRouter
[2004-07-19T16:27:05:796Z] DEBUG (SOAP1) W.SOAP1.2: inside worker the soap Action
is [B0100033.GetEffectiveAddressRequest#test##]
[2004-07-19T16:27:05:796Z] DEBUG (SOAP1) W.SOAP1.2: precedence: 1
[2004-07-19T16:27:05:796Z] DEBUG (SOAP1) W.SOAP1.2: precedence: 1
[2004-07-19T16:27:05:796Z] DEBUG (SOAP1) W.SOAP1.2: numagents: 1
[2004-07-19T16:27:05:812Z] DEBUG (SOAP1) W.SOAP1.2: running agent 1 name
com.ibi.iwse.XDSOAPRouter document 1
[2004-07-19T16:27:05:812Z] INFO (manager) MGR00X01: Adding active worker:
W.SOAP1.2
[2004-07-19T16:27:05:812Z] DEBUG (SOAP1) W.SOAP1.2: <?xml version="1.0"
encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
```

```
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <SOAP-ENV:Body>
      <m:GetEffectiveAddress
xmlns:m="urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress">
         <m:jdeReguest type="callmethod">
            <m:callMethod name="GetEffectiveAddress">
               <m:params>
                  <m:param name="mnAddressNumber">12345</m:param>
               </m:params>
               <m:onError/>
            </m:callMethod>
         </m:jdeRequest>
      </m:GetEffectiveAddress>
   </SOAP-ENV:Body>
   <SOAPAction agentName="XDSOAPRouter"
cid="9F71FEA4C932CD8786F7388D7EF293A1">B0100033.GetEffectiveAddressRequest#test##<
/SOAPAction>
</SOAP-ENV: Envelope>
[2004-07-19T16:27:05:812Z] DEBUG (SOAP1) W.SOAP1.2: business method:
m:GetEffectiveAddress
[2004-07-19T16:27:05:828Z] DEBUG (SOAP1) W.SOAP1.2: input:
[2004-07-19T16:27:05:828Z] DEBUG (SOAP1) W.SOAP1.2: <?xml version="1.0"
encoding="UTF-8" ?><jdeRequest xmlns:xsd="http://www.w3.org/2001/XMLSchema"
type="callmethod" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><callMethod
name="GetEffectiveAddress"><param name="mnAddressNumber">12345</param>
</params><onError/></callMethod></jdeRequest>
[2004-07-19T16:27:07:843Z] DEBUG (SOAP1) W.SOAP1.2: Agent returned success
[2004-07-19T16:27:07:843Z] INFO (manager) MGR00X02: Removing active worker:
W.SOAP1.2
[2004-07-19T16:27:07:843Z] DEBUG (SOAP1) W.SOAP1.2: doing docTran, docVal,
listTran for agent(1)
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: sendToAll reply to XDReply:
[protocol=http */null]
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: preemitters from doc: null
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: no preemitters, emitting
contents of doc, usestream=false encoding=UTF-8
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: writeEntity, len: 643 data:
<?xml version="1.0" encoding="UTF-8" ?><SOAP-ENV:Envelope
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><SOAP-ENV:Body><GetEffective
AddressResponse xmlns="urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress:response"
cid="9F71FEA4C932CD8786F7388D7EF293A1"><jdeResponse user="JDE" type="callmethod"
environment="DV7333"><callMethod name="GetEffectiveAddress"><returnCode code="2"/>
<params><param</pre>
name="mnAddressNumber">12345</param></params></callMethod></jdeResponse></GetEffec
tiveAddressResponse></SOAP-ENV:Body></SOAP-ENV:Envelope>
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: writeString: HTTP/1.0
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: writeString: 200
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: writeString: OK
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: writeString: Content-Type:
[2004-07-19T16:27:07:859Z] DEBUG (SOAP1) W.SOAP1.2: writeString: text/xml
[2004-07-19T16:27:07:875Z] DEBUG (SOAP1) W.SOAP1.2: writeString: Content-Length:
[2004-07-19T16:27:07:875Z] DEBUG (SOAP1) W.SOAP1.2: writeString: 643
[2004-07-19T16:27:07:875Z] INFO (SOAP1) W.SOAP1.2: W0000X13: Ended message
processing, rc=0
[2004-07-19T16:27:07:875Z] DEEP (SOAP1) W.SOAP1.2: storing used socket
```

[2004-07-19T16:27:07:875Z] DEBUG (SOAP1) W.SOAP1.2: entering waitforDocument [2004-07-19T16:27:12:781Z] DEEP (SOAP1) W.SOAP1.2: cleanup: closing sockets(0)

### 10.2.2.5 Invalid Call Method

If an invalid call is made to Oracle WebLogic Server Adapter, then the following SOAP response is generated.

```
[2004-07-19T16:24:34:859Z] DEBUG (SOAP1) W.SOAP1.2: POST received
[2004-07-19T16:24:34:859Z] DEBUG (SOAP1) W.SOAP1.2: in XDSOAPHTTPWorker agentName
is [XDSOAPRouter]
[2004-07-19T16:24:34:859Z] DEBUG (SOAP1) W.SOAP1.2: before parse:
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<SOAP-ENV:Body>
<m:GetEffectiveAddress xmlns:m="urn:iwaysoftwar...[581]</pre>
[2004-07-19T16:24:34:859Z] ERROR (SOAP1) W.SOAP1.2: Attempting string, no encoding
recognized in document
[2004-07-19T16:24:34:859Z] DEEP (SOAP1) W.SOAP1.2: parse complete in 0 msecs
[2004-07-19T16:24:34:875Z] DEEP (SOAP1) W.SOAP1.2: ST_NODICT
[2004-07-19T16:24:34:875Z] DEEP (SOAP1) W.SOAP1.2: ST_FINISH
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) extractControl - edaDoc: false
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) now: 2004-07-19T16:24:34Z expires:
2004-07-20T16:24:34Z
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) W.SOAP1.2: inside isAsync() the soap
Action is ["B0100033.GetEffectiveAddressRequest#test##"]
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) W.SOAP1.2: inside isAsync() the soap
Action is [B0100033.GetEffectiveAddressRequest#test##]
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) W.SOAP1.2: checking for cached agent
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) W.SOAP1.2: pushagent: adding agent
com.ibi.iwse.XDSOAPRouter
[2004-07-19T16:24:34:875Z] DEBUG (SOAP1) W.SOAP1.2: inside worker the soap Action
is [B0100033.GetEffectiveAddressRequest#test##]
[2004-07-19T16:24:34:890Z] DEBUG (SOAP1) W.SOAP1.2: precedence: 1
[2004-07-19T16:24:34:890Z] DEBUG (SOAP1) W.SOAP1.2: precedence: 1
[2004-07-19T16:24:34:890Z] DEBUG (SOAP1) W.SOAP1.2: numagents: 1
[2004-07-19T16:24:34:890Z] DEBUG (SOAP1) W.SOAP1.2: running agent 1 name
com.ibi.iwse.XDSOAPRouter document 1
[2004-07-19T16:24:35:031Z] INFO (manager) MGR00X01: Adding active worker:
W.SOAP1.2
[2004-07-19T16:24:35:0312] DEBUG (SOAP1) W.SOAP1.2: <?xml version="1.0"
encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <SOAP-ENV:Body>
      <m:GetEffectiveAddress
xmlns:m="urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress">
         <m:jdeRequest type="callmethod">
            <m:callMethod name="GetAddress">
               <m:params>
                  <m:param name="mnAddressNumber">34518</m:param>
               </m:params>
               <m:onError/>
            </m:callMethod>
         </m:jdeRequest>
      </m:GetEffectiveAddress>
   </SOAP-ENV:Body>
```

```
<SOAPAction agentName="XDSOAPRouter"
cid="4C0AD8398CB7A5B4DED18057D963AA44">B0100033.GetEffectiveAddressRequest#test##<
/SOAPAction>
</SOAP-ENV:Envelope>
[2004-07-19T16:24:35:031Z] DEBUG (SOAP1) W.SOAP1.2: business method:
m:GetEffectiveAddress
[2004-07-19T16:24:35:031Z] DEBUG (SOAP1) W.SOAP1.2: input:
[2004-07-19T16:24:35:031Z] DEBUG (SOAP1) W.SOAP1.2: <?xml version="1.0"
encoding="UTF-8" ?><jdeRequest xmlns:xsd="http://www.w3.org/2001/XMLSchema"
type="callmethod" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><callMethod
name="GetAddress"><params><param name="mnAddressNumber">34518</param>
      </params><onError/></callMethod></jdeRequest>
[2004-07-19T16:24:36:7812] DEBUG (SOAP1) W.SOAP1.2: Agent returned success
[2004-07-19T16:24:36:781Z] INFO (manager) MGR00X02: Removing active worker:
W.SOAP1.2
[2004-07-19T16:24:36:781Z] DEBUG (SOAP1) W.SOAP1.2: doing docTran, docVal,
listTran for agent(1)
[2004-07-19T16:24:36:781Z] DEBUG (SOAP1) W.SOAP1.2: sendToAll reply to XDReply:
[protocol=http */null]
[2004-07-19T16:24:36:781Z] DEBUG (SOAP1) W.SOAP1.2: preemitters from doc: null
[2004-07-19T16:24:36:781Z] DEBUG (SOAP1) W.SOAP1.2: no preemitters, emitting
contents of doc, usestream=false encoding=UTF-8
[2004-07-19T16:24:36:781Z] DEBUG (SOAP1) W.SOAP1.2: writeEntity, len: 595 data:
<?xml version="1.0" encoding="UTF-8" ?><SOAP-ENV:Envelope
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><SOAP-ENV:Body><GetEffective
AddressResponse xmlns="urn:iwaysoftware:ibse:jul2003:GetEffectiveAddress:response"
cid="4C0AD8398CB7A5B4DED18057D963AA44"><jdeResponse user="JDE" type="callmethod"
environment="DV7333"><callMethod name="GetAddress"><returnCode code="99"/><params>
</params></callMethod></jdeResponse></GetEffectiveAddressResponse></SOAP-ENV:Body>
</SOAP-ENV:Envelope>
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: HTTP/1.0
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: 200
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: OK
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: Content-Type:
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: text/xml
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: Content-Length:
[2004-07-19T16:24:36:796Z] DEBUG (SOAP1) W.SOAP1.2: writeString: 595
[2004-07-19T16:24:36:796Z] INFO (SOAP1) W.SOAP1.2: W0000X13: Ended message
processing, rc=0
[2004-07-19T16:24:36:796Z] DEEP (SOAP1) W.SOAP1.2: storing used socket
[2004-07-19T16:24:36:812Z] DEBUG (SOAP1) W.SOAP1.2: entering waitforDocument
[2004-07-19T16:24:42:671Z] DEEP (SOAP1) W.SOAP1.2: cleanup: closing sockets(0)
```

# Configuring J.D. Edwards OneWorld for Outbound and Inbound Processing

J.D. Edwards OneWorld enables you to specify inbound functionality for Master Business Functions (MBF).

This chapter describe how to enable outbound and inbound transaction processing in J.D. Edwards OneWorld and how to modify the jde.ini file for XML support. It contains the following topics:

- Section A.1, "Modifying the JDE.INI File for Outbound and Inbound Processing"
- Section A.2, "Using the GenJava Development Tool (Outbound Processing)"
- Section A.3, "Triggering J.D. Edwards OneWorld Events"

# A.1 Modifying the JDE.INI File for Outbound and Inbound Processing

This section describes the settings that are required in the JDE.INI file for the XML call object kernel (outbound and inbound processing).

Open the JDE.INI file and modify the [JDENET\_KERNEL\_DEF6] and [JDENET\_KERNEL\_DEF6] and [JDENET\_KERNEL\_DEF15] sections as follows:

[JDENET\_KERNEL\_DEF6] krnlName=CALL OBJECT KERNEL dispatchDLLName=XMLCallObj.dll dispatchDLLFunction=\_XMLTransactionDispatch@28 maxNumberOfProcesses=1 numberOfAutoStartProcesses=1

[JDENET\_KERNEL\_DEF15] krnlName=XML TRANSACTION KERNEL dispatchDLLName=XMLTransactions.dll dispatchDLLFunction=\_XMLTransactionDispatch@28 maxNumberOfProcesses=1 numberOfAutoStartProcesses=1

The parameters containing an underscore (\_) and @28 are for Windows NT operating systems only. For other operating systems, replace the parameters with the values in the following table:

Operating System	Call Object dispatch DLLName	XML Trans dispatch DLLName
AS400	XMLCALLOBJ	XMLTRANS

Operating System	Call Object dispatch DLLName	XML Trans dispatch DLLName
HP9000B	libxmlcallojb.sl	libxmltransactions.lo
Sun or RS6000	libxmlcallojb.so	Libxmltransactions.so

**Note:** The J.D. Edwards installation for version B7333(XE) does not include [**JDENET\_KERNEL\_DEF15**]. As a result, if you are using version B7333(XE), you must manually add it to the jde.ini file. For all other J.D. Edwards versions, [**JDENET\_KERNEL\_DEF15**] is included with the installation.

# A.2 Using the GenJava Development Tool (Outbound Processing)

This section describes how to use the GenJava development tool, which is used to create Java wrappers for accessing the J.D. Edwards business functions. The Oracle Application Adapter for J.D. Edwards OneWorld uses these wrappers to call the J.D. Edwards business functions.

This section contains the following topic:

Section A.2.1, "Running GenJava"

J.D. Edwards provides a Java Generation tool called GenJava that you can use to expose J.D. Edwards business functions externally as Java class files. A J.D. Edwards system administrator usually runs the GenJava tool.

During GenJava operation, you must specify a library of business functions, for example CALLBSFN. GenJava creates the associated Java class files for the business functions and related data structures. GenJava also compiles the business functions, generates Java documents, and packages them into two .JAR files. One .JAR file contains Java classes and the second .JAR file contains Java documents.

For example, if the business function library you specified in GenJava is CALLBSFN, the following files are found in the <install>\system\classes directory or any user-specified directory redirected by GenJava:

- JDEJAVA\_CALLBSFN.xml
- JDEJAVA\_CALLBSFNInterop.jar
- JDEJAVA\_CALLBSFNInteropDoc.jar

Once they are generated, these library files must be added to the CLASSPATH.

GenJava also provides access to J.D. Edwards business functions by generating pure Java interfaces for these business functions. GenJava can be generated from a thick client or a deployment server.

## A.2.1 Running GenJava

GenJava is located in the <install>\system\bin32 directory. You run GenJava from the command line. There are two GenJava command options that can be used to generate the wrappers.

### **GenJava Command Option 1**

The following command generates Java wrappers for Category 1 (Master Business Functions), Category 2 (Major Business Functions), Category 3 (Minor Business

Functions), and Category - (Uncategorized Business Functions) in the CALLBSFN library:

GenJava /Cat 1 /Cat 2 /Cat 3 /Cat - CALLBSFN

#### **GenJava Command Option 2**

The GenJava command can also be run with a JDEScript file and prompts a J.D. Edwards log on window, where you must enter a valid user ID, password, and environment.

1. Using an editor, create a new file called AddressBook.cmd and enter the following commands:

```
define library CALLBSFN
login
library CALLBSFN
interface AddressBook
import B0100031
import B0100032
import B0100002
import B0100033
build
logout
```

2. Run the following GenJava command:

```
GenJava /cmd .\AddressBook.cmd
```

- **3.** GenJava generates the following wrapper files in Java for all of the business functions that are mentioned in the script file:
  - CALLBSFNInterop.jar
  - CALLBSFNInteropDoc.jar
  - CALLBSFN.xml

**Note:** If there is an error while these wrapper files are generated, then ensure that the CLASSPATH is set correctly.

**4.** Copy the wrapper files to the repository directory.

Ensure that the following files are added to the CLASSPATH of the system where you are running GenJava:

- base\_JAR.jar
- jdeNet\_JAR.jar
- system\_JAR.jar
- connector.jar
- xalan.jar
- xerces.jar

These files are located in the following directory:

<JDE\_EnterpriseOne\_Home>\System\classes\

In addition, ensure that the \bin directory of your JDK installation is included in the Java Path. For example:

PATH x:\E900\system\jdk\bin

For more information on using GenJava, see the J.D. Edwards EnterpriseOne Tools 8.98 Connectors Guide.

# A.3 Triggering J.D. Edwards OneWorld Events

This section contains the following topics:

- Section A.3.1, "Starting the Outbound Scheduler Subsystem Process (R00460)"
- Section A.3.2, "Verifying the Subsystem Process"
- Section A.3.3, "Configuring P4210 (Sales Order) to Trigger an Event"
- Section A.3.4, "Verifying the Configuration Steps"

The flow of inbound data to third parties is controlled through the Data Export Controls application. For each transaction type and order type, one or more records can be defined with different function names and libraries.

1. Type P0047 in the Fast Path field and press Enter as shown in, Figure A-1.

Figure A–1 JD Edwards Soultion Explorer

💡 JD Edwards Solution Explorer
File Edit View Tools Applications Help
Fast Path P0047
Menu Design Menu Filtering
🖃 🕞 EnterpriseOne Life Cycle Tools / JDE Install / Upgrade Group
🕁 🧰 Application Development
🖶 🧰 Report Management
🖶 🚞 System Administration Tools
🖶 🚞 Workflow Management
🛓 🚞 View Development

The Work With Data Export Controls window is displayed, as shown in Figure A–2 .

D0047 - [Worl	-								
	eferences Row	Window	Help						
	Select Find	+ Add		1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<b>&amp;</b> ₩ Dis A <u>b</u> o	Links 🤜	Revisi	OLE	Internet
Row		Add							
Revisions	Transactio	n				2			
	Order Type	э		•	_				
			1						
	Trans	Or Ty	Seq	UBE Name	Ve	rsion			Function Name

Figure A–2 Work With Data Export Controls Window

2. Click Add.

The Data Export Control Revisions window is displayed. Notice that the sequence (Seq) number automatically increments for each new line, as shown in Figure A–3.

Figure A–3 Data Export Control Revisions Window

<b>√</b> <u>о</u> к	() <b>() () () () () () () ()</b>	읍 & <u>N</u> ew Dis	₩ Abo	🗿 OLE	Internet
	Transaction		JDESOOUT		Sales Order Outbound
	Order Type		so		Sales Order
¢.	Seq	UBE Name	Version		Function Name
	1.00		١	NotifyOnUpda	ate
	2.00		ſ		

- **3.** Perform the following steps:
  - **a.** Type **JDESOOUT** in the Transaction field.
  - **b.** Type **SO** in the Order Type field.
  - c. Type NotifyOnUpdate in the first row of the Function Name column.
  - **d.** Type the absolute path to the location of the iwoevent.dll file in the first row of the Function Library column, for example:

D:\JDEdwards\E812\DDP\Outbound\iwoevent.dll

- **e.** Type **1** in the first row of the Execute for Add column if you want the notifications for add/insert.
- **f.** Make the same decision for update, delete, and inquiry and type **1** in the appropriate column.
- **g.** Type **1** in the Launch Immediately column to launch the Outbound Subsystem batch process (R00460).
- 4. Click **OK**, as shown in Figure A–4.

<u>O</u> k	1 × 1 <u>D</u> el <u>C</u> an 1	🕒 🧬 🕅 New Dis Abo	Links 🔻 Disp	01 🗿 OLE	Internet			
	Transaction		JDESOOUT	_	Sales Order Outboun	ıd		
	Order Type SO				Sales Order			
<u>6</u>	Execute For Add	Execute For Upd	Execute For Del	Execute For Inq	Flat File Exp Mode	Ext DB Exp Mode	Ext API Exp Mode	Launch Immediatei

Figure A–4 Data Export Control Revisions Window

## A.3.1 Starting the Outbound Scheduler Subsystem Process (R00460)

Once you have finished defining one or more records for each transaction type and order type, you must manually start the outbound scheduler subsystem process.

1. Type **BV** in the Fast Path field and press **Enter**, as shown in Figure A–5.

Figure A–5 JD Edwards Solution Explorer

P JD Edwards Solution Explorer
File Edit View Tools Applications Help
∬Fast Path BV
Menu Design Menu Filtering
🖃 🕼 EnterpriseOne Life Cycle Tools / JDE Install / Upgrade Group
🖶 🧰 Application Development
🖶 🧰 Report Management
🕁 🧰 System Administration Tools
🕁 🧰 Workflow Management
🛓 🧰 View Development

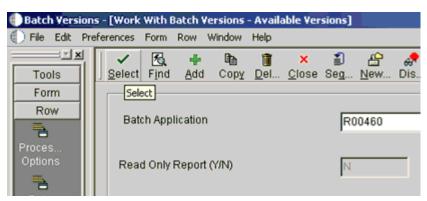
The Work With Batch Versions - Available Versions window is displayed, as shown in Figure A–6.

Figure A–6 Work With Batch Versions - Available Versions Window

	✓ Select		<b>∔</b> Add	<b>В</b> Сору	1 Del	× <u>C</u> lose	1 Seg	음 <u>N</u> ew.	🦛 Dis	₩ A <u>b</u> o	Links	🔻 Ava	aila 🏮 O	LE	internet 💿					
	Bato	h Applica	ation				F	R00460				Inte	eroperability	Generi	ic Outbound S	ubsystem I	JBE			
	Read	l Only Re	port (	(/N)			1	1												
																Ĩ				
	~	ersion/					v	ersion '	Title				Web Only		User	La: Modi		Security		Description
L	XJDE0	XJDE0001 Interoperability Generic Outbound Subsystem UBE					JDE		1	/22/2008	1	Medium S	ecurity							

2. Type R00460 in the Batch Application field and click Find, as shown in Figure A-7.

Figure A–7 Batch Application Field



**3.** Select **Interoperability Generic Outbound Subsystem UBE (XJDE0001)** and click **Select**.

The Version Prompting window is displayed, as shown in Figure A-8.

Figure A–8 Version Prompting Window

🜒 Batch Ve	ersi	ons	s - [Versi	on Pro	mpting]					
🜔 File Ed	ít.	Prei	ferences	Form	Window	Help				
Tools Form Submit	<u>×</u>		X <u>C</u> an	<u>S</u> ub Sub	_	<b>№</b> A <u>b</u> o	Links	▼ Submit	• OLE	Internet
-										

**4.** Click **Submit**, as shown in Figure A–9.

Figure A–9 OK Option Selection

Batch Version:	s - [Printer Selection]
🜔 File Edit Pre	ferences Form Window Help
Tools	∫ 🖌 🗶 🧬 🦓 Links 🕶 Chan 💿 OLE 💿 Internet
Form Change Printers	OK Printer Selection Print Property Document Setup Advanced

5. Navigate to the last screen and click **OK**.

### A.3.2 Verifying the Subsystem Process

This section describes how to verify the outbound scheduler subsystem processs.

1. Type **WSJ** in the Fast Path field and press **Enter**, as shown in Figure A–10.

Figure A–10 JD Edwards Solution Explorer

2 JD Edwards Solution Explorer	
File Edit View Tools Applications H	elp
∬Fast Path WSJ	<b>_</b>
Menu Design Menu Filtering	
EnterpriseOne Life Cycle Tools	s / JDE Install / Upgrade Group
🖶 🧰 Application Development	
🖶 🧰 Report Management	
🛓 🚊 System Administration Too	ls
🕁 🚞 Workflow Management	
🛓 🧰 View Development	

The Work With Server (Subm Jobs) window is displayed, as shown in Figure A-11.

🕕 Work With Ser	ver (Subm Jobs) - [Work With Servers]		
🜔 File Edit Pre	ferences Form Row Window Help		
Tools Form	Select Find Subsystem Jobs Dis Ab		rnet
Row			
Server	Data Source Name	Server Name	
Jobs	WJDE812	WJDE812	WJDE812
<b>*</b>	IWJDE812 - Logic	IWJDE812	IWJDE812
Subsys Jobs	IWJDE812 - RTE	IWJDE812	IWJDE812
	IWJDE812 - XAPI	WJDE812	WJDE812

Figure A–11 Work With Server (Subm Jobs) window

- **2.** Select a corresponding server from the table.
- **3.** Click **Row** from the menu bar and select **Subsystem Jobs**, as shown in Figure A–12.

Figure A–12 Find Option Selection

💨 Work With Server (Subm Jobs) - [Work With Subsystems]										
🐑 File 🛛 Edit	Preferences	Form	Row	Window	Help					
Tools	I Select	Find	Del.	× <u>C</u> lose	1 Se <u>g</u>	음 <u>N</u> ew	or Dis	₩ Abo	Links	<ul> <li>View All</li> </ul>
Form		Find								
Row Stop Subsys End		• Pro	icesse	s					C <u>W</u> ai	ting Jobs
Subsys										
View		Job N	ame		Versi	on		lob ype		Job tatus

**4.** Click **Find**, as shown in Figure A–13.

()	r <b>ver (Subm Jobs) - [V</b> eferences Form Row		ems]		
Tools	Select Find Def	× 1	🖆 🥏 🌾	Links 🔻 View All	) OLE )
Form Row					
Stop Subsys		es		C Waiting Jobs	
End					
Subsys The View	Job Name	Versio	n Job Type	Job Status	Host
Jobs	R00460	XJDE0001	S	R	WJDE812

Figure A–13 Job Status Column

5. Verify that **R** is listed in the Job Status column.

# A.3.3 Configuring P4210 (Sales Order) to Trigger an Event

This section describes how to configure a P4210 (Sales Order) to trigger an event.

1. Type IV in the Fast Path field and press Enter, as shown in Figure A-14.

Figure A–14 JD Edwards Solution Explorer



The Interactive Versions window is displayed, as shown in Figure A–15.

Interacti	ve V	ersions -	Work	With I	nteractiv	ve Vers	ions]						
🜔 File Edit	Pr	eferences	Form	Row	Window	Help							
Tools		Select	<b>™</b> Find	<b>₽</b> Add		1 Del	× <u>C</u> lose	1 Seg	음 <u>N</u> ew	Dis	₩ Abo	Links	➡ All Ver
Form Row			_	nd						_			
Proces		Inte	ractive	Applic	ation					P	4210		6
Options													
Version Detail													
Print		\ \	/ersior	1				V	/ersion	Title			

Figure A–15 Interactive Versions Window

**2.** Type **P4210** in the Interactive Application field and click **Find**, as shown in Figure A–16.

Figure A–16 Interactive Application Field

Interactive V	ersions - [Work With]	Interactive Versions]
🜔 File Edit Pr	references Form Row	Window Help
Tools		Yocessing Options 🗴 🗿 🔐 🦑 💘 Links ❤ All Ver (ersion Detail bse Seg New Dis Abo
Form	P	rint Options
Row	-	tun
-	Interactive R	tun <u>H</u> TML P4210
Proces		
Options		
Version		
Detail		
<b></b>	Version	Version Title
Print	D100004	
Options	RIS0001	Sales Order Entry - SO Order Type
	RIS0002	Sales Order Entry - CO Order Type
Run	RIS0003	Sales Order Entry - SQ Order Type
	RIS0004	Sales Order Entry - SB Order Type

- **3.** Select a document version from the table, for example, **RIS0001 Sales Order Entry SO Order Type**.
- 4. Click **Row** from the menu bar and select **Processing Options**.

The Processing Options dialog is displayed, as shown in Figure A–17.

Processin	g Options				×
Multiples	Interbranch	Interop	Prepayme	nt Audit	Log 🔹 🕨
1. Transacti	on Type		JDES	00UT	
Blank = Writ	ter Image Process fore and After ima	-			
<u> </u>	ĸ	Hel		<b>×</b> :	Cancel

Figure A–17 Processing Options Dialog

- **5.** Click the **Interop** tab.
- 6. Type JDESOOUT in the Transaction Type field.
- 7. Add Sales Order.

## A.3.4 Verifying the Configuration Steps

This section describes how to verify the configuration steps by updating F0046.

1. Type P0046 in the Fast Path field and press Enter, as shown in Figure A-18.

Figure A–18 JD Edwards Solution Explorer

💡 JD Edwards Solution Explorer
File Edit View Tools Applications Help
JFast Path P0046
Menu Design Menu Filtering
🖃 🕼 EnterpriseOne Life Cycle Tools / JDE Install / Upgrade Group
🕣 🧰 Application Development
🖶 🧰 Report Management
🕣 🧰 System Administration Tools
🕁 🧰 Workflow Management
🛓 🧰 View Development

The P0046 - Work With Processing Log window is displayed, as shown in Figure A–19.

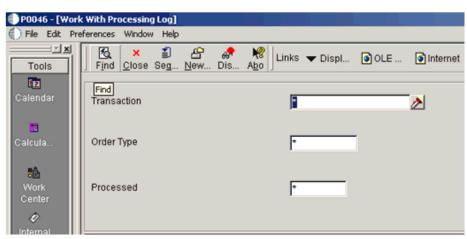


Figure A–19 Work With Processing Log Window

### 2. Click Find.

The following data is displayed, as shown in Figure A–20.

Figure A–20 Data Display Table

User ID	Batch Number	Transaction Number	Line Number	Trans	Or Ty	Seq	UBE Name	Version	S P
JDE	15147	103322	1.000	JDESOOUT	SO	1.00			N
JDE	15148	103323	1.000	JDESOOUT	SO	1.00			Ν
JDE	15149	103324	1.000	JDESOOUT	SO	1.00			N
JDE	15150	103325	1.000	JDESOOUT	so	1.00			N
JDE	15151	103326	1.000	JDESOOUT	so	1.00			N
JDE	15152	103327	1.000	JDESOOUT	so	1.00			N
JDE	15153	103328	1.000	JDESOOUT	so	1.00			N
JDE	15154	103329	1.000	JDESOOUT	so	1.00			N
JDE	15155	103330	1.000	JDESOOUT	so	1.00			N
JDE	15156	103331	1.000	JDESOOUT	so	1.00			N
JDE	15157	103332	1.000	JDESOOUT	so	1.00			N
JDE	15158	103333	1.000	JDESOOUT	so	1.00			N
JDE	15159	103334	1.000	JDESOOUT	so	1.00			N
JDE	15160	103335	1.000	JDESOOUT	so	1.00			N
JDE	15163	103452	1.000	JDESOOUT	so	1.00			N
JDE	15164	103453	1.000	JDESOOUT	so	1.00			N
JDE	15165	103454	1.000	JDESOOUT	so	1.00			N
JDE	15166	103455	1.000	JDESOOUT	so	1.00			N

**3.** Search for the corresponding transaction.

The iwoevnt.log file is created in the following directory:

```
\\iwJDE812\JDEdwards\E812\DDP\system\bin32
```

The iwoevent.log file is created in the outbound folder where the iwoevent.dll and iwoevent.cfg files are located. The following is an example of the event log file:

</ediBatchNumber><ediTransactionNumber>103494

</ediTransactionNumber></data></sp></connection></request></jde>

\_\_\_\_\_

# Glossary

### adapter

Provides universal connectivity by enabling an electronic interface to be accommodated (without loss of function) to another electronic interface.

### agent

Supports service protocols in listeners and documents.

### business service

Also known as a Web service. A Web service is a self-contained, modularized function that can be published and accessed across a network using open standards. It is the implementation of an interface by a component and is an executable entity.

### channel

Represents configured connections to particular instances of back-end systems. A channel binds one or more event ports to a particular listener managed by an adapter.

### listener

A component that accepts requests from client applications.

### port

Associates a particular business object exposed by the adapter with a particular disposition. A disposition is a URL that defines the protocol and location of the event data. The port defines the end point of the event consumption.

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