Oracle® Fusion Middleware Application Adapters

Application Adapter for Siebel User's Guide for Oracle WebLogic Server 12*c* Release 1 (12.1.3.0.0)

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October 2014 Provides information on how to integrate with Siebel systems and develop applications.



Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server, 12c Release 1 (12.1.3.0.0)

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Glossary

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Preface

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

Audience

This document is intended for system administrators and developers who integrate with Siebel systems and develop applications.

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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.

For more information about OUM, see the OUM FAQ at

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 Siebel system through Oracle Application Adapter for Siebel. Oracle Application Adapter for Siebel provides connectivity and carries out interactions on a Siebel system. This chapter contains the following sections:

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

- Section 1.1, "Adapter Features"
- Section 1.2, "The Siebel Application Model"
- Section 1.3, "Integration with Siebel"
- Section 1.4, "Using Application Explorer with Oracle Application Adapter for Siebel"
- 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 Siebel provides a means to exchange real-time business data between Siebel systems and other applications, databases, or external business partner systems. The **adapter** enables external applications for inbound and outbound processing with Siebel.

Oracle Application Adapter for Siebel can be deployed as a J2EE Connector Architecture (J2CA) version 1.0 resource adapter. This deployment is referred to as Oracle Adapter J2CA. It can also be deployed as a Web services servlet and as such is referred to as Oracle Adapter Business Services Engine (BSE). This section contains the following topics:

- Section 1.1.1, "Oracle Adapter Business Services Engine (BSE) Architecture"
- Section 1.1.2, "Oracle Adapter J2CA Generic Architecture"

Oracle Application Adapter for Siebel uses XML messages to enable non-Siebel applications to communicate and exchange transactions with Siebel using services and events. Services and events are defined as follows:

- Services (also known as outbound processing): Enables applications to initiate a Siebel business event.
- Events (also known as inbound processing): Enables applications to access Siebel data only when a Siebel 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 EIS application. The channel component can be a File reader, an HTTP listener, or an MQ 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 Siebel:

- Supports synchronous and asynchronous, bidirectional message interactions for Siebel Business Services, Business Components, and Integration Objects.
- Includes Oracle WebLogic Server Adapter Application Explorer (Application Explorer), a GUI tool that uses the Siebel Object Manager to explore Siebel metadata and build XML schemas or Web services.
- Supports Siebel transports—MQSeries, File, and HTTP. It also supports MSMQ messaging.
- XML schemas for Oracle Adapter J2CA.
- Web services for BSE.

Oracle Application Adapter for Siebel supports all 23 Siebel Industry Applications (SIA) through business objects, business components, business services, and integration objects. Siebel Industry Applications include industry verticals such as insurance, high technology, automotive, communications, media, financial services, life sciences, manufacturing, and consumer goods.

Siebel Industry Applications is tailored to the specific business requirements and processes of a particular industry with additional business logic in the form of business objects, business components, business services, and integration objects. Oracle Application Adapter for Siebel exposes and generates metadata and interacts with these industry-specific objects.

See Also: Oracle Application Server Adapter Concepts Guide

1.1.1 Oracle Adapter Business Services Engine (BSE) Architecture

Figure 1–1 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. BSE serves as host to the adapters, enabling Web service requests to the adapters.

Application Explorer, a design-time tool deployed along with BSE, is used to configure adapter connections, browse EIS objects, and configure services. 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.

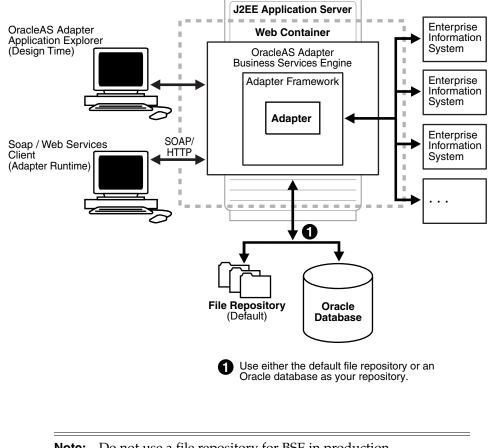


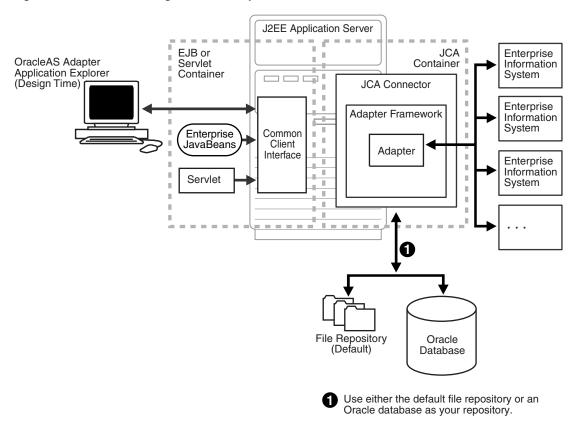
Figure 1–1 Oracle Adapter Business Services Engine (BSE) Generic Architecture

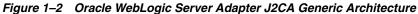
Note: Do not use a file repository for BSE in production environments.

1.1.2 Oracle Adapter J2CA Generic Architecture

Figure 1–2 shows the generic architecture for the Oracle Adapter J2CA for packaged applications. The Oracle Adapter J2CA is deployed to a standard J2CA container and serves as host container to the adapters. The connector is configured with a repository.

Application Explorer, a design tool that works with the connector, is used to configure adapter connections, browse EIS objects, and configure services. Metadata created while you perform these operations are 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".





1.2 The Siebel Application Model

The Siebel Enterprise application defines a data abstraction layer that removes dependencies on the underlying database. It accomplishes this by using intermediate Business Components and Business Objects that represent database structures. A Business Component usually represents a table in a database. A Business Object is a group of related business components.

From a given business component, you can navigate the relationships defined for that component to another component. The path you use to traverse component relationships is called the navigation path. For example, if you want to obtain all addresses for a particular account, you can traverse the parent/child relationship between Account and Address to obtain those addresses. By using navigation paths, you can traverse nearly all of the business component relationships defined in the Siebel system.

In Siebel, Integration Objects are similar to Siebel Business Components but describe more complex hierarchal data relationships.

1.3 Integration with Siebel

You can use Oracle Application Adapter for Siebel to initiate a Siebel business process, such as add/update account, or you can use the adapter as part of an integration effort to connect Siebel and non-Siebel systems. Oracle Application Adapter for Siebel is bidirectional and can detect an event from Siebel by receiving a Siebel XML document emitted by Siebel.

This section contains the following topic:

Section 1.3.1, "Integrating with Siebel EAI Architecture"

When integrating with Siebel using Siebel XML documents, the adapter application developer must use existing Siebel Integration Objects or create new Siebel Integration Objects to use within a Siebel Workflow. The Workflow processes inbound or outbound Siebel XML and uses various transports such as MQSeries, File, and HTTP to exchange transactions with external systems. The Siebel Workflow is usually created by the Siebel administrator or developer using Siebel Workflow Administration screens.

When integrating with Siebel directly using the Java Data Bean or COM Data Interface, Oracle Application Adapter for Siebel does not require a Siebel Integration Object or Siebel Workflow. Instead, it executes Siebel Business Services and Siebel Business Components directly.

The following table lists Siebel objects and processes.

Siebel Objects	API or Transport	Process
Business Services	Java Data Bean (Siebel Version 6.3-8.0)	Service
	Com Data Interface (Siebel Version 6.01-6.2)	
Business Components	Java Data Bean (Siebel Version 6.3-8.0)	Service
	Com Data Interface (Siebel Version 6.01-6.2)	
Integration Objects	File	Event, Service
	НТТР	Event, Service
	MQSeries	Event, Service
	MQ Read	Service

Table 1–1 Siebel Objects and Processes

1.3.1 Integrating with Siebel EAI Architecture

Siebel enables integration with other applications and systems using its Siebel EAI (Enterprise Application Integration) framework and its Business Integration Manager facility. Oracle Application Adapter for Siebel uses the Siebel EAI framework and leverages various integration access methods to provide the greatest amount of flexibility and functionality while working within the Siebel framework.

Oracle Application Adapter for Siebel supports the following integration access methods:

- Siebel Java Data Bean for services involving Siebel Business Components or Siebel Business Services.
- Siebel COM Data Interface for services involving Siebel Business Components or Siebel Business Services.
- Siebel XML for events and services involving Siebel Integration Objects.

1.4 Using Application Explorer with Oracle Application Adapter for Siebel

Application Explorer uses an explorer metaphor for browsing the Siebel system for Business Services, Business Objects, Business Components, and Integration Objects. The explorer enables you to create XML schemas and Web services for the associated object. External applications that access Siebel through Oracle Application Adapter for Siebel use either XML schemas or Web services to pass data between the external application and the adapter.

Application Explorer uses interfaces provided by Siebel and in-depth knowledge of the Siebel application systems to access and browse business object metadata. After an object is selected, Application Explorer can generate an XML schema or Web service to define the object for use with Oracle Application Adapter for Siebel.

Key features of Application Explorer include:

- The ability to connect to and explore a variety of application systems.
- Access to application system object metadata.
- A point-and-click process for generating XML schemas and Web services.

See Also:

- Oracle Application Server Adapter Concepts Guide
- Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server

1.5 BSE Versus Oracle Adapter J2CA Deployment

If you are using Oracle Application Adapter for Siebel 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 Siebel 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
	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_</adapter_home></pre>
(J2CA)	Samples\BPEL\J2CA\Outbound_Project

Sample Project	Location
Inbound BPEL Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPEL\J2CA\Inbound_Project</adapter_home></pre>
Outbound BPEL Process (BSE)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPEL\BSE\Outbound_Project</adapter_home>
Outbound Mediator Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\Mediator\J2CA\Outbound_Project</adapter_home></pre>
Inbound Mediator Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\Mediator\J2CA\Inbound_Project</adapter_home></pre>
Outbound Mediator Process (BSE)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\Mediator\BSE\Outbound_Project</adapter_home>
Outbound BPM Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPM\J2CA\Siebel_Sample_J2CA_BPM_Outbound_Project</adapter_home></pre>
Inbound BPM Process (J2CA)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPM\J2CA\Inbound_Project</adapter_home>
Outbound BPM Process (BSE)	<abalancestyle="background-block; blue;"="" color:=""><abalancestyle="background-blue;">ADAPTER_HOME>\eta<samples.zip\siebel_< a=""> Samples\BPM\BSE\Outbound_Project</samples.zip\siebel_<></abalancestyle="background-blue;"></abalancestyle="background-block;>
Outbound OSB sbconsole Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB\J2CA\Siebel_Sample_J2CA_OSB_Outbound_Project</adapter_home></pre>
Inbound OSB sbconsole Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB\J2CA\Siebel_Sample_J2CA_OSB_Inbound_Project</adapter_home></pre>
Outbound OSB sbconsole Process (BSE)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB\BSE\Siebel_Sample_BSE_OSB_Outbound_Project</adapter_home></pre>
Outbound OSB Jdeveloper Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB_Jdeveloper\J2CA\Siebel_Sample_J2CA_OSB_ Outbound_Project</adapter_home></pre>
Inbound OSB Jdeveloper Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB_Jdeveloper\J2CA\Siebel_Sample_J2CA_OSB_ Inbound_Project</adapter_home></pre>
Outbound OSB Jdeveloper Process (BSE)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB_Jdeveloper\BSE\Siebel_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 Siebel 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:

<OSB_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 Siebel to the following directories:

<ADAPTER_HOME>\lib

<ORACLE_HOME>\user_projects\domains\base_domain\lib

For more information on encoding settings and prerequisites for Siebel versions 6.2 and lower, see the following topics in Chapter 2, "Configuring Oracle Application Server Adapter for Siebel":

- Encoding Support on UNIX Platforms
- Adding Required Encoding Option (All UNIX Platforms)
- Siebel Connectivity Prerequisites for Versions 6.2 and Lower

1.7.3 Configuration

Navigate to <*ADAPTER_HOME*> and make the following changes:

1. Open *iwafjca.rar**META-INF**ra.xml* and add the following values under the specified config-property-name parameters, as shown in Table 1–2.

Table 1–2			
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		

2. Open *ibse.war\WEB-INF\web.xml* and add the following values under the specified param-name parameters, as shown in Table 1–3.

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		

Table 1–3

_

. -

Param-Name	Param-Value
IWay.home	<adapter_home></adapter_home>
	For example:
	 For SOA:
	$C:\12C_soa\soa\thirdparty\ApplicationAdapters$
	• For OSB:
	$C:\12c_0SB\osb\3rdparty\ApplicationAdapters$
Iway.config	The name of the configuration. For example:
	IBSE

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 Server Adapter for Siebel" 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 Siebel"
- Working with Integration Objects: Section 2.7, "Siebel Prerequisites for Working With Integration Objects", Section 2.8, "Creating Schemas for Siebel Integration Objects", and Section 2.9, "Creating Integration Object (IO) Nodes for Siebel".
- Working With Service Nodes: Section 2.10, "Creating a Service Node for a Siebel Business Service"
- Creating and Testing Web Services: Section 2.11, "Creating and Testing a Web Service (BSE Configurations Only)"

- Generating WSDL Files: Section 2.12, "Generating WSDL (J2CA Configurations Only)"
- Creating and Working With Channels: Section 2.13, "Configuring an Event Adapter"

1.7.6 Working With Service Components in the SOA Suite

Oracle Application Adapter for Siebel 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 Siebel 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 an Outbound and Inbound Process for Oracle Service Bus Using sbconsole".

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) Using JDeveloper"

Configuring Oracle Application Server Adapter for Siebel

This chapter describes how to configure Oracle Application Adapter for Siebel and create schemas for Siebel Business Objects. It 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 Siebel"
- Section 2.5, "Viewing Application System Objects"
- Section 2.6, "Creating XML Schemas"
- Section 2.7, "Siebel Prerequisites for Working With Integration Objects"
- Section 2.8, "Creating Schemas for Siebel Integration Objects"
- Section 2.9, "Creating Integration Object (IO) Nodes for Siebel"
- Section 2.10, "Creating a Service Node for a Siebel Business Service"
- Section 2.11, "Creating and Testing a Web Service (BSE Configurations Only)"
- Section 2.12, "Generating WSDL (J2CA Configurations Only)"
- Section 2.13, "Configuring an Event Adapter"

Siebel Connectivity Prerequisites for Versions 6.2 and Lower

For Siebel versions 6.2 and lower only, you must perform the following steps to connect to your Siebel system using COM connectivity for a J2CA configuration.

- 1. Install Siebel thick client on the same system where the adapters are installed.
- 2. Install the database client (Microsoft SQL Server or Oracle) on the same system.
- **3.** The Siebel .DLL files (iwsiebel.local.dll and iwsiebel.core.dll) in the adapter lib folder must be added to the Application server path.
- **4.** Edit the uagent.cfg file and change the data source parameter value from "local" to "server".

The uagent.cfg file can be found in the following Siebel thick client folder:

c:\sea\client\bin

5. Edit the data source for SEA MSQl with appropriate parameters.

You can edit a data source in Windows by accessing the Control Panel, Administrative Tools, and Data Sources (ODBC).

6. Use the following target type when creating the adapter target connection:

Siebel 6.2 - (Local COM Access Implementation)

7. Provide the full path to the uagent.cfg file when creating an adapter target connection, for example:

```
c:\sea\client\bin\uagent.cfg
```

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 Siebel 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 Siebel, 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.

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"

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.

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 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 create a new configuration for BSE:

- 1. Start the Application Explorer.
- 2. Right-click Configurations and select New.

The New Configuration dialog is displayed.

3. Enter a name for the new configuration (for example, SampleConfig) and click **OK**.

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

Figure 2–1 New Configuration Dialog

Rew Configuration	×
Service Provider iBSE	
iBSE URL http://localhost?001/ibse/IBSEServlet	
OK Cancel	

4. From the Service Provider list, select iBSE.

5. 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 number on which the Oracle WebLogic Server is listening.

6. Click OK.

As shown in Figure 2–2, a node representing the new configuration appears beneath the root Configurations node.

Figure 2–2 SampleConfig Node

SampleConfigurations
I → □ → SampleConfig

2.3.2 Creating a Configuration for J2CA

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

To define a new configuration for J2CA:

- 1. Start the Application Explorer.
- 2. Right-click Configurations and select New, as shown in Figure 2–3.

Figure 2–3 Configurations Node



The New Configuration dialog is displayed, as shown in Figure 2–4.

3. Enter a name for the new configuration (for example, SampleConfig) and click **OK**.

Figure 2–4 New Configuration Dialog

🔊 New Config	uration			×
Service Provide	er JCA 💌			
Home C:\oracl	e\Middlewar	e\Oracle_SO	A1\soa\third;	part
	ок	Cancel		

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

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

Figure 2–5 SampleConfig Node

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 Siebel. For example, you
 use the Siebel node in the Adapters node to configure a service that updates
 Siebel.
- Use the **Events** node (available for J2CA configurations only) to configure listeners that listen for events in Siebel.
- 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 Siebel.

2.4 Establishing a Connection (Target) for Siebel

To browse the Siebel Business Services, Business Components, and Integration Objects, you must define a target to Siebel. After you define the target, the parameters are automatically saved.

This section contains the following topics:

- Section 2.4.1, "Defining a Target to Siebel"
- Section 2.4.2, "Connecting to a Defined Target"

- Section 2.4.3, "Disconnecting From Siebel"
- Section 2.4.4, "Editing a Target"
- Section 2.4.5, "Deleting a Target to Siebel"

Important (All UNIX Platforms): Before you attempt to connect to a Siebel target using a BSE or J2CA configuration in a UNIX environment, you must perform the additional steps described in "Adding Required Encoding Option (All UNIX Platforms)" on page 2-6. Failure to add the encoding option as described in this section results in an error and you are not able to connect to the Siebel target. The error message may indicate that the encoding is not supported, for example:

 $\mbox{Error:}$ Problem activating adapter -- UTF-8 is not supported. Check logs for more information.

Error: Error getting target [Siebel] -- UTF-8 is not supported.

Adding Required Encoding Option (All UNIX Platforms)

Before attempting to connect to a Siebel target, perform the following steps:

1. Add the following Java file encoding option to the **startWebLogic.sh** file:

JAVA_OPTIONS="\${SAVE_JAVA_OPTIONS} -Dfile.encoding=IS08859_1"

The **startWebLogic.sh** file is located in the following directory:

<ADAPTER_HOME>\user_projects\domains\base_domain\bin

2.4.1 Defining a Target to Siebel

The connection parameters required for defining a Siebel target can be obtained from the eapps.cfg file, which is located in the following directory:

drive:\SiebelRoot\SWEApp\BIN

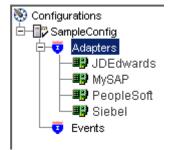
Where Siebelroot is the Siebel installation directory.

When you are working with a J2CA configuration, creating, updating, and deleting a target requires you to restart the Oracle WebLogic Server. In addition, make sure to close Application Explorer before you restart the Oracle WebLogic Server.

To define a target to Siebel:

1. In the left pane, expand the Adapters node, as shown in Figure 2–7.

Figure 2–7 Adapters Node



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

The Add Target dialog is displayed. Provide the following information:

- **a.** In the Name field, enter a name for the new target.
- **b.** In the Description field, enter a description (optional).
- c. From the Target Type list, select Java Bean Data Connection (default).
- 3. Click OK.

The Java Data Bean Connection dialog is displayed, as shown in Figure 2–8.

Figure 2–8 Java Data Bean Connection Dialog

Java Data Bean Conne	ction 🔀
Logon Advanced]
Gateway Server*	
Enterprise Name*	
Siebel Server	
User*	
Password*	
Siebel Version	Siebel 7.7 and above 💌
[OK Cancel
Fields marked with * a	re required.

Enter the system information as specified in the following steps:

- **a.** In the **Gateway Server** field, enter the name of the server. To specify a Gateway Server that uses a port other than the default (usually, 2320), add a colon and the port number, for example, *gateway name:port number*.
- **b.** In the **Enterprise** Name field, enter the appropriate name.
- **c.** In the **Siebel Server** field, enter the name of your Siebel server. Do not supply a value in this field when connecting to a Siebel 7.7, 7.8, or 8 system.
- **d.** In the **User** field, enter the user name.
- **e.** In the **Password** field, enter the password associated with the user name.
- f. From the Siebel Version list, select **Siebel 7.7 and above** (default) or **Siebel 7.5 and below**.
- g. Click the Advanced tab, as shown in Figure 2–9 and verify the following:

Language

Object Manager

Java Data Bean Conne	ction				
Logon Advanced					
Language	enu				
Object Manager*	EAIObjMgr				
Repository Name	Siebel Repository				
Encryption	None 💌				
OK Cancel					
Fields marked with * are required.					

Figure 2–9 Java Data Bean Connection Dialog Advanced Tab

Object Manager

For Siebel 7.0.3, the default Object Manager is EAIObjMgr. For Siebel 7.7, the default is EAIObjMgr_enu. Siebel 7.7 requires that you add a language extension (for example, _enu) to the end of the Object Manager name. Check with your Siebel Administrator for the specific names that apply to your system.

Repository Name

If no repository is specified, then a full list of objects from all available repositories is returned. If a specified repository is not found, then an empty list of objects is returned.

The configuration parameters supplied are those used by Siebel client applications to connect to the Siebel system. For more information about these parameters, see your Siebel documentation or ask your Siebel system administrator.

Encryption

A new parameter named Encryption is now introduced to the Advanced tab when using the Siebel adapter to create a target during design time. This parameter has two values, None and RSA. The default value is None, where no encryption is performed. By choosing RSA, an RSA-encrypted connection to the object manager specified is established.

To use RSA encryption, the Object Manager must be specified as **SCCObjMgr_enu**.

Note: These parameters are typically found in Siebel configuration files stored under the Siebel server root/bin/<language> directory, where language is the Siebel code for the language you installed (enu for U.S English). For example, for Siebel versions 7 and higher on a Windows platform, for the Siebel Call Center module, these values can be found in the uagent.cfg file. Consult your Siebel administrator and your Siebel bookshelf documentation for more information.

4. Click OK.

In the left pane, the target you create appears under the Siebel node.

2.4.2 Connecting to a Defined Target

To connect to a defined target:

1. Expand the **Siebel** node and click the target name to which you want to connect, as shown in Figure 2–10.

Figure 2–10 Disconnected Siebel Target

È**⊢₩)** Siebel └─╤ siebel_target

2. In the left pane, right-click the target name and select **Connect**.

The target icon changes, indicating that you are connected to the Siebel system, as shown in Figure 2–11.

Figure 2–11 Siebel Target Node

🗄 – 🂵 Siebel
🔄 😴 siebel_target
— 🛅 Business Object
— 🛅 Business Service
L- 🛅 Integration Object

You can now browse the available Business Objects, Business Services, and Integration Objects in the Siebel system.

2.4.3 Disconnecting From Siebel

Although you can maintain multiple open connections to different application systems, it is good practice to close connections when not in use.

To disconnect from Siebel:

- 1. In the left pane, select the target to which you are connected.
- 2. Right-click the target and select **Disconnect**.

Disconnecting from the application system drops the target, but the node remains. The SiebelConnection node in the left pane changes to reflect that the target is disconnected, as shown in Figure 2–12.



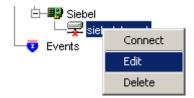


2.4.4 Editing a Target

To edit a target:

- 1. In the left pane, ensure the target you want to edit is disconnected.
- 2. Right-click the disconnected target and select Edit, as shown in Figure 2–13.

Figure 2–13 Edit Option



The Edit pane is displayed on the right.

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

2.4.5 Deleting a Target to Siebel

You can delete a target, rather than just disconnecting and closing it. When you delete the target, the node disappears from the list of Siebel targets in the left pane of Application Explorer.

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

To delete a target:

- **1.** In the left pane, select the target.
- 2. Right-click the target and select Delete.

A confirmation message is displayed.

3. Click **OK** to delete the target you selected.

The Siebel connection node disappears from the left pane.

2.5 Viewing Application System Objects

Application Explorer gives you the flexibility to view all Siebel application system objects. One benefit of this flexibility is that you can gain an understanding of the Siebel data structure. You can review parameters, data types, and other attributes of the Siebel data in the right pane.

This section contains the following topic:

Section 2.5.1, "Viewing Metadata"

2.5.1 Viewing Metadata

To view metadata:

- 1. Start Application Explorer and connect to your Siebel system.
- 2. In the left pane, expand the **Business Object** or **Business Service** containing the component for which you want to generate schema.
- 3. Expand the Business Object or Business Service node.
- **4.** Expand the **Business Component** or the **Business Service** node to view the objects under it.
 - For a **Business Component**, select the node in which you are interested, for example, Account, as shown in Figure 2–14.

Figure 2–14 Account Node



• For a **Siebel Business Service**, select the object in which you are interested, for example, **addAccount**, as shown in Figure 2–15.

Figure 2–15 Simple Add Account Node



5. In the right pane, click the ellipsis (...) in the Table row of the properties table. The metadata table appears in the right pane, as shown in Figure 2–16.

🎆 Detail 🔳	Table				
Name	Туре	Required	MultiValued	ReadOnly	Active
Account Co	string				>
Account Con	. string				~
Account Mar	string				>
Account Org	string				>
Account Pro	string				Image: A start of the start
Account Role	string				Image: A start of the start
Account Stat	. string				Image: A start of the start
Account Trend	string				Image: A start of the start
Address Act	string		Image: A start of the start		 Image: A set of the set of the
Address Id	string		Image: A start of the start		Image: A start of the start
Address Inte	string		Image: A start of the start		Image: A start of the start
Agreement E	string		Image: A start and a start		 Image: A set of the set of the
Agreement N	string		Image: A start and a start		Image: A start of the start
Agreement S	string		Image: A start and a start		 Image: A set of the set of the
Agreement S	string		Image: A start of the start		>
Algorithm Type	string		Image: A start and a start		>
Alias	string				>
Annual Reve	string				>
Assignment	string				 Image: A set of the set of the
Assignment	string				
Assignment	string		 Image: A set of the set of the	 Image: A start of the start of	
Assignment	boolean				
Assignment	string		✓		Image: A start of the start

Figure 2–16 Metadata Table for the Siebel Object

2.6 Creating XML Schemas

You can create service schemas for Business Services and Business Components using Application Explorer.

This section contains the following topics:

- Section 2.6.1, "Siebel Schema Considerations"
- Section 2.6.2, "Creating an XML Schema for a Siebel Business Object or Business Service"
- Section 2.6.3, "Creating an XML Schema for a Siebel Business Component or Business Service"
- Section 2.6.4, "Searching for a Specific Siebel Object"
- Section 2.6.5, "Returning Fields in a Specified Order"
- Section 2.6.6, "Using QueryWithView"

The following topic describes how to create schemas for the adapter when you deploy Oracle Application Adapter for Siebel for use either in a J2CA environment or a Web services environment. For more information, see "Creating and Testing a Web Service (BSE Configurations Only)" on page 2-24 if you plan to deploy Oracle Application Adapter for Siebel in a Web services environment.

2.6.1 Siebel Schema Considerations

When inserting a record into Siebel, the data can be specified by the user or configured in Siebel to have default values or other system generated values. For example the Account Business Component, Currency Code, by default, has 'USD' and the system fields such as ROW_ID generated by the Siebel system when the record is inserted. The Siebel API does not provide this distinction. Therefore, the Oracle Application Adapter for Siebel can not anticipate what the required fields the user should enter are and what are the required fields that can be filled by Siebel. As a result, the adapter schemas have been modified to have all elements as optional by setting minoccurs=0 for the elements.

Hence, all users must determine which fields are mandatory through Siebel Tools and create a payload (request XML document) for Siebel services (outbound).

2.6.2 Creating an XML Schema for a Siebel Business Object or Business Service

You create schemas for Siebel Business Service methods (for example, the Add method) and Business Components using Application Explorer. After you create a schema, you can use it to generate service request and response schemas for the Business Service or Business Component.

Siebel Business Objects contain one or more Siebel Business Components. You can view Business Components by clicking the associated Business Object.

For example, the Account Business Object can be expanded to display all available Business Components, as shown in Figure 2–17.



Figure 2–17 Account Business Object

2.6.3 Creating an XML Schema for a Siebel Business Component or Business Service

To generate service request and response schemas for a Business Component or Business Service:

- 1. Start Application Explorer and connect to your Siebel system.
- 2. In the left pane, expand the Business Object or the Business Service node.
- 3. Expand the Business Component or Business Service to view the objects under it.
 - For a Business Component, expand the Business Object node, then expand the Business Component you want, then expand the node you want, and select the method for which you want to create a schema, as shown in Figure 2–18.

Figure 2–18 Insert Method selected Under the Account Business Object



• For a **Siebel Business Service**, expand the **Business Service** node containing the object for which you want to create schema, as shown in Figure 2–19.

Figure 2–19 The addAccount Object Under The Add Account Business Service



4. Right-click the node and select Generate Schema.

Application Explorer accesses the Siebel repository and builds schemas.

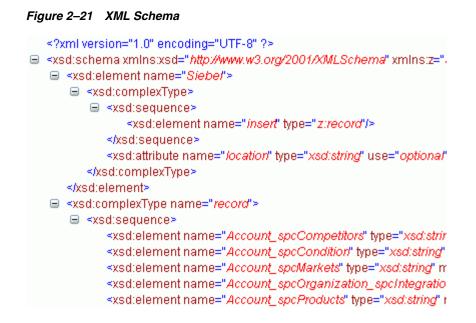
As shown in Figure 2–20, schema tabs similar to the following appear in the right pane.

Figure 2–20 Request and Response Schema Tabs



5. To view a schema, click the ellipsis tab corresponding to the schema you want to view.

The schema appears on the right, as shown in Figure 2–21.



2.6.4 Searching for a Specific Siebel Object

You can use the search function in Application Explorer to locate a Siebel object or node quickly.

- 1. Start Application Explorer and connect to your Siebel system through a target.
- 2. Expand the target and select Business Object, Business Service, or Integration Object.
- 3. In the right pane, move the cursor over Operations and select Search.
- **4.** Enter the name of the node or object on which you want to search in the text entry box, for example, **Account**.
- 5. Click OK.

A list containing the Siebel items that match your search appears.

6. Select the item in which you are interested.

Application Explorer locates the item in which you are interested.

2.6.5 Returning Fields in a Specified Order

When you create a request document from an XML schema to query the Siebel system, you can limit the expected response to specific fields that are specified in the query. The response contains the fields in the order in which they were specified. If you do not specify a set of fields, then the response document contains the entire set.

For example, the following query returns all fields:

```
<m:Siebel location="S/BO/Account/Account/queryWithView" view="AllView">
    <m:select>
    </m:select>
    </m:Siebel>
```

The following query returns a response that only contains the fields Name, Location and Account Status fields:

<m:Siebel location="S/BO/Account/Account/queryWithView" view="AllView">

```
<m:select>
    <m:Name>Yelena*</m:Name>
    </m:select>
    <m:field>Name</m:field>
    <m:field>Location</m:field>
    <m:field>Account Status</m:field>
</m:Siebel>
```

2.6.6 Using QueryWithView

For Business Components, the Oracle Application Adapter for Siebel enables Insert, Update, Delete, and Query. It also enables a method called QueryWithView. The View modes are a visibility feature provided by Siebel.

By using QueryWithView, you can specify a Siebel View mode as a parameter. The API parameters allow different presentations of data depending on the Siebel environment that you configured.

You can use Query except when you want to enable a user to retrieve records based on different view modes. In this case, use QueryWithView. For more information on QueryWithView mode or Siebel "Visibility" concepts, see your Siebel Administrator.

The following levels are available:

- Sales Rep View
- Manager View
- Personal View
- All View
- Organization View
- Group View
- Catalog View
- SubOrganization View

2.7 Siebel Prerequisites for Working With Integration Objects

To create XML schemas for Siebel Integration Objects, you may have to generate XDR schemas first, using the Siebel Tools Schema Wizard.

The XDR schema is used as input to Application Explorer when generating schemas for integration objects. After you generate the XDR schema, Application Explorer uses the XDR file to generate the XML schema.

Please note:

- For Siebel 7.5 and later: Generate XSD schemas directly from Siebel tools. These XSD schemas are used to create Web services directly using Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and Web service.
- For Siebel 7.0: You cannot generate XSD schemas directly from Siebel tools; only XDR schemas can be created. Therefore, to create a Web service, Application Explorer must first generate an XSD schema from the XDR schema.
- For releases before Siebel 6.3: The Siebel Tools Schema Wizard creates only DTD schemas. You must transform these schemas manually, or by using other tools, into XDR files before Application Explorer can use them as input to create XML

schemas. In addition, you must include the SiebelMessage tag reference in your XDR file.

Oracle Application Adapter for Siebel supports access to Siebel Integration Objects by using Siebel XML to handle events. Using Siebel Integration Objects through supported transports requires Siebel workflows.

2.8 Creating Schemas for Siebel Integration Objects

This section describes how to create schemas for Siebel Integration Objects and contains the following topic:

 Section 2.8.1, "Creating a Siebel XDR or XSD Schema for a Siebel Integration Object"

2.8.1 Creating a Siebel XDR or XSD Schema for a Siebel Integration Object

To generate a Siebel XDR or XSD schema:

1. Log on to Siebel Tools, as shown in Figure 2–22.

Figure 2–22 Siebel Tools Menu

Siebel Tools	×
	SIEBEL.7
To log in, please e	nter your user ID and password and select a database
	User ID: SADMIN
	Password:
	Connect to: Server
	OK Cancel

Perform the following steps:

- **a.** Enter your user ID and password.
- **b.** Select a database from the list.
- 2. Click OK.

The Siebel Tools window is displayed, as shown in Figure 2–23. Integration Objects appear in the right pane.

Edit View Screens Go Query Reports Debu	· · · · · · · · · · · · · · · · · · ·		
🔜 🕼 X 🖻 🛍 🗠 🗠 🕞 M 🔸	▶ ▶ ♀ ♀ ≵ ≩↓ ↓ ♥ ⇒ ≯6 №		
et Explorer		Integration Objects	
ct: ** All Projects **		Synchronize Generate Sci	hema Generate Code
es Detail Flat			
🔀 Siebel Objects 🔺		hanged Project Adapter Info	Base Object Type
🖻 🧰 Applet	SAP BAPI Wizard - Get Function List (SAP Design	SAP BAPI Output
Application	SAP BAPI Wizard - Get Function List (SAP Design	SAP BAPI Output
🗈 🔂 Assignment Attribute	SAP Get System Parameters (BAPI In	SAP Design	SAP BAPI Input
🕀 👷 Assignment Criteria	SAP Get System Parameters (BAPI Ou	SAP Design	SAP BAPI Output
Bitmap Category	SAP IDOC Wizard - Get IDOC (BAPI :	SAP Design	SAP BAPI Input
Business Component Business Object	SAP IDOC Wizard - Get IDOC (BAPI -	SAP Design	SAP BAPI Output
Business Object	SAP IDOC Wizard - Get IDOC List (BA	SAP Design	SAP BAPI Input
Business Service	SAP IDOC Wizard - Get IDOC List (BA	SAP Design	SAP BAPI Output
	SAP IDOC Wizard - Get IDOC Metada	SAP Design	SAP BAPI Input
E Command	SAP IDOC Wizard - Get IDOC Metada	SAP Design	SAP BAPI Output
+ En Content Object	SAP IDOC Wizard - Get IDOC Segmei	SAP Design	SAP BAPI Input
DLL	SAP IDOC Wizard - Get IDOC Segmei	SAP Design	SAP BAPI Output
Dock Object	SAP IDOC Wizard - Get IDOC Segmei	SAP Design	SAP BAPI Input
EIM Interface Table	SAP IDOC Wizard - Get IDOC Segmei	SAP Design	SAP BAPI Output
🖅 🏫 Find	SAP IDOC Wizard - Get IDOC Structu	SAP Design	SAP BAPI Input
? Help Id	SAP IDOC Wizard - Get IDOC Structu	SAP Design	SAP BAPI Output
HTML Hierarchy Bitmap	SAP IDOC Wizard - Get RFC Table En	SAP Design	SAP BAPI Input
🛨 🔝 Icon Map	SAP IDOC Wizard - Get RFC Table En	SAP Design	SAP BAPI Input
🗄 🔂 Import Object	SAP IDOC Wizard - Get RFC Table En	SAP Design	SAP BAPI Output
🖃 🐔 Integration Object	SAP IDOC Wizard - Get RFC Table En	SAP Design	SAP BAPI Output
	SAP IDOC Wizard - Get Record Struct	SAP Design	SAP BAPI Input
integration Object User Prop	SAP IDOC Wizard - Get Record Struct	SAP Design	SAP BAPI Output
	SAP RFC - Execute ABAP (BAPI Inpu	SAP Design	SAP BAPI Input
🛨 📆 Menu 🥌	SAP RFC - Execute ABAP (BAPI Outp	SAP Design	SAP BAPI Output
🗉 🛄 Message Category	SAP Wizards - Get Field Info (BAPI In	SAP Design	SAP BAPI Input
Pager Object	SAP Wizards - Get Field Info (BAPI In	SAP Design	SAP BAPI Input
Pick List	SAP Wizards - Get Field Info (BAPI In SAP Wizards - Get Field Info (BAPI O	SAP Design	SAP BAPI Input
Project	SAP Wizards - Get Field Info (BAPI O	SAP Design	SAP BAPI Output
E Report	Sample Account	EAI Test	Siebel Business Object
Bepository	Sample Account LIV	EAI Test	Siebel Business Object
- Schema Maintenance Phase	Sample Account LIV	EWT 1620	Siedei Business Object
Schema Maintenance Process			
in - D₂ Schema Maintenance Step in - T Screen ▼	A B C D E F G H I J K L M N O	PQRSTUVWXYZ*	

Figure 2–23 Siebel Tools Window

- **3.** To create a schema, select an Integration Object, for example, Sample Account.
- 4. Click Generate Schema.

The Generate XML Schema wizard is displayed, as shown in Figure 2–24.

Figure 2–24 Generate XML Schema Wizard

Generate XML Schema			x
	Choose the Business Service to generate a schema.		
	Select a Business Service from the list.		
	EAI XML XDR Generator	•	
	Select an envelope type from the list.		
	Siebel Message envelope	•	
	Choose the file name to save the schema object.		
	C:\Way\Sample_Account.XDR	Browse	
	< Back	Finish	Cancel

Perform the following steps:

- **a.** From the Select a Business Service list, select **EAI XML XDR Generator** for XDR schemas or EAI XML XSD Generator for XSD schemas (for Siebel 7.5 and later).
- **b.** From the Select an envelope type list, select **Siebel Message envelope**.

c. In the Choose the file name field, specify a file name for the XDR schema and a directory where it can be accessed by Application Explorer.

Note: The XDR or XSD schema file must be saved to a directory on the same computer as Application Explorer.

- 5. Click Finish.
- **6.** Create a workflow to accept incoming XML documents through HTTP and to insert/update Siebel data by using the EAI XML Converter and EAI Siebel Adapter Business Services.

For more information, see Appendix A, "Using Siebel Workflows".

7. Edit the eai.cfg file, which is located in the following directory:

<siebel_server>/bin/enu

8. Add the following line to the [HTTP Services] section:

[HTTP Services] wf = iWayWorkflow

9. Confirm that the following line is set in the [EAI_ENU] section of the Eapps.cfg file:

[EAI_ENU] EnableExtServiceOnly = True

The Eapps.cfg file is located in the following directory:

<siebel_server>/bin

10. Create a named subsystem using Siebel Server Manager by running the following command, where EAITEST is the name of the workflow that was created in step 6:

create named subsystem iWAyWorkflow for subsystem EAITransportDataHandlingSubsys with DispatchWorkflowProcess="EAITEST"

Now you can use Application Explorer to create Integration Object (IO) nodes for Siebel.

2.9 Creating Integration Object (IO) Nodes for Siebel

This section contains the following topic:

Section 2.9.1, "Creating an XML Schema for a Siebel Integration Object"

To create an Integration Object node for Siebel, perform the following steps:

1. In Application Explorer, connect to a defined target. For more information on how to connect to a target, see "Connecting to a Defined Target" on page 2-9.

The X over the icon disappears, indicating that the node target is connected, as shown in Figure 2–25.





- 2. Expand the Integration Object node and select Sample Account.
- Right-click the Sample Account node and select Add IO Node. The Add IO Node dialog is displayed, as shown in Figure 2–26.

Figure 2–26 Add IO Node Dialog

🗢 Add IO Node		×
Node name*	SampleAccount	
Schema location*	file://i:ListOfSampleAccount.XDR Browse	·
🗌 XSD Schema		
Protocol*	HTTP 🔻	
	Continue Cancel	
Fields marked with	* are required.	

Please note:

- For Siebel 7.5 or later: Generate XSD schemas directly from Siebel tools. You use the XSD schemas when you create Web services in Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and a Web service.
- For Siebel 7.0: You cannot generate XSD schemas directly from Siebel tools; only XDR schemas can be created. Before you create a Web service, you must first generate an XSD schema from the XDR schema using Application Explorer.

Note: This is the schema file that you generated in Creating Schemas for Siebel Integration Objects on page 2-17.

- **4.** Enter a node name, for example SampleAccount in the **Node name** field and a path to the Sample Account XDR or XSD file in the **Schema location** field.
- **5.** If the XSD schema has already been generated, then select XSD Schema. If you are using Siebel-generated XDR schemas, then do not select the XSD schema option.
- 6. Select a protocol from the Protocol list.
- 7. Click Continue.

The Add IO Node dialog is displayed, as shown in Figure 2–27.

Figure 2–27 Add IO Node Dialog

		ī
WE URL*	http://ariba01/eai/start.swe]
SWE External S	iource* wf	
SWE External C	ommand* Execute	
Jser Name*	SADMIN]
Dassword*	*****	
	Finish Cancel	

- **8.** Perform the following steps:
 - **a.** In the SWE URL field, type the Base SWE URL. For example:

http://web_server/eai/start.swe
Where web_server is the name of the Web server that is hosting Siebel SWE.

b. In the SWE External Source field, type the section within the eai.cfg file to execute, which is the [HTTP Services] section.

For more information, see step 8 in Creating Schemas for Siebel Integration Objects on page 2-17.

c. In the SWE External Command field, type the following command exactly as shown:

Execute

d. In the User Name and Password fields, type a valid user name and password used to connect to the Siebel SWE.

The user name and password must have privileges to execute the given workflow.

9. Click Finish.

The new IO node is listed under the Integration Object's Sample Account node, as shown in Figure 2–28.

Figure 2–28 Integration Object's Sample Account Node



You can now create an XML schema.

2.9.1 Creating an XML Schema for a Siebel Integration Object

After you create an Integration Object node for Siebel, you can create an XML schema using Application Explorer.

To create an XML schema:

1. In Application Explorer, expand the **Integration Objects** node to browse the Integration Objects in the Siebel system, as shown in Figure 2–29.

Figure 2–29 Siebel Integration Objects Node, Sample Account

SAP Wizards - Get 🔼	💥 Detail	
📑 Sample Account	iwaf.description Sample Accou	int
🗆 👋 SampleAccoi	Campie Accou	
📑 Sample Contact	1-616	
📑 Sample Employee	default	
📑 Sample Internal Div	Active	

- 2. Scroll down and select an Integration Object (for example, SampleAccount).
- **3.** Right-click the created Integration Object node (for example, SampleAccount) and select **Export Schema(s)** from the menu, as shown in Figure 2–30.

Figure 2–30 Export Schema(s) Menu Option

	e Account	
— 🔁 🌀 sar — 📑 Sampl	Romovo This Nodo	
— 📑 Sampl		
– 📑 Sampl – 📑 Sampl	EXMULT SUBPRIMISE	
– 📑 Sampl		
– 📑 Sampl – 📑 Sampl	Create Inhound ICO Service(Event)	
Compl	Create Outbound JCA Service(Request/Response)	
	Apply Filter	

The Select Export Directory dialog is displayed.

The exported event schema must be specified during the channel creation process in the PreParser tab (Schema location field).

4. Click **OK** to save the Schemas.

2.10 Creating a Service Node for a Siebel Business Service

OracleAS Adapter for Siebel enables the addition of a service node for a Business Service that includes methods containing method arguments having hierarchy data types.

Important limitations:

- The adapter supports only Integration Object hierarchy data types.
- Adding a Service node requires that you have previously generated an XSD schema for the Integration Object. For more information on generating XSD schemas for Siebel Integration Objects, see "Creating Schemas for Siebel Integration Objects" on page 2-17.

- Only one of the method arguments for the Business Service method for which you
 want to add a service node can be a hierarchical data type.
- The method argument XMLCharEncoding is not supported. Leave this element blank in the XML payload. If you enter a valid XMLCharEncoding value such as UTF-8 or UTF-16, then the following error is received:

Invocation of Service failed.

To create the service:

- 1. Select the Business Service node in which you are interested.
- **2.** Right-click the Business Service method argument for which you want to create a service and select **Add Service Node**.

The Add Service Node dialog is displayed, as shown in Figure 2–31.

Figure 2–31 Add Service Node Dialog

Add Service Node	×
Name*	
Description	
XSD File for SiebelMessage* Browse	
Root Element for SiebelMessage*	
Is SiebelMessage an Integration Object	
OK Cancel	
Fields marked with * are required.	

- **3.** Perform the following steps:
 - **a.** Provide a service node name.
 - **b.** Enter a description (optional).
 - **c.** Provide the full path (including the file name) to the XSD schema file.
 - **d.** Specify the root element for the XSD schema file. For many XSD schemas for Integration Objects, the root element is SiebelMessage.
 - e. Specify whether the XSD schema is for an Integration Object.

Important: You must verify that this check box is selected.

4. Click OK.

The Service node is listed under the Business Service object, as shown in Figure 2–32.

Figure 2–32 Service Node Listed Under The Business Service Object



You can right-click this node to create a Web service. The request and response schemas are displayed in the right pane.

The following procedure describes how to create a Web service for a Business Object.

2.11 Creating and Testing a Web Service (BSE Configurations Only)

You can generate a **business service** (also known as a Web service) for Siebel objects you want to use with your adapter after you have properly configured the servlet BSE.

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

This section contains the following topics:

- Section 2.11.1, "Creating a Web Service"
- Section 2.11.2, "Testing a Web Service"

2.11.1 Creating a Web Service

To generate a Web service for a Siebel Business Object:

- 1. Connect to your Siebel system.
- 2. Expand a Business Object node.
- **3.** Expand the **Business Component** for which you want to create a Web service, as shown in Figure 2–33.

Figure 2–33 Account Business Object with queryWithView method



- **4.** Expand the object and select a method for creating the Web service, for example, QueryWithView under Account.
- **5.** Right-click the node from which you want to create a business service and select **Create Business Service**.

The Create Web Service dialog is displayed.

You can add the business object as a method for a new Web service or as a method for an existing one. Perform the following steps:

- **a.** From the **Existing Service Names** list, select either <new service> or an existing service.
- **b.** 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).
- d. Select one of the available licenses.
- 6. Click Next.

The License and Method dialog is displayed. Perform the following steps:

- **a.** In the **License** field, select one or more license codes to assign to the Web service. To select more than one, hold down the Ctrl key and click the licenses.
- **b.** In the **Method Name** field, leave the default method name.
- c. In the Description field, enter a brief description of the method (optional).
- 7. Click OK.

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

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

The Save dialog is displayed.

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

2.11.2 Testing a Web Service

After you create a Web service for the Siebel Business Object, test it to ensure it functions properly. Application Explorer includes a test tool for testing a Web service.

This section contains the following topics:

- Section 2.11.2.1, "Testing a Web Service for a Business Object"
- Section 2.11.2.2, "Testing a Web Service for a Business Service"
- Section 2.11.2.3, "Identity Propagation"

2.11.2.1 Testing a Web Service for a Business Object

- 1. In the left pane of Application Explorer, expand the **Business Services** node.
- **2.** Expand the **Services** node.
- **3.** As shown in Figure 2–34, select the name of the business service you want to test.

Figure 2–34 Expanded Service Node



4. Expand the **Methods** node under the service and select the method you want to test.

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. Click Invoke.

Application Explorer displays the results in the results pane, as shown in Figure 2–35.

Figure 2–35 XML Results in the Results Pane

xml version="1.0" encoding="UTF-8" ?	Ì
- <soap-env(envelope< th=""><th></th></soap-env(envelope<>	
xmlns:xsd="http://www.w3.org/2001/XMLSchen	na" 👘
xmlns:SOAP-	
ENV="http://schemas.xmlsoap.org/soap/envel	ope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchem	
instance">	
- <soap-env:body></soap-env:body>	
- <querywithviewresponse< td=""><td></td></querywithviewresponse<>	
xmlns="urn:iwaysoftware:ibse:jul2003:Query"	
cid="638ED68A7082CDA3B0492896446C44D	B">
– <siebelresponse status="success"></siebelresponse>	
- <record></record>	
<name>SIEBEL1 ACCOUNT</name>	
<location>ONE</location>	
- <record></record>	
<name>SIEBEL2 ACCOUNT</name>	
<location>TWO</location>	l
- <record></record>	
<name>SIEBEL3</name>	
<location>RR</location>	
	,
- crecoru>	

2.11.2.2 Testing a Web Service for a Business Service

After you create a Web service for the Siebel Business Service, test it to ensure it functions properly. Application Explorer includes a test tool for testing a Web service.

- **1.** Expand the **Business Services** node.
- 2. Expand the Services node.
- 3. Select the name of the business service you want to test.
- 4. Expand the Methods node and select the name of the method you want to test.

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.** Provide the appropriate input.
- 6. Click Invoke.

Application Explorer displays the results in the results pane.

2.11.2.3 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 Siebel. The user name and password values that you provided for Siebel 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.

2.12 Generating WSDL (J2CA Configurations Only)

The Web Service Definition Language (WSDL) description of a Web service enables you to make the service available to other services within a host server. You use Application Explorer to create both request-response (outbound) and event notification (inbound) JCA services of the adapter.

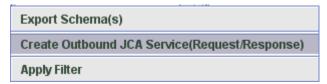
Note: The **Create Inbound JCA Service (Event)** option is only available when the selected node supports events.

To generate a WSDL file for request-response service:

 Under your connected Siebel target, expand Business Object, Account, Account. Navigate to an object and right-click the object.

The following menu is displayed, as shown in Figure 2–36.

Figure 2–36 Create Outbound JCA Service (Request/Response) Option



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

As shown in Figure 2–37, the Export WSDL dialog is displayed.

lame	tapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Outbound_invoke.wsdl	se
Export to OSB		
ocation		
lost		
ort		
lser		
assword		
	OK Cancel	

Figure 2–37 Export WSDL Dialog

3. Accept the default name or provide a name (for example, J2CA_Outbound) 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.

4. Click OK.

The WSDL file is saved in the specified location.

The procedure for generating WSDL for event notification is similar to request-response. To generate WSDL for event notification, you must first create a channel for every event.

2.13 Configuring an Event Adapter

Events are generated by a specific business condition being satisfied or triggered in the Siebel 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 topic:

Section 2.13.1, "Creating and Modifying a Channel"

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

Note: If you are using a J2CA configuration, then you must create a new channel for every different event object and select this channel when you generate WSDL. Creating a channel is required for J2CA configurations only. For example, if you are working with the Account and Contact Siebel objects, then two separate channels are required for this purpose.

A 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 the adapter. For more information, see "Creating and Modifying a Channel" on page 2-29.

Please note that adding IO node functionality is not applicable in event configurations.

2.13.1 Creating and Modifying a Channel

This section contains the following topics:

- Section 2.13.1.1, "Creating an HTTP Channel"
- Section 2.13.1.2, "Creating an MQ Series Channel"
- Section 2.13.1.3, "Creating a File Channel"
- Section 2.13.1.4, "Editing a Channel"
- Section 2.13.1.5, "Deleting a Channel"

The following procedure describes how to create a channel for your event. All defined event ports must be associated with 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 Oracle WebLogic Server.

Note: If you are planning to integrate Oracle Application Adapter for Siebel 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
- MQ Series
- File

Note: Channels can be configured only on the system where the Oracle Application Adapter for Siebel is installed.

2.13.1.1 Creating an HTTP Channel

To create an HTTP channel:

1. Click the Events node.

The Events window is displayed. The adapters that appear in the left pane support events.

2. In the left pane, expand the **Siebel** node.

The ports and channels nodes appear.

3. Right-click **channels** and select **Add channel**.

The Add Channel dialog is displayed, as shown in Figure 2–38.

Figure 2–38 Add Channel Dlalog

🙀 Add Channel		×
Name:		
SiebelEvent		
Description:		
Protocol:		
HTTP Listener		T
J		
Available Port(s)		ed Port(s)
Available Port(s)	Selecte	ed Port(s)
Available Port(s)		ed Port(s)
Available Port(s)	>>	ed Port(s)
Available Port(s)		ed Port(s)
Available Port(s)	۶۶ ۶	ed Port(s)
		ed Port(s)

Perform the following steps:

- **a.** Enter a name for the channel, for example, NewChannel.
- **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 2–39.

Figure 2–39 Http Listener Dialog

Http Listener	×
Basic PreParser	
Listener port*	8080
Https	
Synchronization Type	REQUEST
Encoding Type	ASCII
OK Cancel	
Fields marked with * are r	equired.

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

Parameter	Description
Listener port	Port on which to listen for Siebel event data.
Https	For a secure HTTP connection, select the Https check box. This option is currently not supported.
Synchronization Type	Select REQUEST_RESPONSE from the Synchronization Type list, which is the recommended option.
Encoding Type	Choose an encoding type to be used from the Encoding Type list. By default, ASCII is selected.

6. Click the **PreParser** tab, as shown in Figure 2–40.

Figure 2–40 PreParser Tab

Http Liste	ener		×
Basic	PreParser		
Sche	ma location*		
			OK Cancel
Fields ma	arked with * ar	e required.	

7. Specify the location of the schema file that was generated for the Integration Object node using the **Export Schema(s)** option in Application Explorer.

Note: During run time, the Oracle Application Adapter for Siebel adds the namespace to the Siebel published document using the schema that is specified in the PreParser tab. If the Schema location field in the PreParser tab is left blank, then BPEL, BPM, OSB, and Mediator processes do not work properly as the Siebel published documents do not contain any namespaces.

8. Click OK.

A summary is displayed, which provides the channel description, channel status, and available ports. All the information is associated with the channel you created. The channel also appears under the channels node in the left pane, as shown in Figure 2–41.

Figure 2–41 Inactive SiebelHTTP Node



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**.

2.13.1.2 Creating an MQ Series Channel

To create an MQ Series channel:

1. Click the Events node.

The Events window is displayed. The adapters that appear in the left pane support events.

2. In the left pane, expand the Siebel node.

The ports and channels nodes appear.

3. Right-click the channels node and select Add channel.

The Add a new channel pane is displayed. Perform the following steps:

- **a.** Enter a name for the channel, for example, NewChannel.
- **b.** Enter a brief description.
- c. From the Protocol list, select MQ Series Listener.
- 4. Click Next.

The MQ Listener dialog is displayed, as shown in Figure 2–42.

Figure 2–42 MQ Listener Dialog

MQ Listener	×
Request Response Advanced	
Queue manager name*	
MQ server host for MQClient operati	on*
MQ server port for MQClient operation	on*
MQ server channel for MQClient ope	ration*
☑ Document type XML	
Request queue name*	
ОК	Cancel
Fields marked with * are required.	

- 5. Enter the system information as specified in the following steps:
 - **a.** In the **Request** tab, enter values for the following parameters:

Parameter	Description
Queue manager name	The host on which the MQ Server is located (MQ Client only).
MQ server host for MQClient operation	Port on which the host database is listening.
MQ server port	The number to connect to an MQ Server queue manager (MQ client only).
for MQClient operation	REQUEST REQUEST_RESPONSE REQUEST_ACK
MQ server channel for MQClient operation	The case-sensitive name of the channel that connects with the remote MQ Server queue manager (MQ client only). The default channel name for MQSeries is SYSTEM.DEF.SVRCONN.
Document type XML	Leave the default selection.
Request queue name	Queue where the message is routed and where request documents are received. The name of the queue is case-sensitive and conforms to the following format:
	Host\queue type\$\qName
	Host
	Is the system name where the MQ Series queuing system is running.
	queue type
	Private queues are queues that are not published in Active Directory and appear only on the local computer where they reside. Private queues are accessible only by Message Queuing applications that recognize the full path name or format name of the queue.
	qName
	Is the name of the queue where messages are placed, for example,
_	iwaykxc1\Private\$\siebel

b. In the **Response** tab, enter values for the following parameters:

Parameter	Definition
Synchronization Type	Select REQUEST_RESPONSE from the Synchronization Type list, which is the recommended option.

c. In the Advanced tab, enter values for the following parameters.

Parameter	Definition	
Message wait interval (msec)	The interval (in milliseconds) when to check for new input. The default is 3 seconds. Optional.	
Mode of operation	Choose Sequential or Threaded.	
	 Sequential indicates single processing of requests. 	
	Threaded 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.	

6. Click OK.

A summary is displayed, which provides the channel description, channel status, and available ports. All the information is associated with the channel you created. The channel also 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.

7. Right-click the channel and select Start.

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

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

2.13.1.3 Creating a File Channel

To create a File channel:

1. Click the Events node.

The Events window is displayed. The adapters that appear in the left pane support events.

2. In the left pane, expand the Siebel node.

The ports and channels nodes appear.

3. Right-click the channels node and select Add Channel.

The Add Channel dialog is displayed. Perform the following steps:

- **a.** Enter a name for the channel, for example, NewChannel.
- **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 2–43.

Figure 2–43 File Listener Dialog

File Listener	×
Request Response Advance	ed
Polling Location*	
File Mask* .*	
	OK Cancel
Fields marked with * are required.	

- 5. Enter the system information as specified in the following steps:
 - **a.** In the **Request** tab, enter values for the following parameters:

Parameter	Description
Polling Location	The target file system location for the Siebel XML file.
File Mask	The file name to be used for the output file generated by this operation.

b. In the **Response** tab, enter values for the following parameters:

Parameter	Definition
Synchronization Type	Select REQUEST_RESPONSE from the Synchronization Type list, which is the recommended option.
Response/Ack Directory	Directory where responses or acknowledgments are sent.

c. In the Advanced tab, enter values for the following parameters:

Parameter	Definition	
Error Directory	Directory to which documents with errors are written.	
Poll interval (msec)	The interval (in milliseconds) when to check for new input. The default is 3 seconds. Optional.	
Processing Mode	Choose Sequential or Threaded.	
	 Sequential indicates single processing of requests. 	
	Threaded 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.	

6. Click OK.

A summary is displayed, which provides the channel description and channel status. All the information is associated with the channel you created. The channel also 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.

7. Right-click the channel and select **Start**.

The channel you created becomes active.

The X over the icon in the left pane disappears.

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

2.13.1.4 Editing a Channel

To edit a channel:

- 1. In the left pane, select the channel you want to edit.
- 2. Right-click the channel and select Edit.

The Edit channels dialog is displayed.

3. Make the required changes to the channel configuration and click **OK**.

2.13.1.5 Deleting a Channel

To delete a channel:

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

The channel disappears from the list in the left pane.

Oracle WebLogic Server Deployment and Integration

This chapter describes Oracle WebLogic Server (OracleWLS) deployment and integration with Oracle Application Adapter for Siebel. It contains the following sections:

- 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 Siebel is deployed within an OracleWLS container during installation. All client applications run within the OracleWLS environment. In a J2CA deployment, the Common Client Interface (CCI) integrates an OracleWLS client application with a resource adapter.

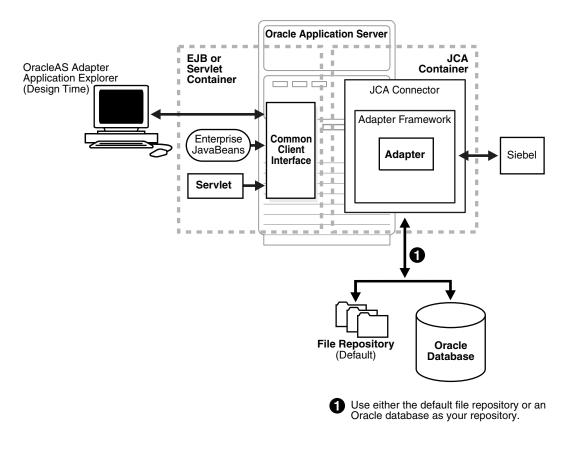
See Also:

Oracle Application Server Adapter Concepts Guide

3.2 Deployment of Adapter

Figure 3–1 shows deployment of the Connector to the Oracle WebLogic 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 OracleAS Adapter for Siebel, 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 Siebel 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 Oracle WebLogic Server must be restarted. If the Oracle WebLogic Server is already running, then stop the Oracle WebLogic 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 must 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 Siebel 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 Siebel 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 Siebel 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 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 2-27.

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

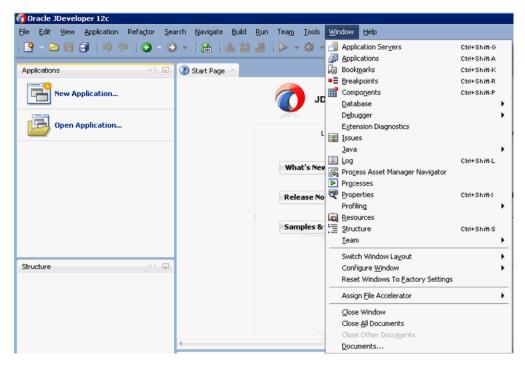
During installation, Oracle Application Adapter for Siebel is deployed as a J2CA 1.0 resource adapter within the WLS container. The adapter must be deployed in the same WLS container as Oracle BPEL Process Manager.

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.
 <u>Name and Type</u> Finish 	 Standalone Server A standalone server is not started, stopped, nor configured by JDeveloper. An application must be manually deployed to a standalone server.
	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	< Back

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 Sei	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 <u>Connection Name:</u> ApplicationServer_Connection Connection Iype: WebLogic 12.x
Help	< <u>Back N</u> ext > 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.

💩 Create Application Se	erver 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	<pre>< Back Next > Einish Cancel</pre>

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\SIEBEL_Samples.zip\SIEBEL_Samples\BPEL\J2CA\Outbound_
Project

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

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

Note: The examples in this chapter demonstrate the use of 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"

4.4.1 Generating WSDL for Request/Response Service

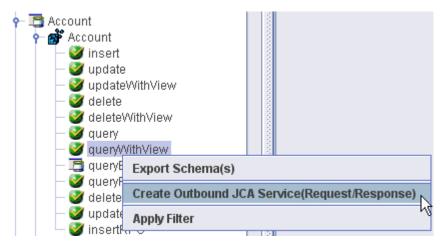
Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. Perform the following steps to generate a WSDL for the request/response service:

1. Start **Application Explorer** and connect to a defined Siebel target or create a new target.

For more information on starting the Application Explorer and on connecting a target, see Section 2.1, "Starting Application Explorer" on page 2-2 and Connecting to a Defined Target on page 2-9.

- **2.** Expand the Siebel target to which you are connected.
- **3.** As shown in Figure 4–9, expand **Business Object**, **Account**, and then **Account**.

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



4. Right-click queryWithView, and then select Create Outbound JCA Service (Request/Response).

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

ame	Japters\tools\iwae\bin\\\.wsdls\J2CA_Outbound_invoke.wsdl	e
Export to OSB		
ocation		
lost		
ort		
lser		
assword		
	OK Cancel	

Figure 4–10 Export WSDL Dialog

5. Accept the default name or provide a name (for example, J2CA_Outbound) 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.

6. Click OK.

You can now create an empty composite for SOA, 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 your applicatio	n	01010101010	10101939393939356	E
Application Name	Application Name:			
	SOA_Application			
Project Name	Directory:			
 Project SOA Settings 	C:\WORK\mywork\SOA_Application			Browse
	Application Package Prefix:			
	< <u>B</u> ack	<u>N</u> ext >	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

🍘 Create SOA Application	- Step 2 of 3	X
Name your project		
Application Name Project Name	Project Name: Dir <u>e</u> ctory:	J2CA_Outbound C:\WORK\mywork\SOA_Application\J2CA_Outbound Browse
Project SOA Settings	Project Featur	res:
	SOA Suite is a	a suite of tools to model SOA(Service Oriented Architecture) applications.
<u>H</u> elp		< Back Next > Einish 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 TRANSING
	🔞 REST
	හී SOAP
	ැ ධි Socket
	M UMS
	Applications
	E-Business Suite
	S JDE World
	Custom/Third Party
	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.	
<u>N</u> ame:	Service	
<u>H</u> amer		
<u>T</u> ype:	Reference 💌	
WSDL URL:		1
Port Type:		
Operation:		
<u>C</u> allback Port Type:		
Oper <u>a</u> tion:		
<u>J</u> CA File:		e
Help	ОК	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>T</u> ype: 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 current project. In order to make this file available to your project at runtime, JDe of this file and any dependent files that it imports or includes.		
Copy Options: V Maintain 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	5
Create a JCA adapte	r service for a third party adapter.	Th
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	2
Port Type:	queryWithViewPortType	
Operation:	queryWithView 👻	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:		1
Help	OK	Cancel

 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 SOA-MDS		
Location: C:\12c_50A\soa\soa\thirdparty\ApplicationAdapters\wsdls	- 0 0 0	3 📰 💷
Work Image: Second state s		
$\underline{S} election: file:/C:/12 c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/32 CA_Outbound_invoke.jca$		
Help	ОК	Cancel

Figure 4–19 Transformation Chooser Dialog

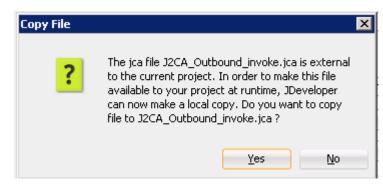
8. Browse and select the JCA properties file from the following directory:

<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	Adapter Service	×
Third Party Adapter 9		4
Create a JCA adapter	r service for a third party adapter.	- J
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
<u>P</u> ort Type:	queryWithViewPortType	
Operation:	queryWithView	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:	J2CA_Outbound_invoke_3P.jca	2
Help	OK	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	×
	絮 🙋
Type Explorer Project Schema Files BPELProcess1.xsd Siebel B- Siebel	
Iype: n:iwaysoftware:adapter:siebel:request:S/BO/Account/Account/queryWithVi	ew}Siebel
Show Detailed Node Information	
Help	Cancel

- 5. Expand Project Schema Files, J2CA_Outbound_invoke_request.xsd, and select Siebel.
- 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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Type Explorer	
Project Schema Files	
BPELProcess1.xsd	
J2CA_Outbound_invoke_request.xsd	
J2CA_Outbound_invoke_response.xsd	
SiebelResponse	
🗄 ··· 🚞 Recent Files	
ype: ware:adapter:siebel:response:S/BO/Account/A	account/querywithview}SiebeiRespons
Show Detailed Node Information	
Help	OK Cancel

Figure 4–24 Type Chooser Dialog

- 8. Expand Project Schema Files, J2CA_Outbound_invoke_response.xsd, and select SiebelResponse.
- 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.

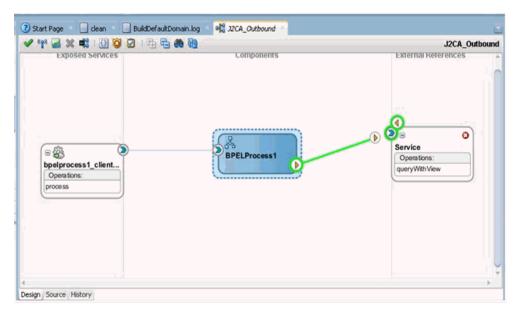


Figure 4–25 Created Connection

- **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.

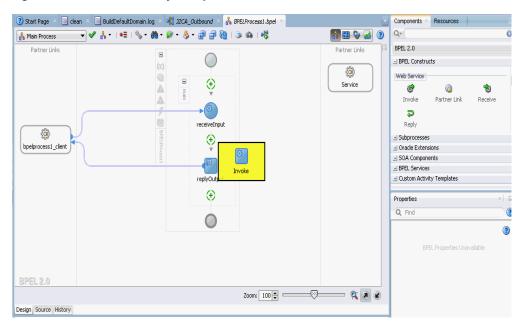


Figure 4–26 Invoke Activity Component

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.

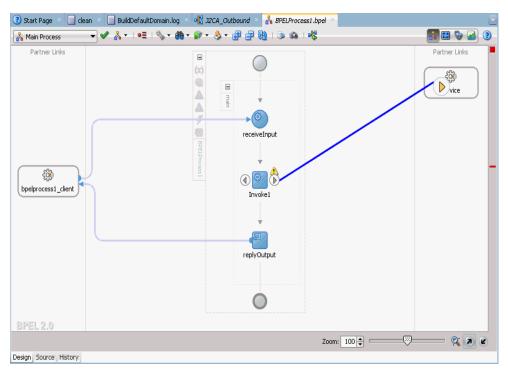


Figure 4–27 Created Connection

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.

eaders Doc General	umentation Skip Correlations	Condition Targe Properties	ts Sources Assertions	Annotations
donordi	corrolaciono	Toporados	100010010	
lame:	Invoke1			
onversation ID				fx
etail Label:				
	Invoke as Det	ail		
— <u>I</u> nteraction	Type: 闷 Partner	Link 🔻		
Partner Link:	Service			Q
Port <u>T</u> ype:	aueryWithViev	wPortType		•
Operation:	🐚 queryWithViev	N		-
Input Ou	utput			
⊖ Argu <u>m</u> en	ts Mapping 💿 Inpu	ut Variable		0
Input: Inv	oke1_queryWithViev	v_InputVariable		

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**.

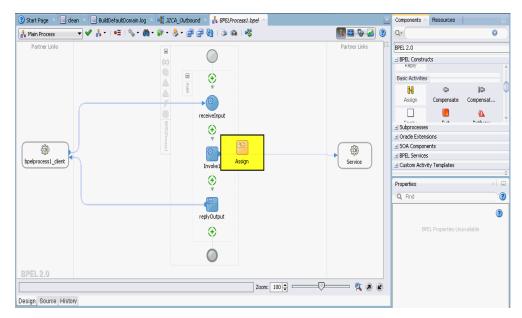
You are returned to the Edit Invoke dialog, as shown in Figure 4–29.

Headers D	ocumentation	Skip Condition	Targe	ts Sources	
General	Correlation	s Proper	ties	Assertions	Annotations
<u>N</u> ame:	Invoke1				
<u>Conversation</u>	ID:				
Detail Label:					
	<u>I</u> nvoke	as Detail			
	on Type: 🔯 Pa	artner Link 🔻 —			
Partner Lin	nk: Service				Q
Port Type:		ithViewPortType			
	(u · · ·				-
Operation	<u> </u>	ICHVIEW			· · · ·
	Output				
O Argum	ents Mapping 🤇	Output Variable	9		0
O <u>u</u> tput:	Invoke1_query	WithView_Output	Variable		- 🕂 🔍

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



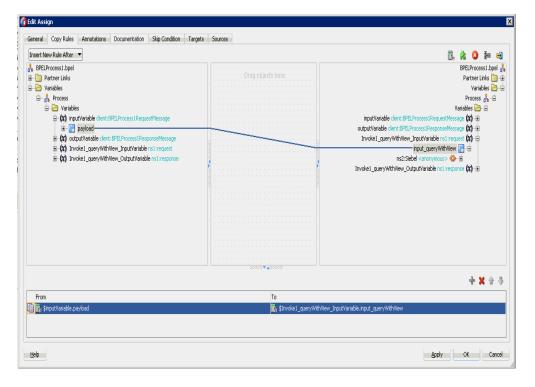
21. Double-click the new Assign activity component (Assign1).

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_queryWithView_ InputVariable**, and then select **input_queryWithView**.
- **24.** Drag and map the **payload** variable to the **input_queryWithView** 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.

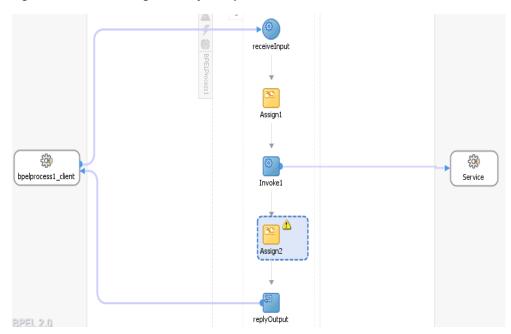


Figure 4–32 New Assign Activity Component

The Edit Assign dialog is displayed.

- **28.** In the left pane, under Variables, expand Invoke1_queryWithView_ OutputVariable, and then select output_queryWithView.
- **29.** In the right pane, under Variables, expand **outputVariable** and select **payload**.
- **30.** Drag and map the **output_queryWithView** 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

Insert New Rule After 💌		🗒 🚖 🥝 👾 e
BPELProcess1.bpel Process Variables Process Provess Provess	Drag objects here	BPELProcess L.bpel Petterne Linke Process Process inputVariable dent:BPELProcessTRegonesMessage outputVariable dent:BPELProcessTRegonesMessage payload Invoke1_queryWithWew_InputVariable nstrequest Invoke1_queryWithWew_OutputVariable nstresponse Invoke1_queryWithWew_OutputVariable nstresponse Invoke1_queryWithWew_OutputVariable Invoke1_queryWithWew_OutputVariable Invoke1_queryWithWew_OutputVariable Invoke1_queryWithWew_OutputVariable Invoke1_queryWithWew_OutputV
From	То	
Invoke1_queryWithView_OutputVariable.output_queryWithView	🙀 \$outputVariable.payload	

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
-------------	----------	-----------	------

Applications × Application S	🕐 Start Page 🔺 📃 clean 🔺 📃 BuildDefaultDomain.log 🗠	🛛 🙀 J2CA_Outbound 🐣 🔏 BPELProcess1.bpel 🗵	2
🔁 SOA_Application 🔹 💌	🖌 🖗 🌌 🗶 🖏 i 🕅 🧕 🖉 i 🖶 🖶 🏟 🕅		J2CA_Outbound
Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Projects Proje	Exposed Services	Components	External References
Application Resources A Application Resources A Data Controls More Tries A Recent Files AZCA_Outbound - Structure X ■	Deelprocess1_client Operations: process	BPELProcess1	Service Operations: queryWithView
Issues (3) Issues (3) Generated by Oracle SOA Modeler forentated by Oracle SOA Modeler forposite mont mont mont mort property - productiversion property - productiversion forporety - compositeID formerty - compositeID formerty - service			×

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.

1. Double-click J2CA_Outbound (created BPEL process) of the created process, as shown in Figure 4–35.

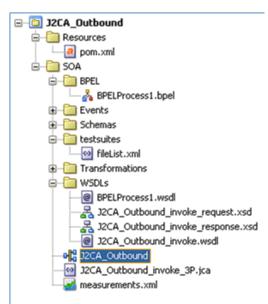
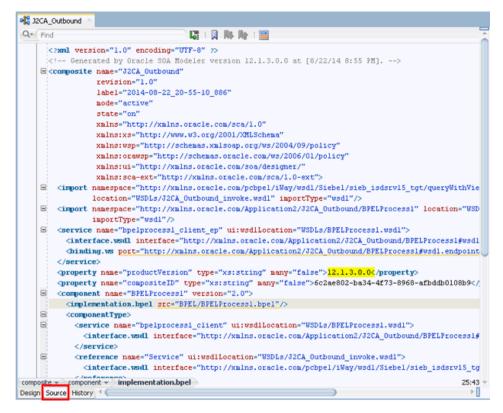


Figure 4–35 J2CA_Outbound Node

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

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.

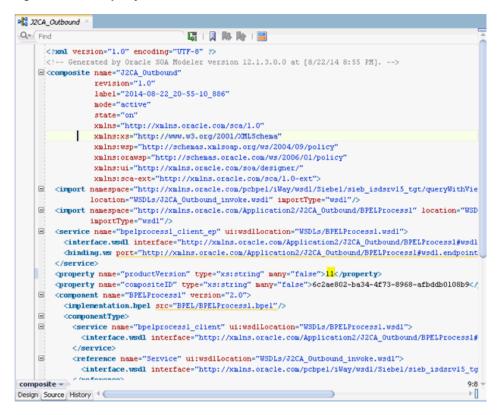


Figure 4–37 Property Value

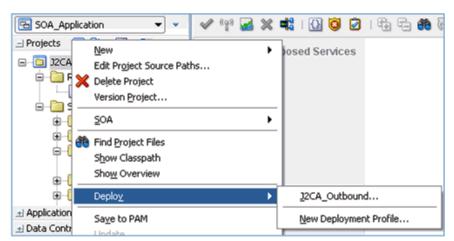
4. Save the changes and proceed to deploy the project.

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	E
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				
Contraction Deployment Action	Choose the target SOA se archive.	rver(s) and corresp	oonding partitions to w	hich you want to deploy this
Deploy Configuration	SOA Server:	Partition:	Status:	Server URL:
A 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

CRACLE' Enterprise Manager Fusi	on Middleware Control 12c
Target Navigation Vew ▼ > ⓐ Application Deployments ▲ ⑤ SOA ▲ 肇 soa-infra (soa_server 1) ▲ 肇 total (soa_ser	 D2CA_Outbound [1.0] ● SOA Composite → Active Retire Shut Down Test Settings → ● Dashboard Composite Definition Flow Instances Unit Tests Policies A Components Name BPELProcess1 Astrices and References Name Spelprocess1_client_ep Service

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

Figure 4–46 Input Arguments List

Securi	ity							
Qualit	ty of Se	rvice						
HTTP	Header							
Addit	ional Te	est Op	otions					
Innut	Argun	ents						
	ew 🔻		e Validation		Load Payload	Choose File	No file chosen	Save Payload
		mins:	oan="http:	Hechon	and contractor such	the second second second	NCC	
						coap/envelope/"		ert av H.
		olos="	urnaiwaysol	tware		uest:S/BO/Acci	ount/Account/gueryW	<u>ithView</u> ">
<select< th=""><td>iebel loca t></td><td>tion="</td><td>urn:iwaysol 5/BO/Accou</td><td>ftware: int/Acco</td><td>adapter:siebel:rec ount/gueryWithVie</td><td>uest:S/BO/Acci</td><td>ount/Account/gueryW</td><td>üthview"></td></select<>	iebel loca t>	tion="	urn:iwaysol 5/BO/Accou	ftware: int/Acco	adapter:siebel:rec ount/gueryWithVie	uest:S/BO/Acci	ount/Account/gueryW	üthview">
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Solution of the second seco	iebel loca bunt_spectount_	mins="" tion=" Condition Condi	urn.iwaysol 5/BO/Accou- itors>s>spcin- s>s>s>sociatus> uddress_spc ton_spcial> spcDate> spc/Agree	tware: nt/Acco count_spc t_spcM tegrationt_spc pcRole _spcSta spcTres <td>adapter:siebelured ount/guery/WithWe SpcCompetitors> Condition> larkets> on_spcid>Products> Stus> nd> ess_spcActive_sp ress_spcIntegrati ment_spcEnd_spc pcName> ement_spcEnd_spc</td> <td>zuest:S/BO/Acco w/ view="Allyle wnt_spcOrpania cStatus> en_spcId> :Date></td> <td>ount/Account/guery/// %("></td> <td></td>	adapter:siebelured ount/guery/WithWe SpcCompetitors> Condition> larkets> on_spcid>Products> Stus> nd> ess_spcActive_sp ress_spcIntegrati ment_spcEnd_spc pcName> ement_spcEnd_spc	zuest:S/BO/Acco w/ view="Allyle wnt_spcOrpania cStatus> en_spcId> :Date>	ount/Account/guery/// %(">	

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.

Request Response	
Test Status Request successfully received. 🏲 Response Time (ms) 2813	
XML View 🔻	
A new flow instance was generated. Launch Flow Trace	
<pre><ns0:alias></ns0:alias> <ns0:csn>1-2DBFP</ns0:csn> <ns0:country>U5A</ns0:country> <ns0:currency_spccode>EURQA <ns0:location>NewYork</ns0:location>InfoChennaiQA1-2DBFP <ns0:created>12/07/2009 00:20:07</ns0:created></ns0:currency_spccode></pre>	
<pre><ns0:updated>12/29/2009 02:26:26<</ns0:updated></pre>	/ns0:Updated>
	· · · · · · · · · · · · · · · · · · ·

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 describes Siebel event integration.

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\SIEBEL_Samples.zip\SIEBEL_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 Siebel"

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

You must create a separate channel for every inbound J2CA service 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"
- Section 4.5.1.2, "Creating an Integration Object Node"
- Section 4.5.1.3, "Generating WSDL for Event Notification"

4.5.1.1 Creating a Channel

You must create a separate channel for every inbound J2CA service 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.

To create a channel:

- 1. In the left pane, click **Events**.
- 2. Expand the **Siebel** node.

The ports and channels nodes appear in the left pane, as shown in Figure 4–48.

Figure 4–48 Ports and Channels Nodes Under Siebel Node

ቀ- 🛡	Events				
	📲 JDB	Edwa	irds		
-	📲 Mys	SAP			
_	📑 Pec	opleS	Soft		
•	💵 Sie	bel			
	- 0	Port	S		
	- L 🔘	Cha	nnels		
			Add	Channel N	
			Refr	esh N	•

3. Right-click Channels and select Add Channel.

The Add Channel dialog is displayed, as shown in Figure 4–49.

👔 Add Channel	×
Name:	
SiebelEvent	
Description:	
Protocol:	
HTTP Listener	•
Available Port(s)	Selected Port(s)
	>>
	<
	<
Nex	

Figure 4–49 Add Channel Dialog

Perform the following steps:

- a. Enter a name for the channel, for example, SiebelEvent.
- **b.** Enter a brief description.
- **c.** From the **Protocol** list, select **HTTP Listener**, **MQ Series Listener**, or **File Listener**.

For demonstration purposes, this procedure uses the HTTP Listener as an example.

4. Click Next.

The Basic dialog is displayed, as shown in Figure 4–50.

Figure 4–50 Basic Dialog

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

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

Parameter	Description
Listener port	Port on which to listen for Siebel event data.
Https	For a secure HTTP connection, select the Https check box.
	This option is currently not supported.
Synchronization Type	Select REQUEST_RESPONSE from the list, which is the recommended option.
Encoding Type	Choose an encoding type to be used from the list. By default, ASCII is selected.

6. Click the **PreParser** tab, as shown in Figure 4–51.

Figure 4–51 PreParser Tab

Http Liste	ner	×
Basic	PreParser	
Scher	na location*	
I		
		OK Cancel
Fields ma	rked with * ar	e required.

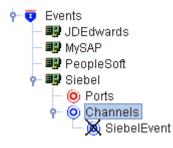
7. Specify the location of the schema file that was generated for the Integration Object node using the **Export Schema(s)** option in Application Explorer.

Note: During run time, the Oracle Application Adapter for Siebel adds the namespace to the Siebel published document using the schema that is specified in the PreParser tab. If the Schema location field in the PreParser tab is empty, then BPEL and Mediator processes do not work properly as the Siebel published documents do not contain any namespaces.

8. Click OK.

As shown in Figure 4–52, the channel is displayed under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected.





Note: Do not start the channel, as it is managed by BPEL PM Server. If you start the channel for testing and debugging purposes, then stop it before run-time.

You must now create an Integration Object node.

4.5.1.2 Creating an Integration Object Node

- 1. Start Application Explorer.
- 2. Expand the Adapters node, as shown in Figure 4–53.

Figure 4–53 Disconnected Siebel Target Node, Siebel, Under the Siebel Node

È**⊢**₩ Siebel └──<mark>╤</mark> siebel_target

Perform the following steps:

a. Expand the **Siebel** node.

The defined Siebel targets are displayed under the adapter node.

b. Click the target name, for example, siebel, under the **Siebel** node.

The Connection dialog displays the values you entered.

- **3.** Verify your connection parameters.
- 4. Right-click the target name and select **Connect**.

The x icon disappears, indicating that the node is connected, as shown in Figure 4–54.





- 5. Expand the Integration Object node and select Sample Account.
- 6. Right-click the Sample Account node and select Add IO Node.

The Add IO Node dialog is displayed, as shown in Figure 4–55.

Figure 4–55 Add IO Node Dialog

📓 Add IO Node		×
Node name*	Sample_Account	
Schema location*	C:\TEMP\sampleaccount78.xsd Browse	
🖌 XSD Schema		
Protocol*	HTTP	
	Continue Cancel	
Fields marked with	* are required.	

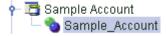
7. Enter a node name (for example, Sample_Account) in the **Node name** field and a path to the Sample Account XSD file in the **Schema location** field.

Please note:

- For Siebel 7.5 or later: Generate XSD schemas directly from Siebel tools. You use the XSD schemas when you create Web services in Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and a Web service.
- For Siebel 7.0: You cannot generate XSD schemas directly from Siebel tools; only XDR schemas can be created. Before you create a Web service, you must first generate an XSD schema from the XDR schema using Application Explorer.
- **8.** If the XSD schema has already been generated, then select XSD Schema. If you are using Siebel-generated XDR schemas, then do not select the XSD schema option.
- 9. Select a protocol (HTTP, FILE, or MQ Series) from the Protocol list.
- 10. Click Continue.

The new Integration Object node is added, as shown inFigure 4–56.

Figure 4–56 Integration Object Node



Note: You must restart the Oracle WebLogic Server after the Integration Object node and channel are created.

4.5.1.3 Generating WSDL for Event Notification

After you create a channel and an associated Integration Object node, you must generate WSDL for the event using Application Explorer.

You must be connected to a Siebel target under the Adapters node in Application Explorer. For detailed information on how to define and connect to a target, see "Establishing a Connection (Target) for Siebel" on page 2-5.

After you connect to a Siebel target, generate WSDL for the event as follows:

1. Right-click the Integration Object node (for example, Sample_Account), and then select **Create Inbound JCA Service (Event)**, as shown in Figure 4–57.

Figure 4–57 Create Inbound JCA Service (Event) Option Selected in Application Explorer

🛉 🛅 Sample Acco	Account swusername null
🗆 👈 Sample_	Account null
– 🛅 Sample Acc	Remove This Node
– 🛅 Sample Cor	
– 🛅 Sample Em	Edit This Node
– 🛅 Sample Inte	
– 🛅 Sample Ord	Constant Francisco District
– 🛅 Sample Ord	Create Event Port
– 🛅 Sample Quo	CICUTE INDUNITO OCH SCIVICC(LVCIT)
– 🛅 Sample Ser	Crosto Authound ICA Sonaco/Doguo&t/Doenoneo)
– 🛅 SearchRepo	create outsound ben berneel(tequestitesponse)
– 🛅 SearchRepo	Apply Filter
🔄 🗖 ColortChant	

The Export WSDL dialog is displayed, as shown in Figure 4–58.

Name	dapters\tools\iwae\bin\.\.\.\wsdls\J2CA_Inbound_receive.wsdl	Browse
Channel	SiebelEvent 🗸	
Validation	Root	
	Namespace	
	Schema	
Export to OSB		
Location	T	
Host		
Port		
User		
Password		
	OK Cancel	

Figure 4–58 Export WSDL Dialog

Note: The schema validation options (Root, Namespace, Schema) are not applicable for the Oracle Application Adapter for Siebel.

Perform the following steps:

a. In the **Name** field, specify a name for the WSDL file.

The .wsdl file extension is added automatically. By default, the names of WSDL files generated for events end with _receive.

b. From the Channel list, select the channel you created for this inbound service (for example, SiebelEvent).

Important: You must create a separate channel for every inbound service. Verify that the channel is stopped before run-time.

2. Click OK.

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.
- 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:

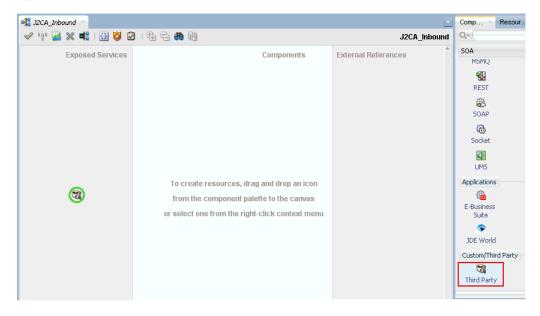
- Section 4.5.3.1, "Creating a Third Party Adapter Service Component"
- Section 4.5.3.2, "Creating an Inbound BPEL Process Component"

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 4–59.

Figure 4–59 Third Party Adapter Component



The Create Third Party Adapter Service dialog is displayed, as shown in Figure 4–60.

🕜 Create Third Party	Adapter Service	×			
Third Party Adapter Service Create a JCA adapter service for a third party adapter.					
Name:	Service				
_ <u>Т</u> уре:	Service 🔻				
WSDL URL:		1			
Port Type:					
Operation:					
<u>C</u> allback Port Type:					
Oper <u>a</u> tion:	-				
<u>J</u> CA File:		1			
Help	OK	Cancel			

Figure 4–60 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 4–61.

Figure 4–61 WSDL Chooser Dialog

🕜 WSDL Choose	r						×
Application Server	File System	Project Libraries	SOA-MDS		WSIL		
Location	: 🛅 C:\12c_50	A\soa\soa\thirdp	arty\ApplicationA	dapters\wsdls		- 🔾 🗘 🖏	🖻 🗄 🖿
Work Project Application	J2CA_Inbox	und_receive.wsd	1				
Home	Eile Name: J2CA	A_Inbound_recei	ive.wsdl				
Selection: file:/C:,	File <u>Type</u> : Web) Service Definitio a/thirdparty/App		vsdls/J2CA_Inbou	und_receive.wsdl		-
Help						ОК	Cancel

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 4–62.

Figure 4–62 Localize Files Dialog

🕜 Localize Files	x
file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Inbound_receive.wsdl is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of this 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.

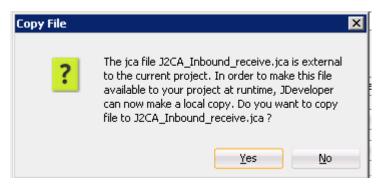
7. Click the Find JCA file icon, which is located to the right of the JCA File field.

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 4–63.

Figure 4–63 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 4–64.

Figure 4–64 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>Т</u> уре:	Service	
WSDL URL:	mywork\SOA_Application\J2CA_Inbound\SOA\WSDLs\J2CA_Inbound_receive.wsdl	2
Port Type:	SampleAccountPortType	
Operation:	SampleAccount	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:	nywork/SOA_Application/J2CA_Inbound/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 4–65.

🕜 Create BPI	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 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	Q
<u>T</u> emplate:	1 Base on a WSDL	- 0
Ser <u>v</u> ice Name:	bpelprocess1_client	
	Expose as a SOAP service	
	<u>₩</u> SDL URL:	۱
	Port Type:	•
	Callback Port Type:	•
Help	ОК	Cancel

Figure 4–65 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 4–66.



🛓 Localize Files	×
file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Inbound_ project. In order to make this file available to your project at runtime, JDevelope file and any dependent files that it imports or includes.	
Copy Options: V 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_1.wsd WSDLs/J2CA_Inbound_receive_request_1.xsd	
Help	OK Cancel

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

You are returned to the Create BPEL Process dialog.

10. Click OK.

Figure 4–67 Created Connection

Applications × Application S	Na J2CA_Inbound			Components ×	Resources	
🔁 SOA_Application 💌 💌	🗸 🖗 🌌 🗶 🖏 🕕 🦉 🖉	1 🗄 🖷 💏 🕲	J2CA_Inbound	Qv		0
Control Contro Control Control Control Control Control Control Control Control Co	Exposed Services	Components	J2CA_Inbound	Components SOA Components PPEL Process Mediator Technology ADF-BC BAM 11g Port - Service - F Q, Find Name: Interface Typ Interface: Calibad: Inter	Service e: wsdl http://xml	Human Task Human Task Subprocess B28 @ Detabase
[10:15:32 AM] Successful compilation: 0 em			-			<u>a</u> ,
[10:15.52 AM] Successful compliation: 0 em	ors, o warnings.					<u>e</u> t

11. Create a connection between the third party adapter service component and the inbound BPEL process component, as shown in Figure 4–67.

12. Double-click **J2CA_Outbound** in the left pane.

Figure 4–68 Save All Icon

Applications × 🖃	et all a 22CA_Inbound ×	
🔁 SOA_Application1 🔹 💌	🖌 🖓 🛃 🗶 🖏 🕼 🥘 🖉 🖶 🖶 🏟 🔞	J2CA_Inbound
SOA_Application1 • Projects Image: Constraint of the second o	Exposed Services Components	J2CA_Inbound
	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 4–68.

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 Siebel, successful instances are received in the Oracle Enterprise Manager console, as shown in Figure 4–69.

Figure 4–69 Received Instances

📲 WebLogic Domain 👻 💥 SOA Infrastructure 👻				
Target Navigation	12CA_Inbound [1.0] ()		Logged in as weblo	-
View 👻	e SOA Composite 👻		Page Refreshed Aug 25, 2014 9:46:	52 A
	Active Retire Shut Down Test Deshboard Composite Definition Flow Instance Search Results - Instances Created (24 H	es Unit Tests Policies	, i i i i i i i i i i i i i i i i i i i	Rela
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User Messaging Service	80036 J2CA_Inbound [1.0]	🖋 Completed Aug	g 25, 2014 10:08:20 AM Aug 25, 2014	10:0
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4.5.5 Triggering an Event in Siebel

This section describes how to trigger an event in Siebel and verify event integration using Oracle Application Adapter for Siebel.

This section contains the following topics:

- Section 4.5.5.1, "Triggering a Siebel Event to Test Event Runtime Integration"
- Section 4.5.5.2, "Triggering an Event in Siebel 7.8 to Test Event Runtime Integration"
- Section 4.5.5.3, "Triggering an Event in Siebel 8.0 to Test Event Runtime Integration"
- Section 4.5.5.4, "Verifying the Results"

4.5.5.1 Triggering a Siebel Event to Test Event Runtime Integration

To trigger an event in Siebel:

1. As shown in Figure 4–70, start the Siebel Call Center by entering the following URL in a browser:

http://host name/callcenter/start.swe

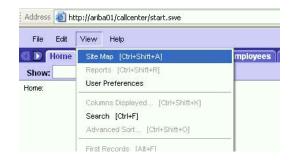


Figure 4–70 Site Map Option Selected Under the View Menu in the Siebel Call Center

2. Click View and select Site Map from the list.

The Site Map view is displayed, as shown in Figure 4–71.

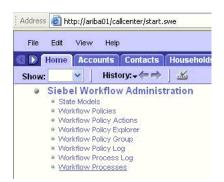
Figure 4–71 Site Map View

File Edit View Help		
Home Accounts Contacts Ho	useholds Employees Service Assets Orders C	Campaigns Opportunities Quotes Communication
Show: History: + +)	ک	Queries: Home Pag
Accounts	Estimate Compensation	Quality
Activities	Events	Quotes
Agreements	Expense Reports	Reception
Mert Administration	Forecast Administration	References
Analytics Administration	Forecasts	Resolution Documents Administration
Application Administration	Fulfillment	Resolution Documents
Issets	Group Administration	Resource Request
ssignment Administration	High-Availability Upgrade Administration	Responses
Audit Trail Administration	Home	Revenues
Audit Trail	Households	Puntime Events Administration
Briefings Administration	Info Center Explorer	Sales Quota Administration
triefings	Info Center	Sales Quotas
Business Service Administration	Integration Administration	 Search Administration
Calendar	Interactive Designer	Server Administration
ampaign Administration	Invoices	Server Component Requests
ampaigns	List Management	Service Administration
Catalog Administration	Literature	Service Requests
ategory	Market Development Fund Administration	Sessions
communications Administration	Market Development Fund Requests	Shopping Cart
ommunications	Marketing Administration	Siebel Anywhere Administration
ompensation Administration	Messages	Siebel Remote Administration
ompensation Tracking	Mobile	Siebel Workflow Administration
ompensation	Opportunities	Siebel to Siebel Connector
Competitors	Opportunity Product Analysis	SmartScript Administration
Contact Hs	Orders	SmartScripts

3. Click Siebel Workflow Administration.

The Siebel Workflow Administration page is displayed, as shown in Example 4–72.

Figure 4–72 Siebel Workflow Administration Page



4. Click Workflow Processes.

The Workflow Processes page is displayed, as shown in Example 4–73.

File Edit Vie	w Help			
Home Ac	counts Contac	ts Housebol	ds Employees	Service
Show: Workflow F		History:	States and states	Service
	10065565	Instory. • •	-~]	
rocess:				
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Name 🚔	Business Object	Status \Leftrightarrow	Group 😂	Activa
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AAA - SPA ACCOU	Account	Inactive	Sample	6/19/20
AAA - SPA ARIBAO	Quote	In Progress	Sample	6/19/20
AAA - SPA QUOTE	Quote	Active	Sample	6/19/20
AAA - SPA QUOTE	Quote	Inactive	Sample	6/19/20
AAA - SPA QUOTE	Quote	In Progress	Sample	6/19/20
AAA - SPA QUOTE	Quote	Active	Sample	6/19/20
All Proce	sses Process	Contract of the second s	ocess Properties	¥ Proces
AAA - SPA ACCO		Samp		-
				1.2
Business Object:			tion Date/Time: 2002 3:20:00 PM	
Account	5	Transferra		
*Status:		Evoira	tion Date/Time:	

Figure 4–73 Workflow Processes Page

5. Click **Query** to search for the Workflow needed to trigger a Siebel event, as shown in Figure 4–74.

Figure 4–74 Search Button in Workflow Processes Page

	/iew Help			
	Accounts Contac	and and a second se		Service
Show: Workflov	v Processes 🛛 💌	History:	-→] 🍏	
rocess:				
Workflow Pr	cesses (Cancel) (Activa	ta) (Ravisa)	1-7 of 7+ Ent	er Query
	Business Object		Group	Activati
	business object		Group 🗢	Acuvau
and a second	cesses Process	Designer Pro		Process
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and the second se		Contraction of the Party of the	uery) Process
(⊡•) Cana *Hame:	el) (Search) 1 (of 7+ Enter Qu Group	uery	Process
(3) (Can *Name: LEE	el) (Search) 1 (of 7+ Enter Qu Group	uery x:	Process
(3) (Can *Name: LEE	el Search 1 (of 7+ Enter Qu Group Activa	uery x:	

6. As shown in Figure 4–75, enter a Siebel workflow name and click Search.

Figure 4–75 Workflow Processes Page

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	Home	Accounts Contac	ts Househo	lds Empl	oy
Show:	Workf	ow Processes 🛛 💌	History: +	4 er 🖌 🛔	6
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1.1602.004	×.			1 - 2 of 2	
Work	flow F) Que		æ Status ⇔	1 - 2 of 2 Group	
Vork Work Iame	flow F) Que	ry) (Activate) (Revis			

7. As shown in Figure 4–76, select the workflow.

Figure 4–76 Process Designer Tab

workflow Process						
Vorkitow Process						
	2 of 2+					
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LEE	T	Sample	-		•	5
Business Object:		Activation Date/Time:		Persistence Lev	el:	*
Account 3	1	6/19/2002 3:20:00 PM	20		•	1
Status:		Expiration Date/Time:		Error Process Na	ime:	V
In Progress	-	[B		ы	1
escription:						
unterfetforen prospeso final	~					

8. Click the **Process Designer** tab and double-click the **Send Siebel Quote Data HTTP** workflow element.

The Input Arguments tab is displayed, as shown in Figure 4–77.

Figure 4–77 Input Arguments Tab

Input Argument	Туре 🔤	Value 🚔
<value></value>	Process Property	
HTTPRequestMethod	Literal	POST
HTTPRequestURLTemplate	Literal	http://172.19.20.118:5677

- 9. Enter the IP address and port for the HTTPRequestURLTemplate input argument.
- **10.** Click **Return To Designer**, as shown in Figure 4–78.

File Edit View Help					
Home Accounts Co	ntacts	Households	Employees	Service	A
how: Workflow Processes	✓ F	History: 🗸 🚧 🖻	· 🔏		
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25					
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(IV) (Query) (Return Tol	Designer)	Business	Object:		
Query Return To Return To Thame: Send Seibel Quote Data HTTP	Designer)	Business Account			

Figure 4–78 Return To Designer Button in Business Service Tab

11. Click the Process Simulator tab, as shown in Figure 4–79.

Figure 4–79 Process Simulator Tab

	Get New Account	•	Convert Account Data
Start Decision	 ×		to XML

The Simulator tab is displayed, as shown in Figure 4–80.

Figure 4–80 Simulator Tab

Address	E h	ttp://ariba()1/callcente	r/start.sv	ve			
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🔍 D 🚺	Home	Accou	nts Con	tacts	Househol	ds En	nployees	Service
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Process:	LEE >							
Simu	lator							
) (Sta	rt) (Next)	Step) (Cor	itinue) (Stop) 1 of	4+		
		Palette						
	5tart	Decision	E Busi	Start		ault-	Get New Account	-
	otait	Point	Sei		_/			

12. Click Start then Continue to complete the Siebel event triggering process.

4.5.5.2 Triggering an Event in Siebel 7.8 to Test Event Runtime Integration To trigger an event in Siebel 7.8:

1. Log in to Siebel Tools 7.8 by using the following parameters:

```
Username = sadmin
Password = sadmin
```

2. Choose Server from the Connect to list and click OK as shown in Figure 4–81.

Figure 4–81 Siebel Tools 7.8 Log-in Pane

Siebel Tools	×
	SIEBEL.7
Siebel Tools 7.8	
To log in, please enter your user	ID and password and select a database
Ľ	ser ID: sadmin
Pas	sword: KNANA
Conr	ect to: Server
	OK Cancel

You are logged-in to Siebel Tools 7.8, as shown in Figure 4–82.

Figure 4–82 Siebel Tools 7.8 Startup Pane



3. On the left pane, click on Workflow Process.

The Workflow Processes pane is displayed, as shown in Figure 4–83.

Siebel Tools - Siebel Repository - Workflo	w Process List		
ile Edit View Screens Go Query Reports	Format Debug Tools Window H	telp	
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Ibject Explorer		Workflow Processes	
oject: ** All Projects **			
			Deploy Expire Rev
Types Detail Flat		Burnet Harr	
Siebel Objects	Auto Persist	Process Name Account - Check SAP 46C Customer	Status
Applet Application	> NO NO	Account - Check SAP 46C Customer Account - Create or Update Oracle Customer	Completed Completed
Application Business Component	NO	Account - Create or Update Oracle Customer Account - Create or Update Oracle11i Customer	Completed
Business Object	NO	Account - Create or Update Oracle111 Customer	Completed
+ 🖧 Business Service	NO	Account - Get SAP Vec Order List	Completed
EIM Interface Table	NO	Account - Get SAP Order List	Completed
Entity Relationship Diagram	NO	Account - Import SAP 46C Order and Get Detailed List SAP 46C Ord	
Integration Object	NO	Account - Import SAP 46C Order	Completed
🌮 Link	NO	Account - Import SAP Order (MO)	Completed
- Fick List	NO	Account - Import SAP Order and Get SAP Order Status (MO)	Completed
Project	NO	Account - Import SAP Order and Get SAP Order Status	Completed
te Screen te Table	NO	Account - Import SAP Order	Completed
E View	NO	Account - New Order	Completed
terver view terver view view view view view view view view	NO	Account - New Quote	Completed
e web rage 	NO	Account - Receive Oracle Customer Import Status	Completed
Workflow Process	NO	Account - Receive Oracle Customer	Completed
	NO	Account - Receive Oracle11i Customer Import Status	Completed
	NO	Account - Receive Oracle11i Customer	Completed
	NO	Account - Receive PeopleSoft Customer	Completed
	NO	Account - Receive SAP 46C Customer	Completed
	NO	Account - Receive SAP Customer	Completed
	NO	Account - Request SAP 46C Customer Number	Completed
	NO	Account - Send PeopleSoft Customer	Completed
	NO	Account - Send SAP 46C Customer	Completed
	NO	Account - Submit SAP 46C Customer	Completed
	NO	Add Quote Report Attachment	Completed
	NO	Add Sales Order Report Attachment	Completed
	NO	Add Service Order Report Attachment	Completed

Figure 4–83 Workflow Processes Pane

4. Click on the **New Query** magnifying tool icon with the white glow, as shown in Figure 4–84.

Figure 4–84 New Query Magnifying Tool Icon

2 172.19.1.83 - Remote Desktop		
Siebel Tools - Siebel Repository - Workflow Proce		_ 8
File Edit View Screens Go Query Reports Forma		
] 🎦 🖬 🕼 🌡 🗞 💼 ⋈ 🗠] 🚍 ⋈ 🔸	→ M [\$P\$ \$P\$ \$↓ \$↓ [] # # 74 \$% [
	n: Siebel Tools 💌 Interactivity: High 💌 Variable:	
Object Explorer	Workflow Processes	
Project: ** All Projects **		
Types Detail Flat	Deploy	Expire Revise
E Siebel Objects	Auto Persist Process Name	Status
Applet Application		
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Business Object Business Service		
E- Entity Relationship Diagram E- Antegration Object		
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Pick List		
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Web Template Workflow Process		
		•

5. In the Process Name field, enter the name *HTTP Event* as shown in Figure 4–85.

💘 172.19.1.83 - Remote Desktop			
Siebel Tools - Siebel Repository - Workfl	ow Process List		
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E-2 Siebel Objects	Auto Persist	Process Name	Status
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Application Business Component			
E Susiness Object			
🗈 🍪 Business Service			
EIM Interface Table			
Entity Relationship Diagram			
Pick List			
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	ABCDEFGHIJKL	M N O P Q R S T U V W X Y Z *	
 			

Figure 4–85 Process Name Field

6. Click on the Magnifying Tool icon with the yellow glow, as shown in Figure 4–86.

Figure 4–86 Yellow Magnifying Tool Icon

Ibject Explorer		Workflow Processes	
roject: [** All Projects ** Types Detail Flat		WURKHUW Prücesses	Deploy Expire Revise
Siebel Objects	Auto Persist	Process Name	Status
Applet	> NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Application	NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Business Component	NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
😟 懿 Business Object	NO	Copy Mel HTTP Event - Account -Siebel 753	Completed
🐑 🍪 Business Service	NO	Copy Mel HTTP Event -chatura	Completed
EIM Interface Table	NO	Copy Mel HTTP Event -chatura	In Progress
Project 			
		J K L M N O P Q R S T U V W X Y Z *	

7. Click on the line, **Copy Me! HTTP Event - Account -Siebel 7.7**, as shown in Figure 4–87.

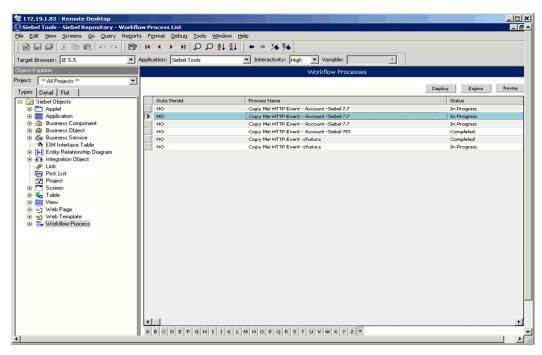
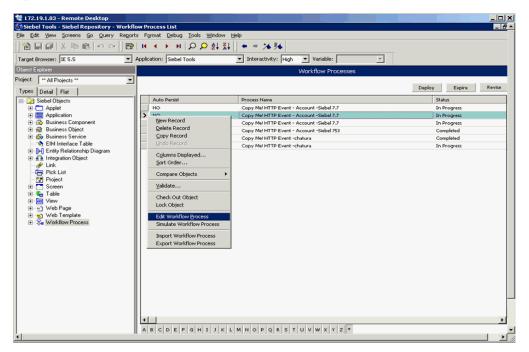


Figure 4–87 Copy Me! HTTP Event - Account -Siebel 7.7

8. Right-click the arrow next to the selection and select **Edit Workflow Process**, as shown in Figure 4–88.

Figure 4–88 Edit Workflow Process Option



A diagram is displayed on the right pane, as shown in Figure 4–89.

lebel Tools - Siebel Repository -				_ 6
Eile Edit View Screens Go Query Report				
[™] <i> </i> <i> </i> <i> </i> <i> </i> <i> </i>	н н н Д Д 🏄	↓ ኟ↓ ◆ ⇒ ≫ 56 56		
Target Browser: IE 5.5	Application: Siebel Tools	▼ Interactivity: High ▼ Va	riable:	
Object Explorer	Palette			
Project: ** All Projects **				rhebene reeksele
Types Detail Flat		Get New	Convert	Send
Siebel Objects	Start Business Service	Start Account	Account Data	Seibel Quote E
Applet		· · · · · · · · · · · · · · · · · · ·]	
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EIM Interface Table				X
Entity Relationship Diagram			· · · · · · · · · · · · · · · · · · ·	\mathbf{X}
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E S Web Template				
Se Workflow Process	End Connector			
	Exception			
	Exception			
	<u> </u>			
		WF Pr	rocess Props	
	Name	Display Name	In/Out	Changed Business Object
	> Account Message	Employee Message	In/Out	Account
	Account XML	Account XML	In/Out	Account
	Error Code Error Message	Error Code	In/Out	Account
	Error message	Error Message	In/Out	Account
4		en het het int het het het set het het het en en en en tet het het het het		

Figure 4–89 Workflow Process Diagram

9. Click the diagram box entitled, **Send Siebel Quote Data HTTP**, as shown in Figure 4–90.



🥹 Siebel Tools - Siebel Repository -					_ 8
Eile Edit View Screens Go Query Report	s Format Debug Tools Window H	elp			
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EIM Interface Table					
Entity Relationship Diagram	Siebel User			1	\mathbf{i}
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	Get New Account		Business Service		EAI Siebel Adapter
	Send Seibel Quote Data HTTP	~	Business Service		EAI HTTP Transport
	Start		Start		

10. Right-click **Send Siebel Quote Data HTTP** and select **Show Input Arguments**, as shown in Figure 4–91.

Siebel Tools - Siebel Repository -							_ 8
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	2	End Get New Account Send Seibel Quote D Start	ata HTTP	V	End Business Service Business Service Start		EAI Siebel Adapter EAI HTTP Transport
•							

Figure 4–91 Show Input Arguments Option

11. At the bottom pane, enter the value for **HTTPrequestURLTemplate**, as shown in Figure 4–92, by using the following URL:

http://machineIP: portno

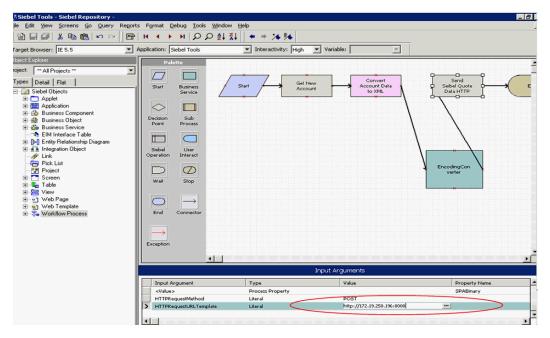


Figure 4–92 HTTPrequestURLTemplate Value

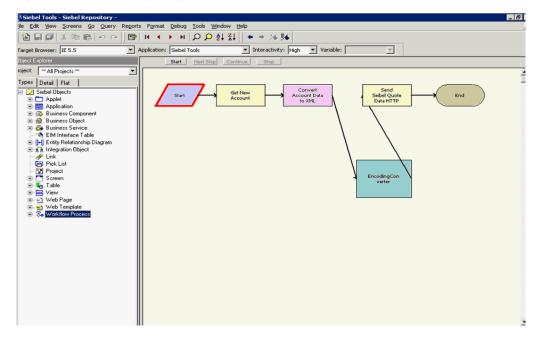
12. Right-click the diagram and select **Simulate**, as shown in Figure 4–93.

Ziebel Tools - Siebel Repository -		- 8	T
ile Edit View Screens Go Query Report	ts Format <u>D</u> ebug <u>T</u> ools <u>W</u> ind	dow Help	Ī,
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roject: TAll Projects **			
Types Detail Flat		Get New Convert Send	
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Applet			1
Application Business Component			
🗉 🎲 Business Object	Decision Sub Point Process		
Business Service EIM Interface Table			
		Shape Properties,	
🗉 👔 Integration Object	Siebel User	Edit •	
	Operation Interact	Layout	
- 🐨 Project		Zoom	
Screen	Wait Stop	✓ Connection Points ✓ Show Grid	
ie ≝n Table ie 🚝 View		✓ Snap to Grid	
🗉 🚽 Web Page		Copy Drawing Ctrl+O	
Web Template Workflow Process	End Connector	Print Ctrl+P	
		Auto Size Page	
		Set Default Sige	
	Exception	All Processes	
	Exception	Show Process Properties	-
	<u> </u>	Show Branch Labels	Γ
		In Validate	
	Input Argument	Type Value Property Name	
	«Value»	Process Property SPABinary	
	HTTPRequestMethod	Literal POST	
	HTTPRequestURLTemplate	Literal http://172.19.250.196:8000	
			ŕ
			-

Figure 4–93 Simulate Option

The Repository diagram is displayed, as shown in Figure 4–94.

Figure 4–94 Repository Diagram



13. Click **Start** and then minimize the Siebel 7 window that is displayed, as shown in Figure 4–95.

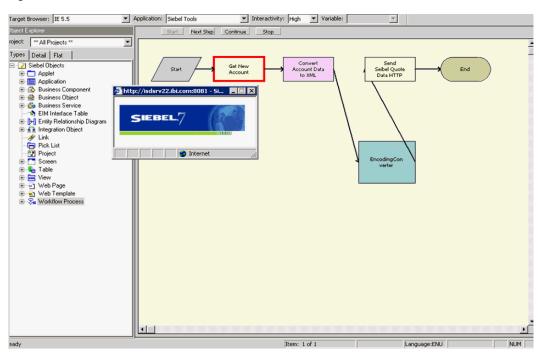
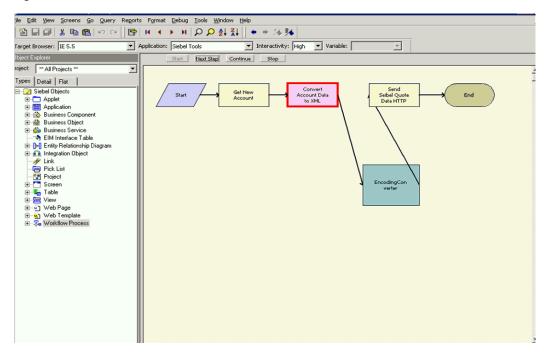


Figure 4–95 Siebel 7 Window

14. Click **Next Step**. The Convert Account Data to XML image is highlighted, as shown in Figure 4–96.

Note: A red outline highlights each diagram image on each step.

Figure 4–96 Convert Data to XML



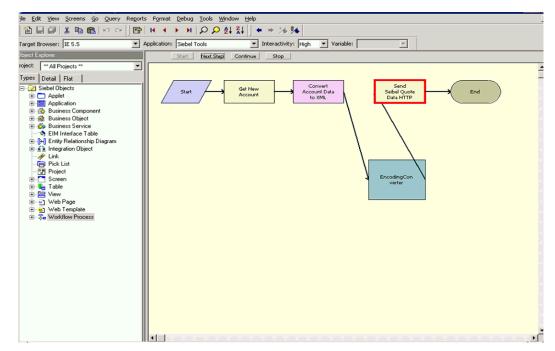
15. Click **Next Step**. The Encoding Converter image is highlighted, as shown in Figure 4–97.

Edit Yew Screens Go Query Reports Format Debug Icols Window Help
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pet Browser: IE 5.5 💌 Application: Siebel Tools 💌 Interactivity: High 👻 Variable:
ct Explorer Start Next Step Continue Stop
es Tresal File 1
Stebel Objects Applet Summers Object Summers Object Summers Device Summers Device Summer

Figure 4–97 Encoding Converter

16. Click **Next Step**. The Send Siebel Quote Data HTTP image is highlighted, as shown in Figure 4–98.

Figure 4–98 Send Siebel Quote Data HTTP



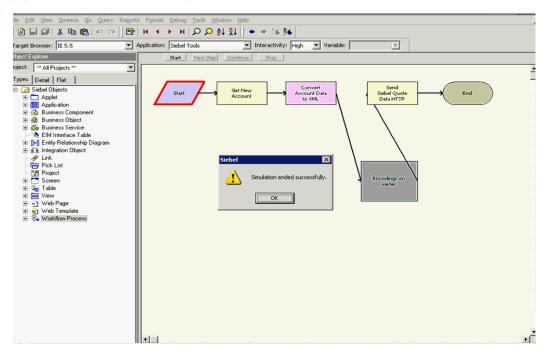
17. Click Next Step. The End image is highlighted, as shown in Figure 4–99.

ile Edit View Screens Go Query Report	s F <u>o</u> rmat <u>D</u> ebug <u>T</u> ools <u>W</u> indow <u>H</u> elp
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Target Browser: IE 5.5	Application: Siebel Tools 💌 Interactivity: High 💌 Variable:
bject Explorer	Start Next Step Continue Stop
Target Browser: IE 5.5 Vipeot Explorer roject: " All Projects " " Types Detail Flat " Image: Service Applet Image: Service Business Object Image: Service Image Service Image: Service Image Service Image: Service Image Service Image: Service Pick List Image: Screen Image Service Image: Screen Image Service Image: Service Image Servi	
	u۲

Figure 4–99 End

18. Click **Next Step**. A success message is displayed, confirming that triggering has been completed successfully, as shown in Figure 4–100.

Figure 4–100 Success Message



- **19.** Click **OK**.
- **20.** Click the File menu and select Exit, as shown in Figure 4–101.

	•
	uery Reports Format Debug Iools Window Help
Open Repository	♀ ┣ H ◀ ▶ H ♀ ♀ 針 좌 ◆ ⇒ ≫ ≫ ▶
New Object Close Ctrl+F4	Application: Siebel Tools Interactivity: High Variable:
	Start Start Continue Stop
Save Ctrl+S Save <u>A</u> l	
Import	
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Print Setup	
Print Preview Print Ctrl+P	
Exit	
Erity Relationship Diag A Integration Object Pick List Toke Toke Screen Screen View O View O	ram

Figure 4–101 Exit Option

4.5.5.3 Triggering an Event in Siebel 8.0 to Test Event Runtime Integration

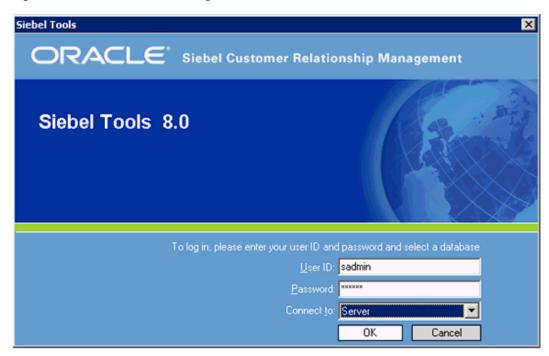
To trigger an event in Siebel 8.0:

1. Log in to Siebel Tools 8.0 by using the following parameters:

```
Username = sadmin
Password = sadmin
```

2. Choose Server from the Connect to list and click OK as shown in Figure 4–102.

Figure 4–102 Siebel Tools 8.0 Log-in Pane



3. Click Workflow Process on the left pane.

The Workflow Process List is displayed on the right pane, as shown in Figure 4–103.

Figure 4–103 Workflow Process List

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Entity Relationship Diagram	Group	NO	Account - Create or Update Oracle11i	Completed	Service
	Inactive FALSE	NO	Account - Get SAP 46C Order List	Completed	Service
Pick List	Name ADM Deployment	NO	Account - Get SAP 47 Order List	Completed	Service
Project	Object Language	NO	Account - Get SAP Order List (MO)	Completed	Service
	Object Locked FALSE	NO	Account - Get SAP Order List	Completed	Service
庄 🔓 Table	Object Locked B	NO	Account - Import SAP 46C Order and	Completed	Service
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		NO	Account - Receive Oracle11i Customer		Service
		NO	Account - Receive Oracle11i Customer		Service
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		NO	Account - Receive SAP 47 Customer	Completed	Service
		NO	Account - Receive SAP Customer	Completed	Service
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4. Click the **New Query** magnifying tool icon with the white glow, as shown in Figure 4–104.

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Figure 4–104 New Query Magnifying Tool Icon

5. Enter the process name HTTP Event_Account_chatura and click the Execute Query magnifying tool icon with the yellow glow to execute the query, as shown in Figure 4–105.

Figure 4–105 Execute Query Icon

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6. Right-click the arrow next to the selected process and select **Edit Workflow Process**, as shown in Figure 4–106.

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Figure 4–106 Edit Workflow Process Option

7. Click the Send Siebel Account Data HTTP box, as shown in Figure 4–107.

Figure 4–107 Send Siebel Account Data HTTP Box

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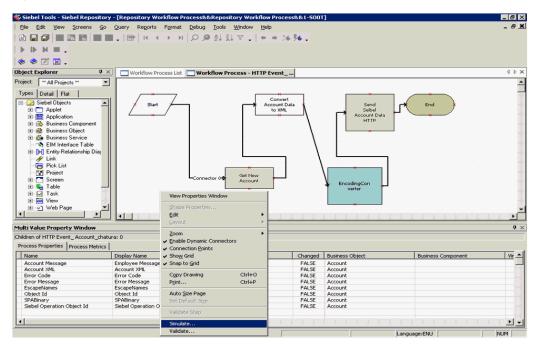
8. In the Multi Value Property Window at the bottom, enter the value for HTTPRequestURLTemplate as http://machineIP:portno then save the values, as shown in Figure 4–108.

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Figure 4–108 HTTPRequestURLTemplate Value

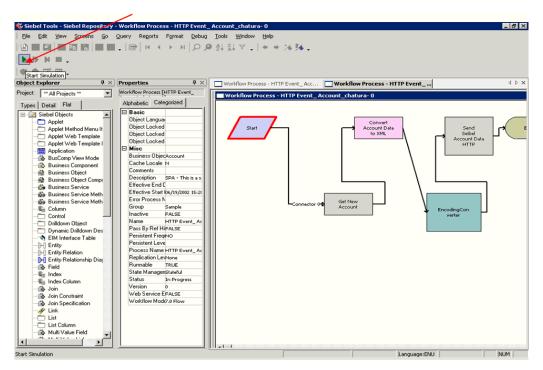
9. Right-click the diagram and select **Simulate**, as shown in Figure 4–109.

Figure 4–109 Simulate



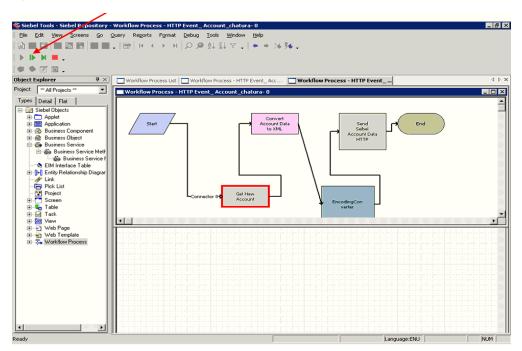
10. Click the **Start Simulation** icon, as shown in Figure 4–110.





11. Click the **Simulate Next** icon. The Get New Account box is highlighted, as shown in Figure 4–111.

Figure 4–111 Simulate Next



12. Click the **Simulate Next** icon. The Convert Account Data to XML box is highlighted, as shown in Figure 4–112.

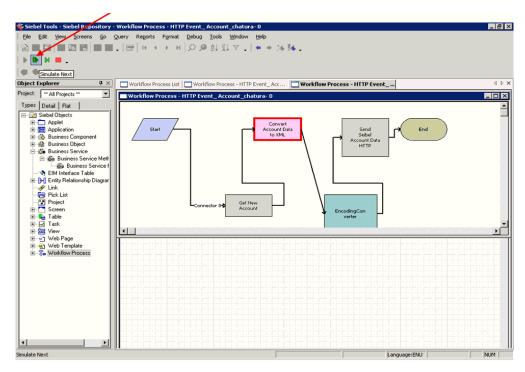
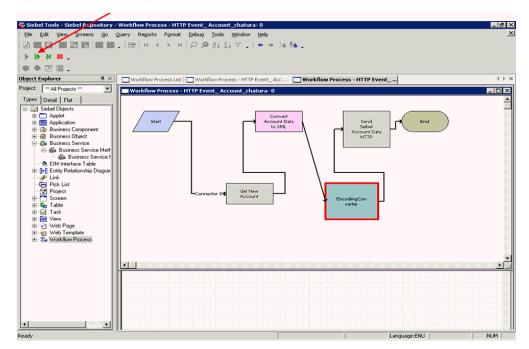


Figure 4–112 Convert Account Data to XML

13. Click the **Simulate Next** icon. The Encoding Converter box is highlighted, as shown in Figure 4–113.

Figure 4–113 Encoding Converter



14. Click the **Simulate Next** icon. The Send Siebel Account Data HTTP box is highlighted, as shown in Figure 4–114

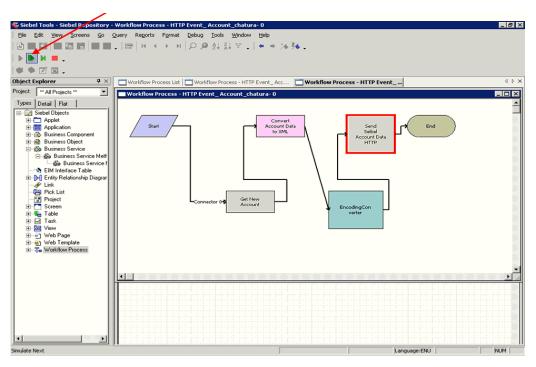
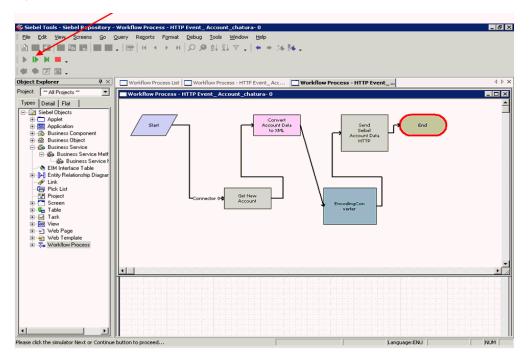


Figure 4–114 Send Siebel Account Data HTTP

15. Click the **Simulate Next** icon. The End image is highlighted as shown in Figure 4–115.

Figure 4–115 Simulate Next



 Click Next Step and then click OK when the Siebel success message is displayed, as shown in Figure 4–116.

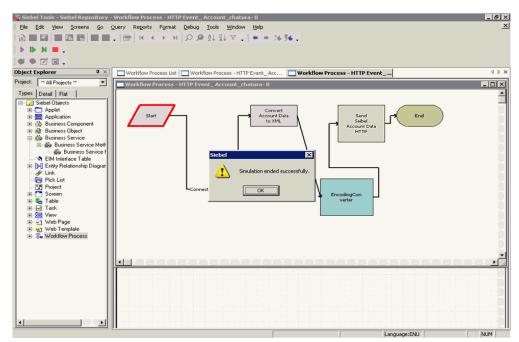
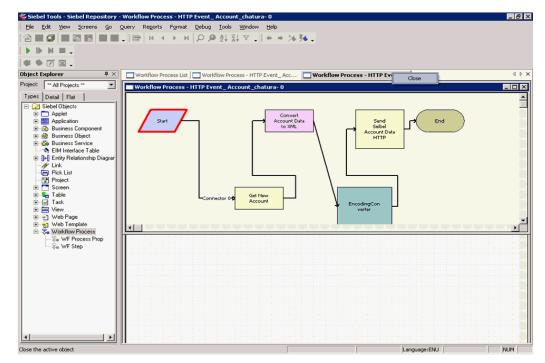


Figure 4–116 Siebel Success Message

17. Right-click the third **Workflow Process** tab and select **Close**, as shown in Figure 4–117.





18. Right-click the second **Workflow Process** tab and select **Close**, as shown in Figure 4–118.

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Figure 4–118 Workflow Process Tab

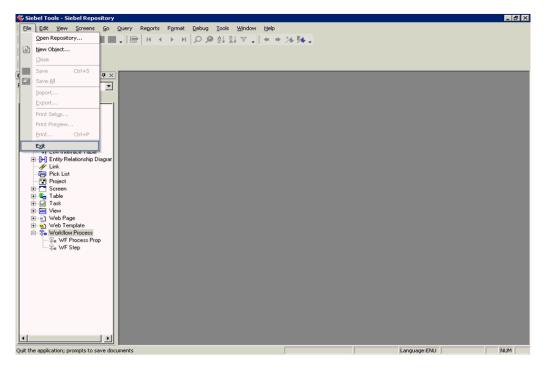
19. Right-click the remaining **Workflow Process** tab and select **Close**, as shown in Figure 4–119.

Figure 4–119 Workflow Process Tab

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Business Component	NO	UDA HTTP Transport	Completed	7.0 Flow	
Business Object Business Service	NO	UQ HTTP Processing	Completed	Service Flow	
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20. From the File menu, click **Exit** to close the tool, as shown in Figure 4–120.

Figure 4–120 Exit



4.5.5.4 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 Example 4–121.

Figure 4–121 Flow Instances Tab

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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\SIEBEL_Samples.zip\SIEBEL_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

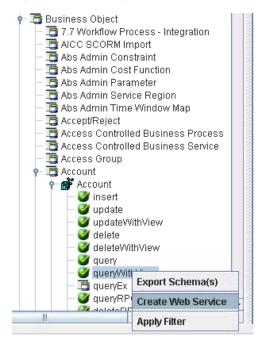
To generate a WSDL file for request and response services using a Web service:

1. Start Application Explorer and connect to a defined Siebel target (BSE configuration).

For more information on defining a target and connecting to Siebel, see Section 2.4.1, "Defining a Target to Siebel".

- 2. Expand the Siebel target to which you are connected.
- 3. Expand Business Object, Account, and then Account.
- **4.** Right-click **queryWithView**, and then select **Create Web Service** from the menu, as shown in Figure 4–122.

Figure 4–122 queryWithView Node



The Create Web Service dialog is displayed, as shown in Figure 4–123.

Figure 4–123 Create Web Service Dialog

📓 Create Web Service	×
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Service Name:	IBSE_Outbound
Service Description:	
	Next Cancel

- 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 4–124.

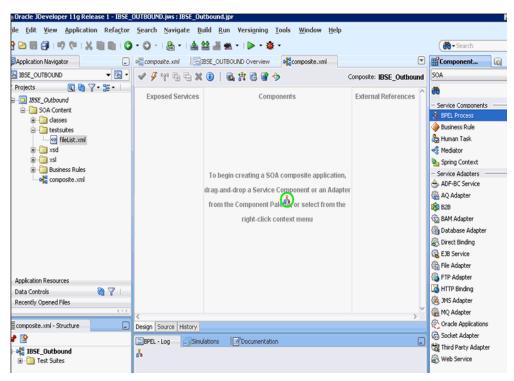


Figure 4–124 BPEL Process Component

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 4–125.

👩 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 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	<u> </u>			
<u>T</u> emplate:	Pase on a WSDL	- 2			
Ser <u>v</u> ice Name:	bpelprocess1_client				
	✓ Expose as a SOAP service				
	<u>W</u> SDL URL:	۱			
	Port Type:	- k			
	Callback Port Type:	•			
Help	ОК	Cancel			

Figure 4–125 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 4–126.

WSDL Choose	r							
Application Server	File System	Project Libraries	SOA-MDS		WSIL			B
Location	n: [C:\12c	\Oracle_SOA1\soa\I	hirdparty\Applicat	ionAdapters\wsd	s	- 0 0	0 🔽 🚰	E
Work Project Application Home	Eile Name: [utbound.wsdl IBSE_Outbound.wsd Web Service Definit						
election: file:/C:	:/12c/Oracle_S	iOA1/soa/thirdparty	/ApplicationAdapt	ers/wsdls/IBSE_C	utbound.wsdl			
Help						0		Cancel

Figure 4–126 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 4–127.

Figure 4–127 Localize Files Window

Localize Files	who and used is out-	ernal to the current p	roject. To order to r	naka this fila a	usilable to usur	I
		nake a local copy of th				
	Maintain original dire	ctory structure for im	ported files			
		ND\IBSE_Outbound :				
IBSE_Outbound.	vsdl					
Help				ОК	Cancel	

The Create BPEL Process window is displayed.

7. In the BPEL Process pane, click **OK**, as shown in Figure 4–128.

Figure 4–128 BPEL Process Pane

👩 Create BPE	L Process	×
	s cess is a service orchestration, based on the BPEL specification, used to describe/execute a rocess (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/IBSE_Outbound/BPELProcess1	
Directory:	C:\WORK\mywork\SOA_Application\IBSE_Outbound\SOA\BPEL	,
Template:	Pase on a WSDL 🔹 🥥	
Ser <u>v</u> ice Name:	bpelprocess1_client	
	Expose as a SOAP service	
	Transaction: required 🔹 🥥	
	WSDL URL: vrk\SOA_Application\IBSE_Outbound\SOA\WSDLs\IBSE_Outbound.wsdl 襘 🧼	
	Port Type: getdetail_ibseSoap	
	Callback Port Type: No Callback	
Help	OK Cancel	

The BPEL Process component is created and displayed, as shown in Figure 4–129.

Figure 4–129 BPEL Process Component

Oracle JDeveloper 11g Release 1 - IBSE_	OUTBOUND.jws : IBSE_Outbound.jpr	
ile <u>E</u> dit <u>Y</u> iew <u>Application</u> Refactor	<u>S</u> earch <u>N</u> avigate <u>B</u> uild <u>R</u> un Versi <u>o</u> ning <u>T</u> ools <u>W</u> indow <u>H</u> elp	
) 🗁 🖩 🗊 i 🅫 (** i X 🛍 🛍 i 🔾	- 🖸 - I 🏯 - I 🏯 🚟 🛲 - I 🕨 - 🌞 -	💏 🕶 Search
Application Navigator	ela composite.xml EIBSE_OUTBOUND Overview	Component
E IBSE_OUTBOUND V E	🖋 🗲 🚏 🖫 🖷 💥 🐌 🖻 💥 🔞 🔮 🗇 Composite: IBSE_Outbound	SOA
Projects 💽 🇞 🏹 + 🏣 +	Exposed Services Components External Referen	66
BSE_Outbound Son Content Son Content Gasses Content Gasses Son Content Gasses Son Content Son Content Son Content Son Content Son Content Son Son Content Son Son	Experiences 1_client Operations: GetDetail	- Service Component: - BEL Process - BUSINESS Rule - Business Rule - Business Rule - Brvice Adasters - Service Adasters - Service Adasters - ADF-BC Service - AQ Adapter - BAN Adapter - Direct Binding - EaB Service - EB Service - File Adapter
Application Resources		Sign File Adapter
Data Controls 👌 🏹 🛛		HTTP Binding
Recently Opened Files		(B) JMS Adapter (B) MQ Adapter
composite.xml - Structure		Cracle Application
Ecomposite.com - Scructure	Design Source History	Constant Adapter
BSE_Outbound	BPEL - Log Simulations Commentation	Third Party Adapt

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 4–130.

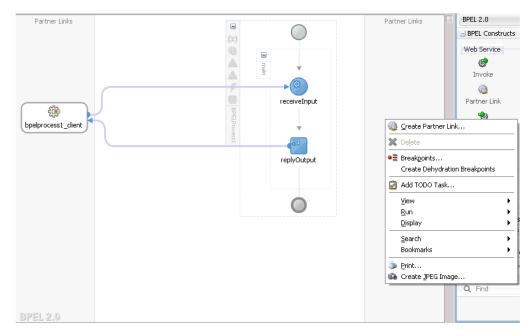


Figure 4–130 Create Partner Link

3. In the displayed Create Partner Link window, provide an appropriate name and click on the SOA Resource Browser tool, as shown in Figure 4–131.

Figure 4–131 SOA Resource Browser Tool

Name: PartnerLin	k1	
Process: WSDL Settings		
WDDE Dettings		🕰 🗷 🗟 i 🔂
WSDL URL:		SOA Resource Browse
Partner Link Type:	"	-
Partner Role:	<u> </u>	-
My Role:	8	•

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 4–132.

SDL Choose	۲							×
En Hobe choose	'							
Application Server	File System	Project Libraries	SOA-MDS	UDDI	WSIL			
Location	: 🛅 C:\120	(Oracle_SOA1\soa\th	hirdparty\Applicati	onAdapters\wsdk		- 0 0 0	ä 🖆	E =
Work	IBSE_C	utbound.wsdl						
Project								
Application								
Home	Eile Name:	IBSE_Outbound.wsd	1					
	File Type:	Web Service Definition	on Files (*.wsdl)					•
	/12c/Oracle_	50A1/soa/thirdparty/	ApplicationAdapte	rs/wsdls/IBSE_Ou	itbound.wsdl			
Help						ОК		Cancel

Figure 4–132 WSDL Chooser Dialog

5. In the displayed Localize Files window, uncheck the **Rename duplicate files** check box and click **OK**, as shown inFigure 4–133.

Figure 4–133 Localize Files Window

📥 Localize Files	×
file:/C:/wsdls/IBSE_Outbound.wsdl is external to the current project. In o project at runtime, JDeveloper can now make a local copy of this file and a includes.	
Copy Options: V Maintain original directory structure for imported files Rename duplicate files The following files will be created in directory C:\Developer\mywork\IBSE_OUTBOUND\IBSE_Outbound :	5
IBSE_Outbound.wsdl	
Help	OK Cancel

6. Click Yes in the displayed Partner Link Type window, as shown in Figure 4–134.

Figure 4–134 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 4–135.

Figure 4–135 Create Partner Link

lame:	PartnerLin	к1	
rocess:			
	Initializ	e Partner Role	
WSDL Se	ettings		
			🔍 🍳 🗔 । 🔂
<u>W</u> SDL U	RL:	/WSDLs/IBSE_Outboun	dWrapper1.wsdl
Partner	Link Type:	🐺 IBSE_OutboundSoap	o_PLT 🗸 👻
Partner	<u>R</u> ole:	IBSE_OutboundSoap	_Role 🔻
<u>M</u> y 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 4–136.

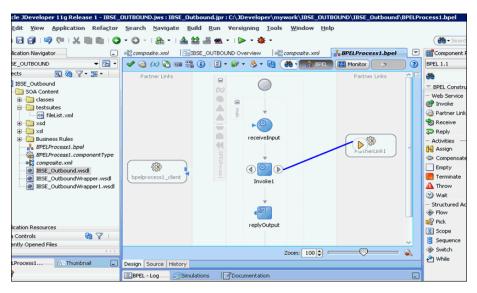


Figure 4–136 Partner Link Component

- **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 4–137.

General	Correlations Properties Assertions	Annotations
Name:	Invoke1	
⊆onversation I	D:	
Detail Label:		
	Invoke as Detail	
Interaction	Type: 🚳 Partner Link 💌	
Partner Link	PartnerLink1	Q
Port Type:	BSE_OutboundSoap	-
Operation:	a queryWithView	-
Input C		
	nts Mapping () Input Variable	0
_		
Input: Inv	voke1_queryWithView_InputVariable	- 🗣 🔍

Figure 4–137 Edit Invoke Window

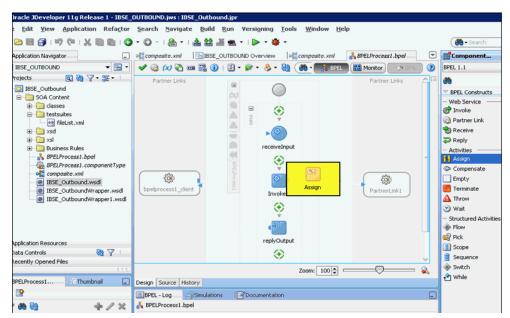
- **6.** Accept the default values that are provided for the new output variable and click **OK**.
- 7. Click **Apply** and then **OK**, as shown in Figure 4–138.

Edit Invoke				
Headers Do	cumentation Sk	ip Condition Tar	gets Sources	
General	Correlations	Properties	Assertions	Annotations
<u>V</u> ame: Conversation I	Invoke1			
-				.
etail Label:				
— <u>I</u> nteraction	Invoke as D Type: 🔞 Partn			
Partner <u>L</u> ink	: PartnerLink1			Q
Port <u>T</u> ype:	🐺 IBSE_Outbo	undSoap		-
Operation:	🐚 queryWithV	iew		-
Input C	output			
◯ Argu <u>m</u> e	nts Mapping 💿 <u>O</u>	utput Variable		0
O <u>u</u> tput: I	nvoke1_queryWith	View_OutputVariab	le	
<u>H</u> elp			<u>A</u> pply C	K Cancel

Figure 4–138 Edit Invoke Window

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 4–139.

Figure 4–139 Assign Activity Component



9. Double-click the new **Assign** activity component (Assign1), as shown in Figure 4–140.

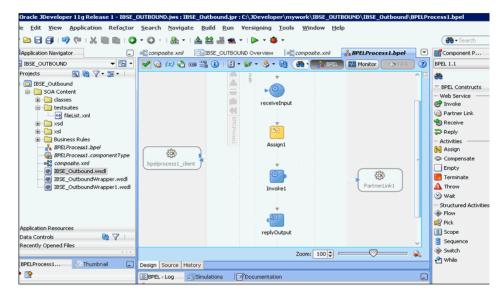


Figure 4–140 Assign Activity Component

- **10.** In the left pane, under Variables, expand **InputVariable**, and then select **parameters**.
- In the right pane, under Variables, expand Invoke1_queryWithView_ InputVariable, and then select parameters.
- **12.** Drag and map the **InputVariable** parameters to the **Invoke1_queryWithView_ InputVariable** parameters, as shown in Figure 4–141.

Figure 4–141 InputVariable Parameters

Insert New Rule After		E. A O to of
 § P62Drocessi bøel Partner Links Partner Links Partnet Links Process Process<	Crag objects here	BPELProcess Lope (Partner Links) Process } Process }
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1	To	
From		

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 4–142.

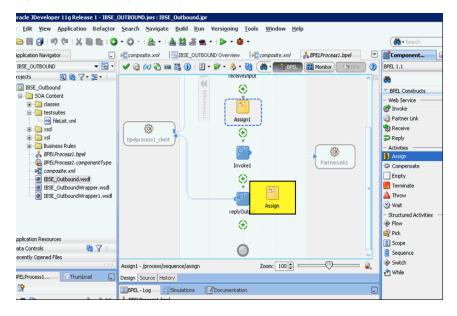
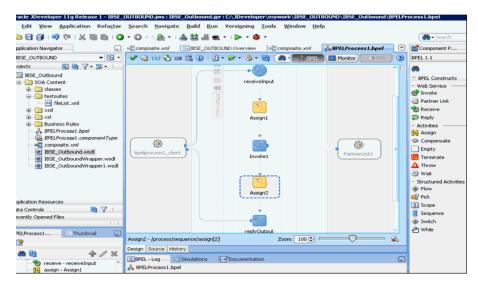


Figure 4–142 Assign Activity Component

15. Double-click the new **Assign** activity component (Assign2), as shown in Figure 4–143.

Figure 4–143 New Assign Activity Component



- **16.** In the left pane, under Variables, expand **Invoke1_queryWithView_ OutputVariable**, and then select **parameters**.
- **17.** In the right pane, under Variables, expand **outputVariable**, and then select **parameters**.
- **18.** Drag and map the **Invoke1_queryWithView_OutputVariable** parameters to the **outputVariable** parameters, as shown in Figure 4–144.

Insert New Rule After		0. 🕯 🧿 🖛 🕫
§ BELIncessit.bpel © Pertner Links ♥ Yandeles ● CD 'nput/initiale not injuery/REtrivenion ● CD 'nput/initiale not injuery/REtrivenion ● CD 'nput/initiale not injuery/REtrivenion ● CD 'nnokel_guery/REtrivenion ● CD 'nnokel_guery'n • CD 'nnokel_guery'n • CD 'nnokel'	Crag objects here	BPELProcess by el Petrone line @ Process } Process
		+ # + +
	To	

Figure 4–144 outputVariable Parameters

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

You are returned to the component pane, as shown in Figure 4–145.

Figure 4–145 Component Pane

Edit Yiew Application Refactor	<u>S</u> earch <u>N</u> avigate <u>B</u> uild <u>R</u> un Versi <u>o</u> ning <u>T</u> ools <u>W</u> indow <u>H</u> elp	
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Application Navigator	🕼 composite.xml 🛛 🔁 IBSE_OUTBOUND Overview 🛛 🖓 composite.xml 🛛 💑 BPELPI	rocess1.bpel 💌 🛗 Component P
IBSE_OUTBOUND 👻 🔁 🗸	🗸 🍥 🗶 🔁 🚥 📆 🕕 I 🖉 - 🖗 - 🌭 - 🖓 🍊 - 📑 EFEL 🔤 Moni	itor BPEL 1.1
rojects 💽 🗞 🏹 + 🏣 + 🗌		ee
IBSE_Outbound		SPEL Constructs
SOA Content	receiveInput	- Web Service
classes	0	😸 Invoke
fileList.xml		Partner Link
⊞ line.det.t.till ⊞ _ []] xsd	BPELD-recess	Seceive
🕀 🛅 xsl	B Assign1	Reply
Business Rules		- Activities
BPELProcess1.bpel		🙌 Assign
BPELProcess1.componentType		Compensate
IBSE_Outbound.wsdl		Empty
IBSE_OutboundWrapper.wsdl	Invoke1	artnerLink1
IBSE_OutboundWrapper1.wsdl		A Throw
_	T	🎯 Wait
	69	- Structured Activiti
	Assign2	I Flow
- linking December	Apply 12	Pick
pplication Resources Nata Controls 🛛 🦓 🍸 🗌		Scope
ecently Opened Files	Ý	🚊 Sequence
ecency Opened Hies		🛞 Switch
PELProcess1	replyOutput	🗸 🛃 While
	Assign2 - /process/sequence/assign[2] Zoom: 100 🖨	
2	Design Source History	
An (h)	walke Tapaco Tapaco S	

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.

4-90 Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server

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 Siebel must be installed on Oracle WebLogic Server.
- Siebel must be configured for inbound and outbound processing.
- OracleAS Technology adapters must be deployed and properly configured.

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

- How to configure Oracle Application Adapter for Siebel for services and events. For more information, see Chapter 2, "Configuring Oracle Application Server Adapter for Siebel".
- How to configure Oracle JDeveloper. For more information, see Chapter 4, "Integration With BPEL Service Components in the Oracle SOA Suite".
- How to use Siebel workflows. For more information on Siebel design requirements, see Appendix A, "Using Siebel Workflows".

Overview of Mediator Integration

Mediator provides a comprehensive application integration framework. Oracle Application Adapter for Siebel 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 Siebel is configured in Application Explorer for services and events, as described in Chapter 2, "Configuring Oracle Application Server Adapter for Siebel". 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 Siebel 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\SIEBEL_Samples.zip\SIEBEL_
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	×
'hird Party Adapter ! Create a JCA adapte	Service r service for a third party adapter.	÷
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference -	
<u>W</u> SDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
<u>P</u> ort Type:	queryWithViewPortType	
Operation:	queryWithView	
<u>C</u> allback Port Type:	No Callback 💌	
Oper <u>a</u> tion:		
<u>J</u> CA File:	J2CA_Outbound_invoke_3P.jca	6
Help	OK	Cancel

Figure 5–1 Create Third Party Adapter Service Dialog

12. Click OK.

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

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

For more information, see Section 6.4.3.1, "Configuring a Third Party Adapter Service Component" on page 6-12.

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	
Directory:	C:\WORK\mywork\SOA_Application\JCA_Outbound\SOA\Mediators	Q
<u>T</u> emplate:	😂 Synchronous Interface	• @
	Expose as a SOAP service	
	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.

🍘 Type Chooser		×
		絮 💩
🔍 Type Explorer		
🖶 🦳 Project Schema Files		
🖮 🗁 Project WSDL Files		
🖮 🕘 J2CA_Outbound_invoke.wsdl		
🖃 🗁 Imported Schemas		
Siebel		
Imported WSDL		
 Type: In:iwaysoftware:adapter:siebel:request:S/BO/Account/Ac	count/query	/WithView}Siebel
Show Detailed Node Information		
Help	ОК	Cancel

Figure 5–3 Type Chooser Dialog

- 5. Expand Project WSDL Files, J2CA_Outbound_invoke.wsdl, Imported Schemas, J2CA_Outbound_invoke_request.xsd, and select Siebel.
- 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.

Type Explorer Project Schema Files Project WSDL Files Inported Schemas J2CA_Outbound_invoke_request.xsd J2CA_Outbound_invoke_response.xsd SiebelResponse record Imported WSDL	2
Project Schema Files Project WSDL Files J2CA_Outbound_invoke.wsdl Project WSDL Schemas J2CA_Outbound_invoke_request.xsd J2CA_Outbound_invoke_response.xsd SiebelResponse record	
Project WSDL Files J2CA_Outbound_invoke.wsdl J2CA_Outbound_invoke_request.xsd J2CA_Outbound_invoke_response.xsd SiebelResponse record	
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Imported WSDL	
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ype: ware:adapter:siebel:response:5/BO/Account/Account/queryWithView}SiebelRespo	
Show Detailed Node Information	nse
Help OK Cance	nse

Figure 5–4 Type Chooser Dialog

- 8. Expand Project WSDL Files, J2CA_Outbound_invoke.wsdl, Imported Schemas, J2CA_Outbound_invoke_response.xsd, and select SiebelResponse.
- 9. Click OK.

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

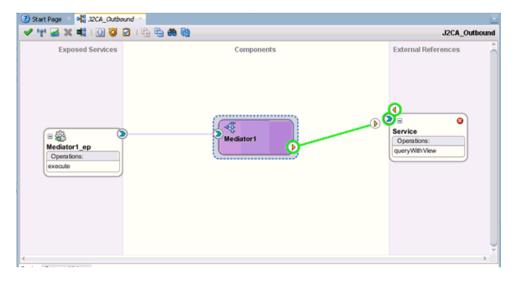
Figure 5–5 Create Mediator Dialog

👩 Create	Mediato	pr -	×
Mediator Create		nent or component to perform routing, filtering, and transformations.	¢
<u>N</u> ame:	Mediator	r1	
Directory:	C:\bpmb	peta\WORK\mywork\SOA_Application\J2CA_Outbound\SOA\Mediators	
<u>T</u> emplate:	🔁 Syn	ichronous Interface 🔹	0
	💌 Expo	ise as a SOAP service	
	Input:	n:iwaysoftware:adapter:siebel:request:5/BO/Account/Account/queryWithView}Sieb	bel 🔍
	<u>O</u> utput:	ware:adapter:siebel:response:S/BO/Account/Account/queryWithView}SiebelRespon	ise 🔍
Help		ОК Са	ancel

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

Operations				eg (
execute	Priority 4	Validate Syntax (XSD)	▽]	+ X
Translate From Native < <no needed="" translation=""></no>	>			
Callout To < <java callout="" class="">></java>				
<pre></pre>	8 8	Service::queryWithView	0	Sequential •
	Validate Semantic	-	8	
	Translate To Native	< <no needed="" translation="">></no>	-	
	Transform Using	< <transformation map="">>> input_query •</transformation>	89	
	Assign Values	-		
	Override Using		-	8
Synchronous Reply		*Initial Caller*::execute:output	0	1
	Transform Using	< <transformation map="">>> reply</transformation>	8	
	Assign Values		- 10	

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

🕽 Request Transformation Map	×
Transformation from request message requestMessage to message request. To Part: input_queryWithView Mapper File:	Q 4 / X
Нер ОК	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.
- **6.** Map the **ns0:Siebel** source element to the **ns0:Siebel** 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

) Operations			G (
execute	Priority 4	🔄 Validate Syntax (XSD) 🛆	▽] 🕂 🗙
Translate From Native < <no th="" tr<=""><th>anslation Needed>></th><th></th><th></th></no>	anslation Needed>>		
Callout To <<3ava	Callout Class>>		
Galactic Contraction (Contraction)	8 8	Service::queryWithView	Sequential ·
	Validate Semantic	-	8
	Translate To Native	< <no needed="" translation="">></no>	-
	Transform Using	Siebel_To_Siebel1.xsl> input_queryWi 💌	84
	Assign Values	· · · · · ·	0
	Override Using		-
Synchronous Re	ply 🛥	*Initial Caller*::execute:output	9
	Transform Using	< <transformation map="">>> reply</transformation>	84
	Assign Values		0

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:SiebelResponse** source element to the **ns0:SiebelResponse** 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

XSLT map 🔹 🛉 🔹 💩 🖥	S 🔂 🛅 I	Q Search XSLT	Map XSLT
esources>	[]		xsl:stylesheet 級
😑 🚸 ns0:SiebelResponse		xslite	mplate(match=/)
- 💷 status	H	ns0:Sid	belResponse 🚯 😑
a reason			status 🚥
Is0:record			—xsl:if 🍑 🕀
Variables		xsl	for-each 🙀 🕀

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.

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.

- 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 Siebel 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\SIEBEL_Samples.zip\SIEBEL_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 5.3.2.2, "Configuring an Inbound Mediator Process Component With a File Adapter"

- Section 5.3.2.3, "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: <a href="https://wsdls/ws
- 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 4.5.3.1, "Creating a Third Party Adapter Service Component" on page 4-41.

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.

Figure 5–11	Create	Mediator	Dialog
-------------	--------	----------	--------

👩 Create	Mediator		×
	Component a mediator component to perform routing, filtering, and transformations.		¢
<u>N</u> ame:	Mediator1		
<u>D</u> irectory:	C:\WORK\mywork\SOA_Application\JCA_Inbound\SOA\Mediators		Q
<u>T</u> emplate:	i Define Interface Later		• 2
		014	Consul
Help		OK	Cancel

- **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	uration Wizard - Step 6 of 7	x
Messages	Discondigator - Para Maria	
defines the message 'Schema is Opaque',	o for the Write File operation. Specify the Schema File Location and select the Schema Element that es 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.	t
Message Schema-	translation is not required (Schema is Opaque)	ן ן
Macine Connacto	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		×
	*	6
🔍 Type Explorer		
🗊 🛅 Project Schema Files		
🖻 🗁 Project WSDL Files		
🖃 🕘 J2CA_Inbound_receive.wsdl		
🖬 🗁 Imported Schemas		
🖨 🛃 J2CA_Inbound_receive_request.xsd		
SiebelMessage SiebelMessage		
Imported WSDL		
<u>Type:</u> {http://www.iwaysoftware.com/xml/Sample%20Account}SiebelMessage		
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 **SiebelMessage SiebelMessage**.
- 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.

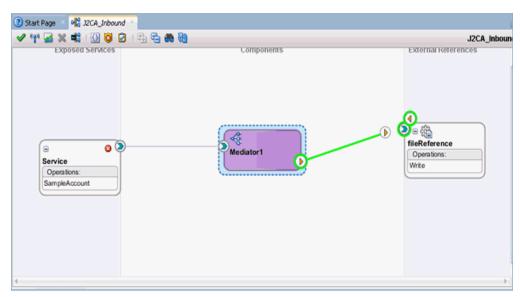


Figure 5–14 Created Connection

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 🗟 🛛] <u>V</u> alidate Syntax (XSD)			+ ×
Translate From Native < <no new<="" td="" translation=""><td>eded>></td><td>•</td><td>6</td><td></td><td></td><td></td></no>	eded>>	•	6			
Callout To < <java callout="" class<="" td=""><td>>></td><td></td><td></td><td></td><td></td><td></td></java>	>>					
Resequence Off						
<pre> > </pre>	8 8	+ fileRefere	nce::Write		0	Sequential 🕶
<pre></pre>	Y Contraction Validate Semantic	- fileRefere	nce::Write	•	@ 	Sequential -
< <<filter expression="">></filter>	Validate Semantic		nce::Write tion Needed>>	•		Sequential 🔻
< < Filter Expression>>	Validate Semantic Translate To Native	< <no td="" transla<=""><td></td><td>•</td><td>8</td><td>Sequential -</td></no>		•	8	Sequential -
B < <filter expression="">></filter>	Validate Semantic Translate To Native	< <no td="" transla<=""><td>tion Needed>></td><td></td><td>4</td><td>Sequential</td></no>	tion Needed>>		4	Sequential

 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

XSLT map 🔹 🔹 🛦	😼 🔛 I	Q Search XSLT	Map XSLT
<pre>sources></pre>	[] []		xsl:stylesheet 🚳
onso:SiebelMessage		xsl:b	emplate(match=/)
MessageId		ns0:5	iebelMessage 🚯 😑
MessageType			—xsl:if 🕘 🛈
and IntObjectName			—xsl:if 🍑 🕀
NG IntObjectFormat	and the second sec		xsl:if 🍑 🕣
No location			xsl:if 🍑 🕢
Iso:ListOfSampleAccount			
Variables			
			ABGR 🚿 🕲

- 5. Click OK.
- 6. Map the ns0:SiebelMessage source element to the ns0:SiebelMessage 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 4-47.

Once event messages are triggered through Siebel, output XML is received in the location that was specified for the File adapter component. For more information on triggering events in Siebel, see Section 4.5.5.3, "Triggering an Event in Siebel 8.0 to Test Event Runtime Integration" on page 4-63.

5.4 Configuring a Mediator Outbound Process (BSE Configuration)

This section describes how to configure a Mediator outbound process to your Siebel 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\SIEBEL_Samples.zip\SIEBEL_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 4-74.

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 (for example, IBSE_OUTBOUND), 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 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

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.

- In the Type Chooser dialog, expand Project WSDL Files, select IBSE_ Outbound.wsdl, and click queryWithView, as shown in Figure 5–17.
- 👩 Type Chooser × 눎 🖻 🔍 Type Explorer 🕀 🛅 Project Schema Files 🖻 🛅 Project WSDL Files 🖮 🙋 IBSE_Outbound.wsdl ---- Imported Schemas ė--- 🔁 🖨 📇 schema - urn:iwaysoftware:ibse:jul2003:queryWithView 🚸 queryWithView 🔥 record 🖮 🛃 schema - urn:iwaysoftware:ibse:jul2003:queryWithView:response 🗄 📲 schema - urn:schemas-iwaysoftware-com:iwse imported WSDL Type: {urn:iwaysoftware:ibse:jul2003:queryWithView}queryWithView Show Detailed Node Information OK Cancel Help

Figure 5–17 Type Chooser Dialog

- 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.
- In The Type Chooser dialog, expand Project WSDL Files, select IBSE_ Outbound.wsdl, and click queryWithViewResponse, as shown in Figure 5–18.

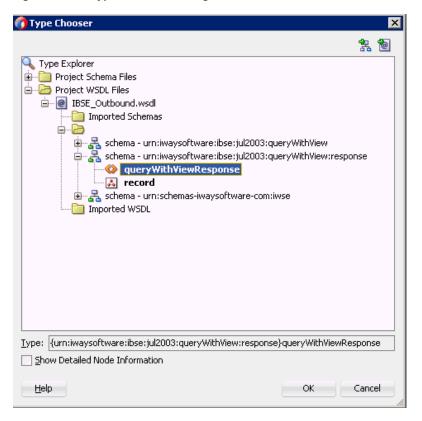


Figure 5–18 Type Chooser Dialog

- 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.

xions 🚏 🖬 🗶 🛋 । 🕢 🤯 🖉	3 (🕀 🖶 🍓 🍓	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:queryWithView** source element to the **ns0:queryWithView** target element, as shown in Figure 5–20.

Figure 5–20 GetDetail_To_GetDetail.xsl Tab

XSLT map 🔹 💠 🔹 🎄	3 🗟 🖾	Q Search XSLT	Map XSLT
sources>	<u>[]</u>		xsl:stylesheet 🐼
		xsl:ten	nplate(match=/)
⊕- ♦ ns0:Siebel	- See and the second second	ns0:que	ryWithView 🚯 😑
Variables		ns	0:Siebel 🚷 🕀

- **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**.

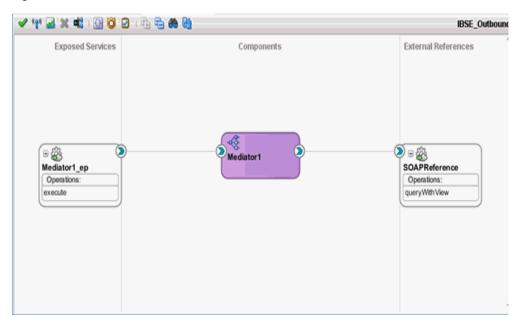
 Map the ns0:queryWithViewResponse source element to the ns0:queryWithViewResponse target element, as shown in Figure 5–21.

Figure 5–21 Source and Target Elements

XSLT map 🔹 🕈 🔹 🚳	🗟 🞦 I	Q Search XSLT	Map XSLT
sources>	[]		xsl:stylesheet 🐼
A ns0:queryWithViewResponse		xsl:ter	nplate(match=/)
- mi cid		ns0:queryWithWi	wResponse 🚯 😑
Image: September			cid 🚥 —
Variables		ns0:SiebelRe	esponse 🔇 🛞

- **10.** 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 Siebel 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 sections:

- 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 Siebel 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 2-27.

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 Siebel 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\SIEBEL_Samples.zip\SIEBEL_Samples\BPM\J2CA\Siebel_ Sample_J2CA_BPM_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.

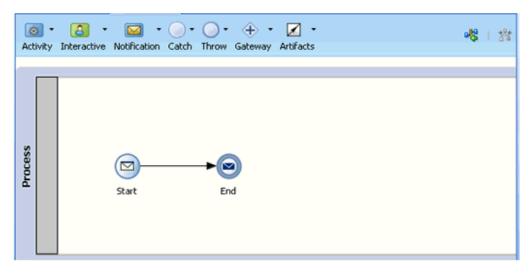
Figure 6–1 Create BPMN Process Dialog

🚯 BPMN 2.0 Process Wizard 🛛 🛛 🔀				
BPI	MN 2.0 Process W	lizard		
Ŵ	Definition	Name:	Process	۲
	Arguments Initial Implementation Advanced	Description:		٢
Directory: C:\WORK\mywork\JCA_Outbound\BpmProject\SOA\processe Type:			C:\WORK\mywork\JCA_Outbound\BpmProject\SOA\processes	9
		Create	hronous Service s a process with an asynchronous interface definition	Ĵ
		Manual	onous Service Process	-
	Help		< Back Next > Einish Cance	el

2. Accept the default option that is selected under the Type area (Asynchronous Service) and click **Finish**.

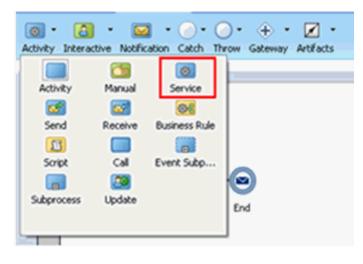
The BPMN process is displayed, as shown in Figure 6–2.

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 task	•
Message Exchange	
Type: A Service Call	•
Conversation: Default Advanced 	
Service Cal	
Service:	ا ال
Operation:	•

The Service dialog is displayed, as shown in Figure 6–7.

👩 Service	×
Search:	
Search Results:	
{🏟 Service	
Hala	OK Cancel
Help	OK Cancel

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: Default Advanced 	
Service Call	
Service: Service	۹ 🏈
Operation: queryWithView	
Data Associations	Log Handlers
Message Headers	
Help	OK Cancel

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		
		🗈 📾 Ki
Process Data Obje B Predefinet B TrojectInfo	Drag objects here	ServiceTask Arguments ڝ-⊖ companyCodeGetDetail िक्व-⊕

The Create Data Object dialog is displayed, as shown in Figure 6–10.

Figure 6–10 Create Data Object Dialog

譮 Create Da	ata Object	×
Name: dataO	bject1	
Type: abc S	tring	•
🗸 Auto initial	ize	
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		×
Find:		3
1999 int		
📀 boolean		
99E double		
999 decimal		
🖄 dateTime		
999 long		
<>> duration		
💼 base64Binary		
99E float		
999 byte		
999 short		
🖄 date		
🖄 time		
🚜 Siebel		
🎇 SiebelResponse		-
Types.QueryWithView.Siebel		
Help	ОК	Cancel

Figure 6–12 Browse Types Dialog

12. Select the first component (for example, Siebel) 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.

Input Output			Resour
		UL 18 18 11	9-
ServiceTask Carguments Response Carguine Process Process	Crag objects here	Predefine: P Expand All Child No.	ides
		4 8 9 5	E IDE O
From	To		Busines
] Validate target after assigning output da	ta associations		
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:	
[999] int	
S boolean	
99E double	
999 decimal	
🖄 dateTime	
999 long	
duration	
Base64Binary	
199E float	
999 byte	
999 short	
🖄 date	
20 time	
Real Siebel	
🚒 SiebelResponse	Ţ.
Types.QueryWithView.SiebelResponse	
Help	OK Cancel

 Select the second component (for example, SiebelResponse) 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 Siebel under the Arguments node in the right pane, as shown in Figure 6–15.

Figure 6–15 Request Data Object

	🔂 💀 🖡 ServiceTask
Drag objects here	Arguments 📴
To: siebel	() () ()
ro Re siebel	
	To

19. Click on the **Output** tab and select **SiebelResponse** 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.

Data Associations Input Output		
appe coope		D. 💀 1
③ ServiceTask Arguments ⊕ <mark>BebelResponse</mark> Process	Drag objects here	Process Data Objects 😭 request 🖓 🕀 Presponse 🖓 🕀
		projectinfo 🗟
Copy From: siebelResponse	To: response	💼 🕂 🗙 🔶
From	То	
📔 🚁 siebelResponse	response	
Validate target after assigning output data associatio	ns	
Help		OK Canci

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: Default (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
[999] int	
🚫 boolean	
99E double	
999 decimal	
🖄 dateTime	
999 long	
←→ duration	
iii base64Binary	
199E float	
1999 byte	
1999 short	
🖄 date	
🖄 time	
🗱 Siebel	
Response	Ŧ
Types.QueryWithView.Siebel	
Help OK Ca	incel

26. Select the first component (for example, Siebel) 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		
asic Implementation		
mplementation Type: 💿 Mes	sage	•
Message Exchange		
Type: 🧖 Define In	terface	•
Conversation: 💿 Default 🔘) Advanced	
Define Interface		
Arguments Definition		+ ∕ ×
Name	Туре	
argument1	Siebel	
Operation Name: operation	ו ו	
💐 <u>Data Associations</u>	D <u>Correlations</u>	Log Handlers
Message Headers	Service Properties	

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 Argument 1	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.

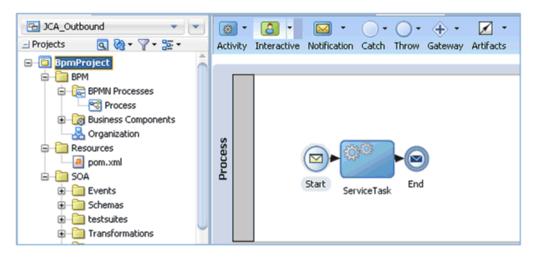


Figure 6–24 Process Workspace Area

- **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.

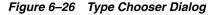
The File Configuration page is displayed.

- 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.



👩 Type Chooser		×
	*	0
Type Explorer		
Project Schema Files		
SiebelResponse		
Project WSDL Files		
Iype: ware:adapter:siebel:response:S/BO/Account/Account/queryWithView}Siebe	Resp	onse
Show Detailed Node Information		
Help	Canc	el

- **13.** Expand **Project Schema Files** and **J2CA_Outbound_invoke_response.xsd**.
- 14. Select the available schema (for example, SiebelResponse).
- 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.

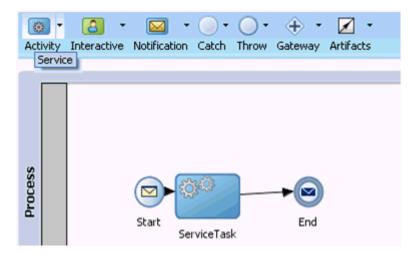
Figure 6–27 File Adapter Service

*** 🛥 🗙 📲 🔅 🤯	2 · 🔁 🖶 🍓	J2CA_Outbound
Exposed Services	Components	External References
		日本語 fileReference Operations: Write
Process.service Operations: operation end	Process	Service Operations: queryWithView

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	7
👬 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

Process → Data Objects → Request → Response → Predefined Variables SOA	Drag objects here	টে. জে. ট Service Task! Arguments ₪ siebelResponse 诸 ↔
	20000 * #200000	4 X 4
	Το	

- **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 **SiebelResponse** node, as shown in Figure 6–34.

 Process Data Objects Request Reponse Predefined Variables SOA 	Drag objects here	ServiceTaski Arguments 🔁 siebelResponse 🕼 🟵
	*****	4 X 3
From	То	

Figure 6–34 CompanyCodeSiebelResponse 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:	
request	🔉 🏹 response	
	>>>	
	8	
Target		
Target:	iebelResponse	•
Transformation		
 Create 	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

put Output		B. 🔜 B
Process Constraints Process Constraints Prodefined Variables SOA Prodefined Variables SOA	Drag objects here	ServiceTask1 Arguments 🔁 SeberResponse 🕡 🔅
		+ X 🕁
From	То	
k response_body	72 siebelResponse	
Validate target after assigning input data	associations	

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

XSLT map 🔹 🗣 🔹	🛦 🗣 🗟 🔟	Q. Search XSLT	Map XSLT
sources>	<u> </u>		xsl:stylesheet 🐼
- O ns0:SiebelResponse		xsl:temp	late(match=/) 🚺 😑
- mi status		ns0:Siebe	Response 🚯 😑
and reason			tatus 🚥 —
Is0:record Is0:record			xsl:if 🍑 🕀
Variables		xsl:for	-each 🙀 - ⊕

- **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.

- 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**.

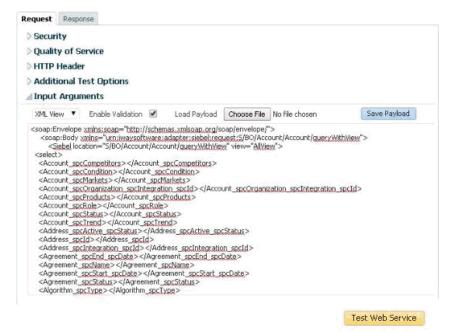
For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

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 Siebel integrates with Siebel 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:

```
<ADAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_Samples\BPM\J2CA\Inbound_
Project
```

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.

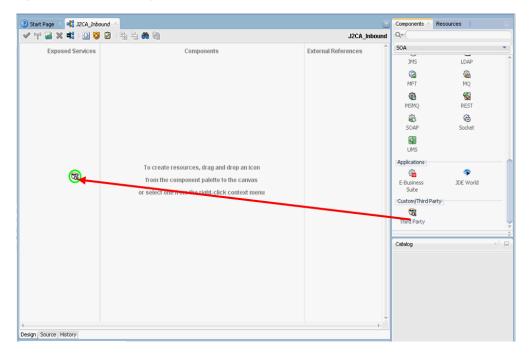


Figure 6–40 Third Party Adapter Component

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 4.5.3.1, "Creating a Third Party Adapter Service Component" on page 4-41.

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.

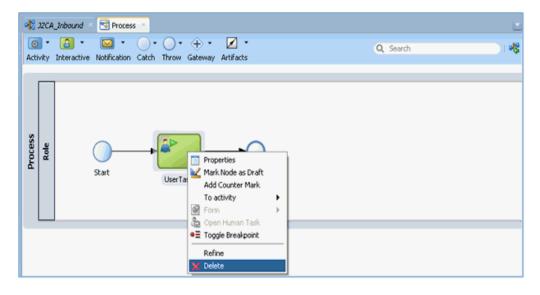
PMN 2.0 Process W	zard	
Definition	Name: Process	
Initial Implementation Advanced	Description:	6
	Directory: :\bpmbeta\WORK\mywork\BpmApplication2\J2CA_Inbound\ Type: Synchronous Service	SOA\processes
	Manual Process Creates an interactive process based on a user task.	
		nd

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:		
iearch Results:		
····· @ Service		
Help	OK Cancel	
Help		

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.

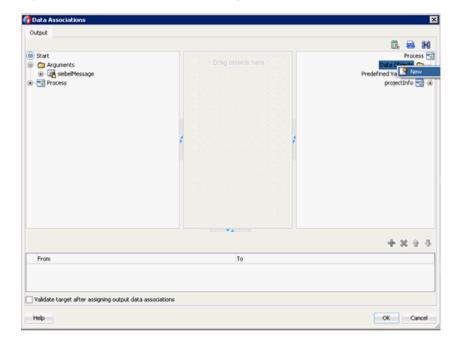
🕜 Properties -	Start			×
Basic Implem	entation			
Implementation	Type: 🙆 Messag	e		-
Message Exch	ange			
Type:	🐝 Use Interfac	•		-
Conversation:	💿 Default 🔘 Ad	lvanced		
Use Interfac	e			
Reference:	Service		Q,	a
Operation:	sampleAccount			-
🚧 Data Associ	ations	D <u>Correlations</u>	Log Handlers	
• Message He	aders	Service Properties		
Help			ОК	Cancel

Figure 6–45 Properties - Start Dialog

11. Click the **Data Associations** icon.

The Data Associations dialog is displayed, as shown in Figure 6–46.

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

🕜 Cre	ate Data Object	X
Name:	dataObject1	
Type:	abc string	-
	♦ duration	
	📓 base64Binary	
Help	99E float	
	999 byte	
	999 short	
	🖄 date	
	🖄 time	
	Srowse	-

The Browse Types dialog is displayed, as shown in Figure 6–48.

Figure 6–48 Browse Types Dialog

😚 Browse Types	×
Find:	
Find: at string at string at string boolean	
Types.Sample20Account.SiebelMessage	
Help	OK Cancel
	4

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.

Start Arguments Arguments Frocess Process	p objects here - Proces Data Objects @ Bacobiect @ Predefined Variables @ project/nfo @
⊕	Predefined Variables 📋
Copy 👻 From: siebelMessage	🖁 To: dataObjectl 🗊 👫 🗙 😭
From	То
🛛 🌇 siebelMessage	🥐 dataObject1

Figure 6–49 Data Associations Dialog

- **16.** Select and drag the **siebelMessage** 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.

Figure 6–50 Operation Page

🖕 Adapter Conf	iguration Wiza	rd - Step 4 of 7				×
Operation				10101010:010:010	*	
system, a Write F contents of a file,	ile operation that , and a List Files o	creates outgoing file peration that lists file	s, a Synchronous Rea	d File operation ations. Specify	ing files in your local file that reads the current the Operation type and	
Operation Type:	○ <u>R</u> ead File					
	Write File					
	○ Synchronous	Read File				
	🔿 List Files					
Operation Name:	Write					
Help			< <u>B</u> ack	Next >	Einish Cancel	

- **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		2
	2	6
Type Explorer Project Schema Files Image: Signature State Signature State Image: Signature State		
	Canc	el

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.

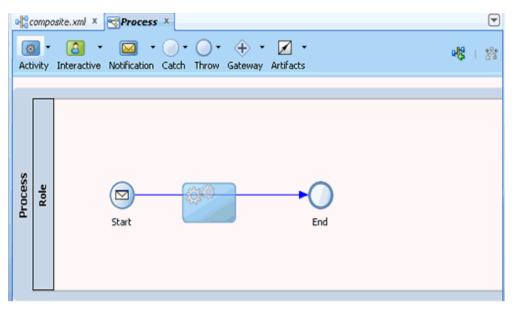
The File Adapter service is created in the External References pane.

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	OK 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 P	Properties -	ServiceTask	Dialog
---------------	--------------	-------------	--------

Properties - ServiceTask	×
Basic Implementation	
Implementation Type: 📷 Service task	-
Message Exchange	
Type: 😥 Service Call	-
Conversation: Default Advanced 	
Service Call	
Service: FileWrite	>
Operation: write	-
Image: Service Properties	
Help OK Ca	ancel

25. Click the **Data Associations** hyperlink.

The Data Associations dialog is displayed.

26. Right-click the **siebelMessage** argument on the right pane and select **XSL Transformation**, as shown in Figure 6–55.

Data Associations		Bu
Process □ Data Objects □ Data Objects □ Predefined Variables □ SOA	Drag objects here	Construct Task (Construction) Const
		+ × + +
From	То	
Validate target after assigning input data	a associations	OK Cancel

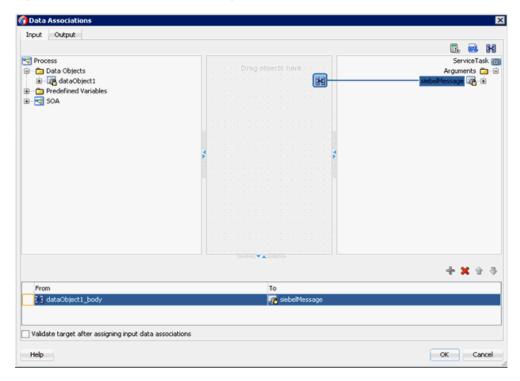
Figure 6–55 XSL Transformation

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.

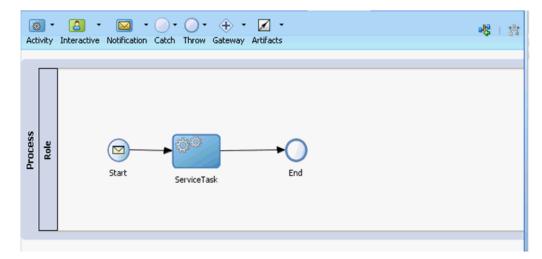
Figure 6–57 Completed Transformation

KSLT map 🔹 🗣 🔹 🎎	, 👒 🗟 🔽 I	Q Search XSLT	Map XSLT
<sources></sources>			xsl:stylesheet 🐰
Openation of the state of th		xsl:	template(match=/)
MessageId		ns0:	SiebelMessage 🚯 😑
MessageType			xsl:if 🍑 🕀
IntObjectName			xsl:if 🍑 🕀
IntObjectFormat			xsl:if 🍑 🕀
and location			xsl:if 🖉 🕀
[as] ns0:ListOfSampleAccount			xsl:if 🍑 💮
Variables			xsl:if 🍑 🕀

33. Save the transformation.

34. Return to the Process workspace area, as shown in Figure 6–58.





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 4-47. For more information on how to trigger events in Siebel, see Section 4.5.5.3, "Triggering an Event in Siebel 8.0 to Test Event Runtime Integration," on page 4-63.

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 Siebel 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\SIEBEL_Samples.zip\SIEBEL_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 4-74.

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 4-40.

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	Q
			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
		1	6	۵.
			MET	MQ
		$\langle \rangle$	MSHQ	100 REST
			N	(G)
			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:	$\label{eq:loss_linear} \fbox{\science} 2c_SOA\science s\science s\sc$	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:

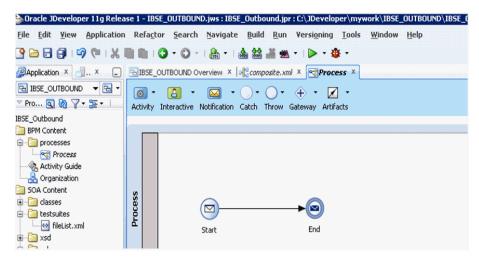
- **1.** Drag and drop the **BPMN Process** component from the Components pane in to the Components pane.
- **2.** Accept the default option that is selected under the Type area (Asynchronous Service) and click **Finish**, as shown in Figure 6–61.

Figure	6–61	Type Area	1
--------	------	-----------	---

🕜 Bi	MN 2.0 Process Wiza	rd		×
BPN	MN 2.0 Process W	izard		-
•	Definition	Name:	Process	۲
	Arguments Initial Implementation Advanced	Description:		٢
		Directory:	C:\WORK\mywork\BpmApplication3\IBSE_Outbound\SOA\processes	٩
		Asynci Create:	hronous Service s a process with an asynchronous interface definition Start End Start End	
		😪 Manual	Process	-
	Help		< Back Next > Einish Cancel	

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, queryWithView), and click **OK**, as shown in Figure 6–63.

👩 Br	owse Types	×
Find:		3
99E d	louble	-
999 d	lecimal	
🖄 d	lateTime	
999 lo	ong	
(€⇒) d	luration	
ы Р	ase64Binary	
99E fl	loat	
999 b	yte	
999 s	hort	
🖄 🕹	late	
🔯 ti	ime	
🧖 👰 A	adapterExceptionFault	
- 🙀 Q	QueryWithView	
🛛 🛃 Q	QueryWithViewResponse	
A 🕵 🔍	dapterexception	-
Types	.UrnIwaysoftwareIbseJul2003QueryWithView.QueryWithView	
He	elp OK Canc	el

Figure 6–63 Request Component

8. 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.

Delementation Type: Message lessage Exchange Type: Type Arguments Definition Arguments Definition Name argument1 QueryWithView Operation Name: operation Data Associations Message Headers Message Headers	roperties - Start ic Implementation				
ype:	elementation Type: 🙆 Me	ssage			_
ionversation: Default Advanced Define Interface Arguments Definition Name Type argument1 QueryWithView Operation Name: operation Data Associations Correlations Log Handlers	essage Exchange				
Define Interface Arguments Definition Name argument1 QueryWithView Operation Name: operation Data Associations Data Associations Image: Correlations Image: Definition	ype: 🛛 🙀 Define Ir	nterface			
Arguments Definition Name Type argument1 QueryWithView Operation Name: operation Data Associations Correlations	onversation: 💿 Default 🤇	Advanced			
Name Type argument1 QueryWithView Operation Name: operation Data Associations Correlations	Define Interface				
argument1 QueryWithView Operation Name: operation Data Associations Image: Correlations	Arguments Definition			÷.	/ %
Operation Name: operation	Name		Туре		
Data Associations E Log Handlers					
	argument1		QueryWithView		
	Operation Name: operation	n <u>Correlations</u>		Log Handlers	
	Operation Name: operation	n <u>Correlations</u>		Log Handlers	
	Operation Name: operation	n <u>Correlations</u>		Log Handlers	
	Operation Name: operation	n <u>Correlations</u>		Log Handlers	

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

Output		
Start Arguments Argument1 Process	Drag objects here	Process Process Predefined Variable projectInfo ProjectInfo

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, queryWithView) and click **OK**, as shown in Figure 6–66.

🕜 Browse Types	×
Find:	1
995 double	-
999 decimal	
🔯 dateTime	
999 long	
←→ duration	
iii base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
🖄 time	
AdapterExceptionFault	
Real QueryWithView	
Real QueryWithViewResponse	
Adapterexception	-
Types.UrnIwaysoftwareIbseJul2003QueryWithView.QueryWithView	
Help OK Can	cel

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 -	ServiceTask		X
Basic Implem	nentation		
Implementation	Type: 📷 Ser	vice task	•
Force comm	it after executio	n	
Message Exch	nange		
Type:	💓 Service (Tall	•
Conversation	: 💿 Default 🤇	Advanced	
-Service Call			
Service:			٩, 🏈
Operation:			
🕅 Data Assoc	iations	DD Correlations	Log Handlers
* Message H	eaders	Service Properties	
Help			OK Cancel

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.

O 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 1			

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, QueryWithViewResponse) and click **OK**, as shown in Figure 6–71.

😚 Browse Types	×
Find:	3
	-
999 decimal	
🖄 dateTime	
999 long	
♦ duration	
📓 base64Binary	
199E float	
999 byte	
999 short	
20 date	
20 time	
AdapterExceptionFault	
QueryWithView	_
2 QueryWithViewResponse	
Adapterexception	-
$\label{eq:constraint} Types. Urn Iways of tware Ibse Jul 2003 Query With View Response. Query With View Response Query $	nse
Help OK Cand	el

Figure 6–71 Response Component (QueryWithViewResponse)

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 **queryWithView** node, under the Arguments node in the right pane, as shown in Figure 6–72.

Figure 6–72 Data Associations

😚 Data Associations		×
Input Output		
		🗊. 🔜 N
Process Duba Objects Duba Object Duba Ob	Drag objects here	Ute en tra ServiceTask (g) Argunerts 🔤 🖻
Copy From: dataObject1	To: [queryWithView	0, + × ⊕ ⊕
From	To reading and the second sec	
Validate target after assigning input data associatio		OK Cancel

- **30.** Click on the **Output** tab and select **queryWithViewResponse** 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. 🖬 H
ServiceTask □ _ Arguments ⊕	Orag objects here	Process 🕄 Data Objects 🍙 🖶 dataObject 🖓 🕀 Predefined Variables 🍙 🕀 project.Info 😪 🕀
Copy From: queryWithViewResponse	e 📴 To: dataObject2	🖪 🕂 🗙 🕆 🕸
From	То	
💼 🌠 queryWithViewResponse	ataObject2	
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**.
- 3. 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.

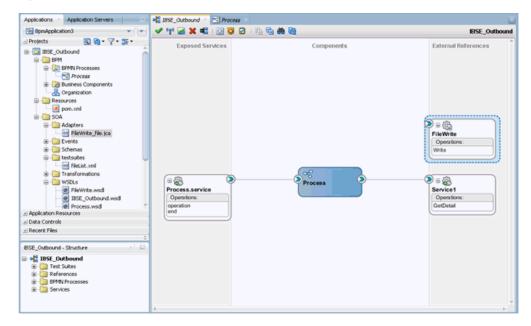
Figure 6–75 File Configuration Pane

FILE Adapter Configuration	Wizard - Step 5 of 7				
ile Configuration				1878.0	×->
pecify the parameters for the Wri	te File operation.				
irectory specified as	ysical Path 🛛 Logical Na	me			
irectory for Outgoing Files (physic					
::\output					Browse
le Naming Convention (po_%SEQ	(%.txt): IBSE_OUTBO				
Append to existing file					
Write to output file when any of I	these conditions are met—				
Number of Messages Equals:	1	-			
Elapsed Time Exceeds:	1	(Å) (V)	minutes	*	
File Size Exceeds:	1000	(kilobytes 💌		
I File Size Exceeds:	1.000		NIODYCES -]	
Help		< <u>B</u> ack	Next >	Einish	Cancel

The Messages pane is displayed.

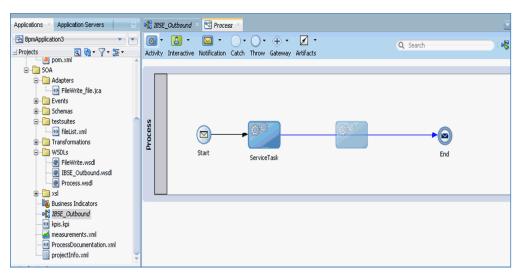
- 8. Click the Browse, which is located to the right of the URL field.
- **9.** In the displayed Type Chooser window, expand **Project WSDL Files**, **IBSE**_ **Outbound.wsdl**, **Inline Schemas** and then select **SiebelResponse**.
- 10. Click OK.
- 11. In the Messages pane, click Next.
- 12. In the 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	ОК	Cancel

20. In the Properties - ServiceTask1 window, click the **Data Associations** hyperlink, as shown in Figure 6–79.

Properties - ServiceTas Basic Implementation	k1	
Implementation Type: 🔞 S	ervice task	
Force commit after execu		
Message Exchange		
Type: 📀 Service	Call	•
Conversation: Default)
Service Call	0	
Service: FileWrite		۹. 🧳
Operation: write		
wite		
Data Associations	Di Correlations	Log Handlers
Message Headers	Service Properties	Log righters
I message meauers	E Service Propercies	
Help		OK Cancel

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 **queryWithViewResponse** node, as shown in Figure 6–80.

Figure 6–80 QueryWithView Node

Input Output		
		D. 🛋
 Process Toda Objects Toda Object1 Toda Object2 Todefined Variables Todefined Variables SOA 	Drag objects here	ServiceTaski Arguments QueryWithWe 😭 🖻 siebel 🚱 🛞
		+ X +
	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 Associations × Input Output 🖪 📾 H Process ServiceTask1 @3 🗟 - 🛅 Data Objects Arguments 🛅 🚊 Image dataObject1
 Image dataObject2 R **-**- 🕀 Predefined Variables 🗟 🚭 SOA + 🗙 🕆 🔅 From То 🛃 da 12 Validate target after assigning input data associations Help OK Cancel

Figure 6–81 Data Associations Window

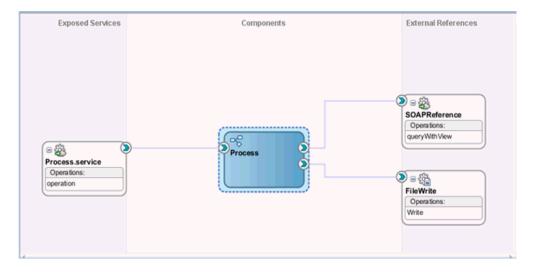
- **26.** In the Properties ServiceTask1 window, click **OK**.
- **27.** In the response_body.xsl tab, map the **ns0:queryWithViewResponse** source element to the **ns0:queryWithViewResponse** target element.
- **28.** In the displayed Auto Map Preferences window, retain the default values and click **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 an Outbound and Inbound Process for Oracle Service Bus Using sbconsole

Oracle Application Adapter for Siebel 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 sections:

- 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 Siebel 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\SIEBEL_Samples.zip\SIEBEL_Samples\OSB\J2CA\Siebel_ 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.

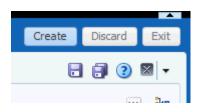
The Oracle Service Bus Console home page is displayed, as shown in Figure 7–1.

Figure 7–1 Oracle Service Bus Console Home Page

ORACLE' Service Bus Console	12c	Links 👻	Help 🕶	weblogic +	0
			Creat	te Discard	
۵	default x			8 8 3	. ⊠ -
Resources Admin	Project Definition				₩
	Image: Second secon	All Types Type Project	▼ Ac	tions	

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

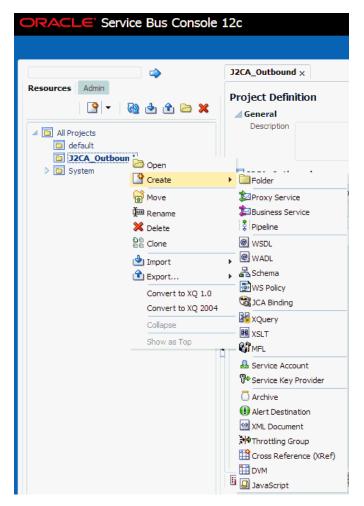
Create a new Project				
* Resource Name	J2CA_Outbound			
Description				
3		Create	Cancel	

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 Session 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 Siebel target.

For more information, see Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" on page 2-1.

- 2. Expand the Siebel target to which you are connected.
- 3. Expand Business Object, Account, and then Account.
- 4. Right-click the **queryWithView** 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.

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

- **5.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.
- 6. Select the Export to OSB option.
- **7.** 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 "/".

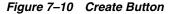
- **8.** In the Host field, enter the name of the machine where Oracle Service Bus is installed.
- 9. In the Port field, enter the port that is being used by Oracle Service Bus.
- **10.** In the User field, enter your username to access Oracle Service Bus.
- **11.** In the Password field, enter your password to access Oracle Service Bus.
- 12. Click OK.

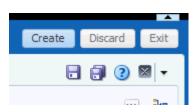
The WSDL is published to the location specified in the Export WSDL dialog and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

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
1	Folder	
😭 J2CA_Outbound_invoke	JCA Binding	2
J2CA_Outbound_invoke	WSDL	
J2CA_Outbound_invoke_request	Schema	
32CA_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 ar	nd Service			×
JCA Bi	nding Name	J2CA_Outbound_invoke		
*New	WSDL Name	J2CA_Outbound_invoke_wsdl		
* New Business Se	ervice Name	J2CA_Outbound_invoke_BS		
Destination				
View 👻 🖶 🕻	6			
🔺 🛅 All Projects				
🛅 default				
⊿ 🛅 J2CA_O				
	ness Servi			
	y Service			
🛄 Wsd	s			
			Conserts	Canaal
		l	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		
	🕒 🔻 🚯 🖕 🏦 🗁 🗙		
🔺 🛅 All Pro	ojects		
🛅 de	fault		
🔺 🛅 J2	CA_Outbound		
Business Service			
🝃 J2CA_Outbound_invoke_BS			
J2CA_Outbound_invoke_wsdl			
	Proxy Service		
4 🧰	Wsdls		
	😪 J2CA_Outbound_invoke		
J2CA_Outbound_invoke			
	J2CA_Outbound_invoke_request		
	J2CA_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.

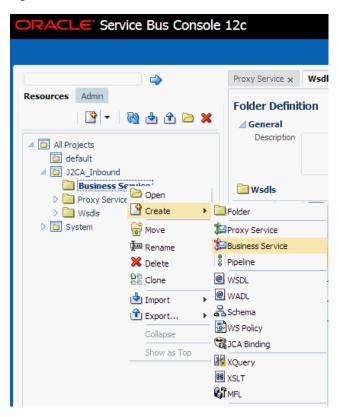


Figure 7–14 Business Service Folder

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 Business Service	×
Create Type Transport	
Create Service	
* Resource Name File_Out	
Description	
Service Definition	
WSDL Based Service	
Name	9
Path	
Port/Binding	
● Transport file ▼	
	Back Next Create Cancel

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	
WSDL Based Service	
Any SOAP Service	
Any XML Service	
Messaging Service	
Request Type XML 🔻	
Schema Name	Q
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.

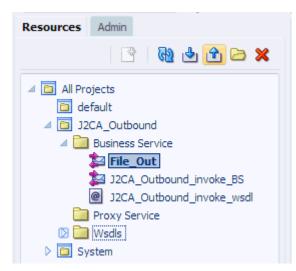
5. Click **Create**, as shown in Figure 7–17.

Create Business Service	×
Create Type Transport	
Transport	
Protocol file Load Balancing Algorithm Round Robin	
Endpoint URIs	
*URIs (file:///root-dir/dir 1)	
file:///c:/output	
Back Next Create Cancel	

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.

Figure 7–19 Trans	sport Detail
-------------------	--------------

Business Service Definition						
Configuration SLA Alert Ru	iles					
General	Transport Detail					
Transport	Prefix	outbound				
Transport Detail	Suffix	.xml				
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 Bus Console 12c				
Resources Admin				
	82 🕁 🔂 🖻	x		
 All Projects default j2CA_Inbound Business Ser File_Out File_Out Proxy Serv j2CA_Int j2CA_Int j2CA_Int j2CA_Int System 	Create Create Move Rename Delete Cone	Folder Folder Proxy Service Business Service Pipeline WSDL WSDL WADL Schema Schema WS Policy CA Binding		

The Create Pipeline window is displayed.

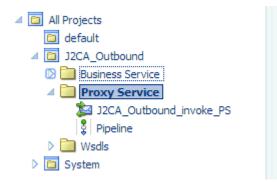
2. Enter a name in the Pipeline Name field. By default, **Expose as a Proxy Service** is selected. If you wish to change the Proxy Service Name, change it and set Transport as **file**, and click **Create** as shown in Figure 7–22.

Figure 7–22 Create Pipeline Window

Create Pipeline		×
General		
* Pipeline Name	Pipeline	
Description		
		/
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	V	
		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	n 🛛 😼 🕨	
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.

CA_Outbound_invoke_P	×			
Proxy Service Definition 🛛 4 🙀 🕨				
Configuration Security	SLA Alert Rules			
General	Transport Details - F	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		

Figure 7–25 Transport Details

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		() 💭	> 🚺 >-
Configuration SLA Alert Rule	1		Jpen Message Flow
General	General		
Service Type	CARD DOWN		
Message Handling			
Interest in the second second	Service Type	Anv 304. Service	1

7. Click the Proxy Service icon and select **Add Pipeline Pair** from the menu, as shown in Figure 7–28.

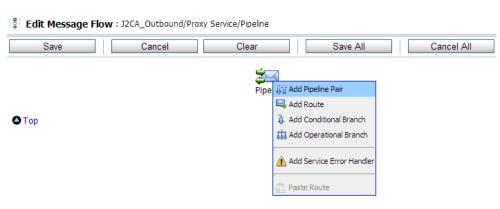


Figure 7–28 Add Pipeline Pair Option

8. Click the **PipelinePairNode1** icon and select **Add Route** from the menu, as shown in Figure 7–29.

Pipe	line
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

Pip	eline
Pipelinel	PairNode1
Request Pipeline	CC Response Pipeline
Route	Edit Route
	Add Route Error Handler
	Copy

The Edit Stage Configuration workspace area is displayed.

10. Click **Add an Action**, select **Communication** and click **Routing**, as shown in Figure 7–31.

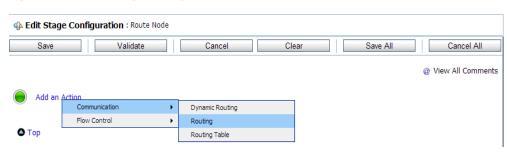


Figure 7–31 Edit Stage Configuration Workspace Area

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 Siebel and click on **Submit**, as shown in Figure 7–33.

Figure 7–33 Select Service Dialog

2	a Select Service				
X 9	Search: Name: Path: Path:	Search View All			
		Items 1-4	of 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		
	J2CA_Outbound_invoke_PS	J2CA_Outbound/Proxy Service	Proxy Service		
\bigcirc	Pipeline	J2CA_Outbound/Proxy Service	Pipeline		
		Items 1-4	of 4 🗐 🗐 1 🕨 🕅		
	Submit Cancel				

- **13.** Select the name of the Siebel business object (for example, queryWithView) 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.

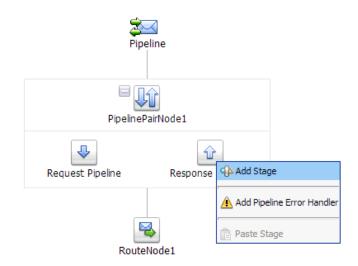
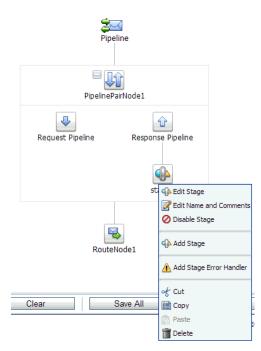


Figure 7–34 Response Pipeline Icon

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.

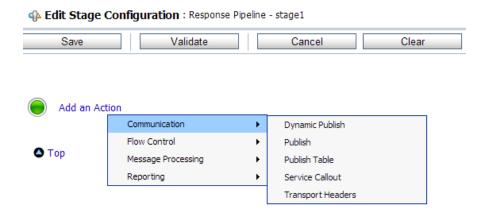


Figure 7–36 Edit Stage Configuration Workspace Area

17. Click **<Service>**, as shown in Figure 7–37.

Figure 7–37 <Service> Action

æ	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			
X 9	Search: Name: 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	
	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 [*]	
	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 Session Activation Session weblogic User 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\SIEBEL_Samples.zip\SIEBEL_Samples\OSB\J2CA\Siebel_
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, "Publishing a WSDL From Application Explorer to Oracle Service Bus"
- 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 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 Siebel target.

For more information, see Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" on page 2-1.

2. Create a Siebel channel.

For more information, see Section 4.5.1.1, "Creating a Channel" on page 4-34.

- **3.** Create an Integration Object Node. For more information see Section 4.5.1.2, "Creating an Integration Object Node" on page 4-37.
- 4. Right-click the created Integration node and select **Create Inbound JCA Service(Event)** from the menu.

The Export WSDL dialog is displayed, as shown in Figure 7–42.

Figure 7–42 Export WSDL Dialog

Export WSDL	X
Name	dapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Inbound_receive.wsdl Browse
Channel	NS_ch 🗨
Validation	Root
	Namespace
	Schema
✓ Export to OSB	1
Location	J2CA_Inbound/WsdIs
Host	localhost
Port	7001
User	weblogic
Password	•••••
	OK Cancel
	* You must create a separate channel for each inbound service

- **5.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.
- **6.** From the Channel list, select the channel you created for this inbound service.
- **7.** Three check boxes for Root, Namespace, and Schema validation are also available. Selection of multiple validation options is allowed.
- 8. Select the Export to OSB option.

9. 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 "/".

- **10.** In the Host field, enter the name of the machine where Oracle Service Bus is installed.
- **11.** In the Port field, enter the port that is being used by Oracle Service Bus.
- 12. In the User field, enter your username to access Oracle Service Bus.
- 13. In the Password field, enter your password to access Oracle Service Bus.
- 14. Click OK.

The inbound WSDL is published to the location specified in the Export WSDL dialog and is now available for use with a Proxy Service in Oracle Service Bus.

7.3.4 Configuring a WSDL-based Proxy 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 7–43.

Figure 7–43 Create Button



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 7–44.

Figure 7–44 Exported WSDL

	Wsdls		
Vie	w 🔻 💥 🛃 🖬 Detach		
		All Types 🔻	
	Name	Туре	Actions
	û	Folder	
	😭 J2CA_Inboundreceive	JCA Binding	2
	J2CA_Inbound_receive	WSDL	
	A J2CA_Inboundreceive_request	Schema	

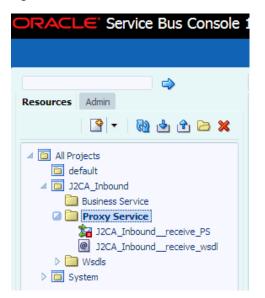
3. Click the icon that corresponds to the JCA Binding in the Actions column. The Generate WSDL and Service page is displayed, as shown in Figure 7–45.

1CA Binding Name		
s ar i bir i	J2CA_Inboundreceive	
* New WSDL Name	J2CA_Inboundreceive_wsdl	
New Proxy Service Name	J2CA_Inboundreceive_PS	
Destination		
View 👻 🖶		
All Projects		
🛅 default		
J2CA_Inbound		
Business Servi		
Proxy Servic	e	
📄 Wsdls		

Figure 7–45 Generate WSDL and Service Page

- **4.** Provide a new WSDL name and a new Proxy Service name in the corresponding fields.
- **5.** In the Destination area, select an available project and the sub-folder that is designated for Proxy Services.
- 6. Click Generate.
- **7.** Expand **Proxy Service** under Project Explorer and check if the generated WSDL and Proxy Service are listed, as shown in Figure 7–46.

Figure 7–46 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 7–47.

Figure 7–47 Business Service Folder

ORACLE' Service Bus Console 12c					
	4		Proxy Service \mathbf{x}	Wsd	
Resources Admin	🕲 🕁 🛍 🗁 🎗	×	Folder Definit	ion	
 All Projects default J2CA_Inbound 	1		Description		
Business	Semico		🗋 Wsdls		
▷ 🚞 Wsdls	20	•	Folder		
D 🗈 System	😭 Move	2	Proxy Service		
	👰 Rename	Þ	Business Service		
	🔀 Delete	Ş	Pipeline		
	<u> 1</u> 월 100 Clone	@	WSDL		
	💾 Import 🛛	@	WADL		
	🟦 Export		Schema		
	Collapse	-	WS Policy		
	Show as Top		JCA Binding		
		- 22	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 7–48.

Figure 7–48 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.

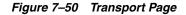
4. In the Service Type area, select **Messaging Service** as the service type, as shown in Figure 7–49.

Create Business Service Create Type Transport Service Type WSDL Based Service Any SOAP Service Any XML Service Messaging Service Back Next Create Cancel

Figure 7–49 Service Type Area

5. Click Next.

The Transport page is displayed, as shown in Figure 7–50.



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	<u>.</u>

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 7–51.

Figure 7–51 File_Out Business Service

ORACL	E Service	Bus Console 1				
		~				
Resources	Admin					
	ි 🔂 🛛	🖢 🟦 🗁 🗶				
🔺 🛅 All Pro	ojects					
🛅 de	fault					
🔺 🛅 J2	CA_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 7–52.

Figure 7–52 Transport Detail Page

File_Out ×						
Business Service Definition						
Configuration SLA Alert Ru	les					
General Transport	Transport Detail	inbound				
Transport Detail	Suffix	.xml				
Message Handling Performance	Request encoding	utf-8				

8. Click the Save or Save All icon in the right corner, as shown in Figure 7–53.



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 7–54.

Figure 7–54 Pipeline Option

ORACLE Service Bus Console 12c				
□ □ □ □ □ □	•			
Resources Admin				
🕒 🕶 🖓	🟦 🗁 🗙			
All Projects				
🔯 default				
J2CA_Inbound				
File_Out				
Proxy Service				
J2CA_Int 🖾 Oper				
J2CA_Int Crea				
D 🔄 Wsdls 🔐 Move	e 🔊 Proxy Service			
D 🖸 System	me 🐉 Business Service			
🗙 Delet	e Pipeline			
ଥି ରି ଶୁକ୍ର Clone	e 🛛 🔍 WSDL			
🕒 Impo	rt 🕨 @ WADL			
Expo				
	WS Policy			
	😪 JCA Binding			
	XOuerv			

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 7–55.

Figure 7–55 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 7–56.

Figure 7–56 Search and Select: WSDL Resource Window

Search and Select: \	WSDL Resource				×
Name					
Path					
Namespace					
				Search	Reset
Name	Pa	th		Namespace	
J2CA_Inboundrec	eive_wsdl J2	CA_Inbound/Proxy	Service	http://xmlns	oracle
J2CA_Inboundrec	eive J2	CA_Inbound/Wsdls		http://xmlns	oracle
				ОКС	ancel

The Create Pipeline window opens.

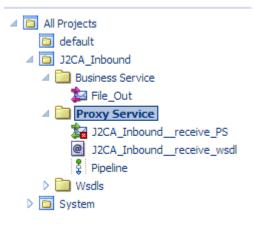
4. Clear the check box for **Expose as a Proxy Service**, and click **Create**, as shown in Figure 7–57.

Create Pipeline		×
General		
* Pipeline Name	Pipeline	
Description		li.
Service Type		
WSDL Base	ed Service	
Name	a J2CA_Inboundreceive_wsdl	<u> </u>
Pat	h J2CA_Inbound/Proxy Service	
Binding	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	p ▼	
		Create Cancel

Figure 7–57 Create Pipeline Window

The pipeline is created and listed under Proxy Service, as shown in Figure 7–58.

Figure 7–58 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 7–59.

Figure 7–59 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 7–60.

Figure 7–60 Search and Select: Service Resource Window

Search and Sele	ect: Service Resource	×
⊿ 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 7–61.

Figure 7–61 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 7–62.

Figure 7–62 Message Flow

□ ↓		Pipeline x			- 🗊 💿 🛛 🔻
Resources Admin) 🗅 X	Pipeline Definit			() 🖓 №
⊿ 🔁 All Projects		General		Service Type	
 ✓ 3 J2CA_Inbound > → Business Service ✓ → Proxy Service 		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 ▼)	
 Wsdls System 				O Any SOAP Service	

10. Click the displayed Proxy service icon and select **Add Route** from the menu, as shown in Figure 7–63.

Figure 7–63 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 7–64.

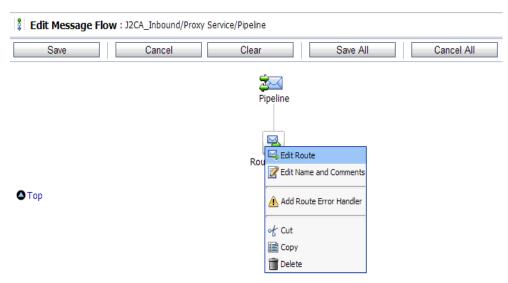


Figure 7–64 Edit Route Option

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 7–65.

Figure 7–65 Edit Stage Configuration Workspace

Edit Stage Configuration : Route Node						
Validate		Cancel	Clear		Save All	Cancel All
Artion						@ View All Comments
Communication	•	Dynamic Routing				
Flow Control	•	Routing				
		Routing Table				
	Action Communication	Action Communication	Validate Cancel Action Dynamic Routing Flow Control Routing	Validate Cancel Clear Action Oynamic Routing Flow Control Routing	Validate Cancel Clear Action Oynamic Routing Flow Control Routing	Validate Cancel Clear Save All Action Organic Routing Flow Control Routing

13. Click **<Service>**, as shown in Figure 7–66.

Figure 7–66 Service Route Actions

1

les e	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 7–67.

Figure 7–67 Select Service Dialog

23	Search: Name: Path:	Search View All	
		Items 1-3 of 3	3 1 1 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	3 🗐 🗐 1 🕨 🕅

You are returned to the Edit Stage Configuration workspace area.

15. Click Save All, as shown inFigure 7–68.

Figure 7–68 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 7–69.

Figure 7–69 Activate Button

Help - we	blogic 🗸	0
Activate	Discard	Exit
	1 🗐 📀	X

The Confirm Session Activation window appears.

17. Click Activate to save the changes, as shown in Figure 7–70.



Figure 7–70 Confirm Session Activation Window

18. Trigger an event from the Siebel 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 Siebel" on page 4-48.

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\SIEBEL_Samples.zip\SIEBEL_Samples\OSB\BSE\Siebel_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 Siebel target.

le <u>O</u> ptions <u>H</u> elp					
nfigurations	📸 Detail	🔠 Request Sch	ema	🖺 Response Schema	
IBSE					
Adapters BDEdwards	Business O	bject Repository	BAPI_	COMPANYCODE_GETDET	TAIL
- B MySAP	Description		0	anu Oada Dataila	
	Description		Comp	oany Code Details	
- 🔄 Business Object Reposit	Business O	bject	Comp	anyCode	
– 🛅 Cross-Application Co 🗮					
- 📑 Enterprise Portal			GetDetail		
- 🔄 SAP NetWeaver Mast					
- 📑 Accounting - General • 📑 Financial Accounting					
- S CompanyCode					
- 🧭 GetList					
🕈 🧭 GetDetai		7			
- COM Help					
COM Test R	an				
RET Export	t Schema(s)				
	Web Service				
GetPerio	Filter	-			
BusinessAre Apply	Filler				
- 💕 Company					

Figure 7–71 Create Web Service Option

- **2.** Expand the **Business Object Repository** node, **Financial Accounting** node, and the **CompanyCode** business object.
- **3.** Right-click the **GetDetail** method and select **Create Web Service** from the menu, as shown in Figure 7–71.

The Create Web Service dialog is displayed, as shown in Figure 7–72.

Figure 7–72 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 7–73.

Figure 7–73 Export WSDL Dialog

Name	BSE_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 7–74.

reate Business Se	rvice		×
Create Type	Transport		
create Type	manaport		
Create Service			
* Resource Name	BSE_Outbound_BS		
Description			
Service Definition	on		
💽 WSDL Based S	ervice		
Nam	e		
Pat	_		
Port/Bindin	⊒ 💌		
O Transport	to 🔻		
@	φ)		
		Back Next Create	Cancel

Figure 7–74 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 7–75.

Figure 7–75 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.

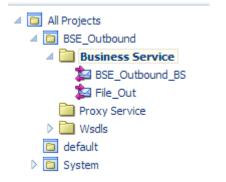
- 4. Click Next.
- 5. Accept the default values and click the Create button, as shown in Figure 7–76.

Create Business Service	×
Create Type Transport	
Transport	
Endpoint URIs	
* URIs (http://host:port/someService) http://localhost:7101/ibse/IBSEServlet/XDSOAPRouter	
Back Next Create Canc	a

Figure 7–76 Create Business Service Window

The created WSDL-based Business Service is listed under the Business Service folder, as shown in Figure 7–77.





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 7–78.

All Projects			Description
A D BSE_Outbound	ł		
👂 🚞 Business Se	ervice		
Proxy Ser	Dpen	1	🛄 Wsdls
D default	Create 🕨 🕨	ĒF	older
👂 🛅 System	💣 Move	ŻЭР	roxy Service
	👰 Rename	₿	usiness Service
	X Delete	S P	ipeline
	신음 음음 Clone	Øv	VSDL d
	🔄 Import 🔹 🕨	Øv	VADL
	Export ▶	å۵	chema
	Collapse	₫۷	VS Policy
	Show as Top	ີ 🖏 ເ	CA Binding

Figure 7–78 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 7–79.

Figure 7–79 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	•		
		Create	Cancel

The created Pipeline and the Proxy Service is listed under Proxy Service, as shown in Figure 7–80.

Figure 7–80 Pipeline Node

⊿ 🛅 All Projects
BSE_Outbound
Business Service
Proxy Service
BSE_Outbound_invoke_PS
🕴 Pipeline
Wsdls
🛅 default
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 7–81.

Figure 7–81 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 7–82.

-		
J2CA_Outbound_invoke_PS	×	
Proxy Service Definition	n 🛛 🔯 🕨	
Configuration Security !	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

Figure 7–82 Transport Details

5. Click the Save All icon in the right corner, as shown in Figure 7–83.

Figure 7–83 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 7–84.

Figure 7–84 Open Message Flow Icon

Pipeline Definition		۵ 🚯	a 🛛 💽 🛏 📗
Configuration SLA Alert Rule			Open Message Flow
General	General		
Service Type Message Handling	Unseption		100 100 100 100
	Service Type	Anv 39t. Service	

7. Click the Proxy Service icon and select **Add Pipeline Pair** from the menu, as shown in Figure 7–85.

Bdit Message Flow : J2CA_Outbound/Proxy Service/Pipeline	
Save Cancel Clear	Save All Cancel All
₽ipe	Add Pipeline Pair Add Route Add Conditional Branch Add Operational Branch Add Service Error Handler Paste Route

Figure 7–85 Add Pipeline Pair Option

8. Click the **PipelinePairNode1** icon and select **Add Route** from the menu, as shown in Figure 7–86.



Pipeline			
PipelinePa	Edit Name and Comments		
Request Pipeline	Add Pipeline Pair Add Route Add Conditional Branch Add Conditional Branch		
	Add Operational Branch		

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 7–87.

Pipeline				
Pipeline	PairNode1			
Request Pipeline	Response Pipeline			
Rout	Edit Route			
	o∱ Cut Copy ፹ Delete			

Figure 7–87 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 7–88.

Figure 7–88 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 7–89.

Figure 7–89 Actions

😪 [@]	Route to <service>*</service>
	Request Actions:
	Add an Action
	Response Actions:
	Add an Action

The Select Service dialog is displayed.

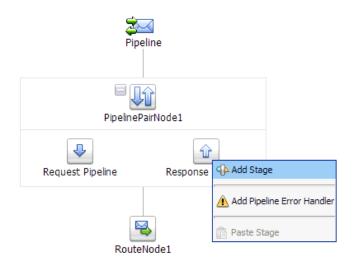
12. Select the WSDL type Business Service configured for Siebel and click on **Submit**, as shown in Figure 7–90.

Figure 7–90 Select Service Dialog

\$	a Select Service					
<u>i</u>	Search: Name: Path: Path:	Search	View All			
	Items 1-4 of 4 1 4 1 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 Siebel business object (for example, queryWithView) 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 7–91.

Figure 7–91 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 7–92.

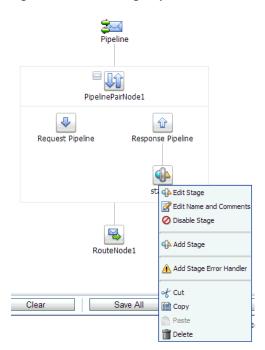
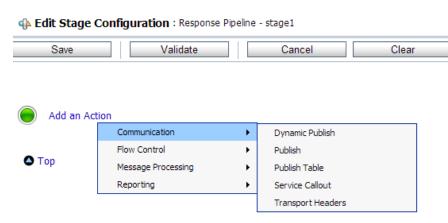


Figure 7–92 Edit Stage Option

The Edit Stage Configuration workspace area is displayed.

16. Click **Add an Action**, select **Communication**, and then click **Publish**, as shown in Figure 7–93.

Figure 7–93 Edit Stage Configuration Workspace Area



17. Click **<Service>**, as shown in Figure 7–94.

Figure 7–94 <Service> Action

8	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 7–95.

Figure 7–95 Select Service Dialog

2	🝃 Select Service						
23 :	Search: Name: Path: Path:	Search	View All				
			Items 1-4 of 4				
	Name 🛆	Path		Resource Type			
\odot	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				
	Submit Cancel						

19. Click **Save All**, as shown in Figure 7–96.

Figure 7–96 Save All Button

Save	Validate	Cancel	Clear	Save All	Cancel All
					@ View
*	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 7–97.

Figure 7–97 Activate Button



21. Click Activate to save the changes, as shown in Figure 7–98.

Confirm Session Activation		×
Session	weblogic weblogic	
Description		
	Activate Cancel	

Figure 7–98 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".

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".

3. Open the Service Bus Console page, as shown in Figure 7–99.

Figure 7–99 Service Bus Console

ORACLE' Serv	vice Bus 11gR1			^				
Change Center	Welcome, weblogic Cor	nnected to : bas	ase_domain Whome Oracle WLS Console Logout Help Oracle Su					
 View Changes View All Sessions 	Carl Adapter/BusinessService							
Create Discord Ext.	References	0	Description - no description -					
Project Explorer	Referenced By	0	Edit Description					
Projects Adapter BusinessService	C [®] Folders							
ProxyService wsdis	Enter New Folder Na	me:	Add Folder					
🗄- default			I	t				
	Name 🛆							
			No Folders to display.					
			I	t				
	Delete							
				~				

4. Select the ProxyService project folder in the left pane, and click **Create**, as shown in Figure 7–100.

Figure 7–100 Proxy Service

View Changes								
View All Sessions	C Adapter/ProxyService							
Create Docard Etc	References	0	Description - no description -					
Project Explorer Projects	Referenced By	0	Edit Description					
🖻 - Adapter	😂 Folders							
- ProxyService wsdis	Enter New Folder Na	ime:	Add Folder					
🖻- default			1					
	Name 🛆							
	No Folders to display.							
			[
	Delete							
	Sesources							
Project Explorer Projects → Adapter → BusinessService → ProxyService	Create Resource: Select Resource Type							
	я 🖬							

5. In the right pane, select **Proxy Service** from the Create Resource list, as shown in Figure 7–101.

Figure 7–101 Create Resource Menu

Coracle Service Bus : Adapter/ProxyS	ervice			🔂 🔹	🔊 🕆 🖃 👹 🔻 Page 🕶	Safety - Tools -	•9
Change Center P	Trecomer trebiogre	connected to . pase_aom		a nome ; order	e mes console ; cogoue	1 nop 1 or	acie oc
weblogic session				weblogic session	Created 5/5/11 6:25 AM	No Conflicts	No C
No Conflicts				`			
View Changes	😂 Adapter/Pro	oxyService					
View All Sessions	References	Select Resource Type Service	tion				
Activate Discard Exit	References	Proxy Service	ript	ion -			
Project Explorer	Referenced By	Business Service Split-Join	Des	cription			
rojects Adapter	🗳 Folders	Interface WSDL XML Schema					
BusinessService ProxyService	▷ Enter New Fold				Add Folder		
- wsdls		Transformation XQuery					
	Name 🗠	XSLT MFL File					
		Security Service Account Service Key Provider		No Folder	rs to display.		
		Utility JAR					1
	Delete	Alert Destination XML Document					
	🔓 Resources	Bulk Resources from URL Zipped Resources					
	Create Resour		~				

6. Enter an appropriate name in the Service Name field, as shown in Figure 7–102.

weblogic session			weblogic session	Created 5/5/11 9:25 AM	No Conflicts
 No Conflicts 					· · · · ·
 View Changes View All Sessions 	🍃 💱 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- 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 7–102 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 7–103.

Figure 7–103 Business Service

hanges	🝃 Create a Proxy Servi	ice (Adapter/ProxyService/)
Discard Exit	General Configuration	
	Service Name*	Adapter_outbound_PS
Explorer essService	Description	
yService	Service Type*	Create a New Service WSDL Web Service Browse (port or binding) (port or binding) Transport Typed Service Any SOAP Service Any XML Service SOAP 1.1 • Create From Existing Service Create From Existing Service
		Business Service Browse Browse
	Next >>	Last >> Cancel

8. Select the existing business service and click **Submit**, as shown in Figure 7–104.

Figure 7–104 Existing Business Service

Search: 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	
	Submit Cancel		

9. Click **Next**, as shown in Figure 7–105.

Figure 7–105 Next

hanges	🍃 Create a Proxy Servic	e (Adapter/ProxyService	/)	
Discard Exit	General Configuration			
	Service Name*	Adapter_outbound_PS		
Explorer essService	Description		<u>~</u>	
yService	Service Type*	Create a New Service WSDL Web Service Transport Typed Service Messaging Service Any SOAP Service Any XML Service Create From Existing Service	SOAP 1.1 •	Browse (port or binding)
		Business Service Proxy Service	Adapter/BusinessService/adapter_outbound_8	Browse Browse
	Next >>	Last >> C	ancel	

10. Select jms from the Protocol list and click Next, as shown in Figure 7–106.

Figure 7–106 Pro	otocol	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		
	Protocol*	jms 💌		
roject Explorer jects	Endpoint URI*	Format: jms://((host:port)(,(host:port)) ⁴) ((host:port)?)/FactoryIndName/QueueIn jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adapter_outbound_PSRequest		
Adapter BusinessService ProxyService wsdis 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 7–107.
 - 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 7–107 Edit a Proxy Service

🏂 Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
JMS Transport Configuration			
Destination Type	C Queue C Topic		
Is Response Required	E		
Response Pattern	 JMSCorrelationID JMSMessageID 		
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			
<< Prev. Next >> Last >> Cancel			

12. Click Next.

The Operation Selection Configuration pane appears, as shown in Figure 7–108.

Figure 7–108	Operation	Selection	Configuration	Pane

Operation Selection Configuration		
Selection Algorithm	 Transport Header SOAPAction Header WS-Addressing SOAP Header SOAP Body Type 	
C Top	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 7–109.

Figure 7–109 Message Handling

Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
Message Handling			
Transaction Required	✓ Enabled		
Same Transaction For Response	Enabled		
Content Streaming	 Enabled Buffer Type Memory Buffer Disk Buffer Compression Enabled 		
<< Prev. Next >>	Last >> Cancel		

15. Click **Save**, as shown in Figure 7–110.

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		6.	
Transaction Required	Enabled		
Same Transaction For Response	Disabled		
Content Streaming	Disabled		
<< Prev. Save	<< Prev. Save Cancel		

Figure 7–110 Save

The created Proxy Service is saved, as shown in Figure 7–111.

Figure 7–111 Proxy Service

Projects - Adapter - BusinessService - ProxyService wsdls - default	Solders		
	Enter New Folder Name: Add Folder		
			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
	П Name 🛆	Resource Type	Actions
Operations	T 🖕 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 7–112.

Figure 7–112 Activate Session

vehice is session					r
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 7–113.

Figure 7–113 Adapter/ProxyService

View Changes									
View All Sessions	😂 Adapter/ProxyService								
Create Discord Exit	References	0	Description - no description -						
Project Explorer	Referenced By	0	Edit Description						
Projects Adapter BusinessService ProxyService wsdls B- default	➢ Folders➢ Enter New Folder Name	:	Add Folder,						
	Name 🛆								

18. Click the **Launch Test Console** icon for the created Proxy Service, as shown in Figure 7–114.

Figure 7–114 Launch Test Console Icon

🖁 Resources							
Create Resource: Select Resource Type							
			Items 1-1 of 1	1			
	Name 🛆	Resource Type	Actions	Option			
Π	Adapter_outbound_PS	Proxy Service	🕴 🏇 🗳	aje 🔐 💱			
			Iten Launch Test C	onsole 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 7–115.

Figure 7–115	ProxyService
--------------	--------------

.∈ [.] Servi	ce Bus 11gR1										
	Welcome, weblogic Connect	ed to : base	_domain	🟠 Home	Oracle WKS Console	Logout	Help	Oracle Support	About Service Bus		
ms	Sopen Oracle WLS Console										
d Exit	References	30 Ref(s)	Description								
er	Referenced By	0		scription							
	😂 Folders								🕆 Up to MYSAP		
	▷ Enter New Folder Name:				Add Folder						
rvice e								Items 0-	0 of 0 🛛 🔄 🖉 🕑		
	Name 🛆								Options		
				١	No Folders to display.						
								Items 0-	D of 0 🛛 🔄 🖉 🕑		
	Delete										
	8 Resources										
	Create Resource: Select	Resource Ty	/pe 💌								

22. In the Oracle WLS Console, expand **Services**, expand **Messaging**, and click **JMS Modules**, as shown in Figure 7–116.

Figure 7–116 Oracle WLS Console

	ORACLE WebLogic Server® Administration Console											
Change Center		ሰ н	🏦 Home Log Out Preferences 🖾 Record Help									
View changes and restarts		Hom	Home >Summary of Deployments									
Click the Lock & Edit button to modify, add delete items in this domain.	d or	Summ	ary of Deployments									
Lock & Edit		Cont	rol Monitoring									
Release Configuration		app	page displays a list of Jav lications and modules can b using the controls on this p	be started, stopped, up								
base_domain Environment Deployments	1	To install a new application or module for deployment to targets in this domain, click the Install button.										
E-Services			tomize this table									
Store-and-Forward Agents <u>UMS Modules</u> Path Services			loyments stall Update Delet	te Start v Stop	Y			Showing 1 to 100	of 112 Previous Next			
Bridges	G		Name 🐟			State	Health	Туре	Deployment Order			
Data Sources Persistent Stores			madf.oracle.businessed	ditor(1.0,11.1.1.2.0)		Active		Library	100			
Foreign JNDI Providers	-	Г	adf.oracle.domain(1.0	0,11.1.1.2.0)		Active		Library	100			
How do I			et adf.oracle.domain.we	ebapp(1.0,11.1.1.2.0)		Active		Library	100			
Install an Enterprise application			E CALDSP Transport Provider Active VOK Web Application 161									
Configure an Enterprise application			Maldsp_transport-l10n((3.0,3.0)		Active		Library	160 Recorder Panel			

23. Click **jmsResources**, as shown in Figure 7–117.

Figure 7–117 JMS Modules

ORACLE WebLogic Server®	Administration Console	Q
Change Center	Home Log Out Preferences Record Help Home >Summary of Deployments >JMS Modules	Welcome, weblogic Connected to: base_domain
View changes and restarts Click the Lock & Edit button to modify, add or delete items in this domain. Lock & Edit Release Configuration	JMS Modules JMS system resources are configured and stored as modules similar to standard J2EE mo connection factories, templates, destination keys, quota, distributed queues, distributed (SAF) parameters. You can administratively configure and manage JMS system modules.	topics, foreign servers, and JMS store-and-forward
Domain Structure base_domain P Environment	This page summarizes the JMS system modules that have been created for this domain.	
	JMS Modules Click the <i>Lock & Edit</i> button in the Change Center to activate all the buttons on this page	je.
	New Delete	Showing 1 to 2 of 2 Previous Next
Pridges Data Sources Persistent Stores Foreign JNDI Providers	□ Name ↔ □ jnsResources □ WseeJnsModule	Type System System
How do I	New Delete	Showing 1 to 2 of 2 Previous Next

24. Click Lock & Edit, as shown in Figure 7–118.

Figure 7–118 Configuration Settings

ORACLE WebLogic Server®	Administration Console					õ					
Change Center	A Home Log Out Prefere	🏦 Home Log Out Preferences 🖾 Record Help 📃 🔍 Welcome, weblogic Connected to: base_domain									
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	loyments Targets Secu	ity Notes								
Release Configuration	This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.										
base_domain	Name:	jmsResource:		The	name of this JMS system module.	More Info					
⊡Deployments ⊖-Services ⊕-Messaging	Descriptor File Name:	Descriptor File Name: jms/xbusResources-jms			name of the JMS module descripto	r file. More					
					e, including queue and topic destin stinations, foreign servers, and s						
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 16 Previous Next										
Configure subdeployments in JMS system	□ Name Recorder Panel Recorder Panel										

25. Click the appropriate request link, for example, **Adapter_outbound_PSRequest**, as shown in Figure 7–119.

How do I	Summary of Resources							
Configure JMS system modules	Ne	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 7–119 Adapter_outbound_PSRequest

- **26.** Click the **Monitoring** tab, as shown in Figure 7–120.
- Figure 7–120 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 > Adapter_outbound_P5Request-1531625329
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 7–121.

Figure 7–121 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 >Adapter_outbound_PSRequest-1531625329									
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	This	page summ tomize this		ve JMS di	estinations			-		ver.
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 7–122.

Figure 7–122 JMS Messages

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Summary of JMS Messages							
Lock & Edit Release Configuration Domain Structure	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 ↓ Messaging	Message Selector:	Apply						
Store-and-Forward Agents JMS Modules	🖗 Customize this table							
Path Services	JMS Messages (Filtered - More Columns Exist)							
Data Sources	New Delete V Move V Import Export V	Showing 1 to 0 of 0 Previous Next						
Foreign JNDI ProvidersWork Contexts	🔽 ID 🔅 CorrId Time Stamp State String	JMS Delivery Mode Message Size						
	There are no items to	There are no items to display						
• Manage queue messages	New Delete v Import Export v Showing 1 to 0 of 0 Previous I Next Recorder Panel Recorder Panel Recorder Panel Recorder Panel Recorder Panel							

29. Provide the input payload in the **Body** field and click **OK**.

A Success message appears, as shown in Figure 7–123.

Figure 7	-123	JMS	Success	Message
----------	------	-----	---------	---------

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 he domain.	Home >Adapter_outbound_BSRequest412119836 >JMS Modules >jmsResources >placeholder >Adapter_outbound_PSRequest- 1531625329 >placeholder >JMS Modules >jmsResources >Adapter_outbound_PSRequest-1531625329 > Summary of JMS Messages
Lock & Edit Release Configuration	Messages Value Message sent successfully.
	Summary of JMS Messages
omain Structure	
se_domain "Environment "Deployments "Services "Intersaging "IMS 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 XML format to another file, import XML 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 7–124.

Figure 7–124 JMS Modules

	ministration Console	Q
Change Center	🏦 Home Log Out Preferences 🖾 Record Help	to: base_domain
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	This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Inst applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the applic and using the controls on this page.	
base_domain ▲ ⊕ Environment ← Opployments ⊖ Services ⊖ Messaging ↓ → MS Servers	To install a new application or module for deployment to targets in this domain, click the Install button. Customize this table Deployments	
Store-and-Forward Agents	Install Update Delete Start Stop Showing 1 to 100 of 112 P	revious Next
Path Services ⊕-Bridges	□ Name ↔ State Health Type Deploy	ment Order
Data Sources Persistent Stores	T Carlo Control Contro	
Foreign JNDI ProvidersWork Contexts	Image: Control of the state of the	
How do I	C Carlo Content Conten	
Install an Enterprise application	□ 🗄	
Configure an Enterprise application	□ ▲aldsp_transport-110n(3.0,3.0) Active Library 160	corder Panel

31. Click **jmsResources**, as shown in Figure 7–125.

Figure 7–125 jmsResources

	Administration Console	Ď
Change Center	🏠 Home Log Out Preferences 🚵 Record Help	Welcome, weblogic Connected to: base_domain
View changes and restarts	Home >Summary of Deployments >JMS Modules	
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 mo connection factories, templates, destination keys, quota, distributed queues, distributed (SAF) parameters. You can administratively configure and manage JMS system modules a This page summarizes the JMS system modules that have been created for this domain.	topics, foreign servers, and JMS store-and-forward
Domain Structure base_domain	This page summarizes the JPD system mounes that have been treated for this domain.	
Environment Deployments		
D-Services	JM5 Modules	
	Click the Lock & Edit button in the Change Center to activate all the buttons on this page	je.
Store-and-Forward Agents	New Delete	Showing 1 to 2 of 2 Previous Next
Path Services ⊡rBridges	🗖 Name 🗞	Туре
Data Sources	jmsResources	System
Persistent Stores	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 7–126.

Figure 7–126 Summary of Resources

🔆 Favorites 🛛 🚖 🏀 Suggested Sites 👻 🙋 Web Slice G	allery 🔻						
Settings for jmsResources - base_domain - WLS Console			📩 • 🖻	🕽 👻 🚍 🔹 Page 🔹 Safety 👻 Tools 🕶 🍕			
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			
		wli.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			
	Ne	Delete	(Showing 1 to 10 of 14 Previous Next			

33. Click the **Monitoring** tab, as shown in Figure 7–127.

Figure	7–127	Monitoring	Tab
--------	-------	------------	-----

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Modules >jmsReso	r >Adapter_outbound_ urces >Adapter_outbo urces > Adapter_out	und_PSRequest-:	153162532	9 >Summary		ages >JMS
Lock & Edit	Settings for Ada	pter_outbound_P	SResponse20	156684	17		
Release Configuration	Configuration	Monitoring Con	trol Security	Subde	eployment	Notes	
Domain Structure	General Thre	sholds and Quotas	Overrides	Logging	Delivery F	ailure	
base_domain	Save						
Deployments 		o define the genera es as they arrive on		parameter	rs for this qu	ieue, such	as selecting a destination key for
Store-and-Forward AgentsJMS ModulesPath Services	街 Name: Ada	pter_outbound_PSR	esponse201566	58417			The name of this JMS queue. More Info
Bridges Data Sources Persistent Stores Foreign JNDI Providers	JNDI Ad	apter_outbound_	PSResponse)			The global JNDI name used to look up the destination within the JNDI namespace. More Info
How do I Configure queues Configure 105 terministes	Template: No	ne 💌	1				The JMS template from which the destination is derived. A template provides an efficient means of defining multiple destinations with similar configuration values. More

34. Enable the check box and click **Show Messages**, as shown in Figure 7–128.

Figure 7–128 Destination Messages

Change Center	Home L	og Out Preferenc	es 🚵 Rea	ord Help			Q		
View changes and restarts						Welcon	ne, weblogia	Connected	to: base_dom
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Modules >jms	holder >Adapter_out Resources >Adapter Resources > Adapte	_outbound_{	PSRequest-15	531625329 >5	ummary of JM	5 Messages >J	MS	
Lock & Edit	Settings for	Adapter_outbo	und_PSRe	sponse201	5668417				
Release Configuration	Configuratio	n Monitoring	Control	Security	Subdeploy	ment Not	es		
9 Environment **Deployments 9 Services		summarizes the ac	tive JMS de	stinations tł	hat have bee	n created fo	r this JMS m	odule.	
ase_domain = Environment — Deployments = Services — Messaging — JMS Servers — Store-and-Forward Agents — JMS Modules — "Path Services	Customiz	e this table ns (Filtered - Mo			hat have bee	n created fo		odule. L to 1 of 1 Pr	evious Next
Environment Toployments Services Messaging Mis Servers Store-and-Forward Agents Mis Modules	Customize	e this table ns (Filtered - Mo ssages			Messages Current	n created fo Messages Pending			evious Next Consumers High
 Environment Services Messaing "JMS Servers "Store-and-Forward Agents "JMS Modules "Path Services Bridges Data Sources "Persistent Stores "Foreign JNDI Providers 	Customiz Destinatio Show Mer	e this table ns (Filtered - Mo ssages	re Column	s Exist)	Messages	Messages	Showing 1 Messages	to 1 of 1 Pr	Consumers
Environment Toppoyments Services Messaging ""JNS Serviers "Store-and-Forward Agents "JNS Modules ""Path Services E" Bridges "Data Sources ""Persistent Stores	Customiz Destinatio Show Mer	e this table ns (Filtered - Mo ssages e & sources! er_outbound_PSF	re Column	s Exist)	Messages	Messages Pending	Showing 3 Messages Total 1	to 1 of 1 Pr Consumers Current	Consumers High

35. Click the **ID** link, as shown in Figure 7–129.

Figure 7–129 JMS Messages

Environment Deployments		Click on a message to view it	s contents.					
Services Services ''Messaging '''MS Servers ''Store-and-Forward Agents '''MS Modules '''MS Modules		Message Selector:					4	
⁺ "Path Services ⁺ "Bridges ⁺ "Data Sources ⁺ "Persistent Stores ⁺ "Foreign JNDI Providers ⁺ "Work Contexts	¥	Customize this table JMS Messages (Filtered - Move New Delete V Move			Show	ing 1 to 1 of 1 F	Previous Next	:
How do I	Ξ	□ ID ≈	CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size	
Manage queue messages Manage distributed queue messages		D:<851920.13045961	43994.0>	Thu May 05 07:49:03 EDT 2011	visible	Persistent	2043	
Manage topic durable subscribers		New Delete - Move	✓ Import Expo	ort~	Show	ing 1 to 1 of 1 F	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".

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".

3. Open the Service Bus console page, as shown in Figure 7–130.

ORACLE' Serv	vice Bus 11gR1				1
Change Center	Welcome, weblogic Con	nected to : bas	e_domain	Home Oracle WLS Console Logout Help Orac	te Su
 View Changes View All Sessions 	😂 Adapter/Busines	sService			_
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 7–130 Service Bus Console Page

4. In the Project Explorer, select the **ProxyService** project folder, and click **Create**, as shown in Figure 7–131.

Figure 7–131 Project Explorer

View Changes			
View All Sessions	😂 Adapter/ProxySe	ervice	
Create Distanti Est.	References	0	Description - no description -
Project Explorer Projects	Referenced By	0	Edit Description
Adapter Horizon BusinessService	😭 Folders		
ProxyService	Enter New Folder Nam	ne:	Add Folder
🗄- default			n 🗊
	Name 🛆		
			No Folders to display.
			R
	Delete		
	Resources		
	Create Resource: Se	ect Resource T	ype 📉
			n (1)

5. In the Create Resource list on the right pane, select **Proxy Service**, as shown in Figure 7–132.

-	I meleonic/ mebiogie	connected to . base_doma	Mann Minome i orace meo console i cogoar i nelp i	Ordele
eblogic session			weblogic session Created 5/5/11 6:25 AM No Conflic	ts N
No Conflicts				
View Changes	😂 Adapter/Prox	yService		
View All Sessions	Deferment	Select Resource Type	tion	
ctivate Discard Exit	References	Service Proxy Service	ription -	
oject Explorer	Referenced By	Business Service Split-Join	Description	
ects dapter	😂 Folders	Interface WSDL XML Schema		
BusinessService ProxyService	Enter New Folder		Add Folder	
wsdls		Transformation		
efault	Name 🛆	XQuery XSLT MFL File		
		Security Service Account Service Key Provider	No Folders to display.	
		Utility JAR		
	Delete	Alert Destination XML Document		
		Bulk		
	🔒 Resources	Resources from URL Zipped Resources		

Figure 7–132 Proxy Service

6. In the Service Name field, enter an appropriate name, as shown in Figure 7–133.

Figure 7–133 Service Name

weblogic session		weblogic session Created 5/5/11 9:25 AM No	Conflicts N					
No Conflicts		······································						
View Changes	🍃 Create a Proxy Se	🝃 Create a Proxy Service (Adapter/ProxyService/)						
View All Sessions	General Configuration	on						
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 7–134.

S Exit	General Configurat	on	
	Service Name*	Adapter_outbound_PS	
e r	Description		
	Service Type*		Browse binding)
		Business Service	Browse Browse

Figure 7–134 General Configuration

8. Select the existing Business Service and click Submit, as shown in Figure 7–135.

Figure 7–135 Business Service

Orac	le Service Bus : Select Business Service - Windows Inter	rnet Explorer			_
ء 😂	Select Business Service				
💐 s	earch: Name: Path:		Search	View All	
			Items 1-4 of 4	4 1 ▶ №	
	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	
С	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 7–136.

🞾 Create a Proxy Se	ice (Adapter/ProxyService/)						
General Configuration							
Service Name*	Adapter_outbound_PS	Adapter_outbound_PS					
Description	×						
Service Type*	Create a New Service Browse C WSDL Web Service (port or binding) C Transport Typed Service Any SOAP Service C Any SOAP Service SOAP 1.:▼ C Any XML Service SOAP 1.:▼						
Next >>	Create From Existing Service Business Service Adapter/BusinessService/Adapter_outbd Proxy Service Browse Last >> Cancel						

Figure 7–136 General Configuration

10. Select **http** in the Protocol list and click **Next**, as shown in Figure 7–137.

Figure 7–137 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 C No Header Add						
	HEADER ACTIO	IN					
	There are no headers configured.						
<< Prev.	<< Prev. Next >> Last >> Cancel						

11. Click **Next**, as shown in Figure 7–138.

Figure 7–138	HTTP	Transport	Configuration
--------------	------	-----------	---------------

View Changes View All Sessions Activate Discard Exit	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
	HTTP Transport Configuration			
	HTTPS required			
Project Explorer Projects	Authentication	 None Basic Client 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 7–139.

Figure 7–139 Operation Selection Configuration

	View Changes	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)		
View All Sessions	Operation Selection Configuration			
	Activate Discard Exit	Enforce WS-I Compliance		
	Project Explorer Projects Adapter ProxyService wsdls - default	Selection Algorithm	 C Transport Header C SOAPAction Header C WS-Addressing C SOAP Header © SOAP Body Type 	
		<< Prev.	lext >> Cancel	

13. Enable the **Transaction Required** check box and click **Next**, as shown in Figure 7–140.

Figure 7–140 Message Handling

View Changes View All Sessions	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
	Message Handling			
Activate Discard Exit	Transaction Required	Enabled		
Project Explorer Projects Projects ProyService ProxyService Wods B- default	Content Streaming	Enabled Buffer Type Memory Buffer Disk Buffer Compression Enabled		
	XOP/MTOM Support	Enabled C 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 7–141.

Figure 7–141 Save

		-
Protocol	http	
Endpoint URI	/Adapter/ProxyService/Adapter_outbound_PS	
Get All Headers	No	
Headers		
HTTP Transport Configuration		2
HTTPS required	No	
Authentication	None	
Operation Selection Configuration		2
Enforce WS-I Compliance	No	
Selection Algorithm	SOAP Body Type	
Message Handling Configuration		2
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 7–142.

Project Explorer Projects - Adapter - BusinessService - ProxyService - wolds	References Referenced By Control By Referenced By	2 Ref(s) 0	- no description -		
B⊢ default	Enter New Folder Name: <u>Name</u>		Add No Folders to	Folder	🔝 Items 0-0 of (
	Delete			о мариоу.	Items 0-0 of (
	 Resources Create Resource: Select F 	Resource Typ	De 💌		Items 1-1 of 1 K
Operations	□ Name □ ★ Adapter_outbound_	PS		Proxy Service	Actions
Resource Browser	Delete				Items 1-1 of 1

Figure 7–142 Proxy Service

15. Click **Activate** in the left pane, and then **Submit** on the right pane, as shown in Figure 7–143.

Figure 7–143 Activate Session

	Welcome, weblogic C	onnected to : base_domain	🟠 Home	Oracle WLS Console Log	gout
weblogic session		[weblogic sessio	n Created 5/5/11 10:45 A	M N
 No Conflicts View Changes 	Activate Sessio	n			
View All Sessions	Session Name	weblogic			
Activate Discard Exit	User	weblogic			_
Project Explorer Projects	Description			<u> </u>	
Adapter BesinessService ProxyService wsdis default				×	
	Submit	to activate current session			
		to activate carrent session			

16. Click **ProxyService** in the Projects folder on the left pane, as shown in Figure 7–144.

Figure 7–144 ProxyService

 View Changes View All Sessions 	😂 Adapter/ProxySe	ervice	
Create Dissard Exit	References	0	Description - no description -
Project Explorer	Referenced By	0	Edit Description.
Projects - Adapter - BusinessService ProxyService - wsdls - default	 ➢ Folders ➢ Enter New Folder Nan Name △ 	ne:	Add Folder

17. Click the **Launch Test Console** icon for the created Proxy Service, as shown in Figure 7–145.

Figure 7–145 Launch Test Console

å 6	🖁 Resources							
⊳ Cr	Create Resource: Select Resource Typ							
			Ttems 1-1 of 1	1				
Γ	Name 🗠	Resource Type	Actions	Option				
Γ	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 Siebel 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 Siebel 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\SIEBEL_Samples.zip\SIEBEL_Samples\OSB_
Jdeveloper\J2CA\Siebel_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	F
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.

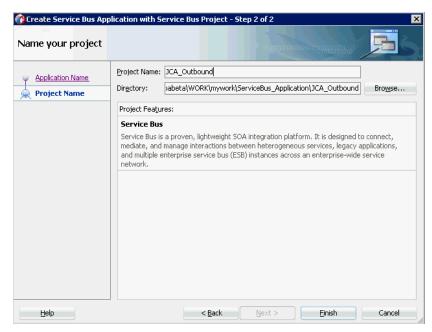


Figure 8–2 Name Your Project Pane

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.

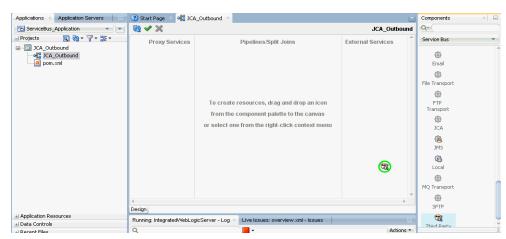


Figure 8–3 Third Party Adapter Component

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:		
JCA 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, as shown in Figure 8–7.

Figure 8–7 Find JCA File Icon

👩 Create Third Party	Adapter Service	×
Third Party Adapter 9 Create a JCA adapte	Service r service for a third party adapter.	÷
<u>N</u> ame:	Service	
 <u>T</u> ype:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
Port Type:	queryWithViewPortType	
Operation:	queryWithView 👻	
<u>C</u> allback Port Type:	No Callback 💌	
Oper <u>a</u> tion:		
JCA File:		1
Help	ОК	Cancel

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 8–8.

Create Third Party	Adapter Service	×
Third Party Adapter 9		4
Create a JCA adapte	r service for a third party adapter.	
<u>N</u> ame:	Service	
<u>T</u> ype:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
Port Type:	queryWithViewPortType	
Operation:	queryWithView	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	J2CA_Outbound_invoke_3P, jca	1
Help	OK	Cancel

Figure 8–8 Create Third Party Adapter Service Dialog

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 8–9.

Figure 8–9 Create Service Pane

🕜 Create Business Serv	ice - Step 1 of 3		×
Create Service		១ ខេត្តរាល លោក ហេតុ មុន្ត្រី ខេត្ត	
Create Service	General Service Name: Location: Description	FileOut C:(soabeta\WORK\mywork\ServiceBus_Application\JCA_Outbound	Q
	 Definition Transport 	file	
Help	Messages:	< Back Next > Finish	Cancel

The Type pane is displayed. The Any XML option is selected by default.

3. Click **Next**, as shown in Figure 8–10.

Figure 8–10 Type Pane

😚 Create Business Serv	vice - Step 2 of 3					×
Туре						
Create Service Type Transport	Service Type: Any 2ML Messaging:					¥
Help			< <u>B</u> ack	<u>N</u> ext >	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 8–11.

🕜 Create Business Servic	e - Step 3 of 3		×
Transport			1
🔍 Create Service	Service Type	e: Messaging	
	Transport	file	•
Stransport	Endpoint <u>U</u> RI:	file:///C:/output	
	1	Format: file:///root-dir/dir1	
]		
Help		< <u>Back</u> <u>N</u> ext > <u>Finish</u>	Cancel

Figure 8–11 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 8–12.

Figure 8–12 Transport Details

Applications × Application Servers	🕄 Start Page × 📲 🤉	CA_Outbound 🛛 🍃	FileOut.bix ×	
🔁 ServiceBus_Application 🔹 💌				?
Projects CA_OUtbound CA_OUtbound CA_OB_invoke_3P.jca CA_OB_invoke_BS.bix CA_OB_invoke_BS.concrete.wsdl CA_OB_invoke_request.xsd CA_OB_invoke_response.xsd CA_OB_invoke_response.xsd CA_OB_invoke_wsdl CA_OB_invoke_wsdl CA_OUtbound pom.xml Pom.xml	General Transport Transport Details Message Handling Performance	FILE Transpor Use this page to com Prefix Suffix Request encoding	figure the transport information for this service} CA_Outbound .xml	

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 8–13.

3 Start Page A Page A Dutbound Components Resources 🝓 🗸 🗙 J2CA_Outbound Q.-Service Bus Socket Tuxedo 0 UMS W5 Applications ₽. 9 6 FileOut JDE World Oracle **@** ٠ SAP <u>ې چې</u> Advanced Service -3 **BPEL 10g** Custom 儆 8 DSP E JB 4 Email Fransport

Figure 8–13 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 8–14.

Figure 8–14 Create Service Pane

🍘 Create Proxy Service	- Step 1 of 3					×
Create Service					1017876866896	
Create Service Type Transport	General Service N <u>a</u> me: Location: Description	JCA_Outbound_PS C:\soabeta\WORK\mywork\Se	erviceBus_Applicatio	on\JCA_Outbound		Q
	 Definition Iransport Generate Pipeline Name: 	file Pipeline JCA_Outbound_PSPipeline				•
Help	Messages:		< <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 8–15.

Create Proxy Servic	e - Step 2 of 3					
Гуре					1010101010101010101	14
Create Service	Service Type: Messagir	g			uuuu	
Transport	Messaging: Reguest:	XML				
		Schema:				
			type / element:			
	Response:	None				
	Messages:					
Help			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

Figure 8–15 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 8–16.

Figure 8–16	Transport	Window
-------------	-----------	--------

🍘 Create Proxy Service -	Step 3 of 3					×
Transport						1
Q Create Service	Service Type	2: Any XML				
UTYpe	<u>T</u> ransport	file				•
Jana 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 8–17.

Figure 8–17 Proxy Service Edit

3 Start Page 💉 🍕 J2CA_Outbound 🗠	
🕲 🗸 🗙	J2CA_Outbound
JCA_Outbound_PS	JCA_Outbound_P

7. In the displayed Proxy Service configuration page, select **Transport Details** and provide the values for Stage and Error Directory, as shown in Figure 8–18.

Figure 8–18 File Transport Configuration

ServiceBus_Application Projects CA_OLitbound CA_OB_invoke_GP.jca CA_OB_invoke_gBS.bit CA_OB_invoke_gBS.bit CA_OB_invoke_response.xsd CA_OB_invoke_response.xsd CA_OB_invoke_response.xsd CA_OUtbound CA_OU	General Transport Transport Details Security	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*	gure the transport information for this service}
()	Configuration 4	Request enroding	las o I

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 8–19.

J2CA_Outbound 🕐 Start Page 👘 🝓 🗸 🗙 J2CA_Outbound ②檾 FileOut \$ \bigcirc 6 錢 JCA Outbound P d JCA_Outbound_PS D 2 Service

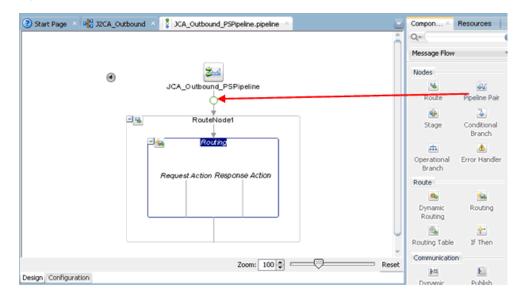
Figure 8–19 Business Service Pipeline

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 8–20.

Figure 8–20 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 8–21.

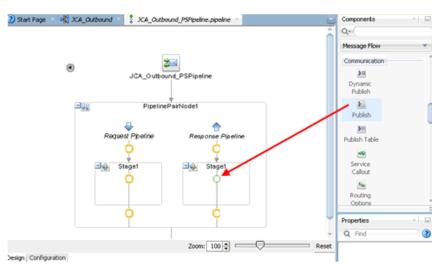
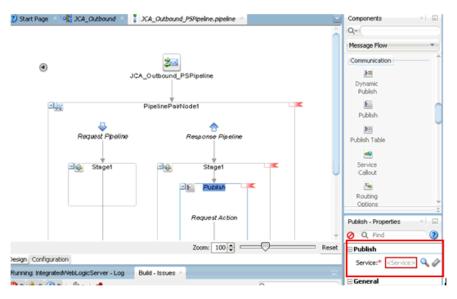


Figure 8–21 Publish Node

5. Click on the browse icon to the right of the Service field in the right pane of Publish Properties, as shown in Figure 8–22.

Figure 8–22 Browse Icon



6. In the displayed Resource Chooser window, select the **Fileout.bix** File Transport Business service and click **OK**, as shown in Figure 8–23.

🕽 Resource Chooser	×
Resource Chooser Pipeline Application SIZCA_Outbound SIZCA_Outbound SIZCA_Outbound_PS.proxy SIZCA_OUtbound_PS.proxy	
Service.bix	
Selection: [file:/C:/Jdeveloper/WORK/mywork/ServiceBusApplication/J2CA_Outbound/fileout.bix	
Help	OK Cancel

Figure 8–23 Resource Chooser

In the right pane, the selected service is configured in the Publish pane, as shown in Figure 8–24.

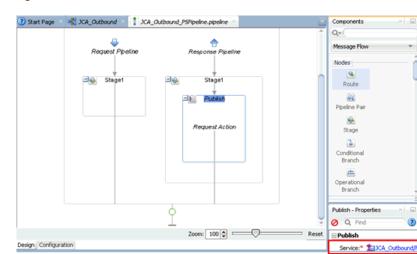


Figure 8–24 Publish Pane

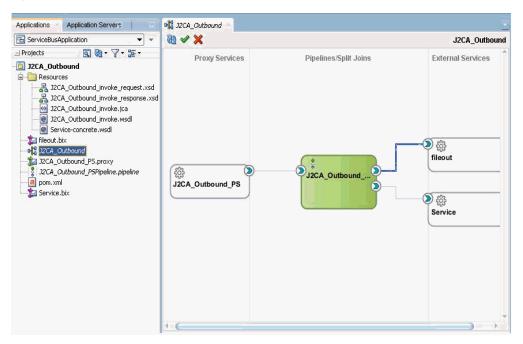
7. Click on the Routing to verify the Service is selected properly, as shown in Figure 8–25.

🕐 Start Page × 🖏 JCA_Outbound 🗵 🏮 JCA_Outbound_PSPipeline.pipeline 🐣 📃 💆	Components	× 🗖
	Q+(
	Message Flow	•
	Route	
		<u>64</u>
	Dynamic Routing	Routing
RouteNode1	<u>a</u>	2
· · · · · · · · · · · · · · · · · · ·	Routing Table	If Then
Routing	Communication	
	<u>}=</u>	E
Request Action Response Action	Dynamic Publish	Publish
	FE	-
	Publish Table	Service Callout
	54	
	Routing - Properties	× ×
9	🖉 Q. Find	2
Zoom: 100 🖨 📨 Reset	Routing	
Design Configuration	Service:* 🐮	CA_Outbound/JCA_OB
Running: Integrated/VebLogicServer - Log Build - Issues ×	Operation:* Get	
🙉 n 🗛 n 🚯 n 🖉 🔹 🖉 💿	operation. Get	u/olde

Figure 8–25 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 8–26.

Figure 8–26 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 8–27.

----- IB2E_OUTBOUN New 🕘 BSE_Outbou Edit Project Source Paths... Fileout.bix X Delete Project BSE_OUTB 📩 iBSE_Outbo Service Bus ۶ 8 눌 iBSE_Outbo $\mathbf{\Sigma}$ 👸 Find Project Files iBSE Outbound 💈 iBSE_Outbo Show Classpath a pom.xml Sho<u>w</u> Overview 🗄 🛅 JCA_Outbound Deploy OSB_Project1_ServiceBusProjectProfile... 🚵 Make IBSE_OUTBOUND.jpr Ctrl-F9 New Deployment Profile... 🕍 Rebuild IBSE_OUTBOUND.jpr 🛛 Alt-F9

Figure 8–27 Deploy Option

The Deployment Action page is displayed.

2. Click Next, as shown in Figure 8–28.

Figure 8–28 Deployment Action Page

Deploy OSB_Project1_9	ServiceBusProjectProfile
Deployment Action	Select a deployment action from the list below. Deploy to Service Bus Server Deploy a Service Bus project to a Weblogic server which includes a Service Bus runtime.
Help	< Back Next > Finish Cancel

The Select Server page is displayed.

3. Select an available application server that was configured and click **Next**, as shown in Figure 8–29.

Figure 8–29 Select Server Page

Osploy OSB_Project1_	ServiceBusProjectPro	ofile			×
Select Server					
Deployment Action	Application Servers: IntegratedWebLogicS	ierver			🕂 🔁 🕂
Summary					
	Overwrite modules	; of the same nam	e		
Help		< <u>B</u> ack	<u>N</u> ext >	<u> </u>	Cancel

The Summary page is displayed, as shown in Figure 8–30.

Figure 8–30 Summary Page

Deploy OSB_Project1_9	ServiceBusProjectPro	ofile			×
Summary					
Deployment Action Select Server Summary	Server Platfo		¢		
Help		< <u>B</u> ack	Next >	Einish	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 8–31.

Deployment - Log × Build - Issues Q [10:52:18 AM] ---- Deployment started. ----[10:52:18 AM] Target platform is Standard Java EE. [10:52:18 AM] Elapsed time for deployment: 1 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)

Figure 8–31 Successful Deployment Message

This section describes how to configure an OSB inbound process to your Siebel 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\SIEBEL_Samples.zip\SIEBEL_Samples\OSB_
Jdeveloper\J2CA\Siebel_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 8–32.

Figure 8–32 Third Party Adapter Service Component

🕐 Start Page 👘 📲 JC/	A_Outbound 👋 👯 JCA_Inbound 🐣		Components		x
8a 🗸 🗶		JCA_Inbound	Q.v.(
Proxy Services	Pipelines/Split Joins	External Services	Service Bus		•
			BPEL 10g	Custom	4
			⊕ DSP	E38	
	To create resources, drag and drop an icon		@ Email	File Transport	
	from the component palette to the canvas or select one from the right-click context menu		FTP Transport	ا الم	
(3)			الله ۲MS	Cocal	1
			- @ MQ Transport	(SFTP)	
		Ļ	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 8–33.

🚺 Create Third Party	Adapter Service	×
Third Party Adapter	Service r service for a third party adapter.	
<u>N</u> ame:	Service	
Type:	Service V	
WSDL URL: Port Type:		9
Operation:		
<u>C</u> allback Port Type:		
Operation:		
JCA File:		
Help	OK Can	cel

Figure 8–33 Third Party Adapter Service Dialog

The WSDL Chooser dialog is displayed, as shown in Figure 8–34.

Figure 8–34 WSDL Chooser Dialog

🍈 WSDL Chooser							×
Application	Application Server	File System	Oracle Acadia Server	Project Libraries	SOA-MDS	UDDI	WSIL
Location:	C:\Applica	tionAdapters\ws	dls			- 0 0 2) 🖆 📰 💷
Work Project Application	GetEffectiv		e.wsdl				
Home	Eile Name: JCA	A_IB_receive.wsc	1				
	File <u>T</u> ype: We	b Service Definiti	ion Files (*.wsdl)				•
Selection: file:/C:/	ApplicationAdapt	ters/wsdls/JCA_I	B_receive.wsdl				
Help						ОК	Cancel

- **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 8–35.

Figure 8–35 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:	mywork\SOA_Application\J2CA_Inbound\SOA\WSDLs\J2CA_Inbound_receive.wsdl	1
Port Type:	SampleAccountPortType	
Operation:	SampleAccount	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	nywork/SOA_Application/J2CA_Inbound/SOA/Adapters/J2CA_Inbound_receive.jca	1
Help	OK	Cancel

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 8–36.

🕜 Create Pipeline Servi	ce - Step 1 of 2	×
Create Service		
Create Service	General Service Name: Location: Description	J2CA_Inbound_Pipeline C:\Jdeveloper_SOA\work\mywork\OS8_Application\JCA_Inbound
	Definition	
Help	Messages:	< Rack Next > Einish Cancel

Figure 8–36 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 8–37.

Figure 8–37 Select WSDL Page

🕽 Select WSDL							
Application	Application Server	File System	Project Libraries	SOA-MDS		WSIL	
	on						
a. 1. 11 101. 10		Nwork/mywork/OS	······································		100		

6. Clear the Expose as a Proxy Service check box and click **Finish**, as shown in Figure 8–38.

Create Service	Service Type: V			
Туре			ound/Resources/Service-concrete MATMAS01PortType-binding	1
	O Any SOAP:	SOAP 1.		-
	○ Any XML			
	O Messaging:	Reguest		Ŧ
		Respons	e:	Ŧ
	Expose as a	Proxy Se	ervice	
	Proxy Name:	J2CA_In	bound_PipelineProxyService	
	Proxy Location:	C:\Jdev	eloper_SOA\work\mywork\OSB_Application\JCA_Inbound	9

Figure 8–38 Type Page

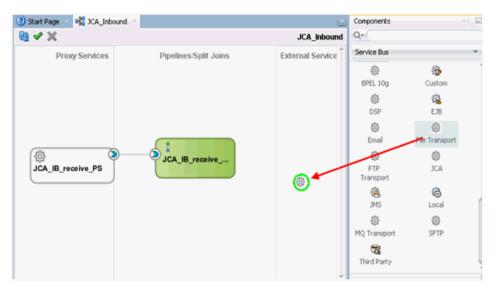
7. Drag and drop the Proxy Service to the Pipelines/Split Joins pane.

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 8–39.

Figure 8–39 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 8–40.

Figure 8–40 Transport Pane

🕜 Create Business Servi	ce - Step 3 of 3					×
Transport						
Create Service Type Transport	Service Type	: Any XML file file:///C:/output Format: file:///root-dir/dir1				
Help			< <u>B</u> ack	Next >	<u>F</u> inish	Cancel

The FileOut Business service is created.

5. Double-click the FileOut Business service, as shown in Figure 8–41.

Figure 8–41 FileOut Business Service

Applications × Application Servers	🕐 Start Page 🔺 📲 JCA_Inbound	×		Components	×	1
🔁 ServiceBus_Application 🔹 💌	🗟 🗸 🗙		JCA_Inbound	Q.		
🖃 Projects 🛛 💽 🗸 🏹 🗸 🔚 🕶	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	•	
CA_Inbound CA_Ishound CA_IB_receive_SP.jca CA_IB_receive_SP.jca CA_IB_receive_Sp.concrete.wsd CA_IB_receive_r		JCA_IB_receive		BPEL 10g BPEL 10g DSP Brail Brail BrTP	Custom Custom E38 File Transport Ø JCA	14
L a pom.xml				Transport JMS MQ Transport Third Party	්ධී Local SFTP	

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 8–42.

Applications × Application Servers	🕐 Start Page 🔺 🖓 🤈	CA_Inbound 🛛 🏂 I	FileOut.bix ×	
ServiceBus_Application Projects Note: ServiceBus_Application Projects Note: ServiceBus_Application Note: ServiceBus_Appl				?
Frojects Ca Ge V 22 Ca Ge V 25 Ca	General Transport Transport Details Message Handling Performance	Suffix Request encoding	figure the transport information for this service} JCA_Inbound .xml	

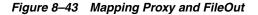
Figure 8–42 File Transport Configuration

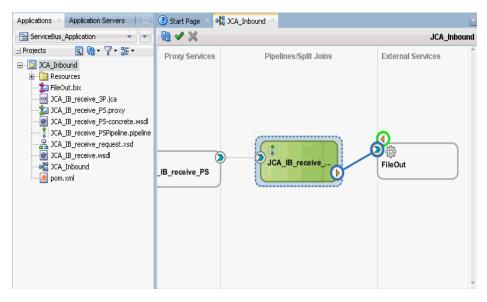
7. Save and close the Configuration page.

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 8–43.





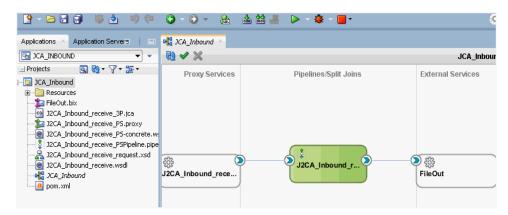
- 2. Double-click the Pipeline (for example, J2CA_Inbound_receive_PSPipeline).
- **3.** Click the Routing pane and ensure that the File Type Business Service (for example, FileOut) is properly configured in the Service field, as shown in Figure 8–44.

	eceive_PSPipeline					Nodes Route	Pipeline Pair	Stage	Î
	Node1					Conditional Branch Route	Operational Branch	A Error Handler	
Request Action	Response Action					Dynamic Routing	Routing	A Routing Table	
1						If Then			1
	Zoom: 100 🗣 💳				Reset	Dynamic Publish) Publish) Publish Table	
ration		*				Routing - Propert	iac	x	
og Build - Issues 🐣			۵			Q Q Find	100		2
)0 🖉 • 📌		Q	File	Lo	Pr., 🕶	Routing Service:	JCA_Inbound/F	ileOut.bix 🔍 🌽	_
<u>)</u>				1		🖂 General			

Figure 8–44 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 8–45.

Figure 8–45 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 8-16.

Once the OSB inbound process is deployed successfully, trigger an event from the Siebel 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 Siebel" on page 4-48.

8.3 Configuring an OSB Outbound Process Using JDeveloper (BSE Configuration)

This section describes how to configure an OSB outbound process to your Siebel 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:

<abalance>class=cl

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 4-74.

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 8–46.

Figure 8–46 HTTP Component

UND.jpr			-15
n Teag Jools Window Help 🛓 😫 🚢 🕨 🍅			Q+(Search
MUORTUO-			Components ·
8 🗸 🗙		IBSE-OUTBOUND	Q+(
Proy Services	Pipelines:Split Joins To create resources, drag and drop an icon from the component palette to the canvas or select one from the right-click context menu	External Services	Service Bus Luctocase Direct @ PTP PTP #TTP @ X.0 @ 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 8–47.

Figure 8–47 Create Business Service

Create Business Servi	ice - Step 1 of 3							2
reate Service							1	
Create Service		iBSE_Outbound_ C:\soabeta\WO	iceBus_Appli	ation\iBSE_Out	oound]] Q
	···· Definition ····· () <u>I</u> ransport	http]
	Messages:							
Help			< <u>B</u> ack	<u>N</u> ext >		Einish	Cance	1

3. In the displayed Service Type window, select the WSDL option and click the **Select WSDL** icon, as shown in Figure 8–48.

Create Business Ser /pe	vice - Step 2 of 3		
Create Service	Service Type	WSDL-based service	
Transport		Binding / Port:	
	O Any SOAP:	SOAP 1.1	v
	⊖ Any ½ML		
	O Messaging:	Reguest:	-
		Response:	
	Messages:		
	SA WSDL res	urce must be specified.	
Help		< Back	ext > Enish Cancel

Figure 8–48 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 8–49.

🕜 Select WSDL 👘							×
Application	Application Server	File System	Oracle Acadia Server	Project Libraries	SOA-MDS	UDDI	WSIL
Location:) C:\Applica	tionAdapters\ws	dls			- 🗘 🗘 🕻) 😭 📰 🗉
Work Project Application	BAPI_COM	PANYCODE_GET ceive.wsdl woke.wsdl jbse.wsdl	LIST_invoke.wsdl LIST_receive.wsdl				
Home		bound_ibse.wsd					
		DL Files (*.wsdl)					
Selection: file:/C://	ApplicationAdap	ters/wsdls/Outbo	ound_ibse.wsdl				
Help						ОК	Cancel

Figure 8–49 Select WSDL Window

5. In the displayed Source pane, click **Next**, as shown in Figure 8–50.

Source			
source			
Source	Specify source ar	nd select an import destination.	
Configuration	Resource Type:	WSDL	-
	Source URL:	C:\ApplicationAdapters\wsdls\Outbound_ibse.wsdl	0
	Resource Name:	Outbound_ibse.wsdl	
	Import Location:	C:\soabeta\WORK\mywork\ServiceBus_Application\iBSE_Outbound	
Help		< Back Next > Finish	Cancel

Figure 8–50 Source Pane

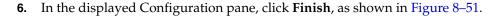


Figure 8–51 Configuration Pane

Import Service busi	Resources - Step 2 of 2		
Configuration			
Source	Select the resources to import.		
Configuration			
	Resource	Operation	URL
		Create	file:/C:/ApplicationAdapter
Help		<back next=""></back>	Einish Cancel

You are returned to the Create Business Service window.

7. In the displayed Type pane, click **Next**, as shown in Figure 8–52.

Create Business Sei ype	o ano and a second a	
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 • Messaging: Reguest: • Response: •] 🐿 🍳]]]
Help	<back next=""> Finish</back>	Iancel

Figure 8–52 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 8–53.

Figure 8–53 Transport Pane

🕜 Create Business Service - :	Step 3 of 3					×
Transport					17739393939346	
Create Service 5	ervice Type	WSDL-based service				
U Type	ransport	http				•
Transport	ndpoint <u>U</u> RI:	http://localhost:7101/ibse/IBSESe	vlet/XDSOAPRou	ter		
		Format: http://host:port/someSe	rvice			
M	essages:					
Help			< <u>B</u> ack	Next >	Einish	Cancel

The Business Service is created and displayed in the External Services pane, as shown in Figure 8–54.

Figure 8–54	External Services Pane
-------------	------------------------

Applications × Application Servers		Real IBSE-OUTBOUND ×		2
E ServiceBus Applications	• •	🕅 🗸 🗙		IBSE-OUTBOUND
Projects BESE_Outbound BESE_OUTBOUND BESE_OUTBOUND BESE_OUTBOUND BESE_OUTBOUND BESE_OUTBOUND BODDON_INI DODON_INI DODON_IN	Q Q • 7 • 2 •	Proxy Services	Pipelines:Split Joins	External Services

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 8–55.

Figure 8–55 File Transport Component

j Dracle JDeveloper 12c - ServiceBus_Ap je Edt Yew Application Refactor Se ♀ - ⊇ ☞ ◎ ◎ ◎ ◎	varch Nevigate Build Br	undiger un Team Iook Window Help 🛓 🎎 🚜 🕞 🌞 📕 -		Qe (Search		- 6
Applications Application Servers		E_Outbound		Components		8) B
ServiceBus_Application • •	lei		iBSE_Outbound	Q+(
Projects 🛐 🍖 🖓 • 🐲 •	Proxy Services	Pipelines/Split Joins	External Services	Service Bus		*
ESE_Outbound BSE_Outbound BSE_Outbound				white the test	101100-00	
Sa BSE_Outbound_ Sa BSE_Outbound_BS.bix				Advanced	~	
Cutbound_bse.wsd				BPEL 10g	Go	
🛃 pom.ami						
				© D5P	63 813	
	0		9 &	0	0	
			iBSE_Outbound_BS	Email	File Transport	
				-	0	
				FTP Transport	3CA	
				8	6	
				346	Local	
				63	0	
				NØ MQ Transport	SETP.	
Application Resources					24.17	
Data Controls			-	- 1		
Recent Files	A Contraction			Properties		si s

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 8–56.

Create Proxy Service Create Service	and the state of t	1
Create Service Ivpe Transport	General Service Name: IBSE_Outbound_PS Location: C:\soabeta\WORK\mywork\ServiceBus_Application\iBSE_Outbound Description	Q
	Definition Iransport file Generate Pipeline Pipeline Name: IBSE_Outbound_PSPipeline	
Help	Messages:	Cancel

Figure 8–56 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 8–57.

Figure 8–57 Type Pane

ô Create Proxy Service - Step 2 of 3			×
Туре		0101019494949494	1
Create Service Service Type	 : type / element:		
Messages:			

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 8–58.

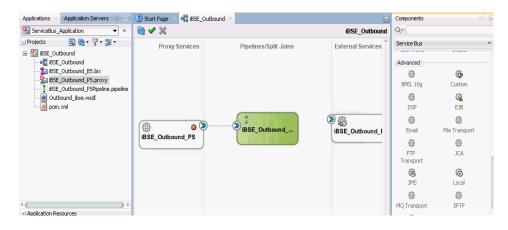
🍘 Create Proxy Servio Transport	e - Step 3 of 3			0101010101010	iloimatevalaalese	
Create Service <u>Type</u> Transport	Endpoint URI:	file				
Help			< <u>B</u> ack	Next >	Ejnish	Cancel

Figure 8–58 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 8–59.

Figure 8–59 Proxy Service Edit



7. In the displayed Proxy Service configuration page, select **Transport Details** and provide the values for Stage and Error Directory, as shown in Figure 8–60.

ServiceBusApplication3	• •	
SPProjects SPProjects SPE_Outbound SPE_Outbound gis.bix SPE_Outbound gis.bix SPE_Outbound gis.bix SPE_Outbound_SPErgeline.pipeline Outbound_bee.wsd Outbound_bee.wsd SPProject	• 🐲 • General Transpo	Set FILE Transport Configuration Use this page to configure the transport information for this service) File Mask* •.• Managed Server •.• Polling Interval* 60 Read Limit* 10 Sort By Arrival •.• Poss by Reference •.• Post Read Action* Delete ▼ Stage Directory* C:(stage Andrive Directory* C:(strong)

Figure 8–60 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 8–61.

Figure 8–61 Proxy Service

Applications × Application Servers	📲 #SE_Outbound 🐣		2	Components	x
🖺 ServiceBusApplication3 💌 💌	🕅 🗸 🗙		iBSE_Outbound	Qv	
∃ Projects 💽 🕅 • 🖓 • 🧝 •	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	
ESE_Outbound ESE_Outbound ESE_Outbound ESE_Outbound		· • · · · · · · · · · · · · · · · · · ·		BPEL 10g	🍪 Custom
- 2 BSE_Outbound_PS.proxy - 2 BSE_Outbound_PSPpeline.pipeline - 0 Outbound_bse.wsd				- DSP	Kanga Kang Kanga Kanga Kang
e collocini_lose.visu 			() en	- 👸 Email	Ø File Transport
😥 🛅 SEProject	\$	BSE_Outbound	IBSE_Outbound_BS	-	£53
	iBSE_Outbound_PS			FTP Transport	JCA
				8 .M5	🙆 Local
				\$	(3)
				MQ Transport	SFTP
				Third Party	
	4			Descrition	

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 8–62.

Applications 🔺 Application Servers 🔰 🗉	3 Start Page × 🖧 655_Outbound	x .	2	Components	× 🖬
ServiceBus_Application	8a 🗸 🗙		iBSE_Outbound	Q+(
Projects Solution Solut	Proxy Services	Pipelines/Split Joins	External Services	Advanced	Custom
a pom.xml	BSE_Outbound_PS	BSE_Outbound	BSE_Outbound_BS	DSP Email FTP Transport	E38 File Transport O JCA
			0	88 эмс	Ca Local
Application Resources				MQ Transport	SFTP
			*	8	v 1

Figure 8–62 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 8–63.

Figure 8–63 Create Service Pane

reate Business Serv	ice - Step 1 of 3					
ate Service						14
Create Service	General Service Name: Location: Description	Fileout C:\soabeta\WORK\r	mywork\ServiceBus_Applicat	ion\iBSE_Outbound		
	Definition Iransport	file				
	Messages:					
Help			< Back	Next >	Einish	Cance

The Type pane is displayed. The Any XML option is selected by default.

3. Click Next.

The Transport pane appears.

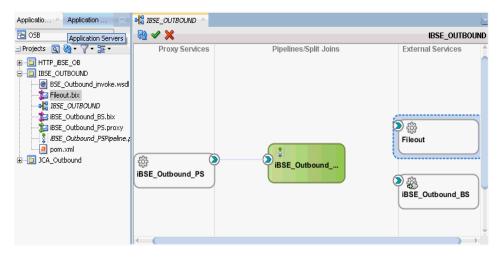
4. Provide the output location in the Endpoint URI field (for example, c:/output) and click **Finish**, as shown in Figure 8–64.

🕜 Create Business Servio	e - Step 3 of 3					×
Transport					10101949494949494	
🔍 Create Service	Service Type	: Messaging				
	<u>T</u> ransport	file				•
Transport	Endpoint <u>U</u> RI:	file:///C:/output				
		Format: file:///root-dir/dir1				
Help			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–64 Transport Pane

The File Transport Business service Fileout is created and displayed, as shown in Figure 8–65.

Figure 8–65 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 8–66.

			(
General Transport		ort Configuration onfigure the transport information for this service}	
Transport Details Message Handling	Prefix	iBSE_Outbound_out	
Performance	Suffix	.xml	
	Request encodin	9 utf-8	

Figure 8–66 Transport Details

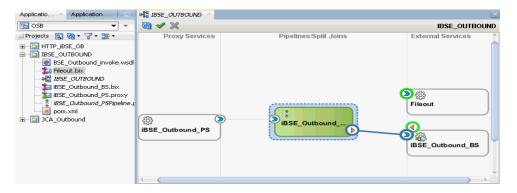
6. Save and close the configuration page, and double-click on overview.xml (for example, iBSE_Outbound).

8.3.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

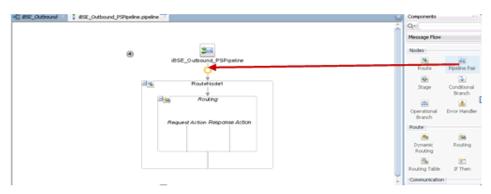
1. Create a connection between the Pipeline Component (for example, iBSE_ Outbound_PSPipeline) and the WSDL based Business Service (for example, iBSE_ Outbound_BS), as shown in Figure 8–67.

Figure 8–67 Pipeline Component



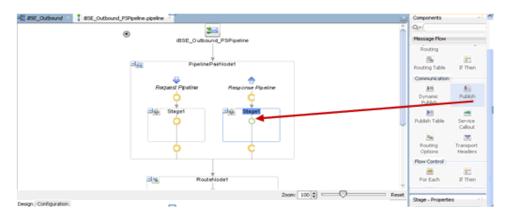
- **2.** Double-click on the **Pipeline** component (for example, iBSE_Outbound_ PSPipeline) in the Pipelines/Split Joins pane.
- **3.** Drag and drop the **Pipeline Pair** node from Nodes pane to the area between the Pipeline (for example: iBSE_Outbound_PSPipeline) and RouteNode1, as shown in Figure 8–68.

Figure 8–68 Pipeline Pair Node



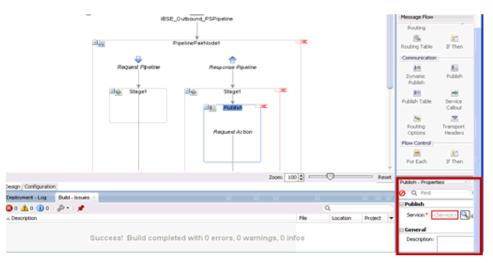
4. Drag and drop the **Publish** node from the Communication pane to the area beneath Stage1 of the Response Pipeline, as shown in Figure 8–69.

Figure 8–69 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 8–70.

Figure 8–70 Browse Icon



6. In the displayed Resource Chooser window, select the **Fileout.bix** File Transport Business service and click **OK**, as shown in Figure 8–71.

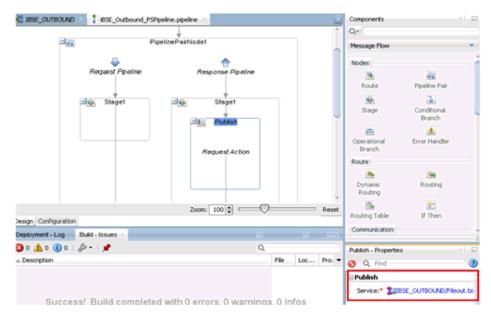
👩 Resource Chooser	×
Q Resource Chooser	
iBSE_Outbound_BS.bix	
BSE_Outbound BSE_Outbound_BS.bix BSE_Outbound_PS.proxy BSE_Outbound_PS.proxy BSE_Outbound_PS.pipeline.pipeline	
Brein SCA_Outbound	
Be-California	
Help	OK Cancel

Figure 8–71 Resource Chooser

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 8–72.





- 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 8–73.

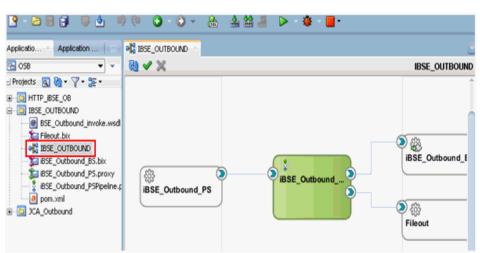


Figure 8–73 Save All Icon

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 Siebel 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 4.5.1, "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 8-20.
- 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 8-22.
- 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 8–74.

The area wellen and the month of the month o			Nesources	Components	
🝓 🗸 🗶		JMS_Inbound	Q.+		
Proxy Services	Pipelines/Split Joins	External Services	Service Bus		
			Resources		
			1	*	
			Pipeline	Split.Join	
			Technology		
			<u>(a</u>		G
(#) (*)			AQ	AS/400	BAM
MATMAS01_PS	MATMAS01_PSPL.		*	6	۲
			Coherence	Database	Direct
			8	<u>6</u>	8
			File	FTP	HTTP
			(G) 35.38	- [®] .M6	CDAP
			36.30	Transport	0.040*
					681
		*	🍓 JMS Tran	sport	
4 Design				8 praxy or busin	
Properties		x), @,	58	Socket	Tuxedo
Q, Find			1	۵	
G, Fina		0	UMS	WS	

Figure 8–74 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 8–75.

Figure 8–75 Create Service Pane

👩 Create Business Servi	ice - Step 1 of 3						×
Create Service							
Create Service Type Transport	General Service N <u>a</u> me: Location: Description	JMS_BS C:\soabeta\w	ork\mywork\OS	B_Application\JM5_	Inbound		Q
	 Definition Iransport 	jms					
Help	Messages:			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

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 8–76.

👩 Create Business Ser Transport	vice - Step 3 of 3	
Create Service	Service Type Iransport Endpoint URI:	jms jms://localhost:7003/weblogic.jms.XAConnectionFactory/QueueIn
		Format: jms://host:port(_host:port)*/Factory3ndiName/Dest3ndiName
<u>H</u> elp		< Back Next > Einish Cancel

Figure 8–76 Transport Window

The JMS Business service is created and displayed.

e. Double-click JMS_BS as shown in Figure 8–77.

Figure 8–77 JMS Business Service

Applications × Application Servers	🕐 Start Page 🔺 🍕 JMS_Inbound 🐣		2	Resources	Components ×	
🔁 OSB_Application 🔹 💌	₩ 🗸 🗙		JMS_Inbound	Qv		
🖃 Projects 🛛 🔍 🍖 🖓 🖛 🎘 🖛	Proxy Services	Pipelines/Split Joins	External Services	Service Bus		
- MS_Inbound - Service Bus Sources - Service Bus Sources - Service Bus				Resources Pipeline Technology	spit Join	
👔 MATMASO1_PS.proxy 🞯 MATMASO1_PS-concrete.wsdl 🂈 MATMASO1_PSPipeline.pipeline			D (8)	AQ	A5/400	GAM BAM
MATMASO1_receive_SP.jca	MATNAS01_PS	MATMAS01_PSPI	JMS_BS Reference: JMS_BS	Cohonoco	Catabase	Direct
a pom.xml B [3] JMS_Outbound			Binding: JM5 Transport	File	ETP 6	88 HTTP
				G JEJB)MS Transport	C LDAP
Application Resources			~	∰a MQ	i 🍓 MSMQ	<table-cell> REST</table-cell>
∃ Data Controls 🦓 🏹 🎦 + ∃ Recent Files	4 Design		F	-	6	-
A Recent mes	Properties		×	SB	Socket	Tuxedo
JMS_Inbound - Stru JMS_Inbound - R ×	Q, Find		0	UMS	₿ ₩5	
				Applications		
					÷	
Current selection is not a valid Service Bus resource				JDE World	Oracle	
				Advanced	-04	4
				@-	*	÷

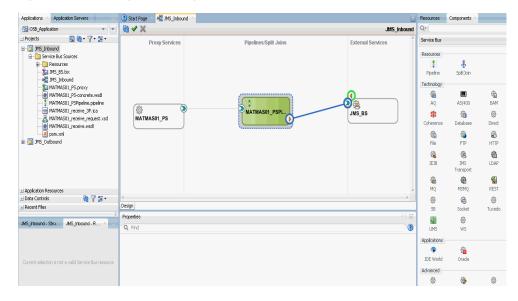
f. In the displayed Business Service configuration page, provide the following parameters in the Transport Details tab, as shown in Figure 8–78.

🕐 Start Page 💉 अदि आ	M5_Inbound 💉 🍃 JM5_85.bi	x ×
General		
	🏂 JMS Transport Configu	ration
Transport	Use this page to configure the	transport information for this service}
Transport Details		
Message Handling	Destination Type	Queue O Topic
Performance	Message Type	Bytes (a) Text
	Response Queues	None \bigcirc One for all Request URIs \bigcirc 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 8–78 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.
- **7.** Create a connection between **Pipeline** (for example, xxxx_PSPipeline) and **JMS Business Service** (for example, JMS_BS) as shown in figure Figure 8–79.

Figure 8–79 Configuration Page



8. Double-click Pipeline.

The Pipeline Configuration page is displayed as shown in Figure 8–80.

2) Start Page 👘 📲 JMS_Inbound 👘 🌷 MATMASD1_PSPipeline.pipeline 🐣
Start Page Start Page Matmasol_PSPipeline.pipeline Matmasol_PSPipeline Matmasol_PSPipeline RouteNode1 Request Action Response Action
Zoom: 100 -
Design Configuration
Routing - Properties ×
O Q Find
Routing General Service:* 加加S_Inbound/JMS_BS.bix Q

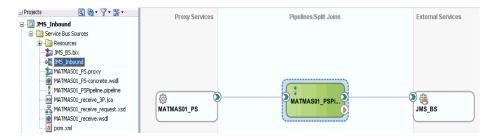
Figure 8–80 Pipeline Configuration

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 8–81.

Figure 8–81 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 8-27.
- **12.** Once the process is deployed successfully, trigger the event messages.

For more information, see Section 4.5.5, "Triggering an Event in Siebel" on page 4-48.

- **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 8–82.

Figure 8–82 G	Queueln Res	ponse Link
---------------	-------------	------------

Home >Summary	of Deployments >Sumr	mary of 3MS	5 Modules »)	nsResources >Summary of JMS Modules >JmdResources >Summary of JM	S Modules >jmsResources >QueueIn >Summary of JMS Modules > jmsResources
Settings for jms	Resources				
Configuration	Subdeployments	Targets	Security	Notes	
This page displa	ys general information	n about a J	MS system r	nodule and its resources. It also allows you to configure new resourc	es and access existing resources.
This page displa Name:	ys general information	n about a J	MS system r	nodule and its resources. It also allows you to configure new resourc	es and access existing resources. The name of this JMS system module. More Info

This page summarizes the IMS resources that have been created for this IMS system module, including queue and topic destinations, connection factories, IMS templates, destination sort keys, destination quota, distributed destinations, foreign serviers, and store-and-forward parameters.

Customize this table

Su	nmary of Resources				
Clic	is the <i>Lock & Edit</i> button in the Change Center to activate all the b	uttons on this page.			
N	rw. Delete			Showing 1 to 10 of 15	5 Previous Next
E	Name 🚓	Туре	JNDI Name	Subdeployment	Targets
6	3M5_ProxyRequest-2143324722	Queue	JMS_ProxyRequest	3M5_ProxyRequest-2143324722	wlsb3MSServer
E	JMS_ProxyResponse230658500	Queue	JMS_ProxyResponse	JMS_ProxyResponse230658500	wisb3MSServer
6	QueueIn	Queue	QueueIn	wisbJMSServer	wlsb3MSServer
6	QueueIn.Quota	Quota	N/A	N/A	N/A
6	TemporaryTmpk	Template	N/A	N/A	NJA.

16. Click the Monitoring tab, as shown in Figure 8–83.

Figure 8–83 Monitoring Tab

" Home >Sum	wary c	if 3MS Module	s >jmsRess	ources >Sum	mary of 3MS Mod	úes ≻jmsResov	Summary of IMS'Mbdules »(instresources »Queuelin »Summary of IMS Modules »(instresources »QueueIn
Settings for	Queu	eIn					
Configurat	tion	Monitoring	Control	Security	Subdeployme	nt Notes	
General	Three	holds and Qu	iotas C	overrides	Logging Deliv	ery Failure	
Click the La	ock &	Edit button is	n the Cha	nge Center I	to modify the set	tings on this p	
Save							
Use this pa	age to	define the ge	neral con	figuration pa	arameters for this	queue, such	lecting a destination key for sorting messages as they arrive on the queue.
👩 Name:		QueueIn					The name of this JHS queue. More Info
3ND1 Name	e:	Queue	in				The global JNDI name used to look up the destination within the JNDI namespace. More Info
Template:		None		•			The 2MS template from which the destination is derived. A template provides an efficient ensare of defining multiple destinations with similar configuration values. Here Brown
Destinatio Available		5		Chose	enc		The list of potential destination keys for sorting the messages that arrive on a JM destination. More info
				>			
				3 >			
				< _			
				32			

17. Select the check box and click the **Show Messages** button, as shown in Figure 8–84.

Figure 8–84 Show Messages Button

tings for Q	eueIn									
onfiguration	Monitoring	Control	Security	Subdeployment	Notes					
						eted to a 3MS server.				
Customize				it have been crea	ted for this 3	15 module.				
Customize	this table s (Filtered - Mo			R have been crea	ted for this 3	t5 module.			Showing 1 to	1 of 1 Previous N
Customize	this table i (Filtered - Mo ages	re Colum			es Pending	Messages Total	Consumers Current	Consumers High	Showing 1 to	1 of 1 Previous N 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 Siebel 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 8.1.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-3.
- **4.** Create a WSDL-based Business Service from the JCA Binding File. For more information, see Section 8.1.2.2, "Configuring a File Transport Type Business Service" on page 8-7.
- 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 8–85.

Figure 8–85 JMS Transport Component

- & 484 >	• • •			Qr(Search	
at Page 🐘 👫 345_Outbound 🗠			Components -	Resources	
 × 		JMS_Outbound	Qe		
Proxy Services	Pipetimes/Split Johns To create resources, drag and drop an icon from the component patetite to the canvas or select one from the right-click context mess	External Services	Service Bus		
			Ppelne	Split.Join	
-			Technology		
			() 40	A5(400	¢ DA
			8 Coherence	(i) Database	-@ Dire
			Ca File	Contract of the second	R.
			X.R	R5 Transport	LD4
			(8) 3MS Transport		
			Create a JMS proxy or busine		ess servi
				Social	Tuo
			1	۲	

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 8–86.

6 Create Proxy Service	- Step 1 of 3	×
Create Service	General Service Name: JM5_Proxy Location: C:\soabeta\work\mywork\OSB_Application\JM5_Outbound Description Image: Comparison of the second	0
	Definition Iransport Ims Ims	
Help	Messages: Enish Cancel	

Figure 8–86 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 8-87.

Figure 8–87 Transport Window

Create Proxy Servi	ce - Step 3 of 3	
ransport		
ر Create Service	Service Type	ie: Any XML
<u>Type</u>	Transport	jms
) Transport	Endpoint <u>U</u> RI:	; jms://localhost:7003/weblogic.jms.XAConnectionFactory/JM5_ProxyRequest
		Format: jms://((host:port)(,(host:port))*) ((host:port)?)/FactoryJndiName/QueueJndiName
<u>H</u> elp		< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cance

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 8–88.

Figure 8–88 JMS Proxy Service

Applications × Application Servers	🕐 Start Page 🔺 📲 JMS_Outbound		6
🔁 OSB_Application 🔹 💌	₩ 🗸 🗙		JMS_Outbound
🖃 Projects 🛛 🔯 🗟 🔻 🍸 🛪 🔁 🕶	Proxy Services	Pipelines/Split Joins	External Services
⊡-⊡ JMS_Outbound		- Henrie en en en en e	
E E Service Bus Sources			
E Resources			
GetDetail_B5.bix			
GetDetail_invoke_3P.jca			
GetDetail_invoke_request.xsd			
GetDetail_invoke.wsdl	(<u>8</u>)		
MS_Outbound	JMS_Proxy	JMS_ProxyPipeli	
JMS_Proxy.proxy			
pom.xml			
pomoni			
4(C)))			
± Application Resources			
🗄 Data Controls 🛛 🖓 🎏 🕶			
± 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 8–89.

Figure 8–89 JMS Transport Configuration

🕐 Start Page 💉 📲	JMS_Outbound 💉 눌 JMS_P	тоху, ргоху 🐣	
General Transport	JMS Transport Config		?
Transport Details		e campers in ennater rei sne zer neg	
Security	Destination Type	Queue O Topic	
	Is Response Required	V	
	Response Pattern	● JMSCorrelationID	
	Response Message Type	O Bytes ③ 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		
	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.

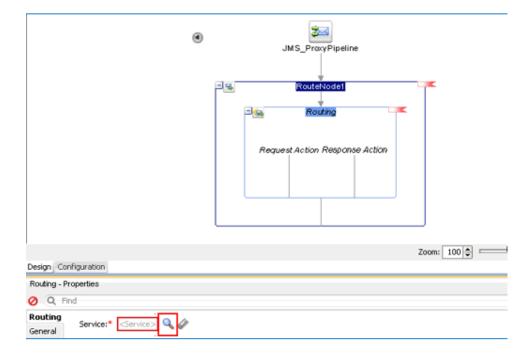
b. Drag and drop the **Routing** component from the Route section to the area below the Pipeline (for example, JMS_ProxyPipeline), as shown in Figure 8–90.

Figure 8–90 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 8–91.

Figure 8–91 Browse Service



d. In the displayed Resource Chooser window, select the WSDL-based Business service (for example, xxxxx_BS.bix) and click **OK**.

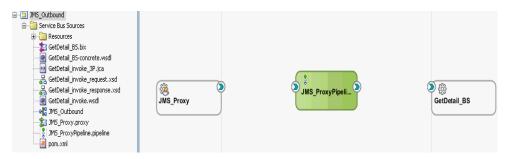
You are returned to the Pipeline configuration page.

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 8–92.

Figure 8–92 Transport Window



- **8.** Deploy the OSB JMS outbound process. For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.
- 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 8–93.

Figure 8–93 JMS Resources

Change Center	Home Log Out Preferences A Record Help
View changes and restarts	Home »Summary of Deployments »Summary of JMS Modules
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of JMS Modules
Lock & Edit Release Configuration Domain Structure	3MS system resources are configured and stored as modules similar to standard 32EE modules. Such resour distributed topics, foreign servers, and 3MS store-and-forward (SAP) parameters. You can administratively This page summarizes the 3MS system modules that have been created for this domain.
base_domain_osb B=Environment D=Deployments D=Services D=Messaging D=MS Servers D=MS Modules D=Path Services D=Bridges D=Data Sources D=Paristent Stores D=Paristent Stores D=Paristent Stores D=Paristent Stores D=Deristent	Customize this table JMS Modules Click the Lock & Edit button in the Change Center to activate all the buttons on this page. New Delete Name ImsResources OSBAQ3MSServer UMSAQ3MSSystemResource
How do I	
Configure JMS system modules Configure resources for JMS system modules	WseeJmsModule New Delete

11. Click the appropriate request link (for example, JMS_ProxyRequest) as shown in Figure 8–94.

	A Preferences 🖂 of Deployments >Sur	nmary of JM	5 Modules » ja	miResource	6				
ttings for jms	Resources								
onfiguration	Subdeployments	Targets	Security	Notes					
This page displa	iys general informati	ion about a l	MS system i	nodule and it	ts resources. It ai	so allows you to configure new resources	and access existing res	ources.	
Same:				jmsResourc	es		The name of this JMS sys	stem module. More Info	
escriptor File	Name:			ms/xbusRe	sources-ins.xml		The name of the IMS mo	dule descriptor file. More Info	
distributed dest	inations, foreign ser	urces that h vers, and st	ave been cre ore-and-fore	sated for this ward parame	s JMS system mod	ule, including queue and topic destination			keys, destination quo
distributed dest Customize th Summary of R	inations, foreign ser is table	vers, and st	ore-and-for	Hard parame	s JMS system mod ters.	ule, including queue and topic destination			keys, destination quol
distributed dest Customize th Summary of R	inations, foreign ser is table tesources & <i>Edil</i> button in the	vers, and st	ore-and-for	Hard parame	s JMS system mod ters.	ule, including queue and topic destination		3MS templates, destination sort i	
distributed dest Customize th Summary of R Click the <i>Lock I</i>	inations, foreign ser is table tesources & <i>Edil</i> button in the	vers, and st	ore-and-for	ward parame	s JMS system mod ters.	ule, including queue and topic destination		3MS templates, destination sort i	eys, destination quot o 10 of 15 Previous Targets
distributed dest Customize th Summary of R Click the <i>Lock 1</i> New Delete Name \approx	inations, foreign ser is table tesources & <i>Edil</i> button in the	vers, and st Change Cen	ore-and-for	word parame	s JMS system mod ters.	ule, including queue and topic destination		3HS templates, destination sort i Showing 1 to	a 10 of 15 Previous Targets
distributed dest Customize th iummary of R Click the Lock I Nerw Detects Name © Marne ©	inations, foreign ser is table tesources & <i>Edil</i> button in the b	Change Cen	ore-and-for	ered parame ate all the but	s JMS system mod ters. ttors on this page	ule, including queue and topic destination		2MS templates, destination sort i Showing 1 to Subdeployment	10 of 15 Previous Targets 1722 wisbJMSSer
distributed dest Customize th Summary of R Click the Lock I Nerw Delete Name © Mare ©	inations, foreign ser is table tesources & <i>Edit</i> button in the yRequest-21433247	Change Cen	ore-and-for	ete all the but	s JMS system mod ters. ttors on this page (ype yueue	ule, including queue and topic destination		JHS templates, destination sort i Showing 1 to Subdeployment JHS_ProxyRequest-214332	10 of 15 Previous Targets 1722 wisbJMSSer

Figure 8–94 JMS_ProxyRequest Link

12. Click the Monitoring tab, as shown in Figure 8–95.

Figure 8–95 Monitoring Tab

in monito Log Co	ut Preferences 🛃	Record Help		Q	Welcome, weblogi
Home >Summary	of Deployments >5	lummary of 3MS M	odules >jmsResource	s >JMS_PressyR	equest-2143324722
ettings for JMS	5_ProxyRequest	-2143324722			
Configuration	Monitoring Co	ontrol Security	Subdeployment	Notes	
General Thre	esholds and Quota	s Overrides	Logging Deliver	y Failure	
Save Use this page to	o define the gener	al configuration p	arameters for this o	ueue, such as s	electing a destination key for sorting messages as they arrive on the queue.
🛃 Name:	JMS_ProxyR	equest-21433247	22		The name of this JMS queue. More Info
🛃 Name: INDI Name:		equest-21433247 xyRequest	22		The name of this JMS queue. More Info The global JNDI name used to look up the destinal namespace. More Info

13. Select the check box and click the **Show Messages** button, as shown in Figure 8–96.

Figure 8–96 Show Messages Button

A Home	Log Out Preferences	Recor	d Melp		Q			Welcome,	weblogic Connected	to: base_domain
Home >Sk	mmary of Deployments	i >Summary	of 3MS Mod	ules »įmsRasources »J	ts_PresyRequest-21433	24722				
iettings f	or JMS_ProxyRequ	est-21433	24722							
Configura	tion Monitoring	Control	Security	Subdeployment M	otes					
Custon	ize this table tions (Filtered - Mo			t have been created i						
Show I	lessages								Showing 1 to 1 o	f 1 Previous Ne
8 N	me A			Messages Currer	t Messages Pending	Messages Total	Consumers Current	Consumers High	Consumers Total	Messages High
1 (m)	Resources!.MS_Prox;	Request-2	143324722	0	0	0	16	16	16	0
Show M	Show Messages Showing 1 to 1 of 1 Previous Next									

14. Click **New**, as shown in Figure 8–97.

Figure 8–97 JMS Messages

This page summarizes the availabl move messages to another destin	a messages for a stand-alone queue, a o ation, export message contents in XML F	distributed queue, or a topic durable : ormat to another file, import XML for	subscriber. Use this page to view message detai matted message contents from another file, or d	s, create new messages, delete selected messages, rain all the messages from a destination.
Click on a message to view its con	tents.			
Message Selector:			Apply	
© Customize this table			A	
© Customize this table JMS Messages (Filtered - Mor	e Columns Exist)			
JMS Messages (Filtered - Mor	e Columns Exist) import _ Export ~ _			Showing 1 to 0 of 0 Previous Nex

- **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 8–98.

Figure 8–98 Destination Messages

DRACLE WebLogic Server	Administration Con	isole 12c								ç
hange Center	🔒 Home Log	Out Preferences	; 🔁 Record Help		Q			Welcome,	weblogic Connected	to: base_domain_
liew changes and restarts	Home >Summa	ery of Deployments	s >Summary of JMS	Modules >jmsResources	>JMS_ProxyRequest-21433247	2 >Summary of JMS M	essages »Summary of JMS I	Aodules »jmsResources	» JMS_ProxyResponse	230658500
Lick the Lock & Edit button to modify, add or delete items in this domain.	Settings for J	MS_ProxyResp	onse230658500							
Lock & Edit Release Configuration	Configuration A JMS destin		Control Securi queue (Point-To-Po		Notes) that is targeted to a JMS se	rver.				
Jomain Structure	This page sur	mmarizes the activ	ve JMS destinations	that have been create	ed for this JMS module.					
ase_domain_losb	Customize	s (Filtered - Mo	re Columns Exis)					Charine 1 in 1	of 1 Previous Next
Store-and-Forward Agents		_								
JMS Modules Path Services	Name 🖉	~		Messages Curr	ent Messages Pending	Messages Total	Consumers Current	Consumers High	Consumers Total	Messages High
B-Bridges —Data Sources —Persistent Stores —Foreign JNDI Providers —Work Contexts	Show Mess		yResponse2306585	00 1	0	1	16	16	16 Showing 1 to 1 o	1 of 1 Previous Next
iow do I E	3									
Manage queue messages Configure queues										
ystem Status	8									
ealth of Running Servers										
Failed (0)										
Critical (0)										

20. Click the ID link with the appropriate time and date, as shown in Figure 8–99.

← → C 🗋 localhost:7001/con	nsole/console.portal?JmsJMSMessage	eTablePortletreturi	nTo=JMSQueueMonitorBook&Jms[DestinationsJMSQ	ueueMonitorPortlethandle	=com.bea.consol: 았
	dministration Console 12c					Q
Change Center	🔒 Home Log Out Preferences 🔤 Record H	ielp	Q		Welcome, weblogic Co	nnected to: base_domain_os
View changes and restarts	Home >Summary of Deployments >Summary of Jh JMS Messages	MS Modules >jmsResources	>JMS_ProxyRequest-2143324722 >Summary of JMS M	essages >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					
Look & Exit Release Configuration	move messages to another destination, export		a distributed queue, or a topic durable subscriber . Format to another File, import XML formatted mess			
Domain Structure	Click on a message to view its contents.					
base, donan, oob Descrivorment — Desphyments De Services De Services — TMS Servers — TMS Services — TMS Noulives — TMS Noulives De Services — TMS Noulives	Message Selector: Customize this table JMS Messages (Filtered - More Columns			Age	<u>v</u>	
The Data Sources Persistent Stores	New Delete v Move v Import Ex	port 🗸			Showing	1 to 1 of 1 Previous Next
Foreign JNDI Providers	🔲 ID 🔅	CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size
How do I 🗉	ID:<357562.1400618107339.0>		Tue May 20 13:35:07 PDT 2014	visible	Persistent	1914
Manage queue messages Manage distributed queue messages	New Delete v Move v Import Exp	port v			Showing	1 to 1 of 1 Previous Next
 Manage topic durable subscribers 						
System Status						
Health of Running Servers						
Fafed (0)						

Figure 8–99 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 Siebel system, using Oracle JDeveloper for J2CA configurations.

- 1. 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 8–100.

Figure 8–100 HTTP Component

Start Page HTTP_Outbour	1 · · ·		Resources	Components ~	
✓ X		HTTP_Outbound	Q.		
Proxy Services	Pipelines-Split Joins	External Services	Service Bus Resources Poeline Technology AQ Service Coherence	SpitJoin AS(400 @ Database @	
	To create resources, drag and drop an icon from the component patette to the canvas or select one from the right-click context menu		200 200 MQ 200 200 200	MS JMS Transport Content Socket	Ri Tuo

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 8–101.

Figure 8–101 Create Proxy Service Pane

🍘 Create Proxy Service	e - Step 1 of 3					×
Create Service					01010396969695550	
Create Service Type Transport	General Service Name: Location: Description	HTTP_Proxy C:\soabeta\work\mywork	\OSB_Application\HTT	P_Outbound		Q.
	••• Definition •••• (a) <u>I</u> ransport	http				
	✓ Generate Pipeline Name:	Pipeline HTTP_ProxyPipeline				
	Messages:					
Help			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

- **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 8–102.

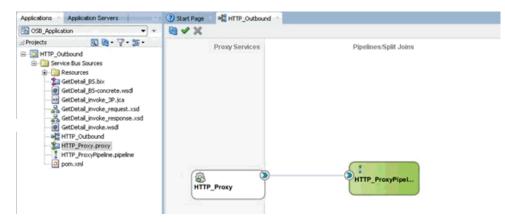
🍘 Create Proxy Service -	Step 3 of 3					×
Transport						
🙊 Create Service	Service Type	: Any XML				
U Type	Transport	http				-
Transport	Endpoint <u>U</u> RI:	/HTTP_Outbound/HTTP_Pro	ху			
		Format: /someName				
Help			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–102 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 8–103.

Figure 8–103 Proxy Service



The Pipeline Configuration page is displayed.

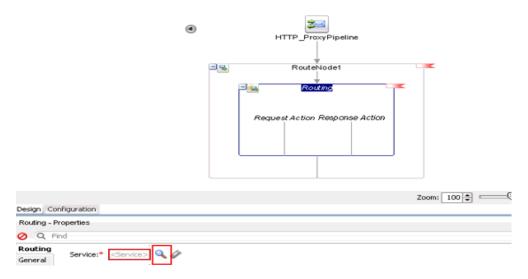
- 5. Configure the Routing Rules and proceed with the following steps:
 - **a.** Drag and drop the **Routing** component from the Route section to the area below the Pipeline (for example, HTTP_ProxyPipeline), as shown in Figure 8–104.

Figure 8–104 Routing Component

() Start Page Start Page HTTP_Outbound HTTP_ProxyPipeline.pipel	Deutin		Resources	Components -	
			Q.e		
			Message Flow		
	TP_ProxyPipeline		Nodes Route	Pipeline Pair Coperational Branch	Stage A
	♦		Route		
			Dynamic Routing	Routing	Routing Table
			2 If Then		
			Communicatio	0	
) Dynanic	E Publish	Publish Table
	Zoom: 100 🗘 🦳 💬	Reset	Publish		
Design Configuration				2	-

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 8–105.





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 8–106.

Figure 8–106 Transport Window

🔁 OSB_Application 🔹	- ₩ < X		HTTP_Outbound
Projects Proje	Proxy Services	Pipelines/Spift Joins	External Services

- **6.** Deploy the OSB HTTP outbound process. For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.
- 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 8–107.

Figure 8–107 Service Bus Console

C D locathost:7001/serv		Unio 🛩 🕴	nip = meblogić =
			Create Discard
	HTTP_Outbound ×		E 🗿 🕃 🛙
aurces Admin - B & M Projects - All Projects - O drak - O HTIP: Outbound	Project Definition <i>d</i> Ceneral Cesoption		þ
GetDetal_85 GetDetal_85-concrete GetDetal_invola	EHTTP_Outbound Ver + ⅔ E2 20ctach		
GetDetal_Invoka_3P		AI Types	•
💑 GetDetal_invoke_request	Nate	Type	Actions
A GetDetal_invoke_response HTTP_Proxy	★	Protect	
HTTP_ProxyPipeline	g GetDetal_85	Business Service	A 1
🔯 System	GetDetal_85-concrete	WSDK	
	GetDetal_invoke	WSDL	
	State	XCA Binding	
	SetDetal_invoke_request	Schema	
	A GetDetail Involve_response	Schema	
	2aHTTP_Proxy	Proxy Service	
	HTTP ProxyPoeine	Pipeline	Þ 1

9. Click on the Test OSB Console icon for the created pipeline, as shown in Figure 8–108.

All Projects default HTTP_Outbound		bruni ganar	4	
GetDetal_BS		HTTP_Outbound		
GetDetal_BS-concrete GetDetal_invoke		View 👻 🔣 🛃 Detach		
GetDetal_invoke_3P		4	All Types	•
A GetDetal_invoke_request		Name	Туре	Action
A GetDetall_invoke_response		全	Project	
HTTP_ProxyPipeline		a GetDetai_BS	Business Service	
> 🔯 System	4	GetDetai_B5-concrete	WSDL	
		@ GetDetal_invoke	WSDL	
		GetDetal_invoke_3P	JCA Binding	
		SetDetal_invoke_request	Schema	
		💦 GetDetal_invoke_response	Schema	
		HTTP_Proxy	Proxy Service	
		HTTP_ProxyPipeline	Pipeline	

Figure 8–108 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.

9

Key Features

This chapter describes new features for the Oracle Application Adapter for Siebel. This chapter contains the following sections:

- 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) Using JDeveloper"

9.1 Exception Filter

This section describes how to configure exception filter functionality for the Oracle Application Adapter for Siebel 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 a WSDL file:

1. Open Application Explorer and create a J2CA configuration.

For more information, see "Creating a Configuration for J2CA" on page 2-4.

2. Create a target for the Siebel adapter and then connect to the target.

For more information, see "Establishing a Connection (Target) for Siebel" on page 2-5.

3. Generate a WSDL for the appropriate object.

For more information, see "Generating WSDL (J2CA Configurations Only)" on page 2-27.

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 "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 "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 "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.

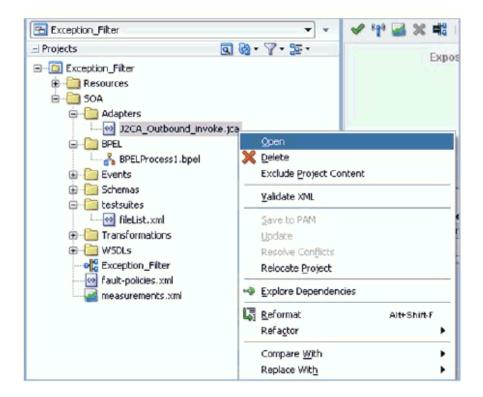


Figure 9–1 Application Navigator Tab

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 "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.

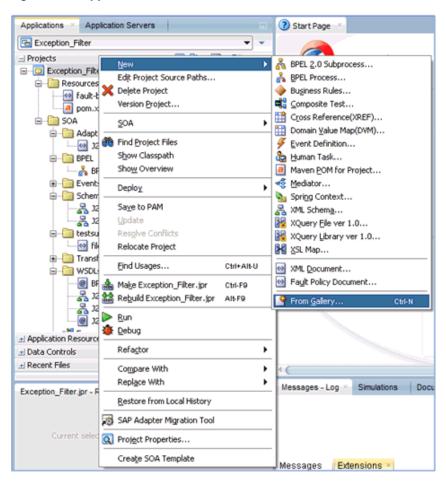


Figure 9–2 Applications Tab

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>
```

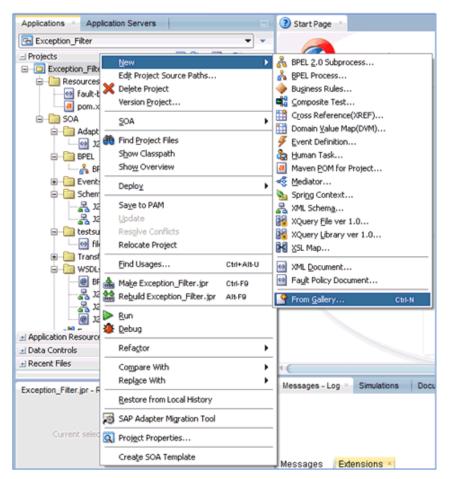
```
</faultPolicyBindings>
```

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 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			. . .
			T
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 Image: Tetry default-retry Alerts Actions Properties ID *: ID Retry Properties ID Retry Count *: Idefault-termination Retry Interval *: default-human Exponential Backoff: default-java Retry Success Action:	
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:	bpelx:bindingFault		-	Q
Description:				
Default Action	🔀 [abort] default-termination		• <u>(0)</u> •	+
	[abort] default-termination Properties		• <u>(0)</u> •	+
			,	+ / X
		Туре	,	
Alerts Actions		Type	,	
Alerts Actions ID default-termination			,	
Alerts Actions		🔀 abort	,	
Alerts Actions ID default-termination default-human default-java		abort	,	
Alerts Actions ID default-termination default-human		🔀 abort 🌡 humanIntervention 🛞 javaAction	,	
Alerts Actions ID default-termination default-human default-java default-replay		🔀 abort ③ humanIntervention ⓒ javaAction 쉒 replayScope	,	

- 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
		• • / 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 brunnantervent brunnant	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**.

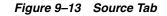
The created Retry ID will be listed under the Actions tab.

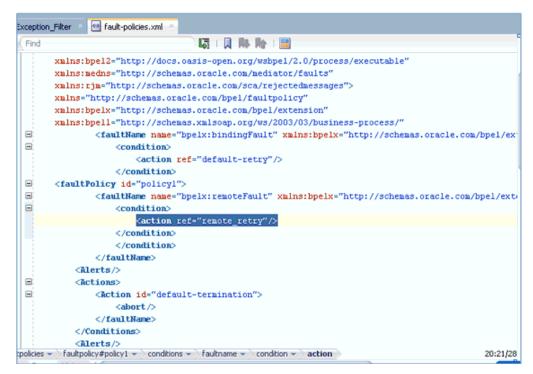
From the Default Action drop-down list, select the newly created Retry ID (for example, remote_retry) as shown in Figure 9–12.

Figure 9–12 Fault-policies.xml Tab

+ > Q
• 9
▼ Q
▼ ① (0) ▼
💠 - 🧷 💥
⊕ • ∥ %
ueue
Jene
Jeue ction

- 13. Click Save All.
- **14.** Click the **Source** tab to verify that the fault polices are added properly, as shown in Figure 9–13.





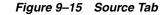
15. Double-click the **Exception_Filter** project and then click **Edit Composite Fault Policies**.

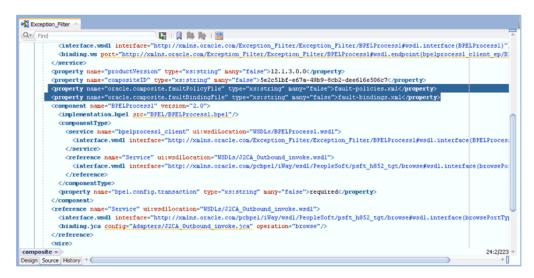
The Composite Fault Policies window is displayed. Ensure that the Fault Policy and the fault-bindings are selected properly, as shown in Figure 9–14.

Exposed S	Composite Fau	lt Policies		
			dual policies to composite artif hose 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	
□ ∰	Composite			
bpelprocess1	Components			
Operations: process	A BPELProcess1			
(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 "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 "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 Siebel 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 Siebel 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 (Siebel 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 (Siebel).

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.

		(%) ниемаарсег
System Status		
Health of Running Servers		
Failed (0) Critical (0)		🗈 🦲 ibse
Overloaded (0) Warning (0)		<mark>⊗iwafica</mark>
OK (2)		🕀 🧃 İiwafjca, Level 1, 13 of 33
		🐼 JmsAdapter
		MQSeriesAdapter
	П	🛱 Oracle Apps Adapter

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

verviev	v Deplo	yment Plan	Configuration	Security	Targets	Control	Testing	Monitoring	Notes								
Roles	Policies	Outbound	Credential Maj	opings I	nbound Prin	cipal Mappi	ngs Prin	cipals									
outbou	nd creden	tial mappings	let you map We for all outbound for this resource	connection													
	nize this																
		table ential Mappi	ngs											Sho	ving 0 to 0 c	f0 Previo	us Ne
New	ind Crede	ential Mappi	ngs		EIS User			Out	bound Co	onnectio	Pool			Sho	ving 0 to 0 c	f0 Previo	us N
New	Delete	ential Mappi	ngs		EIS User		T	Out		- 1997a	Pool	ingent-		Sho	ving 0 to 0 c	f0 Previo	us N

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	Outbound Connection Pool							
	Which Outbound Connection Pool would you like the credential map to be associated w this 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 Happing
Back Next Cancel
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 started. Selecting Default User' will configure the user that will be used as the default for any authentisated WebLopic Server user that does not have a credential mapping specifically for them. Selecting User for unsufficient to default user that will be used for an unauthenticated WebLopic Server user. If you select 'Configured Use' you must type in the WebLopic Server user that you are configured. This user must be a configured twise server user.
◎ User for creating initial connections
® Default User
O Unauthenticated WLS User
© Configured User Name
WebLogic Server User Name:
Back Next [Finin] [Cancel]

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 would * Indicates required fields	d 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 (Siebel). 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 2-4.

2. Create a target for the Siebel adapter and then connect to the target.

For more information, see Section 2.4, "Establishing a Connection (Target) for Siebel" on page 2-5.

3. Generate a WSDL for the appropriate object.

For more information, see Section 2.12, "Generating WSDL (J2CA Configurations Only)" on page 2-27.

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(310931173183113182333215315332323192322731773172)
```

9.3 Credential Mapping for Oracle Service Bus (OSB) Using JDeveloper

This section describes how to configure credential mapping functionality for the Oracle Application Adapter for Siebel 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 Siebel 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 (Siebel 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 J2CA container, which uses them to connect with the EIS adapter (Siebel).

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. Section 9.3.1.1, "Associating Oracle WebLogic Server Credentials With EIS Credentials"
- 3. Section 9.3.1.2, "Generating a WSDL File"
- 4. Section 9.3.1.3, "Creating an Oracle Service Bus (OSB) Outbound Process"

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.					
Dase_domain Deployments	To install a new application or module for deploymen					
E Services Security Realms	Customize this table					
Interoperability Diagnostics	Deployments					
es oragnosocs	Install Illoviate Delete Start Ston -					

The Deployments page is displayed, as shown in Figure 9–22.

			⊘ FileAdapter
System Status	Ξ		■ ■ FMW Welcome Page Application (11.1.0.0.0)
Health of Running Ser	vers	_	
E B	ailed (0)	<u> </u>	Ø rtpauapter
0	ritical (0)		∎
	verloaded (0) /arning (0)		<mark>⊘iwafica</mark>
	K (2)		🕀 🦲 İwafjca, Level 1, 13 of 33
			🐼 JmsAdapter
			MQSeriesAdapter
		П	😹 OracleAppsAdapter

Figure 9–22 Deployments Page

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	ca								
Overvie	w Depk	yment Plan	Configuration	Securit	y Targets	Control	Testing	Monitoring	Notes	
Roles	Policies	Credentia	l Mappings	Principals						
creder mappi	itial mappir	ngs for all out resource ada table	bound connecti							to which you want t for individual conne
New	Delete	2								
	WLS User	~)	EIS User			Outbound	Connectio	on Pool
							There ar	e no items to	display	
New	Delete	2								

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.

Back	a New Security Credential Mapping
Out	bound Connection Pool
	h Outbound Connection Pool would you like the credential map to be associated w resource adapter. Each Outbound Connection Pool can then configure themselves
(IIIS)	esource adapter, Latin outpuint connection Poor can their connigure themsenes
Cust	tomize this table
Lrea	te a New Security Credential Map Entry for:
Lrea	te a New Security Credential Map Entry for:
	Outbound Connection Pool ↔
□ □	
	Outbound Connection Pool 🌣

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.

Figure 9–25 WebLogic Server User Page

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-	re 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	
O Default User	
O 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.

reate a New Security Credential Mapping	
Back Next Finish Cancel	
EIS User Name and Password	
Configure the EIS User Name and Password that yo	u would like to map the WebLogic Server User to
* Indicates required fields	
Enter the EIS User Name:	
*EIS User Name::	iwayqa
Enter the EIS Password:	
	••••••
Enter the EIS Password: * EIS Password:: * Confirm Password::	•••••

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 (Siebel). 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 "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 "Creating a Configuration for J2CA" on page 2-4.

3. Create a target for the Siebel adapter and then connect to the target.

For more information, see "Establishing a Connection (Target) for Siebel" 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 × Applic	cation Servers		🕑 St.	art Page 🔺	05B_Cred	ential ×
🔁 OSB, Application	•	•] •	<u>අ</u>	/ %		
- Projects	Sin 1 (1)					
HTTP_Outbound		Î	_			
🗄 🛅 Resourc	<u>N</u> ew	•	0	<u>A</u> lert Destin	ation	
	Edit Project Source Paths Delete Project			Business Se	rvice rence(XREF)	
🧰 GetDeta 🔤 🔤	Service <u>B</u> us	•	_	Doma <u>i</u> n Valu JN <u>D</u> I Provid	ue Map(DVM) ler	
) <u>F</u> ind Project Files <u>S</u> how Classpath Sho <u>w</u> Overview		6	MFL MQ Connect Maven POM	tion I <u>f</u> or Project	
GetDeta GetDeta	Deploy	•	4	<u>N</u> XSD Scher <u>P</u> ipeline	na	
± Application Resour	Find <u>U</u> sages Ct	I+Alt-U		Pipeline <u>T</u> en	nplate	
± Data Controls ± Recent Files	Run Debug			Prox <u>y</u> Serve P <u>r</u> oxy Servi	ce	
OSB_Credential.jpr -	Refactor	•	-	SOA WSDL		
	Compare Wit <u>h</u> Repl <u>a</u> ce With))	₽			
	Restore from Local History			Split-Join Throttling G	roup	
Q	Project Properties		1 - 1	UDDI Regist	•	
Current select	Import Export			WS-Policy F WSDL Docu XML Schema	ment	
				XQuery File XQu <u>e</u> ry Libr <u>X</u> SL Map	ver <u>1</u> .0 ary ver 1.0	
Opened nodes (12); Save	ed files(2)		9	Erom Gallery	y	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	it - Step 1	of 1				×
Create S	ervice Acco	unt				101010101010102310	1
General							
<u>N</u> ame:	OSB_static						
Location:	C:\soabeta\wo	rk\mywork\@	OSB_Application	OSB_Credenti	al		Q,
Description							
Messages							
<u>M</u> essages:							
Help				< <u>B</u> ack	Next >	Einish	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 🔹 🔹 🔮 Start Page × 🖓 OSB_Credential × 🔒 <i>OSB_static.sa</i>							
🔁 OSB_Application 🔹 🗸							
🖃 Projects 🛛 🔍 🗞 🗸 🖓 🕶 📰 🗸							
🗄 🛅 jde_jca_getettadd 🔺	🔒 Service Account						
🖶 🛅 JMS_Inbound	Create a Service Account Resource						
🗄 🔚 JMS_Outbound 👩							
OSB_Credential	Description:						
E Resources							
File out.bix							
GetDetail_B5.bix							
GetDetail_BS-concrete.wsdl	Resource Type: O Pass Through						
GetDetail_invoke_3P.jca							
GetDetail_invoke_request.xsd	() <u>M</u> apping						
GetDetail_invoke_response.xsd	0						
@ GetDetail_invoke.wsdl							
🛁 GetDetail_PS.proxy	Static User Configuration						
🔤 🚦 GetDetail_PSPipeline.pipeline	User Name: weblogic						
OSB_Credential	user Name: webiogic						
	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.

Seperal					
Fransport	a JCA Transport Configuration				
Fransport Details	Use this page to configure the tran	sport information for this service	}		
Nessage Handling	JCA File	<pre> @OSB_Credential/GetDeta </pre>	iil_invoke_3P.jca 🔍 🥔		
erformance	Adapter Name	Way ERP Adapter			
olicies	Adapter Type	iway			
	Dispatch Policy	58Def aultResponseWorkManager			
	JNDI Service Account	<not selected=""> 🔍 🖉</not>			
	EndPoint Properties			+ >	
		property	value		
	Dynamic EndPoint Properties			+ >	
		property	value		

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.

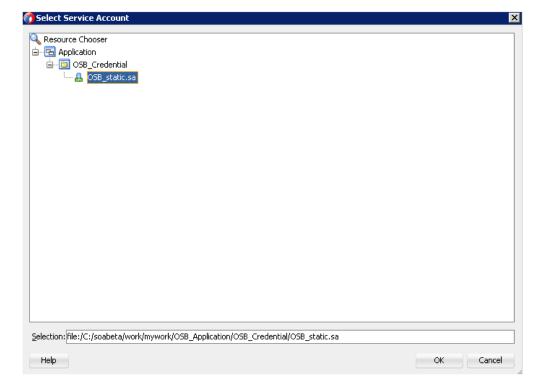


Figure 9–31 Select Service Account

10. Save and close the configuration page, as shown in Figure 9–32

) 🚵 🏙 🕌 👂 Start Page × 여명 여	> 🛛 🦉 🗸 DSB_Credential 🔺 🏂 GetDetail	85.bix ×		
General Transport Transport Details Message Handling Performance Policies	JCA Transport Configur Use this page to configure the to JCA File Adapter Name Adapter Type Dispatch Policy JNDI Service Account	ransport information for this servic CSB_Credential/GetDe IWay ERP Adapter Iway SBDefaultResponseWork	tail_invoke_3P,jca 🔍 🏈	
	EndPoint Properties	B OSB_Credential/OSB_s	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 Siebel. It contains the following topics:

- Section 10.1, "Troubleshooting"
- Section 10.2, "BSE Error Messages"

10.1 Troubleshooting

This topic provides troubleshooting information for Siebel, separated into four categories:

- Section 10.1.1, "General Usage Notes for the Oracle Application Adapter for Siebel"
- Section 10.1.2, "Application Explorer"
- Section 10.1.3, "Siebel"
- Section 10.1.4, "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 General Usage Notes for the Oracle Application Adapter for Siebel

The Oracle Application Adapter for Siebel is subject to the following limitations:

- The HTTPS protocol is not supported for services and events.
- Updates for multi-value (MVG) fields with join specifications are not supported.
- When a connection is lost, the adapter does not automatically reconnect to Siebel.

10.1.2 Application Explorer

This topic discusses the different types of errors that can occur when using Application Explorer.

Error	Solution
Siebel does not appear in the Application Explorer Adapter node list.	Ensure that the Siebel jar files supplied with your Siebel distribution media have been placed in the <adapter_home>\Oracle_ SOA1\soa\thirdparty\ApplicationAda pters\lib directory. For example, for Siebel 7.03 environments, the SiebelJI_ Common.jar and SiebelJI_enu.jar should be placed in this directory.</adapter_home>
Target Type drop down contains only Java Data Bean Connection and COM connection type is desired.	Ensure that the Siebel thin client is installed correctly on the system hosting Application Explorer so that appropriate COM environment is available.
An error message that includes the name of the Siebel Gateway server appears when you try to connect to a Siebel target. For example,	Ensure that the name of the Siebel Gateway server is correctly defined for the target you are using.
Problem activating adapter (<server_name>). Check logs for more information.</server_name>	
You receive the following error when trying to connect to a Siebel target:	Ensure that the User ID and password parameter values to connect to your Siebel
Problem activating adapter. (You have entered an invalid set of logon parameters. Please type in your logon parameters again.). Check logs for more information.	system are correct.
You receive the following error when trying to connect to a Siebel target:	Check on network connectivity to Siebel environment. Correct networking problem
Problem activating adapter. (Couldn't get nameserver connection). Check logs for more information.	and retry connection.
You receive the following error when attempting to connect to a Siebel target:	Ensure that the values defined for Siebel Server, Enterprise Name, and Object Manager
Problem activating adapter. (NSReadKey request failed (no error information)). Check logs for more information.	for the target you are using are correct, and retry the connection
You receive the following error when attempting to connect to a Siebel target:	Ensure that the value of the Language parameter on the Advanced tab is defined
Problem activating adapter. (Error loading translatable messages: com.siebel.locale.enux.messages.SS AMessages_enux). Check logs for more information	correctly for the target you are using to connect to your Siebel system (for example, enu for English).

Error	Solution
A successful connection is made to Siebel environment but no values are available in Business Object, Business Service, and Integration Object nodes in Application Explorer tree.	The Repository Name specified on the Advanced tab in the Siebel target configuration is either void or empty of any components in the targeted Siebel environment or that Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation then re-connect.
Logon failure error at run-time.	If the password for connecting to your Siebel system is not specified when creating a target or with the Edit option in Application Explorer, then you are unable to connect to Siebel. 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:
java.lang.ClassNotFoundException: org.bouncycastle.jce.provider.Boun cyCastleProvider	<pre>ftp://ftp.bouncycastle.org/pub</pre>
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.createConnectionFactor 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.cinit>(JCATransport.java: 62)at com.iwaysoftware.iwae.common.Adapt erClient.<init>(AdapterClient.java :85)at com.ibi.bse.ConfigWorker.run(Confi gWorker.java:41)at java.lang.Thread.run(Thread.java:5 34)</init></pre>	JAVACMD=/ <jdk_home>/bin/java, where <jdk_home> is the directory where JDK is installed on your system.</jdk_home></jdk_home>
34) Could not create the connection factory.	

10.1.3 Siebel

The error messages listed can occur when using the adapter with either a BSE or Oracle Adapter J2CA repository project.

Error	Solution
A successful connection is made to Siebel environment but no values are available in Business Object, Business Service, and Integration Object nodes in Application Explorer tree.	The Repository Name specified on the Advanced tab in the Siebel Target configuration is either void or empty of any components in the targeted Siebel environment or that Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation then re-connect.
When executing a request, the following error message appears:	Verify that method is available for specific request by verifying schema.
AdapterException: Unsupported Action: {0} Tquery	
When executing a request, the following error message appears:	Ensure that field names are valid within request document by referring to schema for
AdapterException: Field 'NFame' does not exist in definition for business component 'Account'. Please ask your systems administrator to check your application configuration.	that specific object, and then re-submit the request.
When connecting to releases before Siebel 7.7 using the Java Data Bean Interface, you cannot reconnect after initial connection loss. This might occur when Application Explorer experiences a brief loss of network connection or if the Siebel Server or Gateway Service is restarted while Application Explorer is logged into the Siebel application.	Restart Oracle WebLogic Server and Application Explorer to log in successfully to the Siebel application. This is a known Siebel API issue. For more information, see Siebel Alert 984.
The following error may occur when adding a service node for a Business Service that includes methods containing method arguments having hierarchy data types.	The method argument XMLCharEncoding is not supported. Leave this element blank in the XML payload.
If you enter a valid XMLCharEncoding value such as UTF-8 or UTF-16, then the following error is received:	
Invocation of Service failed.	

10.1.4 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:
Could not initialize JCA	<adapter_home>\tools\iwae\bin\\\</adapter_home>

10.2 BSE Error Messages

This topic 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, "Oracle Application Adapter for Siebel Invalid SOAP Request"
- Section 10.2.2.2, "Empty Result From Siebel Request"
- Section 10.2.2.3, "Oracle WebLogic Server Integration Adapters"
- Section 10.2.2.4, "Invalid SOAP Request"
- Section 10.2.2.5, "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 Oracle Application Adapter for Siebel Invalid SOAP Request

If Oracle Application Adapter for Siebel 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>XD[FAIL] Parse failure (IS) 3: org.xml.sax.SAXParseException:
Premature end of file.</faultstring>
</SOAP-ENV:Fault>
</SOAP-ENV:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

10.2.2.2 Empty Result From Siebel Request

If Oracle Application Adapter for Siebel cannot connect to Siebel when executing a Web service, 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><Exception> - major:4096 minor: -1 message:NSReadKey request 11 was
abandoned
after 37846ms connection:12a due to Connection shutdown request
Connection reset by peer:JVM_recv in socket input stream
stream read DetailedMessage:Unknown</Exception></faultstring>
</SOAP-ENV:Fault>
</SOAP-ENV:Fault>
</SOAP-ENV:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

10.2.2.3 Oracle WebLogic Server Integration Adapters

Oracle Adapters connect BSE to adapters whose engines are other Oracle servers. Therefore, since this type of adapter is used to connect BSE to many different target systems, the error handling behavior is consistent. Check the user guide for your adapter to see if you require the Oracle WebLogic Server Integration Adapter when running Web services.

10.2.2.4 Invalid SOAP Request

If Oracle Application Adapter for Siebel 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:Body>
</SOAP-ENV:Envelope>
```

10.2.2.5 Empty Result From Oracle WebLogic Server Adapter Request

If Oracle Application Adapter for Siebel 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.

```
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/1999/XMLSchema">
<SOAP-ENV:Body>
<m:RunDBQueryResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
xmlns="urn:schemas-iwaysoftware-com:iwse"
cid="2A3CB42703EB20203F91951B89F3C5AF">
<RunDBQueryResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
cid="2A3CB42703EB20203F91951B89F3C5AF">
<RunDBQueryResponse>
</SOAP-ENV:Body>
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Using Siebel Workflows

When using Siebel XML to integrate with Siebel Integration Objects, the interface uses a Siebel Workflow.

Note: This appendix is intended as a supplement to the documentation designed for Oracle Application Adapter for Siebel user and is not intended as a substitute for Siebel documentation. For complete and up-to-date information on Siebel Workflow and policy topics, see the Siebel Bookshelf for your Siebel system.

This appendix contains the following sections:

- Section A.1, "Overview"
- Section A.2, "Creating a Siebel Workflow"

A.1 Overview

A Siebel Workflow is defined within Siebel to emit or to receive Siebel XML. In either case, emitting or receiving is handled by Siebel transport services for MQSeries, File, or HTTP. This section contains the following topics that describe the use and creation of workflows that employ the supported transport services:

- Section A.1.1, "Siebel Workflows"
- Section A.1.2, "Using a Policy to Invoke a Siebel EAI Workflow"
- Section A.1.3, "Siebel Workflow Outbound"
- Section A.1.4, "Siebel Workflow Inbound"

A.1.1 Siebel Workflows

A Siebel Workflow is a series of Siebel Business Services linked together to accomplish a business task. You create workflows using the Siebel Client Workflow Administration screens. Workflows are invoked through one of the following methods:

- Using a workflow policy
- Using a run-time event (Siebel Event)
- Using a script (eScript or Siebel VB)

The following topic briefly describes how to invoke the workflow through a policy condition.

See Also:

Siebel Bookshelf documentation for more information on policy and other methods.

A.1.2 Using a Policy to Invoke a Siebel EAI Workflow

A workflow policy is defined by a set of conditions that performs a set of defined actions. A Siebel workflow policy consists of:

- Conditions that define circumstances, based on changes in the state of a Siebel database.
- Actions that define steps taken when conditions are fulfilled.

Creating a policy to invoke a workflow as an action involves the following steps:

- **1.** Define an action to be executed after a policy is triggered. Use the Run Integration Process program.
- **2.** Create a policy by setting conditions and selecting appropriate policy groups and actions.
- 3. Activate the policy by choosing an activation date.
- **4.** Run the Generate Triggers server task from Server Administration windows to set the conditions to be monitored.
- **5.** Start the Workflow Monitor agent after editing with the appropriate policy group (to which your policy belongs) to evaluate whether to perform an action.
- **6.** Start the Workflow Action Agent server task from Server Administration windows to perform the action.

A.1.3 Siebel Workflow - Outbound

When a Siebel Workflow is triggered based on a Siebel policy, run-time, or script (eScript or Siebel VB) event, the result is the generation of a Siebel XML document that is placed on one of the Siebel transports. For example, when you add a new account in the Siebel Call Center application, you can design and configure a workflow to be triggered on the account transaction. You can design the workflow to extract the data for the new record, convert it to Siebel XML, and then, place it on an MQSeries message queue.

In this example, the Siebel Workflow process executes the following series of Siebel Business Services:

- **1.** Calls the Siebel EAI Siebel Adapter that queries for the newly updated account record and places the data in its original internal structure into memory.
- 2. Calls the Siebel EAI XML Converter that converts the data into an XML message.
- **3.** Calls the Siebel EAI MQSeries Transport that places the newly created XML message into the appropriate MQSeries message queue

After the message is placed in the message queue, it is retrieved by Oracle Application Adapter for Siebel 6.3 and higher. The following Workflow sequence illustrates the previous steps, as shown in Figure A–1.

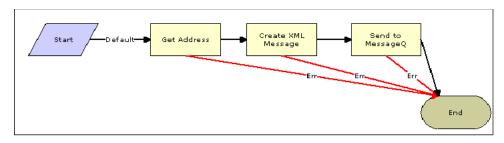


Figure A–1 How to Create a Siebel Workflow That Exports Siebel Update Data

A.1.4 Siebel Workflow - Inbound

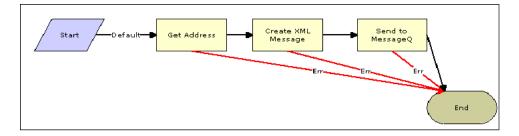
A Siebel Workflow that is triggered by an external event begins by receiving a Siebel XML document placed on one of its transports. The result might be the update of a Siebel record using the XML as input, for example, when a new account is added in another CRM system but also must be updated in the Siebel Call Center application. You can design and configure a Workflow to receive or listen on an MQSeries message queue. Upon receipt of the XML message, the Workflow processes the transaction into the Siebel system to update the record.

In this example, upon receipt of the Siebel XML message in the message queue, the Siebel MQSeries Receiver server task initiates a Siebel Workflow process, which in turn executes a series of Siebel Business Services as follows:

- **1.** Calls the Siebel EAI XML Converter, which converts the XML message into Siebel internal format.
- **2.** Calls the Siebel EAI Siebel Adapter, which applies the newly updated account record based on the methods defined in its service.

The following is a sample of the Workflow process, as shown in Figure A–2.

Figure A–2 Sample Workflow Process



A.2 Creating a Siebel Workflow

This section contains the following topics that include procedures for creating Siebel Workflows in the Siebel Workflow Administration window:

- Section A.2.1, "Creating a Siebel Workflow for an Event Using MQSeries Transport"
- Section A.2.2, "Creating a Siebel Workflow for an Event Using File Transport"
- Section A.2.3, "Creating a Siebel Workflow for an Event Using HTTP Transport"
- Section A.2.4, "Creating a Siebel Workflow for a Service Using MQSeries Transport"

- Section A.2.5, "Creating a Siebel Workflow for a Service Using File Transport"
- Section A.2.6, "Creating a Siebel Workflow for a Service Using HTTP Transport"

A.2.1 Creating a Siebel Workflow for an Event Using MQSeries Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for exporting Siebel Account record information using the MQSeries transport.

The following is a Siebel Workflow Administration window, as shown in Figure A–3.

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Figure A–3 Siebel Workflow Administration Window

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application. The Workflow is then placed on an MQSeries message queue.

To create a Siebel Workflow:

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

The Account message contains Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow has converted to XML.

The following window is displayed, showing the Process Properties tab active, as shown in Figure A–4.

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Figure A–4 Process Properties Tab of the Workflow Process Window

- 2. Use the Siebel Workflow Administration windows to create a Workflow.
- **3.** Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it Get New Account.

The Business Service obtains the Account information from Siebel using the Query method.

Output from this Business Service is generated in hierarchical format, as shown in Figure A–5.

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Figure A–5 Output From Business Service Generated From a Hierachical Format

4. Define an EAI XML Converter Business Service step and call it Convert to XML.

It is defined to receive the Account data from the EAI Siebel Adapter Business Service in hierarchical format and convert it to XML format, as shown in Figure A–6.

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Figure A–6 EAI XML Converter Business Service

5. Define an EAI MQSeries server transport Business Service step and call it Send to Q, as shown in Figure A–7.

It is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to MQSeries using the Send method.

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Figure A–7 EAI MQ Series Server Transport Business Server Send to Q

A.2.2 Creating a Siebel Workflow for an Event Using File Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for exporting Siebel Account record information using the File transport.

The following window is displayed with the Process Designer tab active, as shown in Figure A–8.

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Figure A–8 Siebel Workflow Administration Window

This procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application and then places Siebel XML on the file system.

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Figure A–9 Process Properties Tab of the Workflow Process Window

1. On the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–9.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies which Siebel Account data the Workflow converted to XML.

2. Use the Siebel Workflow Administration windows to create a Workflow.

As shown in Figure A–10, the following is an example of a Siebel Workflow Administration window.

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Figure A–10 Siebel Workflow Administration Window

3. Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it Get New Account.

The Business Service obtains the Account information from Siebel using the Query method.

Output from this Business Service is generated in hierarchical format.

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Figure A–11 Creation of an EAI XML Converter

4. As shown in Figure A-11, define an EAI XML Converter Business Service step and call it Convert Account Data to XML.

This Business Service is defined to receive the Account data from the EAI Siebel Adapter Business Service in hierarchical format and convert it to XML format.

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Figure A–12 File Transport for the EAI XML Converter Business Service

5. As shown in Figure A-12, define an EAI File Transport Business Service step and call it Send Account Data.

This Business Service is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to the file system in a specified directory using the Send method.

A.2.3 Creating a Siebel Workflow for an Event Using HTTP Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for exporting Siebel Account record information using the HTTP transport.

This procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application.

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Figure A–13 Process Properties Tab of the Siebel Workflow Process Window

1. As shown in Figure A–13, in the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the Workflow has converted to XML.

2. Use the Siebel Workflow Administration windows to create a Workflow.

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Figure A–14 Siebel Workflow Administration Window

3. As shown in Figure A–14, define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it Get New Account.

The Business Service obtains the Account information from Siebel using the Query method.

Output from this Business Service is generated in hierarchical format.

4. Define an EAI XML Converter Business Service step and call it Convert to XML.

This Business Service is defined to receive the Account data from the EAI Siebel Adapter Business Service in hierarchical format and convert it to XML format.

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Figure A–15 EAI XML Converter Business Converter Business Service

5. Define an EAI HTTP Transport Business Service step and call it Send - HTTP, as shown in Figure A-15.

This Business Service is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to HTTP using the Send method.

A.2.4 Creating a Siebel Workflow for a Service Using MQSeries Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for importing Siebel Account record information through the MQSeries Transport.

Figure A–16 shows a sample Siebel Workflow Administration window.

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Figure A–16 Siebel Workflow Administration Window

This procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application.

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Figure A–17 Process Properties Tab of the Siebel Workflow Process Window

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–17.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the Workflow converted to XML.

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Figure A–18 Creation of an EAI MQ Series Server Transport Business Service

2. Define an EAI MQSeries Server Transport Business Service step and call it Receive, as shown in Figure A–18.

The Business Service is defined to receive the Account data from the MQSeries message queue.

The EAI MQSeries Server Transport Business Service receives the Account data in Siebel XML format and sends it to the EAI XML Converter Business Service.

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Figure A–19 Configuration of an EAI XML Converter Business Service

3. Define an EAI XML Converter Business Service step and call it Get XML from MQ & Convert to XML, as shown in Figure A-19.

This Business Service is defined to receive the Account data from the EAI MQSeries Server Transport Business Service in XML format and convert it to hierarchical format.

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Figure A–20 Update Account Configuration for the EAI XML Converter that Uses MQ Series Transport

4. Define an EAI Siebel Adapter Business Service step and call it Update Account, as shown in Figure A-20.

This Business Service is defined to receive from the EAI XML Converter Business Service the instance of Account data in hierarchical format.

The Business Service applies the Account information into Siebel using the Insert or Update method.

A.2.5 Creating a Siebel Workflow for a Service Using File Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The workflow was designed for importing Siebel Account record information through the File transport

This procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application and then places Siebel XML on the file system.

The following is a Siebel Workflow Administration window with the Process Designer tab active, as shown in Figure A–21.

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Figure A–21 Siebel Workflow Admininstration Window

To create a Siebel Workflow:

Figure A–22 Process Properties Tab of the Workflow Process Window

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1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–22.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow converted to XML.

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Figure A–23 EAI File Transport Business Service Step

2. Define an EAI FileTransport Business Service step and call it Receive Account Data, as shown in Figure A-23.

The Business Service is defined to receive the Account data from the file system.

The EAI File Transport Business Service receives the Account data in Siebel XML format and sends it to the EAI XML Converter Business Service.

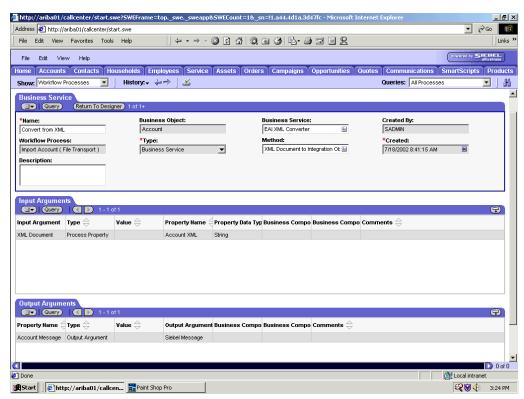


Figure A–24 EAI XML Converter Business Service Step

3. Define an EAI XML Converter Business Service step and call it Convert from XML, as shown in Figure A-24.

This Business Service is defined to receive the Account data from the EAI File Transport Business Service in XML format and convert it to hierarchical format.

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Figure A–25 Creation of the EAI Adapter Business Service Step Called Update

4. Define an EAI Siebel Adapter Business Service step and call it Update or Insert New Account, as shown in Figure A-25.

This Business Service is defined to receive from the EAI XML Converter Business Service the instance of Account data in hierarchical format.

The Business Service applies the Account information into Siebel using the Insert or Update method.

A.2.6 Creating a Siebel Workflow for a Service Using HTTP Transport

The following procedure is an example of a Siebel workflow illustrated in the Siebel Workflow Administration window, as shown in Figure A–26. The Workflow was designed for importing Siebel Account record information through the HTTP transport, as shown in .

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Figure A–26 Siebel Workflow Administration Window

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application and then places Siebel XML on the file system.

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Figure A–27 Process Properties Tab of the Workflow Process Window

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–27.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow converted to XML.

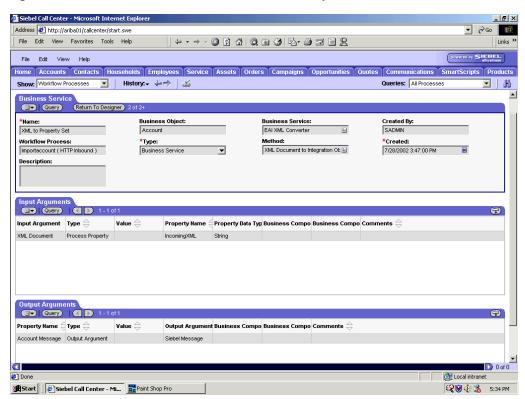


Figure A–28 EAI XML Converter Business Service Step

2. Define an EAI XML Converter Business Service step and call it XML to Property Set, as shown in Figure A-28.

The Business Service is defined to receive the Account data from the EAI HTTP Transport Business Service in XML format and convert it to hierarchical format.

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Figure A–29 EAI Adapter Business Service Update Step

3. Define an EAI Siebel Adapter Business Service step and call it Update Siebel, as shown in Figure A-29.

The Business Service is defined to receive from the EAI XML Converter Business Service the instance of Account data in hierarchical format.

The Business Service applies the Account information into Siebel using the Insert or Update method.

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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