BEA SmartConnect for Siebel User's Guide
Version 5.5.012.SM

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Preface

This document is written for system integrators who develop client interfaces between Siebel and other applications.

How This Manual Is Organized

The following table lists the titles and numbers of the chapters and the appendix for this manual with a brief description of the contents of each chapter or appendix.

Chapter/Appendix		Contents
1	Introducing BEA SmartConnect for Siebel for AquaLogic Service Bus	Provides an overview of the functionality provided by BEA SmartConnect for Siebel for AquaLogic Service Bus (ALSB).
2	Creating XML Schemas	Describes how to create XML schemas for Siebel business objects using BEA SmartConnect Explorer.
3	Publishing WSDL Documents	Describes how to publish WSDL documents using BEA SmartConnect Explorer for use with AquaLogic Service Bus (ALSB).
4	Creating a Business Service Using BEA SmartConnect for Siebel	Describes how to create a Business Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for Siebel.
5	Creating a Proxy Service Using BEA SmartConnect for Siebel	Describes how to create a Proxy Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for Siebel.
6	Creating a Business Service for Inbound Siebel Processing	Describes how to create a Business Service for inbound (event) Siebel processing in AquaLogic Service Bus (ALSB) using BEA SmartConnect for Siebel.
A	BEA SmartConnect for Siebel Use Cases	Provides use cases that demonstrate the functionality provided by the BEA SmartConnect for Siebel for AquaLogic Service Bus (ALSB).
B	Siebel Workflows	Describes Siebel Workflows relating to the processing of Siebel Integration Objects using Siebel XML.

Documentation Conventions

The following table lists and describes the conventions that apply throughout this manual.

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

Contact Us!

Your feedback on BEA SmartConnect for Siebel documentation is important to us.

Send us e-mail at docsupport@bea.com if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update BEA SmartConnect for Siebel documentation.

In your e-mail message, please indicate that you are using the documentation for BEA SmartConnect for Siebel and the version of the documentation.

If you have any questions about this version of BEA SmartConnect for Siebel, or if you have problems using BEA SmartConnect for Siebel, contact BEA Customer Support through BEA Web SUPPORT at www.bea.com. You can also contact Customer Support by using the contact information provided on the Customer Support Card which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

Help Us to Serve You Better

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

The following tables list the specifications our consultants require.

Platform	
Operating System	
OS Version	
Product List	
Transports	
Transport Deployment	
Container Version	

The following table lists components. Specify the version in the column provided.

Component	Version
Transport	
EIS (DBMS/APP)	
HOTFIX / Service Pack	

In the following table, specify the JVM version and vendor in the columns provided.

Version	Vendor

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

Request/Question	Error/Problem Details or Information
Provide usage scenarios or summarize the application that produces the problem.	
Did this happen previously?	
Can you reproduce this problem consistently?	
Any **change in the application environment**: software configuration, EIS/database configuration, application, and so forth?	
Under what circumstance does the problem *not* occur?	
Describe the **steps** to reproduce the problem.	
Describe the **problem**.	
Specify the **error** message(s).	

The following lists error/problem files that might be applicable.

- XML schema
- XML instances
- Other input documents (transformation)
- Error screen shots
- Error output files
- Trace and log files
- Log transaction

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Contents

Introducing BEA SmartConnect for Siebel for AquaLogic Service Bus

Topics:

- Features of BEA SmartConnect for Siebel
- Supported Versions and Platforms
- The Siebel Application Model
- Integrating With Siebel
- Siebel EAI Architecture
- Installing BEA SmartConnect for Siebel and BEA SmartConnect Explorer
- Using BEA SmartConnect Explorer With BEA SmartConnect for Siebel
- Component Information for BEA SmartConnect for Siebel

The following section provides an overview of the functionality provided by the BEA SmartConnect for Siebel for AquaLogic Service Bus (ALSB).

Features of BEA SmartConnect for Siebel

BEA SmartConnect for Siebel is a Transport used in Aqualogic Service Bus (ALSB) that provides a means to exchange real-time business data between Siebel and the ALSB for interaction with other application, database, or external services.

ALSB is a messaging bus deployed on top of a BEA WebLogic domain, which can be used to connect, decouple, mediate, and orchestrate services.

The Transport uses XML messages to enable non-Siebel applications to communicate and exchange transactions with Siebel using services and events.

- **Services**: Applications use this capability to initiate a Siebel business event.

- **Events**: Applications use this capability to access Siebel data only when a Siebel business event occurs.

The BEA SmartConnect for Siebel:

- Supports synchronous and asynchronous, bidirectional message interactions for Siebel Business Services, Business Components, and Integration Objects.

- Includes BEA SmartConnect Explorer, a GUI tool that uses the Siebel Object Manager to explore Siebel metadata and build XML schemas or Web services.

- Supports Siebel HTTP transport.

Throughout this documentation:

- *Service* refers to an inbound or outbound endpoint that is registered with the Service Directory.

- *External Service* refers to a service that is not hosted by ALSB.

Supported Versions and Platforms

The following Siebel versions and platforms are supported by BEA SmartConnect for Siebel.

Transport Platform	Siebel Platform	Siebel Version	API
UNIX (HP-UX, Solaris)	Windows, AIX, HP-UX, Linux	6.3 - 8.0	Java Data Bean
	Solaris	6.3 - 8.0	Java Data Bean
Windows	Windows	6.3 - 8.0	Java Data Bean
	Solaris	6.3 - 8.0	Java Data Bean
	AIX	6.3 - 8.0	Java Data Bean

Note: All Siebel minor versions, for example 6.3.x, are also supported by BEA SmartConnect for Siebel.

The Siebel Application Model

The Siebel Enterprise application defines a data abstraction layer that removes dependencies on the underlying database. After defining and connecting to a Siebel target within BEA SmartConnect Explorer, three primary kinds of Siebel object types are visible:

- Business Objects

- Business Services

- Integration Objects

These object types represent the Siebel data structure in the Siebel business logic layer and can be configured using Siebel Tools.

Business Objects. A business object implements a business model (logical database diagram), tying together a set of interrelated business components using links. The links provide the one-to-many relationships that govern how the business components interrelate in the context of this business object. Expanding a Business Object in BEA SmartConnect Explorer reveals all the business components related to that particular business object. A Business Component is a logical entity that associates columns from one or more tables into a single structure. When instantiated in a Siebel application, a Business Component is comparable to a record set. Its definition in Siebel Tools provides the foundation for controlling how data is inserted, deleted, queried, and updated within the tables it references. You can view these methods when you expand any of the Business Components. When you click on any of these methods you will see the request and response schemas.

Business Services. A Business Service is a reusable module containing a set of methods. It is an object that encapsulates and simplifies the use of some set of functionality. It provides the ability to call its C++ or script methods from customer-defined scripts and object interface logic, through the invoke-method mechanism. A service has properties and methods that can be viewed by expanding a Business Service node in BEA SmartConnect Explorer.

Integration Objects. Siebel Integration Objects represent integration metadata for Siebel Business objects, XML, SAP IDOCs, and SAP BAPIs as common structures that the EAI infrastructure can understand. You can use Siebel tools to create the XSD or XDR schemas to be used as IO nodes. (An XDR created in Siebel Tools must be converted to an XML schema in BEA SmartConnect Explorer.) In this case, the XML is hierarchical and represents a complex data type.

Integrating With Siebel

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

When integrating with Siebel using Siebel XML documents, the Transport application developer can 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 the HTTP transport 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 Interface, the BEA SmartConnect 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 describes the transport methods and processes for each object.

| Siebel Objects	API or Transport	Process
Business Services	Java Data Bean (Siebel Version 6.3.x - 8.0)	Service
Business Components	Java Data Bean (Siebel Version 6.3.x - 8.0)	Service
Integration Objects	HTTP	Event, Service

Siebel EAI Architecture

Siebel provides for integration with other applications and systems using its Siebel EAI framework and its Business Integration Manager facility. The BEA SmartConnect 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.

The BEA SmartConnect for Siebel supports the following integration access methods:

- Siebel Java Data Bean for services involving Siebel Business Components or Siebel Business Services.

- Siebel XML for events and services involving Siebel Integration Objects.

The following illustration shows how the BEA SmartConnect for Siebel helps integrate a Siebel database through either a transport protocol, such as HTTP and the Siebel Workflow Engine for Siebel Integration Objects with legacy systems, ERPs, financial systems, and external applications. It also shows how the Transport helps to integrate a Siebel database through an object interface such as JDB and the Siebel Object Manager for Business Components and Business Services with legacy systems, ERPs, financial systems, and external applications.
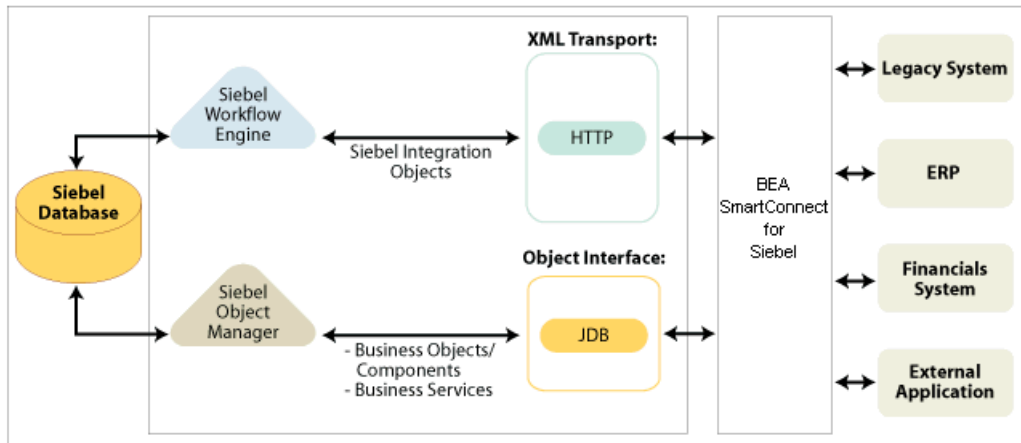
Installing BEA SmartConnect for Siebel and BEA SmartConnect Explorer

BEA SmartConnect for Siebel and BEA SmartConnect Explorer are installed using an executable installation program provided by BEA for your platform.

For more information, including requirements and any post-installation tasks you should be aware of, see the *BEA SmartConnect Installation and Configuration Guide*.

Using BEA SmartConnect Explorer With BEA SmartConnect for Siebel

BEA SmartConnect 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 the BEA SmartConnect for Siebel use either XML schemas or Web services to pass data between the external application and the Transport.

BEA SmartConnect Explorer can be deployed as a Java Web application running within a servlet container that is accessible through a Web browser. BEA SmartConnect 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, BEA SmartConnect Explorer can generate an XML schema or Web service to define the object for use in conjunction with the BEA SmartConnect for Siebel.

External applications accessing Siebel via the BEA SmartConnect for Siebel use either the XML document or Web service to pass data between the external application and the Transport.

Component Information for BEA SmartConnect for Siebel

The BEA SmartConnect for Siebel works in conjunction with the following components:

- BEA SmartConnect Explorer
- AquaLogic Service Bus (ALSB)

Component Information Roadmap

The following table lists the deployment components and the location of component information for the BEA SmartConnect for Siebel.

Deployed Component	For more information, see
BEA SmartConnect Explorer	Chapters 2 and 3 of this guide.
AquaLogic Service Bus (ALSB)	Chapters 4, 5, and 6 of this guide.

BEA SmartConnect Explorer

BEA SmartConnect Explorer is a servlet-based Web application that uses a tree metaphor to introspect the Siebel system metadata. The explorer enables you to create XML schemas and publish WSDLS for the associated object, for example, BAPI or IDOC, and import them into ALSB. External applications that access SAP through the BEA SmartConnect for Siebel use either XML schemas or Web services to pass data between the external application and the Transport.

AquaLogic Service Bus (ALSB)

ALSB is a messaging bus deployed on top of a BEA WebLogic domain, which can be used to connect, decouple, mediate, and orchestrate services. The following are key service types that can be created using ALSB:

- **Business Services**, which are defined access point to external services.

  The message format of the external service is defined by the Message Type. Communication is ensured by an outbound transport endpoint.

- **Proxy Services**, which are services implemented in the service bus.

  Request documents and messages are accepted through an inbound transport endpoint. The message format is defined by the Message Type. Implementation is done in the request, response and error Pipelines. Proxy services can reach out to external services through the use of Business Services.

CHAPTER 2

Creating XML Schemas

Topics:

- Overview
- Starting BEA SmartConnect Explorer
- Managing a Siebel Connection
- Viewing Metadata
- Creating an XML Schema for a Siebel Business Component or Siebel Business Service
- Creating an XML Schema for a Siebel Integration Object

The following section describes how to create XML schemas for Siebel Business Components, Business Services, and Integration Objects using BEA SmartConnect Explorer.

Overview

BEA SmartConnect for Siebel enables interaction with Siebel Business Services, Business Components, and Integration Objects.

When using BEA SmartConnect for Siebel to integrate with Siebel Business Services and Business Components, the Transport uses the Siebel-supplied Java Data Bean interface. You are not required to create Siebel workflows. Also, because the service is accomplished through a TCP connection, you do not require a transport layer such as MQSeries, File, or HTTP.

A request begins with the sending of an XML request document. In most cases, the response is an XML response document that indicates the execution of the Business Service or Business Component.

When using BEA SmartConnect for Siebel to integrate with Siebel Integration Objects, the BEA SmartConnect for Siebel uses the HTTP transport and Siebel workflows. The workflow is defined within Siebel to either emit or receive Siebel XML through the Siebel HTTP transport.

Starting BEA SmartConnect Explorer

Before you can use BEA SmartConnect Explorer to browse metadata and publish WSDLs, you must start your domain for AquaLogic Service Bus.

Procedure: How to Start Your Domain for AquaLogic Service Bus on Windows

To start your domain for AquaLogic Service Bus on Windows:

1. Click the Windows Start menu.

2. Select *Programs*, *BEA Products, User Projects*, *DOMAIN_NAME*, and click *Start Server for AquaLogic Service Bus Domain*.

   Note: *DOMAIN_NAME* is the name of the domain you are using.

Procedure: How to Start Your Domain for AquaLogic Service Bus on UNIX

To start your domain for AquaLogic Service Bus on UNIX or from a command line:

1. Display a prompt.

2. At the prompt, type the following:

   `BEA_HOME\user_projects\domains\DOMAIN_NAME\startWebLogic.cmd`

   where:

   `BEA_HOME`

   Is the directory where BEA WebLogic is installed.

DOMAIN_NAME

Is the name of the domain you are using.

Procedure: How to Start BEA SmartConnect Explorer

To start BEA SmartConnect Explorer:

1. Start your domain for AquaLogic Service Bus.

2. Enter the following URL in your browser window:

http://*hostname:port*/iwae/index.html

where:

hostname

Is the name of the machine where the server for your AquaLogic Service Bus domain is running.

port

Is the HTTP port where the server is listening.

The BEA SmartConnect Explorer opens.

After you start BEA SmartConnect Explorer, the following Welcome window opens, showing the ERP Transports tab. The ERP Transports node is highlighted in the left pane.
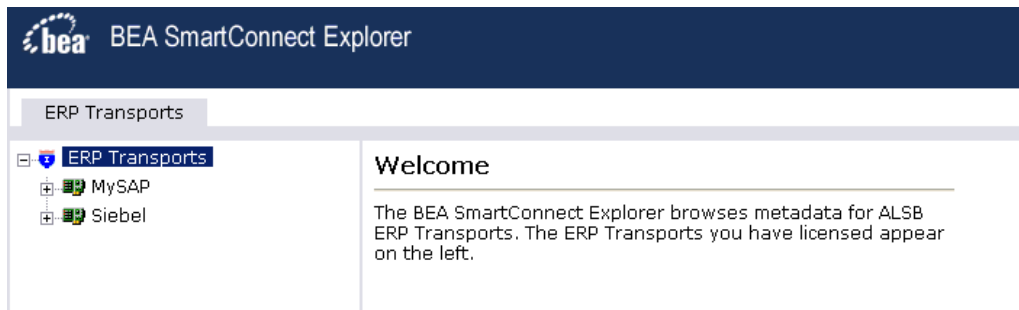
You are now ready to create new targets to the Siebel enterprise information system.

Managing a Siebel Connection

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. However, you must supply the password to Siebel every time you connect to the target. For more information on connecting to a target, see *How to Connect to a Target* on page 2-8.

Note: The connection parameters 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.

You can create a new target from the ERP Transports tab of BEA SmartConnect Explorer. For information on creating a target, see *How to Create a New Target* on page 2-4.

Although you can maintain multiple open connections to different application systems, it is good practice to close connections when not in use. For information on disconnecting from a target, see *How to Disconnect From a Target* on page 2-10.

After you create a target for Siebel using BEA SmartConnect Explorer, you can edit any information that you provided during the creation process. For information on editing a target, see *How to Edit a Target* on page 2-10.

You can also delete a target, rather than just disconnecting from a target and closing it. When you delete the target, the node disappears from the list of Siebel targets in the left pane of the explorer. For information on deleting a target, see *How to Delete a Target* on page 2-11.

Creating a New Target

To connect to an Siebel system, you must define a new target. The target holds your logon parameters for the Siebel system.

Procedure: How to Create a New Target

The following image shows a window with a navigation pane on the left that lists supported transports. The right pane displays information about a selected transport.

To create a new target:

1. In the left pane, click the *Siebel* node.

Descriptive information (for example, title and product version) about the transport appears in the right pane.

2. In the right pane, move the pointer over *Operations*.

The Define a new target menu option appears as well as title and product version information for the transport in the right pane as shown in the following image.

3. Select *Define a new target*.

The Add a new SIEBEL target pane opens on the right as shown in the following image.

Perform the following steps:

a. In the Target Name field, type a name for the target, for example, SiebelTarget.

b. In the Description field, type a brief description (optional).

c. From the Target Type drop-down list, select the type of target to connect to.

The default value is Java Data Bean Connection.

4. Click *Next*.

The Set connection info pane opens on the right. The following tabs are available: Logon and Advanced. The Logon tab is active as shown in the following image.

Perform the following steps:

a. In the Gateway Server field, type 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, type the appropriate name.

c. In the Siebel Server field, type the name of your Siebel server.

Note: You do not have to supply a value in this field when connecting to a Siebel 7.7 system and higher.

d. In the User field, type the user name.

e. In the Password field, type the password associated with the user name.

f. In the Siebel Version field, select one of the following Siebel system versions you are connecting to from the drop-down list:

- Siebel 7.5 or below (default).

- Siebel 7.7 and above.

5. Click the *Advanced* tab.

The Advanced tab becomes available as shown in the following image.

6. Verify the following: Language, Object Manager, and Repository Name.

Object Manager is the name of an active Siebel Object Manager. The following table shows examples of various Object Managers.

Siebel Object Manager	Associated Application
EAIObjMgr	Siebel 7.0.3
EAIObjMgr_enu	Siebel 7.5, 7.7, 7.8, and 8.0

Note: Siebel 7.5, 7.7, 7.8, and 8.0 requires that you add the 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.

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

The configuration parameters supplied are 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.

7. After you provide all the required information for your target, click *Finish*.

The Siebel target appears below the Siebel node in the left pane as shown in the following image. You are now ready to connect to your Siebel target.

Connecting to a Target

To connect to Siebel, use a target you defined, for example, the one in the previous procedure, SiebelTarget.

Procedure: How to Connect to a Target

To connect to a target:

1. In the left pane, expand the Siebel node and select the target you defined, for example, SiebelTarget.

2. In the right pane, move the pointer over *Operations*.

    The following image shows the target, with a red 'x', selected in the left pane. In the right pane, the Operations menu appears in its expanded form.
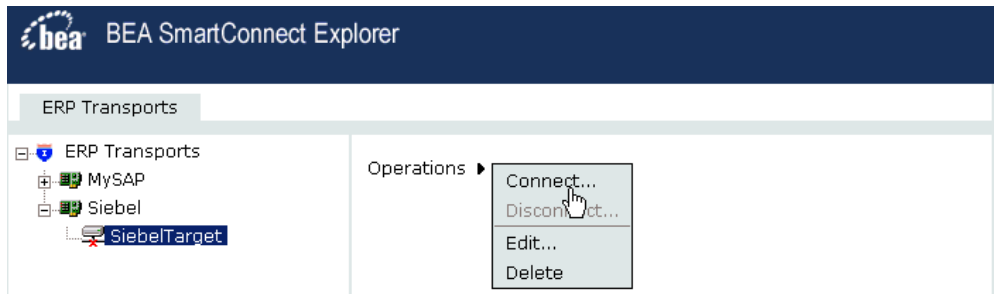
3. Select *Connect*.

    The Connect to SiebelTarget pane opens on the right.

Connect to SiebelTarget

Logon	Advanced

Gateway Server: `ariba01`

Enterprise Name: `ariba01`

Siebel Server: `SiebelSrv`

User: `SADMIN`

Password: `•••••`

Siebel Version: `Siebel 7.5 or below` ▼

[Help]   [OK]   [Cancel]

4. In the Password field, type a valid password and click *OK*.

The SiebelTarget node in the left pane changes (the red 'x' disappears) to reflect that a connection was made as shown in the following image.

```
⊟ ▦ Siebel
   ⊟ ▤ SiebelTarget
      ⊞ 🗀 Business Object
      ⊞ 🗀 Business Service
      ⊞ 🗀 Integration Object
```
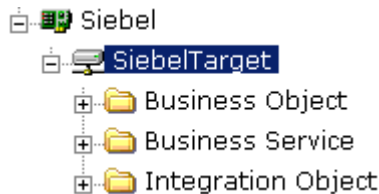
5. Expand the Siebel*Target* node.

The following Siebel business object groups appear:

- Business Object

- Business Service

- Integration Object

Disconnecting From a Target

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

Procedure: How to Disconnect From a Target

To disconnect from a target:

1. From the left pane, click the target, for example, SiebelTarget, to which you are connected.

2. In the right pane, move the pointer over *Operations.*

3. Select *Disconnect*.

    Disconnecting from the application system drops the connection, but the node remains.

    In the left pane, the SiebelTarget node changes to reflect that a connection was closed (a red 'x' appears) as shown in the following image.
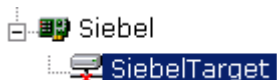
Modifying a Target

After you create a target for Siebel using BEA SmartConnect Explorer, you can edit the information that you provided previously.

Procedure: How to Edit a Target

To edit a target:

1. In the left pane, click the target, for example, SiebelTarget.

    The Operations menu appears in the right pane, as shown in the following image.
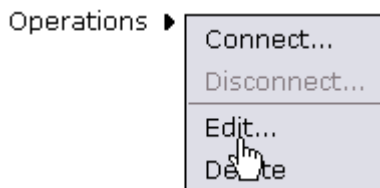
2. Move the pointer over *Operations* and select *Edit*.

The Edit pane opens on the right with the target name, a description and a target type selected from the drop-down list as shown in the following image.

Edit SIEBEL target SiebelTarget

Targets represent configured connections to instances of backend systems. Choose a name and description for the new target that you wish to create.

Target Name: SiebelTarget

Description:

Target Type: Java Data Bean Connection

[Help]   [< Back]   [Next >]   [Cancel]

3. Modify the connection information.

4. To continue modifying additional information, click *Next*.

5. When you are finished making all of your edits, click *Finish*.

Deleting a Target

In addition to closing a target, you can delete a target that is no longer required. You can delete it whether or not it is closed. If open, the target automatically closes before it is deleted.

Procedure: How to Delete a Target

In addition to closing a target, you can delete a target that is no longer required. You can delete it whether or not it is closed. If open, the target automatically closes before it is deleted.

To delete a target:

1. In the left pane, click the target, for example, SiebelTarget.

   The Operations menu appears in the right pane, as shown in the following image.
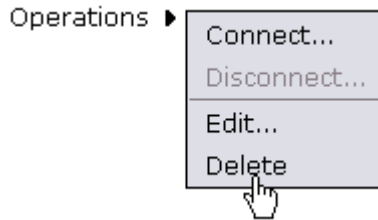
2. In the right pane, move the pointer over *Operations*.

3. Select *Delete*.

    A confirmation dialog box opens, asking if you want to delete the target.

4. To delete the target you selected, click *OK*.

    The SiebelTarget node disappears from the left pane.

Viewing Metadata

Viewing metadata is useful for understanding the structure of Siebel data. You can review the parameters, data types, and other attributes in the right pane of BEA SmartConnect Explorer.

Procedure: How to View Metadata

To view metadata:

1. Start BEA SmartConnect Explorer and connect to your Siebel system.

2. In the left pane, expand the Business Object or Business Service node containing the component for which you want to generate a schema.

    A Business Object contains Business Components. For each Business Component, there are insert, update, delete, and query capabilities available as methods.

    For a Business Object, select the node in which you are interested.

    The following image shows the *Account* Business Object expanded with the *Account* component selected.

Note: Each Siebel Business Component contains two types of methods that can be used to create an XML schema or publish a WSDL: RPC and non-RPC methods. For example, if you expand the Account Business Component you will find the *insert* and *insertRPC* methods.

The non-RPC method, for example, insert, can be considered as a complex method type that is designed in a document-literal style to construct more complex requests in an integration scenario.

The RPC method, for example, insertRPC, can be considered as a simplified method type that is loosely typed. RPC methods are recommended for more simple integration scenarios.

For a Siebel Business Service, select the object in which you are interested.

The following image shows the *Simple Add Account* Business Service expanded with the *addAccount* component selected.

Note: You must add a Service Node using BEA SmartConnect Explorer if the Business Service method has a method argument of type *hierarchy* before viewing metadata, creating an XML schema, or publishing a WSDL file. For more information, see *How to Create a Service Node* on page 2-22.

For an Integration Object, select the Integration Object in which you are interested.

The following image shows the Sample Account Integration Object selected.
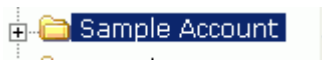
Note: You must add an IO Node using BEA SmartConnect Explorer before viewing metadata. For more information, see *How to Create a Schema For a Siebel Integration Object* on page 2-28.

3. In the right pane, click the ellipsis (…) in the Table row of the properties table.

A metadata table appears in the right pane and displays the details of the table you selected. The following image is a sample Details for collection property Table. The table consists of a heading row with column labels that identify each of the six columns: Name, Type, MultiValued, ReadOnly, and Active. Each row represents a different property.

Details for collection property Table

Name	Type	Required	MultiValued	ReadOnly	Active
Account Competitors	string	false	false	false	true
Account Condition	string	false	false	false	true
Account Markets	string	false	false	false	true
Account Organization Integration Id	string	false	false	false	true
Account Products	string	false	false	false	true
Account Role	string	false	false	false	true
Account Status	string	false	false	false	true
Account Trend	string	false	false	false	true
Address Active Status	string	false	true	false	true
Address Id	string	false	true	false	true
Address Integration Id	string	false	true	false	true

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

BEA SmartConnect Explorer enables you to create XML schemas for Business Services, Business Components, and Integration Objects. For information on creating schemas for Integration Objects, see *Creating an XML Schema for a Siebel Integration Object* on page 2-25.

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

Once you have connected to your Siebel target, you can browse the available Siebel Business Components using BEA SmartConnect Explorer and create an XML schema directly.

However, if you want to browse metadata for Siebel Business Services, create an XML schema or publish a WSDL file for a specific Siebel Business Service method, you must consider the following:

1. If the Business Service method you want to use has a method argument of type *hierarchy*, you must add a Service Node using BEA SmartConnect Explorer.

   For more information on adding a Service Node, see *How to Create a Service Node* on page 2-22.

   Once a Service Node is added, you can continue to browse metadata, create an XML schema, or publish a WSDL file for the Siebel Business Service.

2. If the Business Service method you want to use does not have a method argument of type *hierarchy*, you can proceed directly with browsing metadata, creating an XML schema, or publishing a WSDL file.

   For more information, see *Creating an XML Schema for a Siebel Business Component or Siebel Business Service* on page 2-15.

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.

The following image shows the Account Business Object node expanded to display Business Components beneath it.
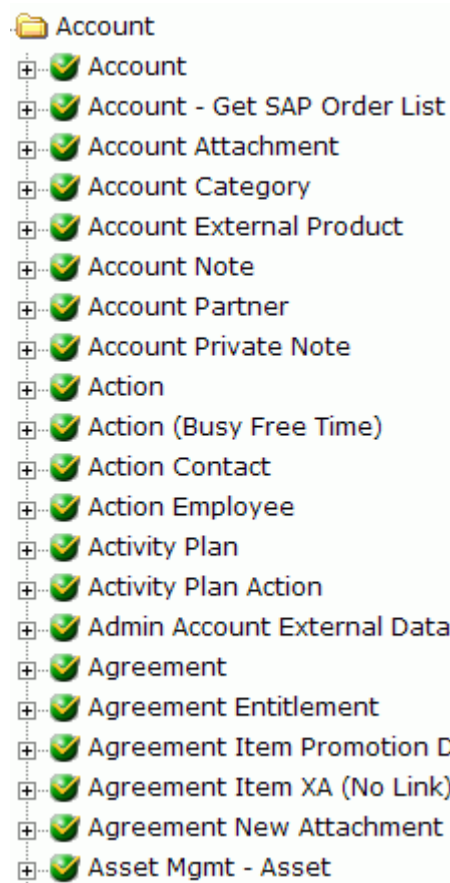
Procedure: How to Create an XML Schema for a Siebel Business Component or Siebel Business Service

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

1. If you have not started the explorer, start BEA SmartConnect Explorer and connect to your Siebel system through a target.

2. In the left pane, expand the Business Object or the Business Service node.

   You can also use the Search feature to find a particular Business Component or Business Service. For more information, see *How to Search for a Specific Siebel Object* on page 2-19.

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.

The following image shows the Account Business Component expanded to reveal the Account node. This node is expanded with the *insert* method selected.
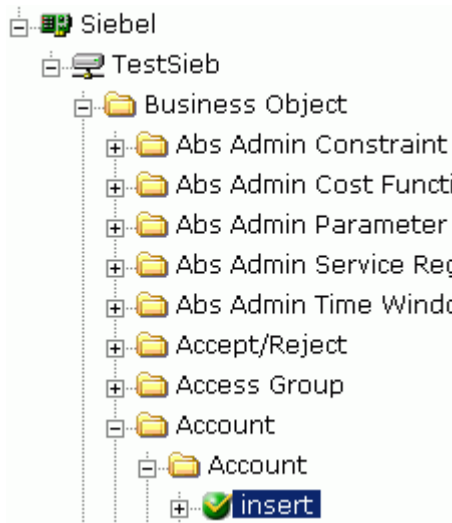
For a Siebel Business Service, expand the Business Service node containing the object for which you want to create schema.

The following image shows the Simple Add Account Business Service expanded with the addAccount object selected.

Note: You must add a Service Node using BEA SmartConnect Explorer if the Business Service method has a method argument of type *hierarchy* before viewing metadata, creating an XML schema, or publishing a WSDL file. For more information, see *How to Create a Service Node* on page 2-22.

4. In the right pane, move the cursor over *Operations* and select *Generate Schemas*.

BEA SmartConnect Explorer accesses the Siebel repository and builds schemas.

The following image shows the Schemas table that appears on the right and has three columns, labeled Part, Root Tag, and Schema. The Schema column provides the locations of the schemas. There are three rows: Request, Response, and Event.

Schemas

Part	Root Tag	Schema
Request	Siebel	...
Response	SiebelResponse	...
Event	N/A	N/A

Help		OK	Cancel

5. To view a schema, click the ellipsis (…) in the row corresponding to the schema you want to view.

The following image shows the XML schema that appears in the right pane.

```
- <xsd:schema
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    targetNamespace="urn:iwaysoftware:adapter:siebel:bo:
    xmlns:z="urn:iwaysoftware:adapter:siebel:bo:oct2003"
    elementFormDefault="qualified">
  - <xsd:element name="Siebel">
    - <xsd:complexType>
      - <xsd:sequence>
          <xsd:element name="insert"
              type="z:record" />
        </xsd:sequence>
        <xsd:attribute name="location"
            type="xsd:string" use="optional"
            default="S/BO/Account/Account/insert" />
      </xsd:complexType>
    </xsd:element>
  - <xsd:complexType name="record">
    - <xsd:sequence>
        <xsd:element
            name="Account_spcCompetitors"
            type="xsd:string" minOccurs="0" />
        <xsd:element
```

After you browse the list of business objects on your Siebel system and create XML schemas, you can publish WSDLS.

Publishing WSDL enables you to make the WSDL available to a Business or Proxy Service in AquaLogic Service Bus (ALSB).

For more information, see Chapter 3, *Publishing WSDL Documents*.

Procedure: How to Search for a Specific Siebel Object

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

1. If you have not started the explorer, start BEA SmartConnect Explorer and connect to your Siebel system through a target.

2. Expand the target and select *Business Object*, *Business Service*, or *Integration Object*.

   The following image shows Business Object selected in the left pane.
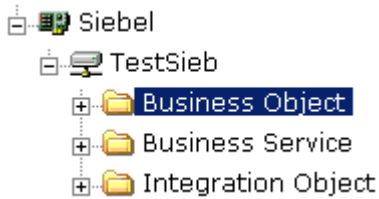
3. In the right pane, move the cursor over *Operations* and select *Search*.

    The following image shows the Search feature that appears in the right pane. It has a search path input area.

4. Enter the name of the node or object on which you want to search in the Search path text entry box, for example, Account.

5. Click *OK*.

    The following image show the search results that appear when a search for Account is conducted against the Siebel Business Objects.

Search Result(s)

Select	Item
◉	S/BO/Account
○	S/BO/Account - ESP
○	S/BO/Account - Get SAP Order List
○	S/BO/Account - Import SAP Order (Get SAP Order List)
○	S/BO/Account - Import SAP Order (Siebel Order)
○	S/BO/Account Category
○	S/BO/Account Person Admin

[Help]   [OK]   [Cancel]

6. Select the radio button next to the item in which you are interested, for example, S/BO/Account.

7. Click *OK*.

   BEA SmartConnect Explorer locates the node you select, for example, Account.

```
□ Siebel
  □ TestSieb
     □ Business Object
        ⊞ Abs Admin Constrai
        ⊞ Abs Admin Cost Fur
        ⊞ Abs Admin Paramet
        ⊞ Abs Admin Service F
        ⊞ Abs Admin Time Wir
        ⊞ Accept/Reject
        ⊞ Access Group
        ⊞ Account
```
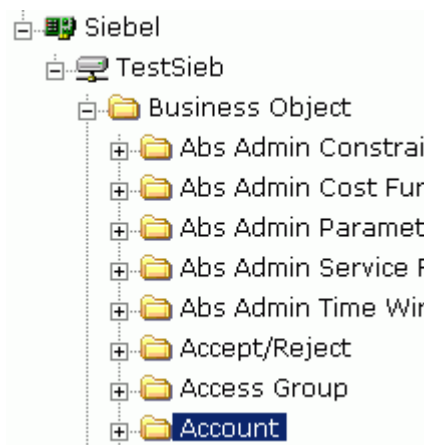
Procedure: **How to Create a Service Node**

Before viewing Business Service metadata, you must add a Service Node if the Business Service method has a method argument of type *hierarchy*.

To create a Service Node:

1. Connect to a Siebel target and expand the *Business Service* group.
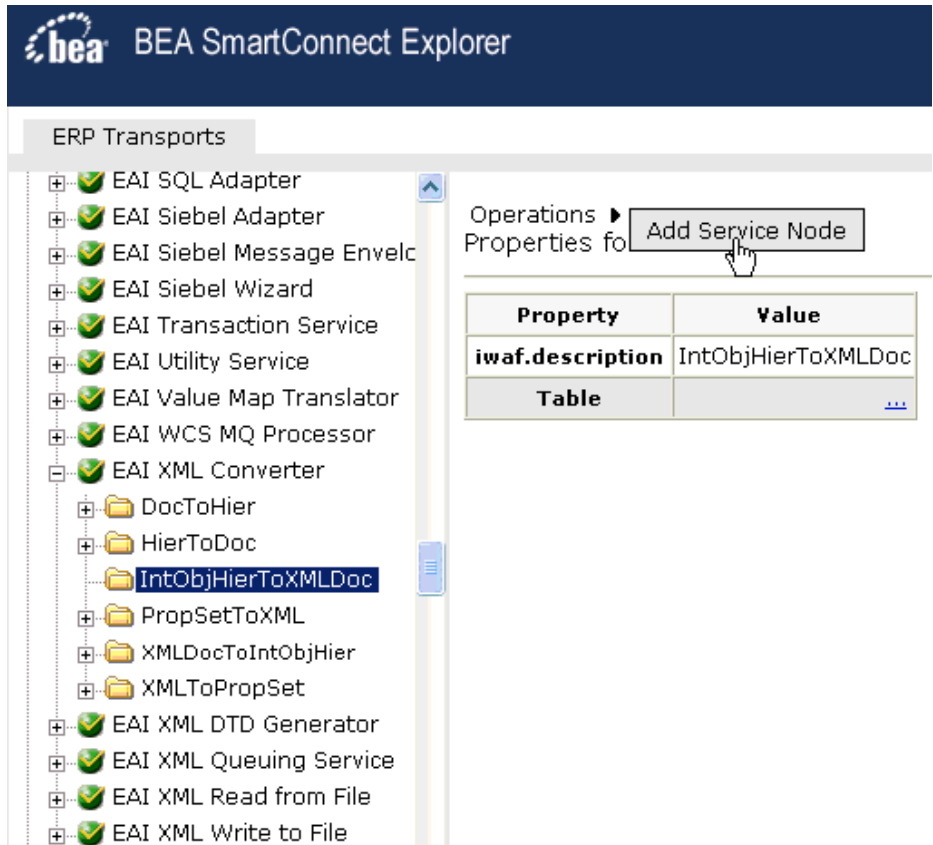
2. Browse through the available Business Services and select a specific Business Service category, for example EAI XML Converter.

3. Expand the object and select a function of that object you want to publish, for example, IntObjHierToXMLDoc.

4. In the right pane, move the pointer over *Operations* and select Add Service Node.

The Add Service Node pane opens on the right, as shown in the following image.

Add Service Node

Name :

EAI

Description :

This is a sample EAI
service node used for
test purposes only.

XSD File for
SiebelMessage :

Doc\XSD_File\sampleaccount.xsd

Root Element for
SiebelMessage :

SiebelMessage

Is SiebelMessage an
Integration Object :

☑

OK   Cancel

Perform the following steps:

a. Type a name you want to use for the Service Node in the Name field.

b. Type a brief description for the Service Node (optional).

c. In the XSD File for SiebelMessage field, enter the location of XSD file that was created by Siebel Tools and include the name of the file in this location, for example, sampleaccount.xsd.

For more information on creating a Siebel XDR or XSD schema using Siebel Tools, see *Creating a Siebel XDR or XSD Schema* on page 2-25.

> **d.** In the Root Element for SiebelMessage field, type the name of the root element being used. The root element is usually *SiebelMessage* in most cases.
>
> **e.** Select the *Is SiebelMessage an Integration Object* check box.

5. Click *OK*.

The Service Node is created and appears in the left pane within the folder you selected earlier, for example, IntObjHierToXMLDoc.
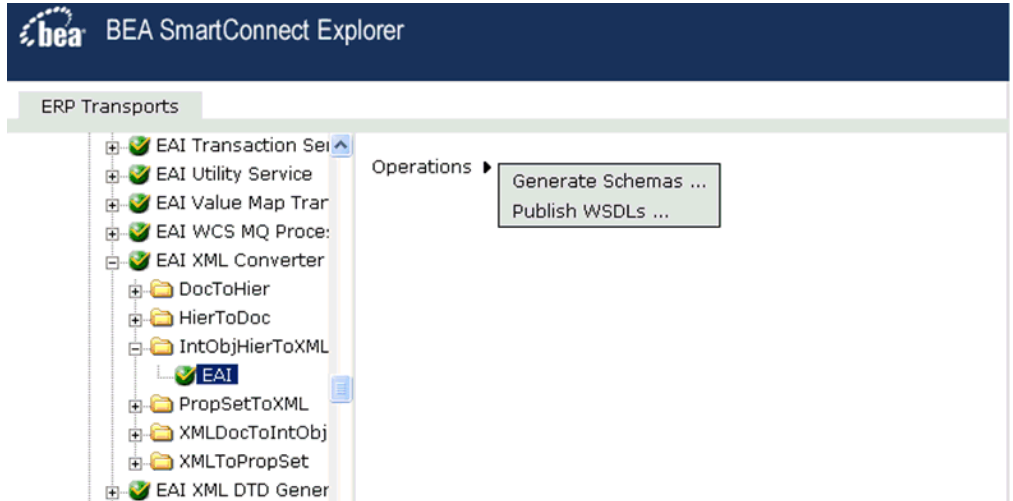
You will need to persist the Service Node you just created by refreshing your target to Siebel.

You can now generate an XML schema or publish a WSDL document based on this Service Node.

For more information on how to generate an XML schema, see *Creating an XML Schema for a Siebel Business Component or Siebel Business Service* on page 2-15.

For more information on how to publish a WSDL, see Chapter 3, *Publishing WSDL Documents*.

Creating an XML Schema for a Siebel Integration Object

BEA SmartConnect for Siebel supports access to Siebel Integration Objects by using Siebel XML. Using Siebel Integration Objects through supported transports requires Siebel workflows. For more information, see Appendix B, *Siebel Workflows*.

Creating a Siebel XDR or XSD Schema

Starting with version 7.5, you can generate XSD schemas using Siebel Tools. You can use these XSD files in BEA SmartConnect Explorer.

Procedure: How to Create a Siebel XDR or XSD Schema for a Siebel Integration Object

The following image shows the Siebel Tools screen where you log on.

To generate a Siebel XDR or XSD schema:

1. Log on to Siebel Tools.

   a. Type a user ID and password.

   b. From the Connect to: drop-down list, select a database.

2. Click *OK*.

The following image shows the Siebel Tools window that opens. In the upper left is the Project drop-down list. In the lower left is the Object Explorer navigation pane with three tabs: Types, Detail, and Flat, with the Types tab selected to show a list of Siebel objects. The right pane has three buttons: Synchronize, Generate Schema, and Generate Code, followed by a table of Integration objects with their associated project and base object type. You can navigate by selecting a specific letter of the alphabet from a button beneath the table.
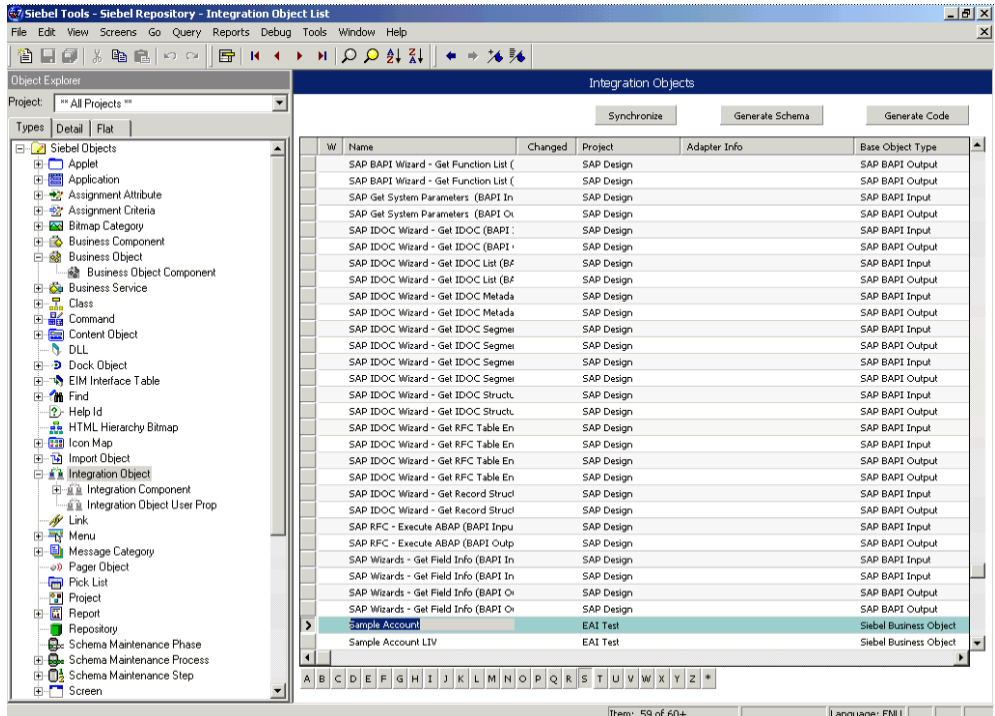
3. To create an XML schema, select an integration object, for example, Sample Account.

4. Click the *Generate Schema* button.

The following image shows the Generate XML Schema wizard window that opens where you select a Business Service to generate a schema.
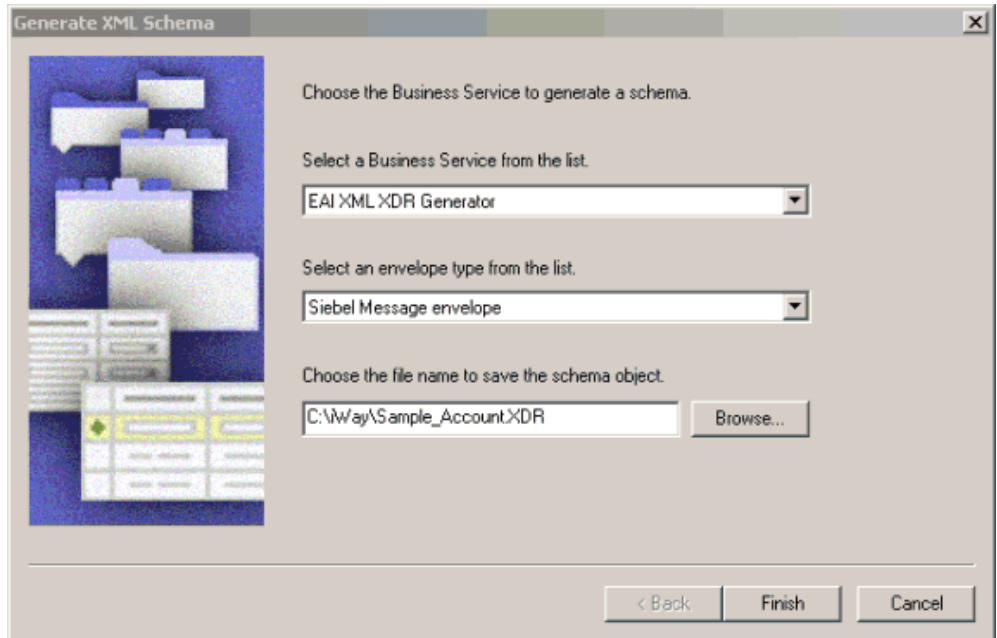
a. From the Business Service drop-down list, select *EAI XML XDR Generator* or *EAI XML XSD Generator*.

b. From the envelope type drop-down list, select *Siebel Message envelope*.

c. In the third field, click *Browse* or type to specify a file name for the XDR or XSD schema and a directory where it can be accessed by BEA SmartConnect Explorer.

Note: The XDR or XSD file must be on the same computer as BEA SmartConnect Explorer or be available through a mapped connection to another drive or machine

5. Click *Finish*.

Now you can use BEA SmartConnect Explorer to generate XML schemas for the Siebel Integration Object.

For more information, see *How to Create a Schema For a Siebel Integration Object* on page 2-28.

Creating a Schema for a Siebel Integration Object Using BEA SmartConnect Explorer

BEA SmartConnect Explorer can generate schemas for Integration Objects from Siebel XDR files or it can use Siebel-generated XSD files. In Siebel versions 7.5 and higher, you can create XSD schemas for Integration Objects using Siebel Tools.

If you created an XDR file using the Siebel Tools Schema Wizard, after you create the Siebel XDR schema for a selected Siebel Integration Object, you can create an XML schema using BEA SmartConnect Explorer.

You must supply BEA SmartConnect Explorer with the location of the previously created Siebel XDR schema for the particular integration object selected.

Note: The XDR or XSD file must be on the same computer as BEA SmartConnect Explorer or be available through a mapped connection to another drive or machine.

Procedure: How to Create a Schema For a Siebel Integration Object

To create an XML schema from a Siebel XDR schema:

1. In BEA SmartConnect Explorer, expand the *Integration Object* node to browse the Integration Objects in the Siebel system.

   The following image shows the Integration Object nodes in the left navigation pane and a table of property details for a selected node in the right pane. Each row of the table lists a property of the object and its value.
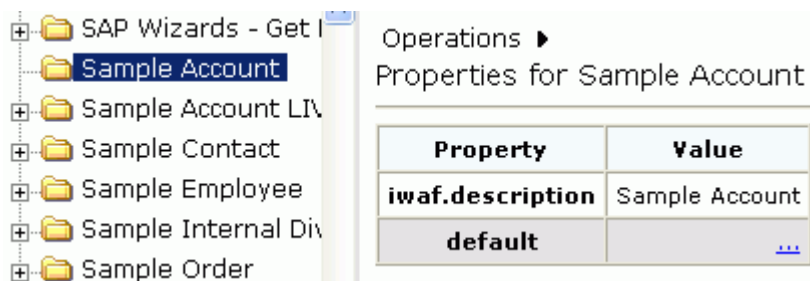
2. Scroll down and select an integration object, for example, Sample Account.

   You can also use the Search feature to find a particular Integration Object. For more information, see *How to Search for a Specific Siebel Object* on page 2-19.

3. To generate a schema, move the pointer over *Operations* and choose *Add IO Node*.

The following image shows the Add IO Node pane that appears on the right.

Add IO Node

Node name :

Schema location :

XSD Schema :

Protocol : HTTP

Continue   Cancel

   a. In the Node name field, type a name for the node to create under Sample Account.

   b. In the Schema location field, type the location of the XDR or XSD schema that was created by Siebel Tools and include the name of the file in this location.

      Note: For Siebel versions 7.5 and higher, you can generate XML schemas using Siebel Tools.

   c. Select the *XSD Schema* check box only if you are uploading the XSD schema.

      BEA SmartConnect Explorer uses XDR schemas as input to generate XSD schemas.

   d. From the drop-down list, select the HTTP protocol to be used by the Siebel workflow for the Integration Object.

4. Click *Continue*.

For **HTTP**, BEA SmartConnect Explorer builds the URL that is the key to activating the SWE. The protocol definition has multiple sections:

```
http://my_web_server/eai_enu/start.swe?SWEExtSource=<SourceName>&SWEExtCmd=<Execute>&UserName=<UserName>&Password=<Password>
```

The following table lists and defines the parameters you supply for **HTTP**.

Parameter	Definition

SWE URL	Base SWE URL. For example
	
	`http://web_server/eai_enu/start.swe`
	
	where:
	
	`web_server`
	
	    Is the name of the Web server hosting Siebel SWE.

SWE External Source	Section within the eai.cfg file to execute, which is the [HTTP Services] section.
SWE External Command	Use Execute.
User Name	User ID logon to execute.
Password	Logon password to execute.

5. Select the node just created and then select *Generate Schemas* from the Operations menu in the right pane.

The following image shows the Schemas table that appears on the right and has three columns labeled Part, Root Tag, and Schema. The Schema column provides the locations of the schemas. There are four rows: Request, Response, Event, and EventReply.

Schemas

Part	Root Tag	Schema
Request	SiebelMessage	...
Response	SiebelResponse	...
Event	SiebelMessage	...
EventReply	N/A	N/A

[Help] [OK] [Cancel]

6. To view the XML for a schema, click the ellipsis (…) in the event row.

The following image shows the XML schema that appears in the right pane.

```
- <Schema xmlns:d="urn:schemas-microsoft-
    com:datatypes" xmlns="urn:schemas-microsoft-
    com:xml-data" name="SiebelMessage">
  - <ElementType content="eltOnly" model="closed"
      name="SiebelMessage">
    <AttributeType name="MessageId" />
    <AttributeType default="Integration Object"
      name="MessageType" />
    <AttributeType default="Sample Account"
      name="IntObjectName" />
    <AttributeType name="IntObjectFormat" />
    <attribute type="MessageId" />
    <attribute required="yes"
      type="MessageType" />
    <attribute required="yes"
      type="IntObjectName" />
    <attribute type="IntObjectFormat" />
    <element type="ListOfSampleAccount"
      minOccurs="0" maxOccurs="1" />
  </ElementType>
  <ElementType d:type="string" d:maxLength="50"
      content="textOnly" model="closed"
```

7. Click the browser *Back* button to return to the Schemas table.

After you browse the list of business objects on your Siebel system and create XML schemas, you can publish WSDLS.

Publishing WSDL enables you to make the WSDL available to a Business or Proxy Service in AquaLogic Service Bus (ALSB).

For more information, see Chapter 3, *Publishing WSDL Documents*.

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 will contain the fields in the order in which they were specified. If you do not specify a set of fields, the response document contains the entire set.

For example, the following query will return all fields:

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

The following query will return 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>
```

Using QueryWithView

For Business Components, BEA SmartConnect 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

Publishing WSDL Documents

Topics:

- Publishing WSDLs

This section describes how to publish WSDL documents using BEA SmartConnect Explorer for use with AquaLogic Service Bus (ALSB).

Publishing WSDLs

After you browse Siebel Business Objects, Business Services, or Integration Objects, you can publish the specific WSDL document for use with your Transport in BEA Aqualogic Service Bus. The following section describes how to publish a WSDL using BEA SmartConnect Explorer.

Note: Only users with Group Membership types set to *Administrators* in BEA Aqualogic Service Bus can publish WSDL files using BEA SmartConnect Explorer. For example, a user with the Group Membership type set to *IntegrationDeployers* cannot publish a WSDL file.

Procedure: **How to Publish a WSDL**

To publish a WSDL:

1. If you have not already connected, connect to your Siebel system.

2. Expand the Siebel node.

   For a **Siebel Business Service** or **Integration Object**, expand the node you are interested in and select the node for which you want to publish a WSDL.

   For a **Business Component**, expand the Business Component for which you want to publish a WSDL and select a node.

   The following image shows the Account Business Component expanded with the queryWithView method selected.

3. Expand the object and select a method for creating the Web service, for example, QueryWithView under Account.

4. In the right pane, move the pointer over *Operations* and select *Publish WSDLS*.

A Publish WSDLs pane opens where you provide the specific information for the WSDL you are defining as shown in the following image.

Publish WSDLs

Outbound WSDL:	Account_queryWithView_invoke.wsdl
Location:	default
Username:	weblogic
Password:	••••••••

Help   OK   Cancel

Perform the following steps:

a. In the Outbound WSDL field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

b. In the Location field, enter the location where you want to publish the WSDL document.

The location is composed of an ALSB project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

c. In the Username field, type your username to access the BEA Aqualogic Service Bus.

d. In the Password field, type your password to access the BEA Aqualogic Service Bus.

5. Click *OK*.

The following Publish WSDLs pane is displayed, which lists the published WSDL file and provides a hyperlink to view it.

Publish WSDLs

Name	WSDL
Account_queryWithView_invoke.wsdl	...

Help   OK   Cancel

The WSDL is published to the location specified in the Publish WSDLs pane and is now available for use with a Business Service or Proxy Service in AquaLogic Service Bus (ALSB).

For more information, see Chapter 4, *Creating a Business Service Using BEA SmartConnect for Siebel*.

6. To save the published WSDL to a different location, right-click the ellipses (...) hyperlink in the WSDL column, and select *Save Target As* from the context menu.

The Save As dialog box opens.

7. Select a location on your file system and click *Save*.

CHAPTER 4

Creating a Business Service Using BEA SmartConnect for Siebel

Topics:

- Getting Started
- Creating a Service Account
- Creating a Business Service
- Creating a Messaging Service

The following section describes how to create a Business Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for Siebel.

Getting Started

After you deploy the BEA SmartConnect for Siebel, open the BEA AquaLogic Service Bus Console and create a new project folder for Siebel.
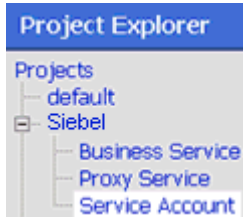
Under the Siebel folder, create Service Account, Business Service, and Proxy Service subfolders.

Creating a Service Account

This section describes how to create a Service Account in AquaLogic Service Bus (ALSB) that can be used to authenticate a connection to the Siebel system when using Business Services.

Procedure: How to Create a Service Account

To create a Service Account:

1. Select the *Service Account* folder you created for Siebel in the left pane.

2. In the right pane, select *Service Account* from the Create Resource menu.

   The Create a New Service Account page opens.

Perform the following steps:

a. In the Resource Name field, enter a name for the resource, for example, Siebel_Static_SA.

b. In the Resource Description field, enter a brief description (optional).

c. Select *Static* from the Resource Type list.

   Note: The *Mapping* resource type is not supported if you are configuring a Service Account for Proxy Services.

3. Click *Next*.

   The following authentication page opens.

4. Enter a valid user name and password that will be used to access the Transport to access the Siebel system.

   Make sure to confirm the password by retyping it in the Confirm Password field.

BEA Systems, Inc.

5. Click *Last*.

The Create a New Service Account - Summary page opens.

6. Click *Save* to save the configuration details.

You are now ready to create your Business Service using the BEA SmartConnect for Siebel.

Creating a Business Service

The following section describes how to create a Business Service in AquaLogic Service Bus (ALSB) using the BEA SmartConnect for Siebel.

Procedure: How to Create a Business Service

To create a Business Service:

1. Select the *Business Service* folder you created for Siebel in the left pane.

2. In the right pane, select *Business Service* from the Create Resource menu.

    The Create a Business Service - General Configuration page opens.

Perform the following steps:

a. In the Service Name field, enter a name for the Business Service.

b. Select *Any XML Service* from the Service Type list.

3. Click *Next*.

The Create a Business Service - Transport Configuration page opens.

Perform the following steps:

a. Select *siebel* from the Protocol drop-down list.

      b. In the Endpoint URI field, provide the specific URI for your service, using the following format:

```
http://host:port/someService
```

4. Click *Next*.

The Create a Business Service - Siebel Transport Configuration page opens.

This page allows you to configure basic and advanced properties for a Business Service using the Siebel transport protocol. For a complete description of these properties, see *Siebel Transport Configuration Properties* on page 4-9.

5. Click *Next*.

The Create a Business Service - Summary page opens.

6. Review all the information for your Business Service and click *Save*.

If there are no errors, a confirmation message is displayed on the top of the page.

7. Activate your changes in AquaLogic Service Bus.
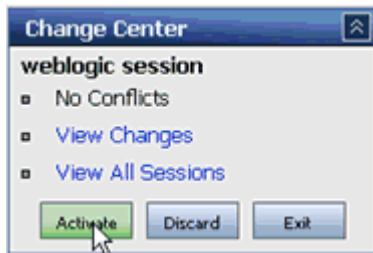
8. Click *Activate* in the Change Center, which is located in the top left corner of the console.

You must now create a Message Service.

Siebel Transport Configuration Properties

The following table lists and describes the properties that are available in the Create a Business Service - Siebel Transport Configuration page.

| Property	Description
Override Credentials With	Allows you to select a Service Account you have previously created to override security credentials. For more information on creating Service Accounts, see *Creating a Service Account* on page 4-2.
Pool Name	Type the name of your Siebel connection pool. **Note:** If you have a Siebel connection pool configured and specify its name in the Pool Name field (SIEBEL Transport Configuration page), the Siebel transport will use the connection pool's credentials for authentication purposes and override any Service Account that is selected.
Dispatch policy	Designates which server execute thread should be used. The *default* policy is automatically selected.
Advanced Settings	
Siebel Server	Type the name of your Siebel server. You do not have to supply a value in this field when connecting to a Siebel 7.7 or 7.8 system.
Language	Type a language key. The default value is enu (English).
Object Manager	The name of an active Siebel Object Manager. The default value is *EAIObjMgr*.
Repository Name	The name of the repository where metadata describing Business Services, Business Objects, and Integration Objects is located. The default value is *Siebel Repository*.

Creating a Messaging Service

The following section describes how to create a Messaging Service for request and response documents using the HTTP transport protocol.

Procedure: **How to Create a Messaging Service**

To create a Messaging Service:

1. Select the *Business Service* folder you created for Siebel in the left pane.

2. In the right pane, select *Business Service* from the Create Resource menu.

    The Create a Business Service - General Configuration page opens.

    Perform the following steps:

    a. In the Service Name field, enter a name for the Business Service.

    b. Select *Messaging Service* from the Service Type list.

3. Click *Next*.

    The Create a Business Service - Message Type Configuration page opens.

    Perform the following steps:

    a. Select *XML* for the Request Message Type.

    b. Select *None* for the Response Message Type.

4. Click *Next*.

    The Create a Business Service - Transport Configuration page opens.

    Perform the following steps:

    a. Select *http* from the Protocol drop-down list.

    b. In the Endpoint URI field, provide an appropriate location.

5. Click *Next*.

    The Create a Business Service - HTTP Transport Configuration page opens.

    Perform the following steps:

    a. In the Prefix field, specify a prefix that will be used for the document.

    b. In the Request encoding field, specify the encoding type to be used, for example, UTF-8.

6. Click *Next*.

    The Summary page for the Messaging Service opens.

7. Review all the information for your Messaging Service and click *Save*.

8. Activate your changes in AquaLogic Service Bus.

9. Click *Activate* in the Change Center, which is located in the top left corner of the console.

You can now create a Proxy Service. For more information, see Chapter 5, *Creating a Proxy Service Using BEA SmartConnect for Siebel*.

Creating a Proxy Service Using BEA SmartConnect for Siebel

Topics:

- Creating a Proxy Service
- Configuring a Pipeline
- Adding a Route Node for the Proxy Service
- Adding and Editing a Stage in the Response Pipeline
- Publishing the Proxy Service

The following section describes how to create a Proxy Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for Siebel.

Creating a Proxy Service

The following section describes how to create a Proxy Service in AquaLogic Service Bus (ALSB) using the Siebel transport protocol.

Procedure: How to Create a Proxy Service

To create a Proxy Service:

1. Select the *Proxy Service* folder you created for Siebel in the left pane.

2. In the right pane, select *Proxy Service* from the Create Resource menu.

   The Create a Proxy Service - General Configuration page opens.

Perform the following steps:

a. In the Resource Name field, enter a name for the Siebel Proxy Service.

b. In the Description field, enter a brief description (optional).

c. Select *Any XML Service* from the Service Type list.

3. Click *Next*.

The Create a Proxy Service - Transport Configuration page opens.

Perform the following steps:

a. Select *seibel* from the Protocol drop-down list.

b. In the Endpoint URI field, provide the location of the input file location, for example:

```
siebel://port
```

4. Click *Next*.

The Create a Proxy Service - SIEBEL Transport Configuration page opens.
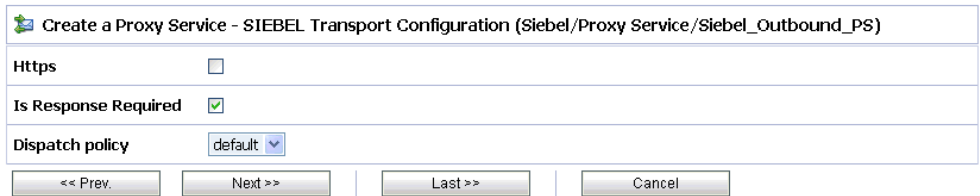
This page allows you to configure basic and advanced properties for a Proxy Service using the Siebel transport protocol. For a complete description of these properties, see *Siebel Transport Configuration Properties* on page 5-5.

5. After you configured the available properties, click *Next*.

The Create a Proxy Service - Message Level Security Configuration page opens.

6. Accept the default configuration.

7. Click *Next*.

The Summary page for the Proxy Service opens.

8. Review all the information for your Business Service and click *Save*.

9. Activate your changes in AquaLogic Service Bus.

10. Click *Activate* in the Change Center, which is located in the top left corner of the console.

You are now ready to configure a Pipeline.

Reference: Siebel Transport Configuration Properties

The following table lists and describes the properties that are available in the Create a Proxy Service - Siebel Transport Configuration page.

Property	Description
Https	Select this check box to enable a secure HTTP (HTTPS) connection.
Is Response Required	Select this check box if the Siebel Transport is required to receive a response for this Proxy Service.
Dispatch policy	Designates which server execute thread should be used for the Proxy Service. The *default* policy is automatically selected.

Configuring a Pipeline

The following section describes how to configure a Pipeline in AquaLogic Service Bus (ALSB).

Procedure: How to Configure a Pipeline

To configure a Pipeline:

1. Select the *Proxy Service* folder you created for Siebel in the left pane.

2. Select *Edit Message Flow* in the right pane.

3. Right-click the service resource name and select *Add Pipeline Pair*.

4. Right-click the Request Pipeline and select *Edit Stage*.

5. Select *Add an Action* to edit a stage.

6. Select *Log* from the *Reporting* submenu.
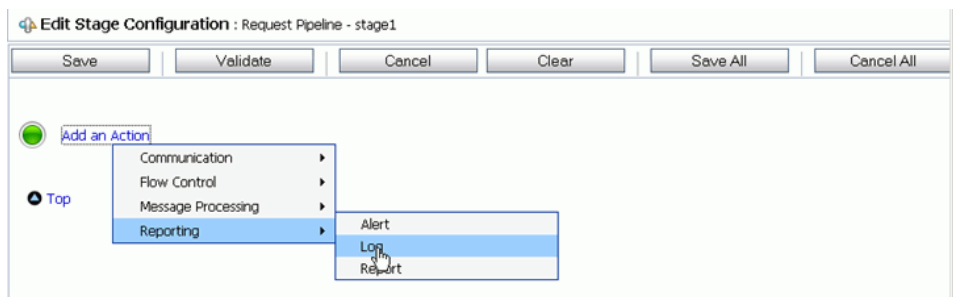
7. Perform the following steps to add XQuery Text to the Log Expression:

    a. Click *<Expression>* to edit the expression.

    b. Type *$inbound* in the XQuery Text area.

    c. Validate the XQuery and click *Save*.
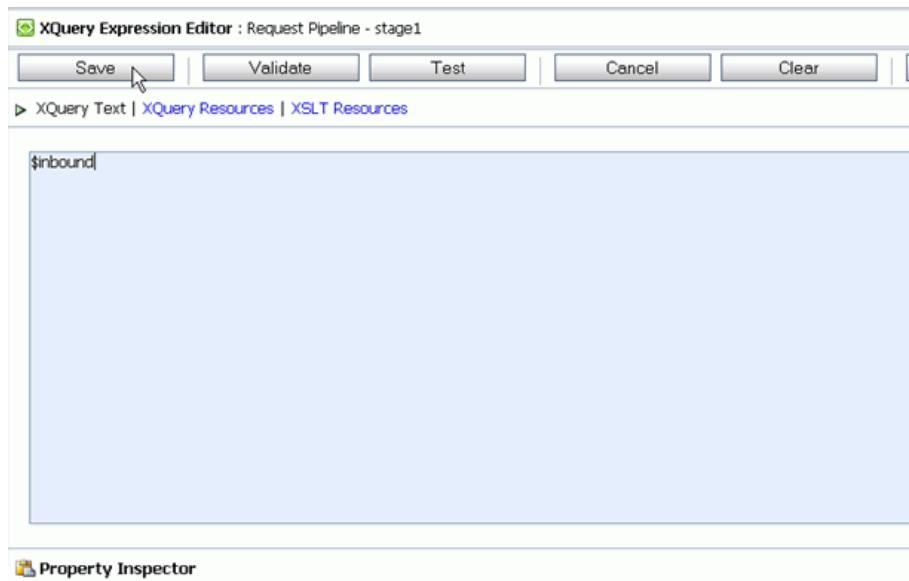
The Edit Stage Configuration page appears showing the request.

d. From the at severity level drop-down list, select *Error*.

8. Perform the following steps to add another Log action to the Request Pipeline:

a. Select *Log* from the *Reporting* submenu of *Add an Action*.
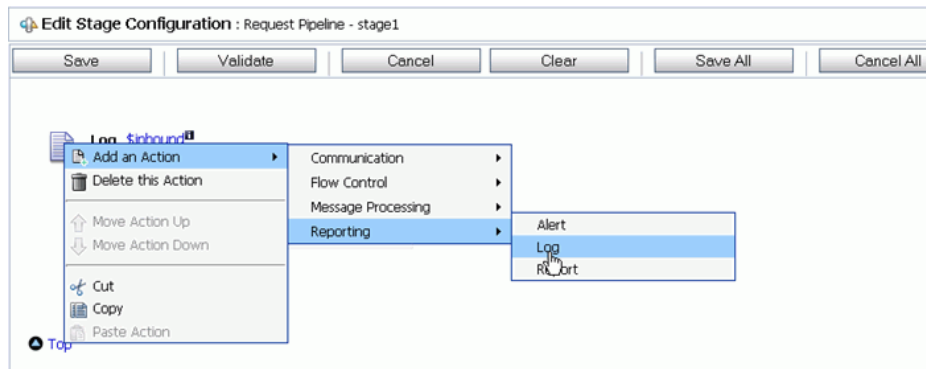
The Log Expression appears on the page.

b. Click *<Expression>* to edit the expression and add the XQuery text.

c. Type *$body* in the XQuery Text area.

d. Validate the XQuery and click *Save*.
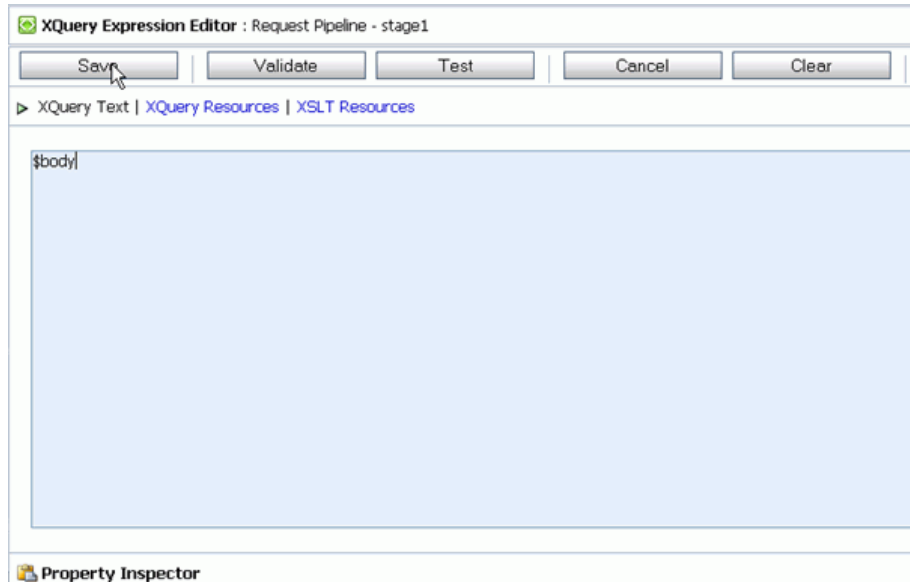
The Edit Stage Configuration page appears showing the request.

e. From the at severity level drop-down list, select *Error*.
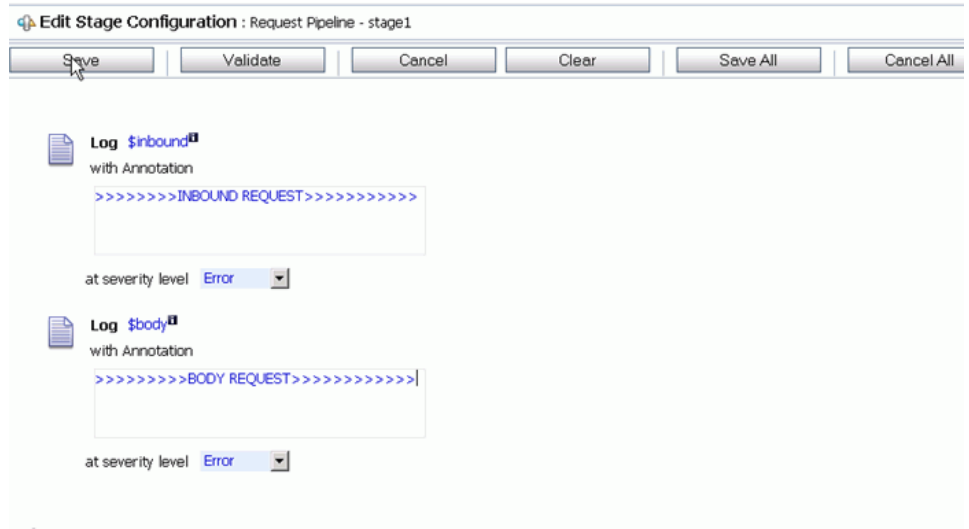
f. *Save* the Edit Configuration Stage.

Adding a Route Node for the Proxy Service

The following section describes how to add a route node for the Proxy Service in AquaLogic Service Bus (ALSB).

Procedure: How to Add a Route Node

To add a Route Node:

1. From the Request Pipeline edit stage, select the *Add an Action*.

2. Right-click the Request Pipeline and select *Edit Stage*.

3. Select *Add an Action* to add an action for the Route node.

4. Select *Routing* from the *Communication* submenu.
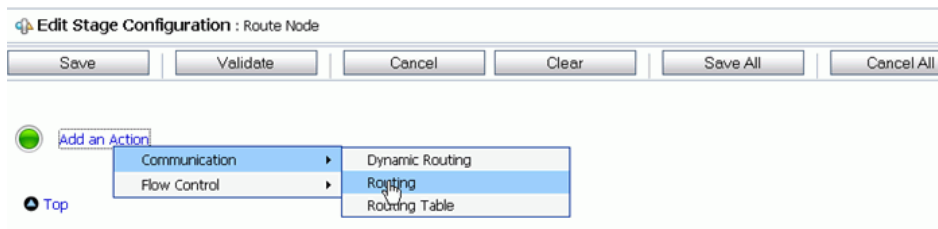
5. Click *<Service>* to select from a list of services.
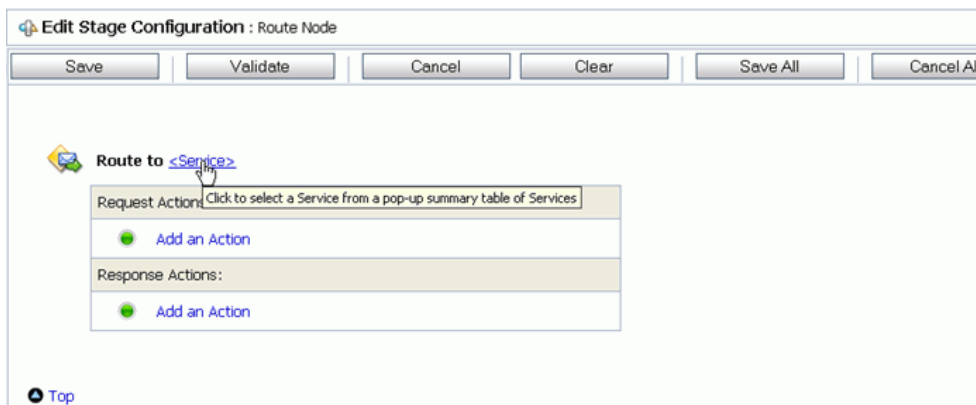
6. From the Select Service page, select *Business Service* and click *Submit*.

7. Select *Log* from the *Reporting* submenu of the Response Action.
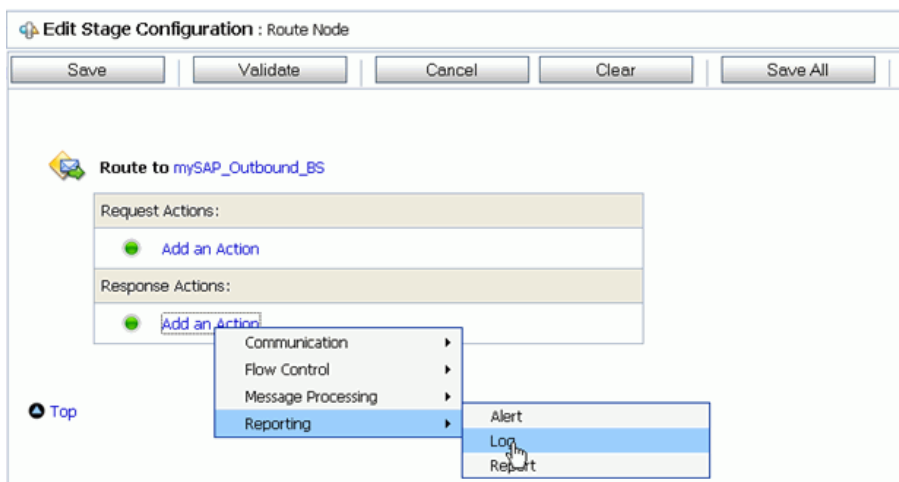
8. Click *<Expression>* to edit the expression and add the XQuery text.

9. Type *$outbound* in the XQuery Text area.

10. *Validate* the XQuery and *Save*.

The Edit Stage Configuration page appears showing the request.

11. From the at severity level drop-down list, select *Error*.

12. *Save* the Route Node configuration.

Adding and Editing a Stage in the Response Pipeline

The following section describes how to add and edit a stage for the Response Pipeline for the Proxy Service in AquaLogic Service Bus (ALSB).

Procedure: How to Add and Edit a Stage in the Response Pipeline

To add a stage to the Response Pipeline:

1. From the Edit Message Flow page, right-click the Request Pipeline and select *Edit Stage*.

2. Select *Add an Action* to edit a stage.

3. Select *Log* from the *Reporting* submenu.
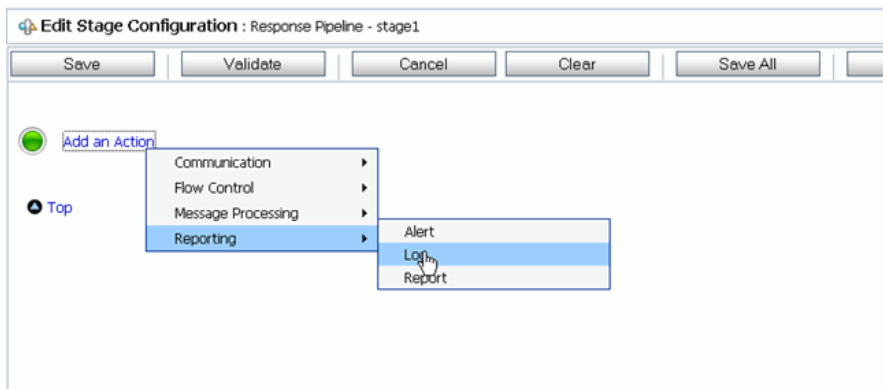
The Log Expression appears on the page.

4. Click *<Expression>* to edit the expression and add the XQuery text.
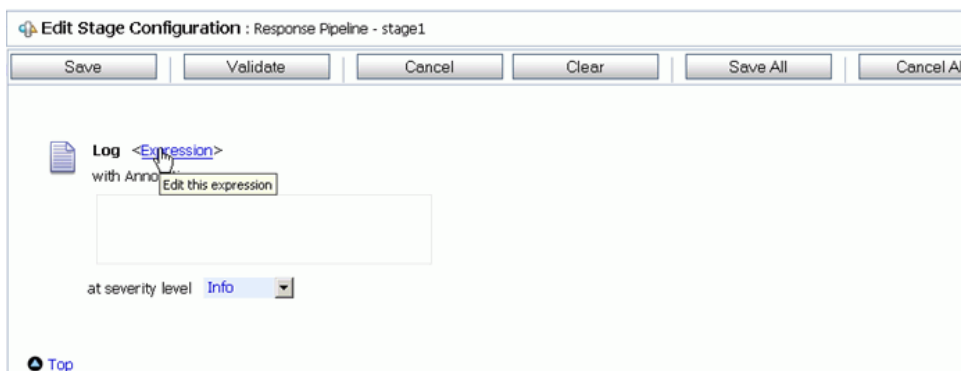
5. Type *$body* in the XQuery Text area.

6. *Validate* the XQuery and *Save*.
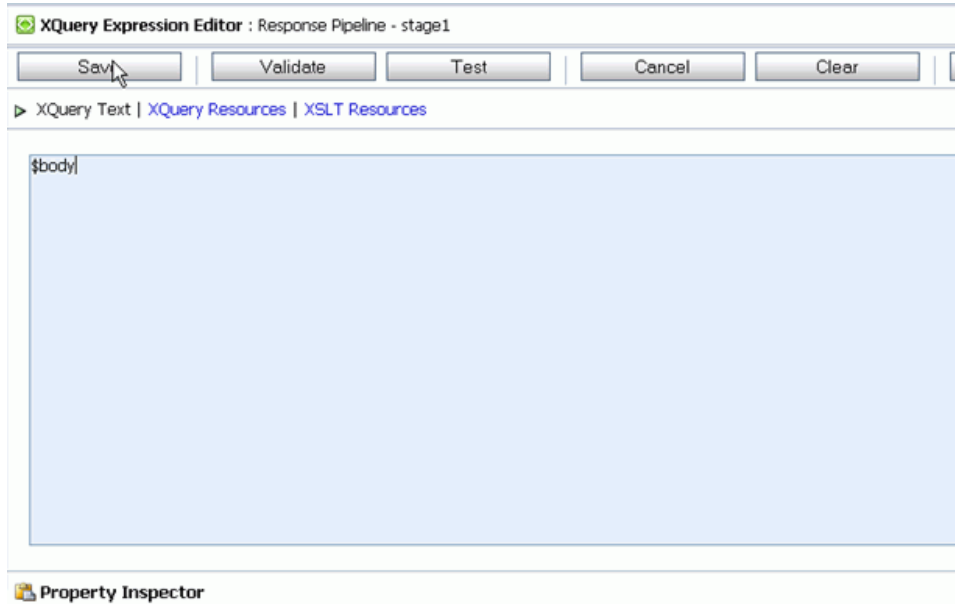
The Edit Stage Configuration page appears showing the response.

7. From the at severity level drop-down list, select *Error*.

8. *Save* the Edit Configuration Stage.

Publishing the Proxy Service

The following section describes how to publish the Proxy Service in AquaLogic Service Bus (ALSB).

Procedure: How to Publish the Proxy Service

From the Edit Stage Configuration page:

1. Right-click the Response Pipeline and select *Add an Action*.

2. Select *Publish* from the *Communication* submenu.
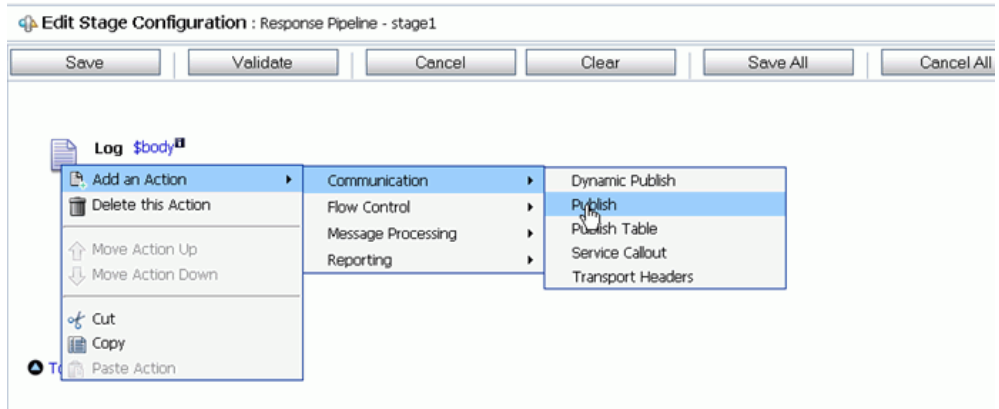
3. Click *<Service>* to select from a list of services.

4. From the Select Service page, select *Business Service* and click *Submit*.

5. Validate the Configuration and click *Save*.

6. Click *Activate Changes* in the change centre to save the changes.

7. Place the input XML file in the input folder location.

8. You are now able to receive the response in the XML file from the Output file location.

Creating a Business Service for Inbound Siebel Processing

Topics:

- Creating a Business Service for Inbound Siebel Processing

The following section describes how to create a Business Service for inbound (event) Siebel processing in AquaLogic Service Bus (ALSB) using the BEA SmartConnect for Siebel.

Creating a Business Service for Inbound Siebel Processing

The following section describes how to create a Business Service in AquaLogic Service Bus (ALSB) for inbound Siebel processing using the BEA SmartConnect for Siebel.

Procedure: How to Create an Inbound Business Service

To create an inbound Business Service:

1. Select the *Business Service* folder you created for Siebel in the left pane.

2. In the right pane, select *Business Service* from the Create Resource menu.

The Create a Business Service - General Configuration page opens.

Perform the following steps:

    a. In the Service Name field, enter a name for the Business Service.

    b. Select *Messaging Service* from the Service Type list.

3. Click *Next*.

The Create a Business Service - Message Type Configuration page opens.

Perform the following steps:

    a. Select *XML* for the Request Message Type.

    b. Select *None* for the Response Message Type.

4. Click *Next*.

The Create a Business Service - Transport Configuration page opens.

Perform the following steps:

    a. Select *http* from the Protocol drop-down list.

    b. In the Endpoint URI field, provide an appropriate location.

5. Click *Next*.

The Create a Business Service - HTTP Transport Configuration page opens.

Perform the following steps:

    a. In the Prefix field, specify a prefix that will be used for the document.

    b. In the Request encoding field, specify the encoding type to be used, for example, UTF-8.

6. Click *Next*.

The Summary page for the Messaging Service opens.

7. Review all the information for your Messaging Service and click *Save*.

8. Click *Activate* in the Change Center, which is located in the top left corner of the console.

    You can now create an inbound proxy service.

Procedure: How to Create an Inbound Proxy Service

To create an inbound Proxy Service:

1. Select the *Proxy Service* folder you created for Siebel in the left pane.

2. In the right pane, select *Proxy Service* from the Create Resource menu.

    The Create a Proxy Service - General Configuration page opens.

    Perform the following steps:

    a. In the Service Name field, enter a name for the resource.

    b. In the Description fields, enter a brief description (optional).

    c. Select *Any XML Service* from the Service Type list.

3. Click *Next*.

    The Create a Proxy Service - Transport Configuration page opens.

    Perform the following steps:

    a. Select *siebel* from the Protocol drop-down list.

    b. In the Endpoint URL field, provide the location of the input file location.

    c. Select *Yes* from the Get All Headers list.

4. Click *Next*.

    The Create a Proxy Service - SIEBEL Transport Configuration page opens.

    Perform the following steps:

    a. Select *Application Server - Siebel* from the option drop-down list.

    b. In the Client field, type the client number defined for the Siebel application for client communications.

    c. Select *Password* from the Authentication mode drop-down list.

    d. In the Application Server field, type the name for the application server, for example, isdsrv2.

    e. In the System number field, type a system number, for example, 00.

    f. In the Service-account field, type the path to the service-account you created.

5. Click *Next*.

6. Accept the default configuration on the next page that opens.

7. Click *Next*.

    The Create a Proxy Service - Summary page opens.

8. Review all the information for your Proxy Service and click *Save*.

9. Click *Activate* in the Change Center to save the changes in the session.

    You are now ready to configure a Pipeline.

Procedure: **How to Configure a Pipeline in the Proxy Service**

To configure a Pipeline in the Proxy Service:

1. Select the *Proxy Service* folder you created for Siebel in the left pane.

2. Select *Edit Message Flow* in the right pane.

    The Edit Message Flow page opens.

3. Right-click the service name and select *Add Route* from the context menu.

4. Right-click the Route Node and select *Edit Route*.

5. Perform the following steps to route the Business Service to the Proxy Service:

    a. Select *Add an Action* to edit a route.

    b. Select *Routing* from the *Communication* submenu.
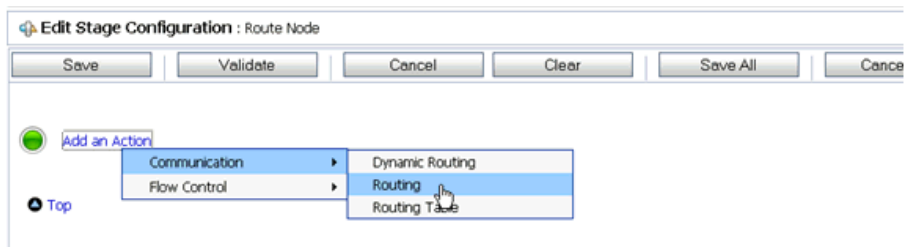
      c. Click *<Service>* to select the Business Service.

      d. From the Select Service page, select the Business Service and click *Submit*.

6. Validate the configuration and click *Save*.
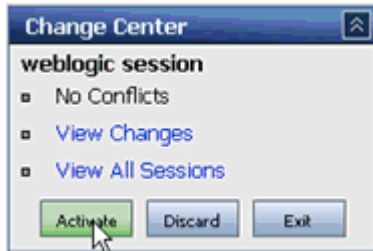
7. Click *Activate* in the Change Center, which is located in the top left corner of the console.

You can now trigger the event messages in your Siebel enterprise system.

BEA SmartConnect for Siebel Use Cases

Topics:

- Publishing a Siebel Business Object to ALSB Using BEA SmartConnect Explorer

- Publishing a Siebel Business Service to ALSB Using BEA SmartConnect Explorer

- Creating an ALSB Business Service Using a Published Siebel WSDL

The following section provides use cases that demonstrate the functionality provided by the BEA SmartConnect for Siebel for AquaLogic Service Bus (ALSB).

Publishing a Siebel Business Object to ALSB Using BEA SmartConnect Explorer

This use case demonstrates the steps an ALSB user will need to follow in order to connect to a Siebel backend system and publish a WSDL document into ALSB so it can be used with BEA SmartConnect for Siebel.

The following is a summary of the steps in this use case:

- Starting BEA SmartConnect Explorer.

- Creating a target for the Siebel Transport.

- Establishing a connection to the Siebel Transport.

- Browsing available Siebel business objects.

- Publishing a WSDL document.

Procedure: How to Start BEA SmartConnect Explorer

To start BEA SmartConnect Explorer:

1. Start your domain for AquaLogic Service Bus.

2. Enter the following URL in your browser window:

`http://`*`hostname:port`*`/iwae/index.html`

where:

hostname

> Is the name of the machine where the server for your AquaLogic Service Bus domain is running.

port

> Is the HTTP port where the server is listening.

The BEA SmartConnect Explorer opens, as shown in the following image.

Procedure: How to Create a Target for the Siebel Transport

To create a target for the Siebel Transport:

1. In the left pane of BEA SmartConnect Explorer, click the *Siebel* node.

2. In the right pane, move the pointer over *Operations*.

   The Define a new target menu option appears as well as title and product version information for the transport in the right pane as shown in the following image.

3. Select *Define a new target*.

   The Add a new SIEBEL target pane opens on the right as shown in the following image.

Perform the following steps:

a. In the Target Name field, type a name for the target, for example, SiebelTarget.

b. In the Description field, type a brief description (optional).

    c. From the Target Type drop-down list, select the type of target to connect to.

    The default value is Java Data Bean Connection.

4. Click *Next*.

The Set connection info pane opens on the right. The Logon and Advanced tabs are available. The Logon tab is active as shown in the following image.

Perform the following steps:

a. In the Gateway Server field, type 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, type the appropriate name.

c. In the Siebel Server field, type the name of your Siebel server.

    Note: You do not have to supply a value in this field when connecting to a Siebel 7.7 system and higher.

d. In the User field, type the user name.

e. In the Password field, type the password associated with the user name.

f. In the Siebel Version field, select one of the following Siebel system versions you are connecting to from the drop-down list:

- Siebel 7.5 or below (default)

- Siebel 7.7 and above

5. Click the *Advanced* tab.

The Advanced tab becomes available as shown in the following image.

6. Verify the following: Language, Object Manager, and Repository Name.

Object Manager is the name of an active Siebel Object Manager. The following table shows examples of various Object Managers.

Siebel Object Manager	Associated Application
EAIObjMgr	Siebel 7.0.3
EAIObjMgr_enu	Siebel 7.5, 7.7, 7.8, and 8.0

Note: Siebel 7.5, 7.7, 7.8, and 8.0 requires that you add the 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.

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

The configuration parameters supplied are 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.

7. After you provide all the required information for your target, click *Finish*.

The Siebel target appears below the Siebel node in the left pane as shown in the following image. You are now ready to connect to your Siebel target.

Procedure: How to Connect to a Target for the Siebel Transport

To connect to a target for the Siebel Transport:

1. In the left pane, expand the Siebel node and select the target you defined, for example, SiebelTarget.

2. In the right pane, move the pointer over *Operations.*

   The following image shows the target, with a red 'x', selected in the left pane. In the right pane, the Operations menu appears in its expanded form.

3. Select *Connect.*

   The Connect to SiebelTarget pane opens on the right.

4. In the Password field, type a valid password and click *OK*.

The SiebelTarget node in the left pane changes (the red 'x' disappears) to reflect that a connection was made as shown in the following image.

5. Expand the *SiebelTarget* node.

The following Siebel business object groups appear:

- Business Object
- Business Service
- Integration Object

Procedure: How to Browse Available Siebel Business Objects

To browse available Siebel business objects:

1. Click the icon to the left of the target name, for example, SiebelTarget.

This expands the target to expose the available business object groups as shown in the following image.

2. To expand the desired Siebel business object group, click the icon to the left of the group name, for example, Business Object.

A list of business objects appears in the left pane.
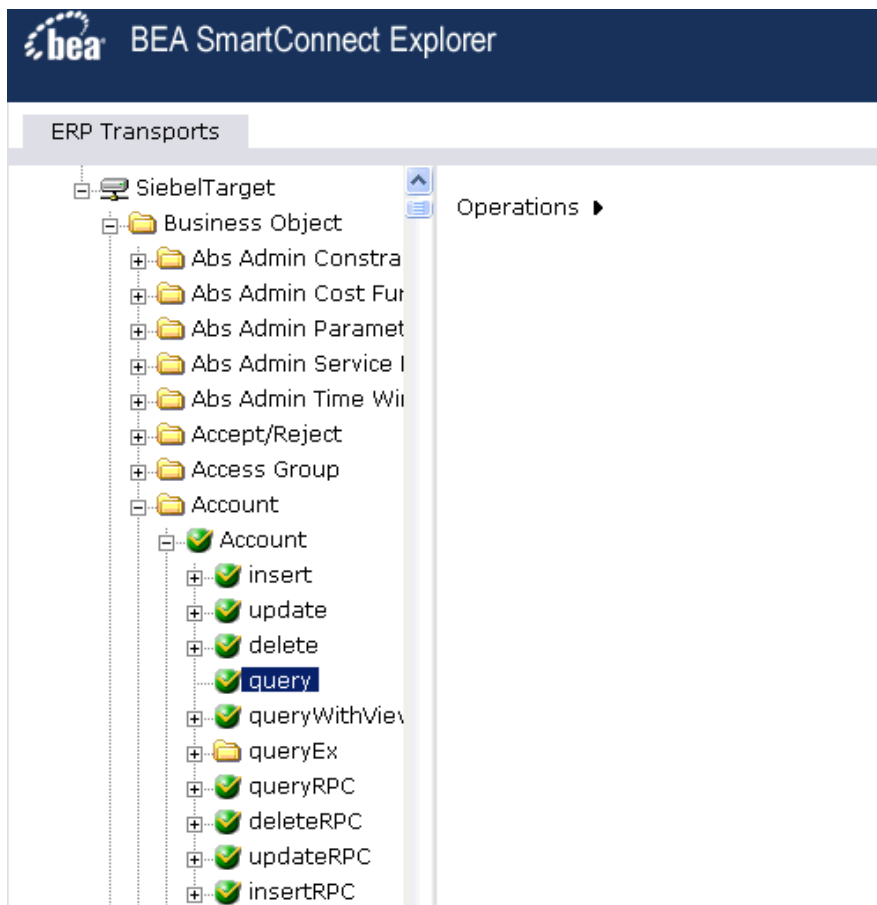
Perform the following steps:

      a. Expand the *Account* folder.

      b. Select *Account*.

      c. Select the method called *query*.

3. In the right pane, move the pointer over *Operations* to view the context menu, as shown in the following image.
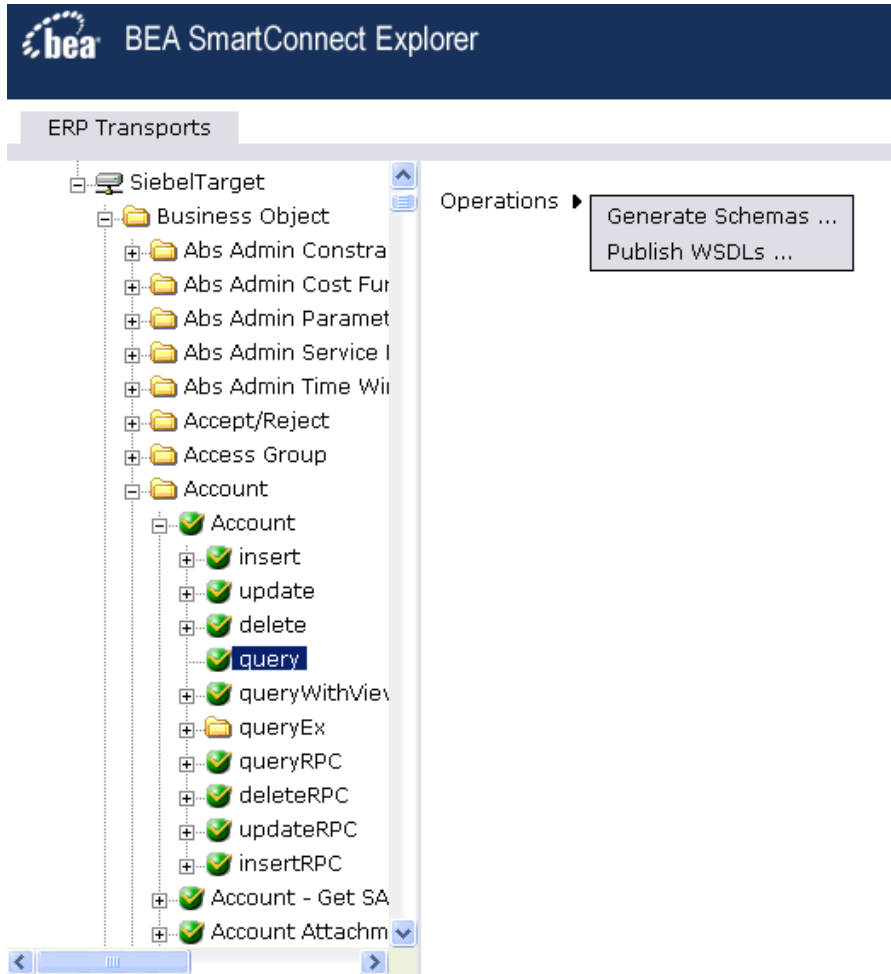
The following options are available from the context menu:

- **Generate Schema** generates XML request and response schemas for the Siebel business object you selected.

  • **Publish WSDLs** generates a WSDL document based on the XML schema that can be integrated with BEA AquaLogic Service Bus.

Procedure: How to Publish a WSDL Document

To publish a WSDL document:

1. From the Business Object Repository, expand the Account folder.

2. Select *Account*.

3. Select the method called *query*.

4. In the right pane, move the pointer over *Operations*.

    The Operations menu expands as shown in the following image.

5. Select *Publish WSDLS*.

A Publish WSDLs pane opens where you provide the specific information for the WSDL you are defining as shown in the following image.

Publish WSDLs

Outbound WSDL:	Account_query_invoke.wsdl
Location:	default/wsdls
Username:	weblogic
Password:	••••••••

Help		OK	Cancel

Perform the following steps:

a. In the Outbound WSDL field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

b. In the Location field, enter the location where you want to publish the WSDL document.

The location is composed of an ALSB project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

c. In the Username field, type your username to access the BEA Aqualogic Service Bus.

d. In the Password field, type your password to access the BEA Aqualogic Service Bus.

6. Click *OK*.

The following Publish WSDLs pane is displayed, which lists the published WSDL file and provides a hyperlink to view it.

Publish WSDLs

Name	WSDL
Account_query_invoke.wsdl	...

[Help]   [OK]   [Cancel]

The WSDL is published to the location specified in the Publish WSDLs pane and is now available for use with a Business Service or Proxy Service in AquaLogic Service Bus (ALSB).

For more information, see Chapter 4, *Creating a Business Service Using BEA SmartConnect for Siebel*.

7. To save the published WSDL to a different location, right-click the ellipses (...) hyperlink in the WSDL column, and select *Save Target As* from the context menu.

The Save As dialog box opens.

8. Select a location on your file system and click *Save*.

Publishing a Siebel Business Service to ALSB Using BEA SmartConnect Explorer

This use case demonstrates the steps an ALSB user will need to follow in order to connect to a Siebel backend system, create a Service Node for a Siebel Business Service, and publish a WSDL document based on the Business Service so it can be used with BEA SmartConnect for Siebel in ALSB.

The following is a summary of the steps in this use case:

- Starting BEA SmartConnect Explorer.

- Creating a target for the Siebel Transport.

- Establishing a connection to the Siebel Transport.

- Creating a Service Node.

- Publishing a WSDL document.

Procedure: How to Start BEA SmartConnect Explorer

To start BEA SmartConnect Explorer:

1. Start your domain for AquaLogic Service Bus.

2. Enter the following URL in your browser window:

   `http://hostname:port/iwae/index.html`

   where:

   hostname

   Is the name of the machine where the server for your AquaLogic Service Bus domain is running.

   port

   Is the HTTP port where the server is listening.

   The BEA SmartConnect Explorer opens, as shown in the following image.

Procedure: How to Create a Target for the Siebel Transport

To create a target for the Siebel Transport:

1. In the left pane of BEA SmartConnect Explorer, click the *Siebel* node.

2. In the right pane, move the pointer over *Operations*.

   The Define a new target menu option appears as well as title and product version information for the transport in the right pane as shown in the following image.

3. Select *Define a new target*.

   The Add a new SIEBEL target pane opens on the right as shown in the following image.

   Perform the following steps:

   a. In the Target Name field, type a name for the target, for example, SiebelTarget.

   b. In the Description field, type a brief description (optional).

   c. From the Target Type drop-down list, select the type of target to connect to.

   The default value is Java Data Bean Connection.

4. Click *Next*.

   The Set connection info pane opens on the right. The Logon and Advanced tabs are available. The Logon tab is active as shown in the following image.

Set connection info

Logon	Advanced

Gateway Server: ariba01

Enterprise Name: ariba01

Siebel Server: SiebelSrv

User: SADMIN

Password: •••••

Siebel Version :   Siebel 7.5 or below

Help	< Back	Finish	Cancel

Perform the following steps:

a. In the Gateway Server field, type 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, type the appropriate name.

c. In the Siebel Server field, type the name of your Siebel server.

Note: You do not have to supply a value in this field when connecting to a Siebel 7.7 system and higher.

d. In the User field, type the user name.

e. In the Password field, type the password associated with the user name.

f. In the Siebel Version field, select one of the following Siebel system versions you are connecting to from the drop-down list:

- Siebel 7.5 or below (default)

- Siebel 7.7 and above

5. Click the *Advanced* tab.

The Advanced tab becomes available as shown in the following image.

6. Verify the following: Language, Object Manager, and Repository Name.

   Object Manager is the name of an active Siebel Object Manager. The following table shows examples of various Object Managers.

Siebel Object Manager	Associated Application
EAIObjMgr	Siebel 7.0.3
EAIObjMgr_enu	Siebel 7.5, 7.7, 7.8, and 8.0

   Note: Siebel 7.5, 7.7, 7.8, and 8.0 requires that you add the 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.

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

   The configuration parameters supplied are 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.

7. After you provide all the required information for your target, click *Finish*.

   The Siebel target appears below the Siebel node in the left pane as shown in the following image. You are now ready to connect to your Siebel target.

Procedure: **How to Connect to a Target for the Siebel Transport**

To connect to a target for the Siebel Transport:

1. In the left pane, expand the Siebel node and select the target you defined, for example, SiebelTarget.

2. In the right pane, move the pointer over *Operations.*

The following image shows the target, with a red 'x', selected in the left pane. In the right pane, the Operations menu appears in its expanded form.

3. Select *Connect.*

The Connect to SiebelTarget pane opens on the right.

4. In the Password field, type a valid password and click *OK*.

   The SiebelTarget node in the left pane changes (the red 'x' disappears) to reflect that a connection was made as shown in the following image.

5. Expand the Siebel*Target* node.

   The following Siebel business object groups appear:

   • Business Object

   • Business Service

   • Integration Object

Procedure: How to Create a Service Node

Before viewing Siebel Business Service metadata, you must add a Service Node if the Business Service method has a method argument of type *hierarchy*.

To create a Service Node:

1. Connect to a Siebel target and expand the *Business Service* group.

2. Browse through the available Business Services and select a specific Business Service object, for example EAI XML Converter.

3. Expand the object and select a function of that object you want to publish, for example, IntObjHierToXMLDoc.

4. In the right pane, move the pointer over *Operations* and select Add Service Node.

   The Add Service Node pane opens on the right, as shown in the following image.

Add Service Node

Name : EAI

Description : This is a sample EAI
service node used for
test purposes only.

XSD File for
SiebelMessage : Doc\XSD_File\sampleaccount.xsd

Root Element for
SiebelMessage : SiebelMessage

Is SiebelMessage an
Integration Object : ☑

OK   Cancel

Perform the following steps:

a. Type a name you want to use for the Service Node in the Name field.

b. Type a brief description for the Service Node (optional).

c. In the XSD File for SiebelMessage field, enter the location of XSD file that was created by Siebel Tools and include the name of the file in this location, for example, sampleaccount.xsd.

For more information on creating a Siebel XDR or XSD schema using Siebel Tools, see *Creating a Siebel XDR or XSD Schema* in Chapter 2, *Creating XML Schemas*.

d. In the Root Element for SiebelMessage field, type the name of the root element being used. The root element is usually *SiebelMessage* in most cases.

e. Select the *Is SiebelMessage an Integration Object* check box.

5. Click *OK*.

The Service Node is created and appears in the left pane within the function you selected earlier, for example, IntObjHierToXMLDoc.
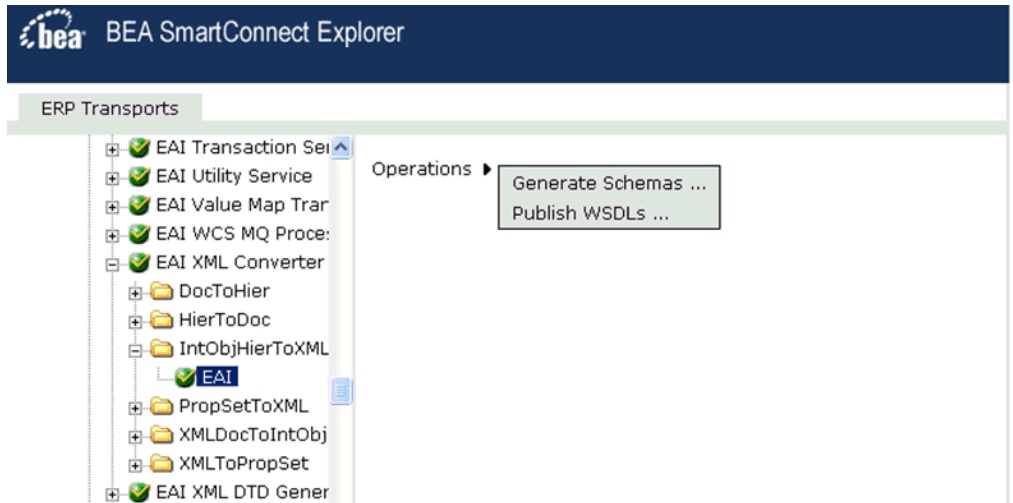
You will need to persist the Service Node you just created by refreshing your target to Siebel.

You can now generate a schema or publish a WSDL document based on this Service Node.

Procedure: How to Publish a WSDL Document

To publish a WSDL document:

1. Select the Service Node you created in the left pane, for example, EAI.

2. In the right pane, move the pointer over *Operations*.

The Operations menu expands as shown in the following image.

3. Select *Publish WSDLs*.

A Publish WSDLs pane opens where you provide the specific information for the WSDL you are defining as shown in the following image.

Publish WSDLs

Outbound WSDL:	sampleaccount.wsdl
Location:	default/wsdls
Username:	weblogic
Password:	••••••••

Help		OK	Cancel

Perform the following steps:

a. In the Outbound WSDL field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

b. In the Location field, enter the location where you want to publish the WSDL document.

The location is composed of an ALSB project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

c. In the Username field, type your username to access the BEA Aqualogic Service Bus.

d. In the Password field, type your password to access the BEA Aqualogic Service Bus.

4. Click *OK*.

The following Publish WSDLs pane is displayed, which lists the published WSDL file and provides a hyperlink to view it.

The WSDL is published to the location specified in the Publish WSDLs pane and is now available for use with a Business Service or Proxy Service in AquaLogic Service Bus (ALSB).

For more information, see Chapter 4, *Creating a Business Service Using BEA SmartConnect for Siebel*.

5. To save the published WSDL to a different location, right-click the ellipses (...) hyperlink in the WSDL column, and select *Save Target As* from the context menu.

The Save As dialog box opens.

6. Select a location on your file system and click *Save*.

Creating an ALSB Business Service Using a Published Siebel WSDL

This use case provides the steps that an ALSB user must perform to create a Business Service using a Siebel WSDL published by BEA SmartConnect Explorer.

1. Open the BEA AquaLogic Service Bus Console.
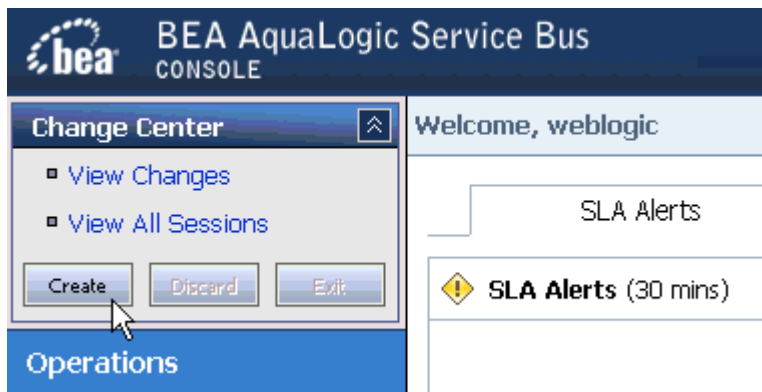
2. In the Change Center, which is located in the top left corner of the console, click *Create* to start a session.
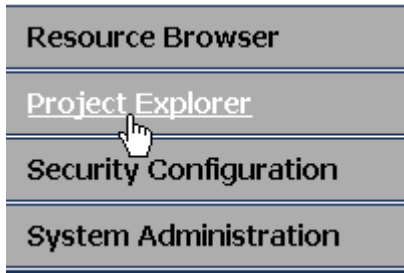
3. In the left pane, click *Project Explorer*.

The Project Explorer opens and displays a list of available projects in the left pane.
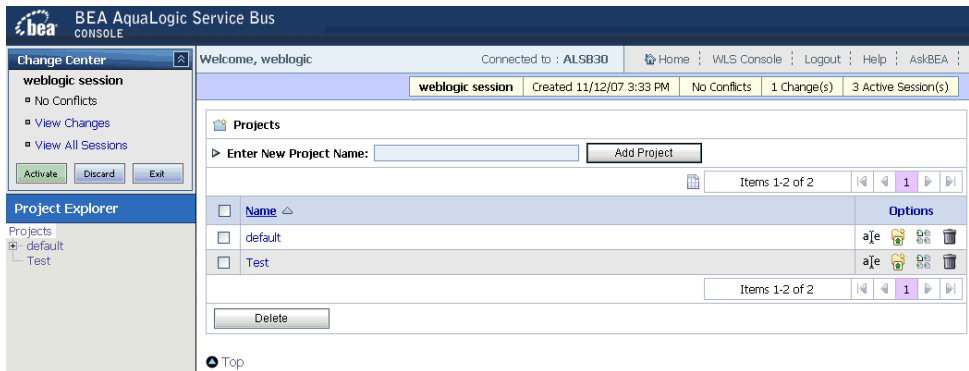
4. In the Projects pane, type a name for your new project, for example, Siebel_WSDL.
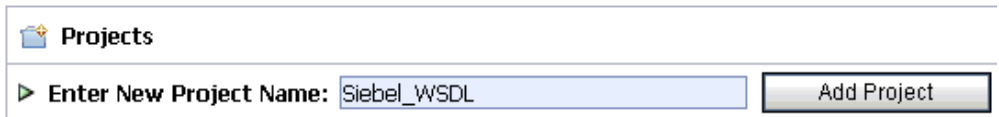
5. Click *Add Project*.

The new project, for example, Siebel_WSDL, is listed in the left pane, as shown in the following image.
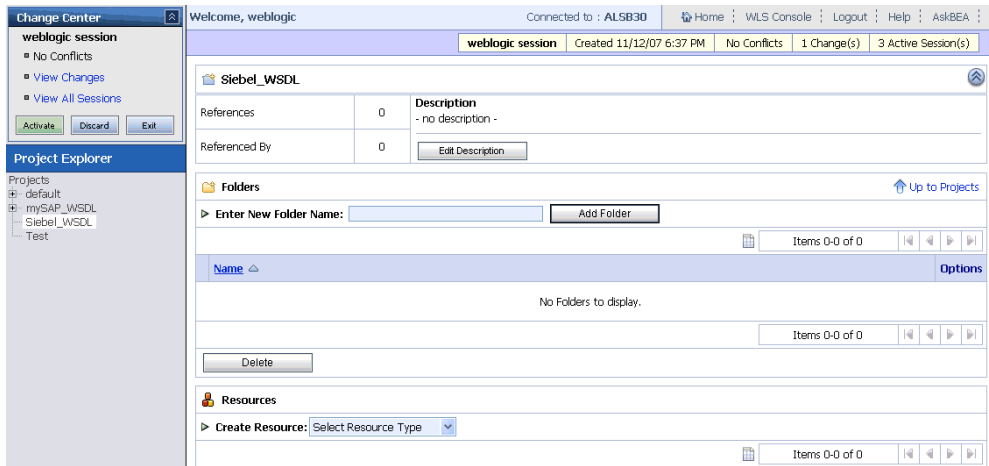
It is always a good practice to create folders for your project to organize any components you will use for your service.

6. In the Folders section, type a name for your new project, for example, Service_Account.
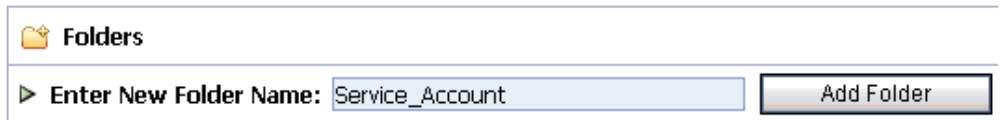
7. Click *Add Folder*.

The new folder, for example, Service_Account, is listed in the left pane, as shown in the following image.
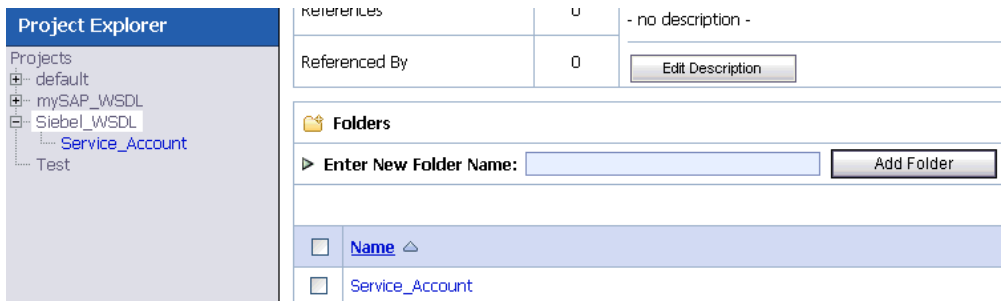
8. Create another folder called Business_Services using the same steps described above.

The left pane of your Project Explorer should now have two folders (Business_Services and Service_Account) available for your project, as shown in the following image.
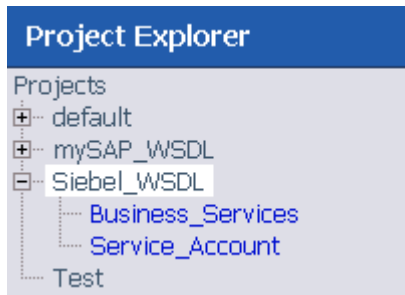
You are now ready to create a new Service Account for your project that will be used to authenticate a connection to the Siebel system when using Business Services.

9. Select the *Service_Account* folder in the left pane.
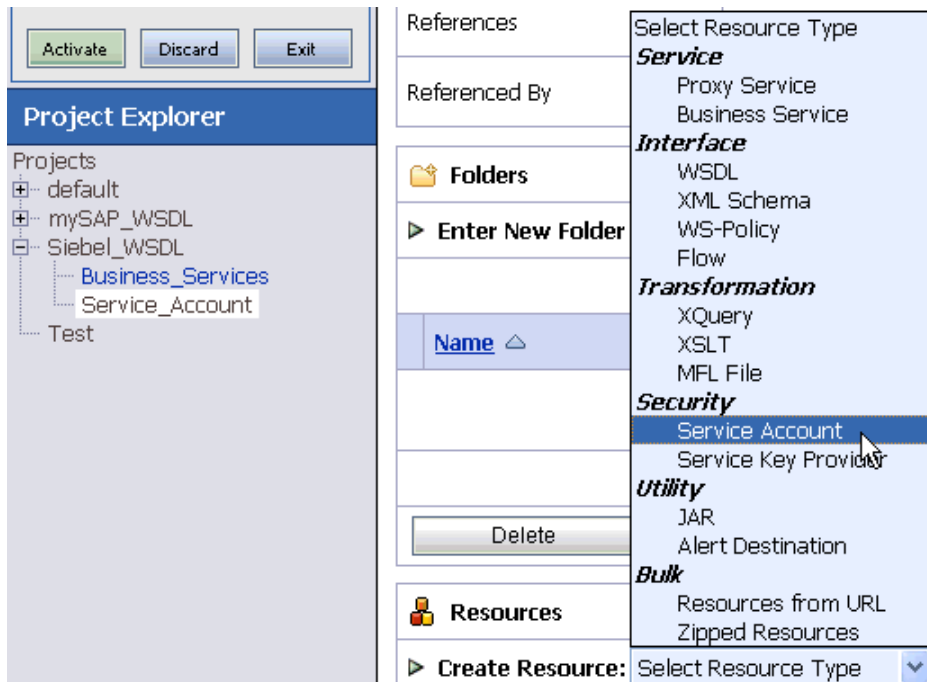
10. From the Create Resource drop-down list in the Resources section, select *Service Account*.

The Create a New Service Account page opens.

Perform the following steps:

a. In the Resource Name field, enter a name for the Service Account, for example, Siebel_Connection.

b. In the Resource Description field, enter a brief description (optional).

c. Select *Static* from the Resource Type list.

> **Note:** The *Mapping* resource type is not supported if you are configuring a Service Account for Proxy Services.

11. Click *Next*.

The Static User Configuration page opens.

12. Enter a valid user name and password that will be used by BEA SmartConnect for Siebel to access the Siebel system.

Make sure to confirm the password by retyping it in the Confirm Password field.

13. Click *Last*.

The Create a New Service Account - Summary page opens.

14. Click *Save* to save the configuration details for your Service Account.

You are now ready to create a new Business Service for your project that will use a published Siebel WSDL.

15. Select the *Business_Services* folder in the left pane.

16. From the Create Resource drop-down list in the Resources section, select *Business Service*.

The Create a Business Service (General Configuration) page opens.

Perform the following steps:

a. In the Service Name field, enter a name for the Business Service, for example, Siebel_BusinessService1.

b. From the Service Type list, select *WSDL Web Service* and click *Browse*.

The Select a WSDL page opens in a new browser window and provides a list of available WSDL files that were published using BEA SmartConnect Explorer.
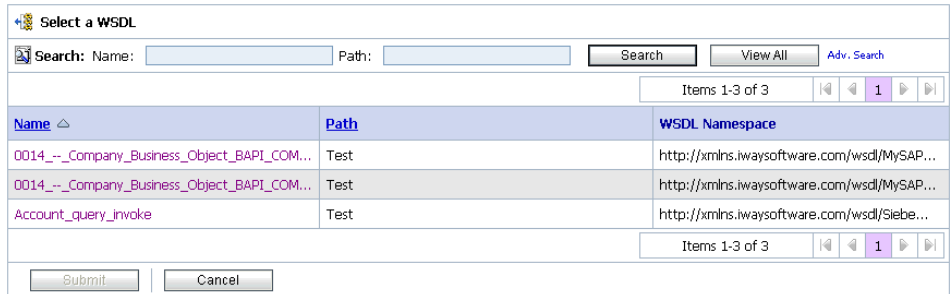
For more information on how to publish WSDLs, see Chapter 3, *Publishing WSDL Documents*.

c. Select an available WSDL from the list, for example, Account_query_invoke.

The Select a WSDL page expands as shown in the following image.
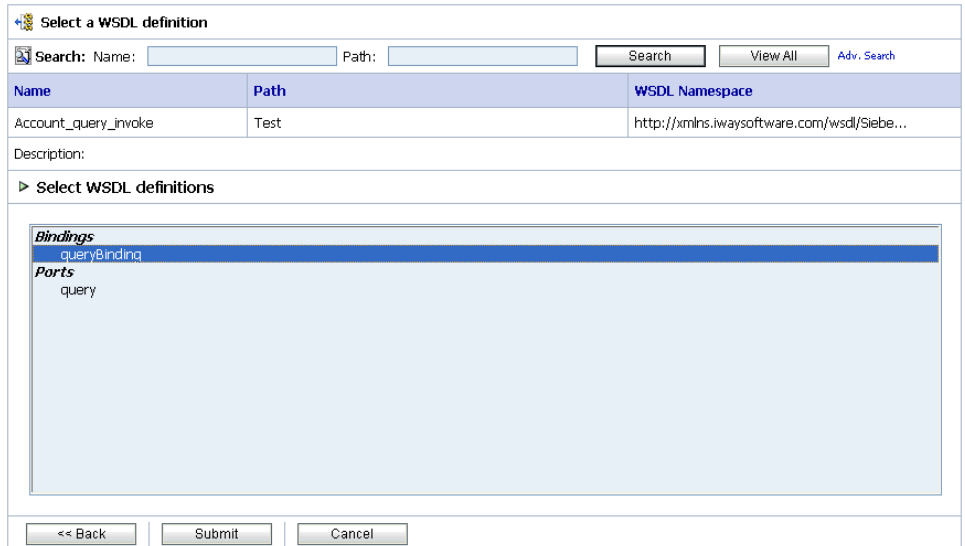
d. Select an available binding for the Siebel WSDL you selected, for example, queryBinding.

e. Click *Submit*.

You are returned to the Create a Business Service (General Configuration) page.

The WSDL Web Service fields contain the appropriate information for the Siebel WSDL you selected, including the binding.

17. Click *Next*.

The Create a Business Service (Transport Configuration) page opens.

Perform the following steps:

a. From the Protocol drop-down list, select *siebel*.

b. In the Endpoint URI field, provide the specific URI for your Business Service, using the following format:

`siebel://gServer/eName`

where:

`gServer`

Is the name of the Siebel gateway server you are using.

`eName`

Is the Siebel enterprise name.

c. Click *Add*.

The Endpoint URI is added to the Existing URIs list.

18. Click *Next*.

The Create a Business Service (SIEBEL Transport Configuration) page opens.

This page allows you to configure basic and advanced properties for a Business Service using the Siebel transport protocol. For a complete description of these properties, see *Siebel Transport Configuration Properties* in Chapter 4, *Creating a Business Service Using BEA SmartConnect for Siebel*.

Perform the following steps:

a. From the Siebel Version drop-down list, select a version of the Siebel system you want to use for this Business Service.

b. In the Service Account field, click *Browse*.

The Select Service Account page opens in a new browser window.

c. Select the Service Account you created, for example, Siebel_Connection.

Note: If you have a Siebel connection pool configured and specify its name in the Pool Name field (SIEBEL Transport Configuration page), the Siebel transport will use the connection pool's credentials for authentication purposes and override the Service Account that is selected.

d. Click *Submit*.

You are returned to the Create a Business Service (SIEBEL Transport Configuration) page.

19. Click *Next*.

The Create a Business Service - Summary page opens.

Create a Business Service - Summary (Siebel_WSDL/Business_Services/Siebel_BusinessService1)	
General Configuration	
Service Name	Siebel_BusinessService1
Description	
Service Type	Web Service - SOAP 1.1 (WSDL: Test/Account_query_invoke, binding="queryBinding")
Transport Configuration	
Protocol	siebel
Load Balancing Algorithm	round-robin
Endpoint URI	siebel://ARIBA01/ARIBA01
Retry Count	0
Retry Iteration Interval	30
SIEBEL Transport Configuration	
Option	Java Data Bean Connection
Siebel Version	Siebel 7.5 or below
Object Manager	EAIObjMgr
Service Account	Siebel_WSDL/Service_Account/Siebel_Connection
Pool Name	
Configuration Target	ARIBA01
Siebel Server	
Language	enu
Repository Name	Siebel Repository

20. Review all the information for your Business Service and click *Save* on the bottom of the page.

You are returned to the Siebel_WSDL/Business Services page.

If there are no errors, the following message is displayed on the top of the page:

The Service "Siebel_BusinessService1" was created successfully.

21. Activate your changes in AquaLogic Service Bus.

Change Center

weblogic session

- No Conflicts
- View Changes
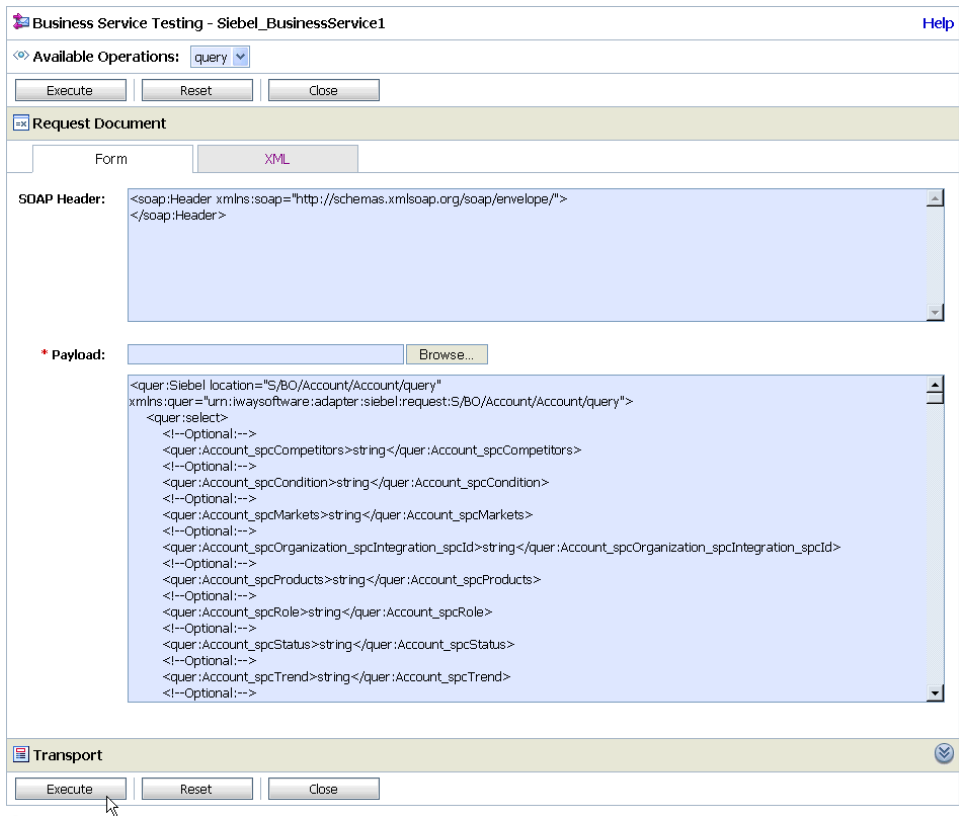- View All Sessions

[Activate] [Discard] [Exit]

22. Click *Activate* in the Change Center, which is located in the top left corner of the console.
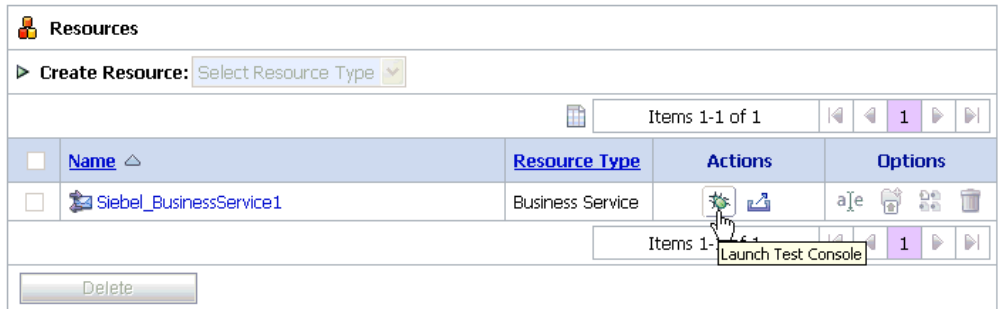
To test your Business Service, click the *Launch Test Console* icon in the Actions column. of the Resources section.

The Business Service Testing page opens in a new browser window.

23. In the Payload field, click *Browse* to select an appropriate XML request document from your file system that will be used to test your Business Service.

You can also type the XML request document directly in the field that is provided.

24. Click *Execute*.

An XML response document is returned with data from your Siebel system, which indicates that the Siebel Business Service is successful.

Appendix B

Siebel Workflows

Topics:

- Overview
- Creating a Siebel Workflow

This section describes Siebel Workflows relating to the processing of Siebel Integration Objects using Siebel XML.

Overview

When using Siebel XML to integrate with Siebel Integration Objects, the interface uses a Siebel Workflow. 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 HTTP. The following topics discuss the use and creation of workflows for Siebel version 7.0 that employ the supported transport services.

Note: This section is intended as a supplement to the documentation designed for BEA SmartConnect for Siebel users 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.

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. For more information on policy and other methods, see the documentation on the *Siebel Bookshelf*.

Using a Policy to Invoke a Siebel EAI Workflow

A workflow policy is defined by a set of conditions that executes 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.

For more information on the previous steps, see the documentation on the *Siebel Bookshelf*.

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, does an HTTP post.

In this example, the Siebel Workflow process executes the following series of Siebel Business Services:

1. Calls the Siebel EAI Siebel Adapter, which 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, which converts the data into an XML message.

3. Calls the Siebel EAI HTTP Transport, which posts the newly created XML message.

After the message is placed in the message queue, it is retrieved by BEA SmartConnect for Siebel. The following illustration shows the Workflow sequence described in the previous steps. The flow boxes are from left to right: Start, Get Address, Create XML Message, Send to MessageQ, and End.

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 an HTTP request. 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 via HTTP, the Siebel 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 illustration shows the inbound Workflow process based on the previous description. The flow boxes are from left to right: Start, Get Address, Create XML Message, Send to MessageQ, and End.

Creating a Siebel Workflow

The following topics include procedures for creating Siebel Workflows in the Siebel Workflow Administration window.

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. The Workflow was designed for importing Siebel Account record information through the HTTP transport.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and displays an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.
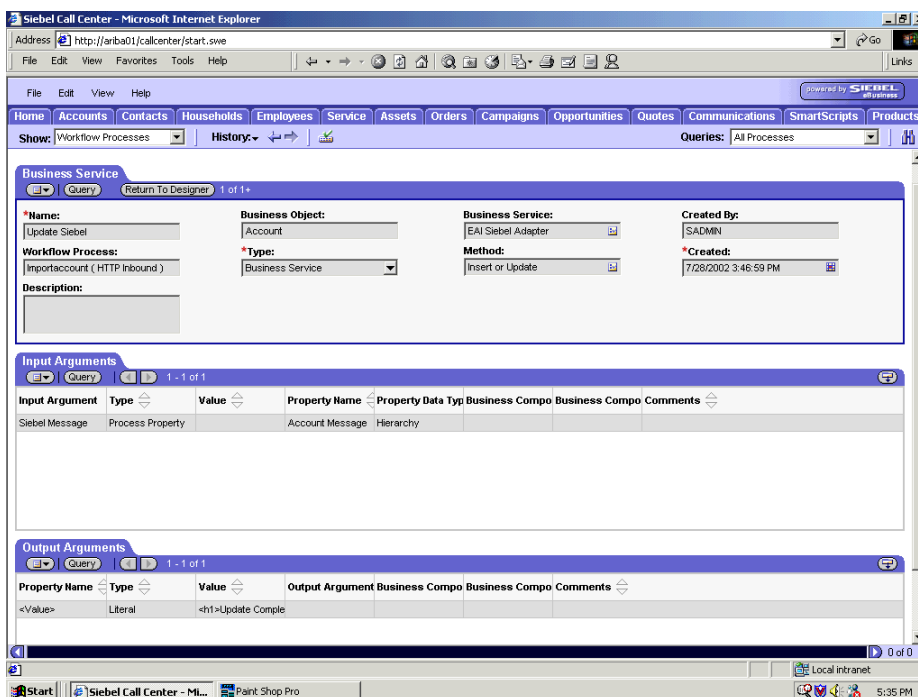
Procedure: How to Create a Siebel Workflow for a Service Using HTTP Transport

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.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.

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.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow converted to XML.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the XML to Property Set Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.
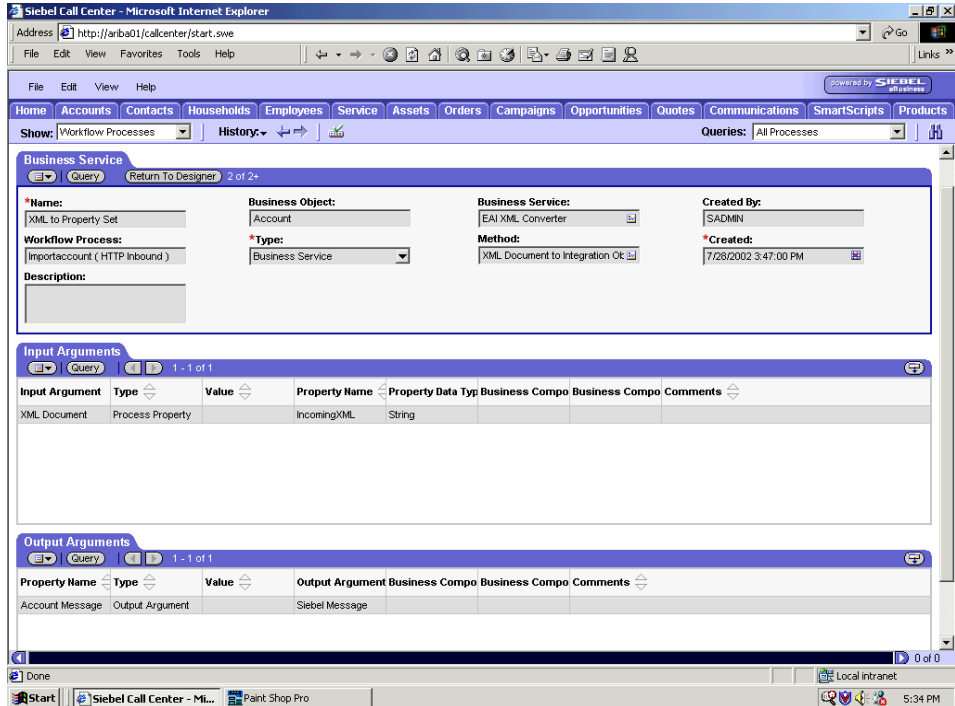
2. Define an EAI XML Converter Business Service step and call it *XML to Property Set*.

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.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Update Siebel Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.

3. Define an EAI Siebel Adapter Business Service step and call it *Update Siebel*.

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.

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.

Procedure: How to Create a Siebel Workflow for an Event Using HTTP Transport

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 following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and displays an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.


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.

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.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Get New Account Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.
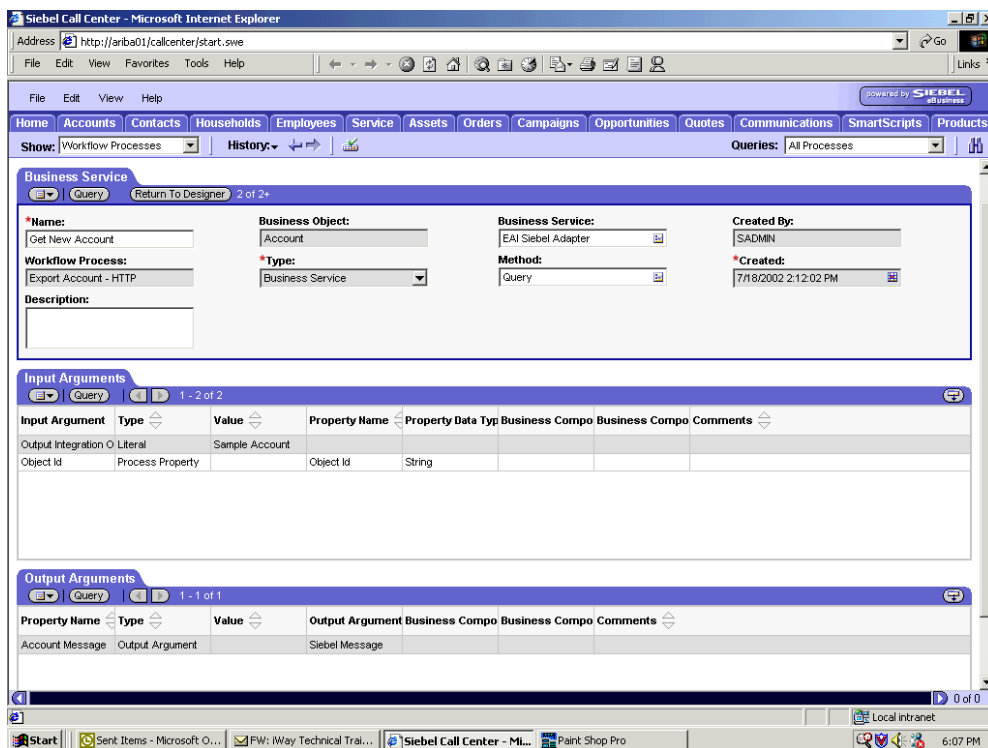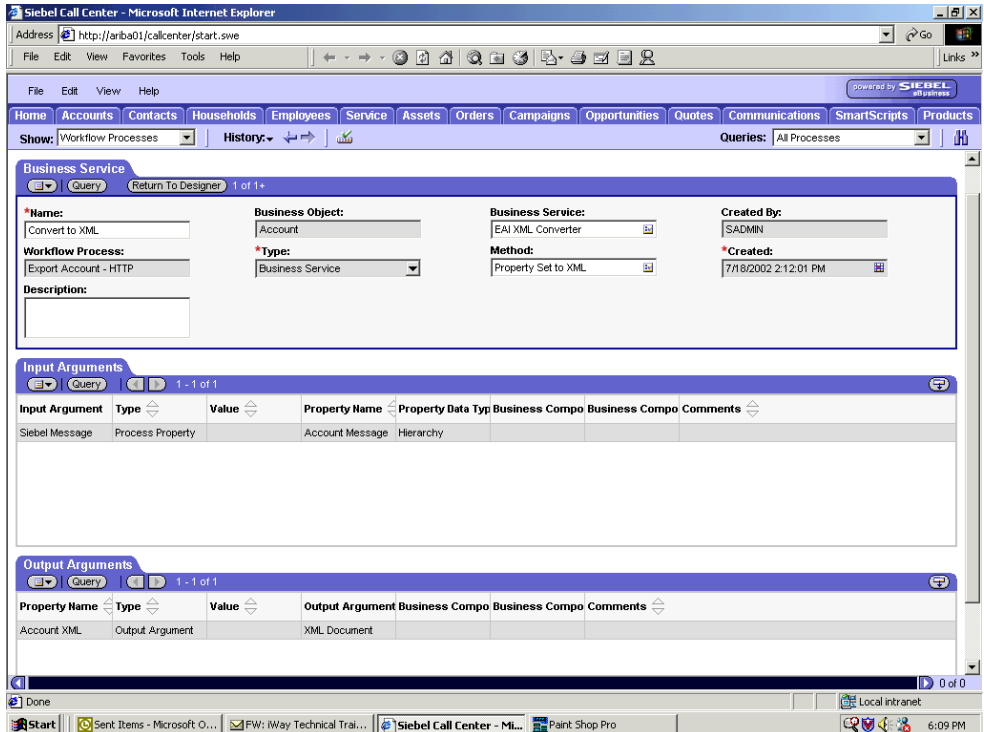

3. Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it *Get New Account*.

Using the Query method, the Business Service obtains the Account information from Siebel.

Output from this Business Service is generated in hierarchical format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Convert to XML Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.

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.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Send - HTTP Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.
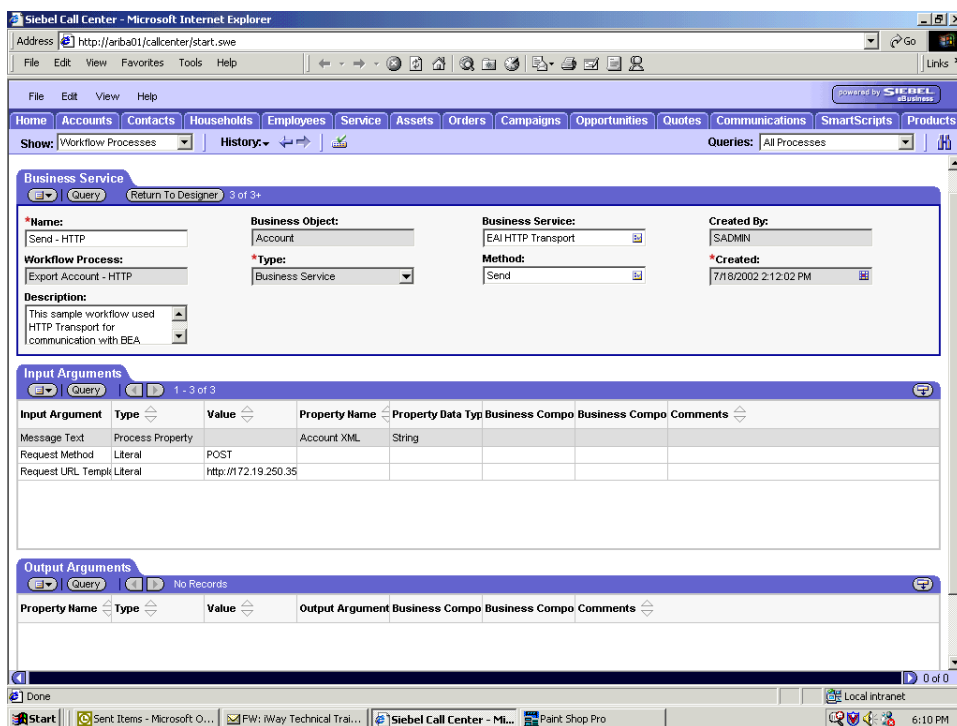
5. Define an EAI HTTP Transport Business Service step and call it *Send - HTTP.*

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.