

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

Preface

This document is written for system integrators who develop client interfaces between SAP and other applications. It describes how to use BEA SmartConnect for mySAP to integrate SAP IDocs, RFCs, and BAPIs with BEA AquaLogic Service Bus. It is assumed that readers understand Web technologies and have a general understanding of Microsoft Windows and UNIX systems.

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 mySAP Using AquaLogic Service Bus	Provides an overview of the functionality provided by the BEA SmartConnect for mySAP for AquaLogic Service Bus (ALSB).
2	Configuring mySAP Inbound Processing	Describes how to configure your mySAP system for inbound (client) processing.
3	Creating XML Schemas	Describes how to create XML schemas for mySAP business objects using BEA SmartConnect Explorer.
4	Publishing WSDL Documents	Describes how to publish WSDL documents using BEA SmartConnect Explorer for use with AquaLogic Service Bus (ALSB).
5	Creating a Business Service Using BEA SmartConnect for mySAP	Describes how to create a Business Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for mySAP.
6	Creating a Proxy Service Using BEA SmartConnect for mySAP	Describes how to create a Proxy Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for mySAP.
7	Creating a Business Service For Inbound mySAP Processing	Describes how to create a Business Service in AquaLogic Service Bus (ALSB) using BEA SmartConnect for mySAP for inbound (event) processing.

Cha	pter/Appendix	Contents
A	BEA SmartConnect for mySAP Use Cases	Provides use cases that demonstrate the functionality provided by the BEA SmartConnect for mySAP for AquaLogic Service Bus (ALSB).

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.
underscore	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.

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Contact Us!

Your feedback on BEA SmartConnect for mySAP 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 mySAP documentation.

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

If you have any questions about this version of BEA SmartConnect for mySAP, or if you have problems using BEA SmartConnect for mySAP, contact BEA Customer Support through BEA WebSUPPORT 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).	

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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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CHAPTER 1

Introducing BEA SmartConnect for mySAP Using AquaLogic Service Bus

Topics:

- Features of the BEA SmartConnect for mySAP
- Supported Versions and Platforms
- Classical SAP Technologies for ABAP
- Integrating With SAP
- Installing BEA SmartConnect for mySAP and BEA SmartConnect Explorer
- Component Information for the BEA SmartConnect for mySAP

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

Features of the BEA SmartConnect for mySAP

The BEA SmartConnect for mySAP is a remote function call-based Transport used in Aqualogic Service Bus (ALSB) that provides a means to exchange real-time business data between SAP Enterprise Central Component (ECC) 5.0/6.0 systems 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 BEA SmartConnect for mySAP enables inbound and outbound processing to and from mySAP ERP instances. It also provides:

- Support for bidirectional message interactions.
- SAP object repository metadata browsing support to build WSDL.
- Support for Remote Function Call (RFC), Business Application Programming Interface (BAPI), and Intermediate Document (IDOC) interfaces to SAP.

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 SAP versions and platforms are supported by BEA SmartConnect for mySAP.

Transport Platform	SAP Version	API
	SAP R/3 Enterprise 47x100 and 47x200*	SAP Java Connector (SAP JCo) 2.1.8**
UNIX (HP-UX, Solaris)	mySAP ERP Central Component (ECC) 5.0, deployed on SAP NetWeaver 2004	
	mySAP ERP Central Component (ECC) 6.0, deployed on SAP NetWeaver 2004s	
	SAP ERP 6.0	

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Transport Platform	SAP Version	API
	SAP R/3 Enterprise 47x100 and 47x200*	SAP Java Connector (SAP JCo) 2.1.8**
Windows	mySAP ERP Central Component (ECC) 5.0, deployed on SAP NetWeaver 2004	
	mySAP ERP Central Component (ECC) 6.0, deployed on SAP NetWeaver 2004s	
	SAP ERP 6.0	

In addition to the versions that are listed in this table, BEA SmartConnect for mySAP supports those SAP versions that are on the mainstream maintenance track as defined by the SAP Service Marketplace release strategy. To access this document, use the following URL:

http://service.sap.com/releasestrategy/

*SAP R/3 Enterprise Version 47x100 and 47x200 is supported on the SAP Web Application Server Versions 6.20 and 6.40.

**For the current release status of the SAP Java Connector, refer to SAP Note #549268 in the SAP Service Marketplace.

For additional platform or operating system support information for BEA SmartConnect for mySAP, contact BEA Customer Support.

Classical SAP Technologies for ABAP

The BEA SmartConnect for mySAP is designed to provide standard access to SAP interfaces such as Remote Function Call (RFC) modules, BAPIs (Business Application Programming Interfaces), and IDocs (Intermediate Documents), that are used to support existing business processes.

The Transport only supports Enterprise Central Components (ECC) that are accessed by classical SAP technologies. If you require support for additional SAP functionality and components, please contact your BEA Sales Representative.

The following business components and methods are available to the Transport:

 Business Application Programming Interfaces (BAPIs) are interfaces within the business framework that are used to link SAP components to one another or to third-party components. BAPIs are called synchronously and return information. Remote Function Call (RFC) Modules are SAP application interfaces that enable clients to invoke SAP technologies and receive responses.

Note: Depending on the release or service pack installed, certain RFCs may not exist in your particular SAP system. Therefore, the examples included in this documentation may not be relevant to your system. If this is the case, you should use the examples as a general reference for Transport functionality and choose an RFC that exists within your SAP application environment.

As described in SAP Release Note 109533, SAP Function Modules (RFCs) can be delivered with different release statuses. SAP supports only RFCs that are awarded with the Released for Customer status. There is no claim to the release independencies of the interfaces and the continued existence/functionality of the modules. For more information on the status of a specific function module, consult your SAP Service Marketplace.

- Intermediate Documents (IDocs) are the "logical messages" that correspond to
 different business processes. They enable different application systems to be linked by
 a message-based interface. The IDoc type indicates the SAP format to use to transfer
 the data for a business transaction. An IDoc is a real business process in the form of an
 IDoc type that can transfer several message types. An IDoc type is described by the
 following components:
 - Control records. A control record contains data that identifies the sender, the receiver, and the IDoc structure. An IDoc contains one control record.
 - Data records. A data record consists of a fixed administration part and a data part (segment). The number and format of the segments can be different for each IDoc type.
 - Status records. A status record describes the processing stages through which an IDoc passes.

The following scenario is an example of IDoc functionality and its components:

Purchase order number 4711 was sent to a vendor as IDoc number 0815. IDoc number 0815 is formatted in IDoc type ORDERS01 and has the status records "created" and "sent." The purchase order corresponds to the "logical" message ORDERS.

Integrating With SAP

You can use the BEA SmartConnect for mySAP to invoke an SAP business process, for example, add/update account, or you can use the Transport as part of an integration effort to connect SAP and non-SAP systems.

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In service mode (outbound), the BEA SmartConnect for mySAP can send requests to SAP using the BAPI, RFC, or ALE interfaces.

The Transport quickly and easily integrates your SAP IDocs, RFCs, and BAPIs with mission critical SAP system applications and other enterprise applications. The benefits of the Transport include:

- Elimination of the requirement for custom coding.
- Consistent data representation.

Provides a standard XML representation of event data and request/response documents for SAP.

The developer is freed from the specific details of the SAP interface (BAPI, RFC, IDoc) and the specific configuration details of the target SAP system.

- Adherence to SAP ABAP serialization rules and SAP Interface Repository standards published by SAP AG.
- Expose SAP request and response documents as Web services.

During event processing (inbound), the Transport receives RFCs and IDocs directly from SAP. The SAP system can be configured to send an IDoc or RFC to a logical system when a certain event occurs, in this case to the Transport. The output sent by SAP can be in any of the following forms:

- An RFC request, for example, RFC_SYSTEM_INFO.
- A BAPI request, for example, BAPI_COMPANYCODE_GETLIST.
- An IDoc.

Installing BEA SmartConnect for mySAP and BEA SmartConnect Explorer

BEA SmartConnect for mySAP 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.

Component Information for the BEA SmartConnect for mySAP

The BEA SmartConnect for mySAP 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 mySAP.

Deployed Component	For more information, see
BEA SmartConnect Explorer	Chapters 3 and 4 of this guide.
AquaLogic Service Bus (ALSB)	Chapters 5, 6, and 7 of this guide.

BEA SmartConnect Explorer

BEA SmartConnect Explorer is a servlet-based Web application that uses a tree metaphor to introspect the mySAP ERP 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 mySAP 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.

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CHAPTER 2

Configuring mySAP Inbound Processing

Topics:

- Overview
- Configuring a Logical System
- Configuring a Distribution Model
- Defining a Partner Profile

The following section describes how to configure your mySAP system for inbound (client) processing.

Overview

mySAP Remote Function calls require no system setup other than the Connection Target Parameters. If you do not intend to send IDocs to the mySAP system, you may skip this chapter.

In inbound IDoc processing, the Transport reads an XML document and creates a mySAP Standard format IDoc. After assembled as an IDoc, the file is sent to mySAP for inbound processing. Multiple IDocs can also be assembled into a larger document for efficient processing. For more information, see the mySAP documentation.

Application Link Enabling (ALE) IDocs used for the transmission of Electronic Data Interchange (EDI) messages require information about the intended target and method of transmission stored on the SAP application server.

An IDoc consists of a Header that contains sender, processing type, receiver and other information, and multiple data segments, which contain the information to be processed. To store the parameters for processing of the IDoc messages, mySAP requires a "logical system" entry for each transmission system. The Logical System stores type information about the Partner and the kind of messages expected from the partner.

The Partner Profile defines the kind of message and the type of mySAP function called to process that particular IDoc in an application. mySAP also requires a filtering model, whether or not it is used for a particular message, called a Distribution Model that defines a message type and applies optional segment filters. After these are established, Inbound ALE/IDoc processing can begin.

The Control Section or reference structure file EDI_DC40 (defined in mySAP ERP), must be completed and contains all the identifying information about the IDoc. The assembled header and data records are sent to mySAP by the Transport. mySAP does not require an incoming port to be specified. It takes the incoming RFC stream and assigns a port designation. In the Partner Profile, a function module must be identified to process the IDoc in the ERP system.

Usually, IDocs are written directly to the database and slowly read by the application (for example, Purchasing for Purchase Orders). This can take time depending on the type of data and the application. The Transport can "post to the database and return" or "post and wait." This is defined in the Partner Profile on the host system. In either case, you may send a status IDoc message to obtain the status of your IDoc or use appropriate transaction codes in mySAP to view the IDocs online.

You must perform the following steps to configure mySAP for inbound IDoc processing:

- 1. Configure a logical system.
- 2. Configure a distribution model.
- 3. Define an inbound partner profile.

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Configuring a Logical System

In a distributed environment, each participating system must have a unique ID to avoid confusion. In mySAP, the name of the logical system is used as the unique ID. This name is assigned explicitly to one client in a mySAP system.

Procedure: How to Configure a Logical System

The following image shows the /nsale transaction in the field under the menu bar.



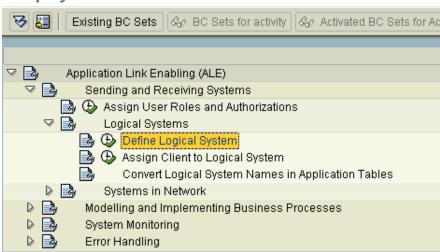
SAP Easy Access

To configure a logical system:

1. Execute the *sale* transaction.

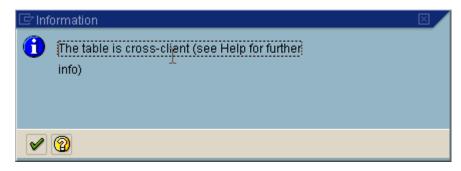
The Display IMG window opens as shown in the following image.

Display IMG



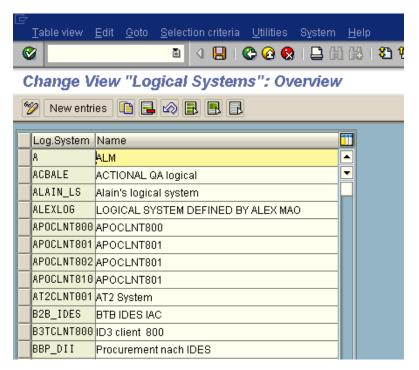
- **a.** Expand Sending and Receiving Systems and then, Logical Systems.
- **b.** Select Define Logical System.
- **2.** Click the *IMG Activity* icon.

An information window appears that informs you that the table is cross-client as shown in the following image.



3. To continue, click the checkmark icon.

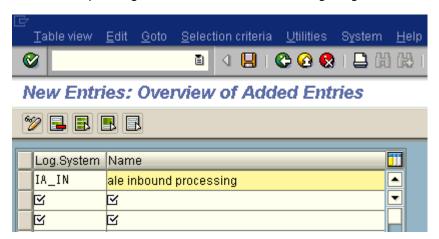
The Change View "Logical Systems" window opens with a list of logical systems and their names as shown in the following image.



4. Click the *New entries* button.

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The New Entries window opens where you can type information for the logical system and its corresponding name as shown in the following image.



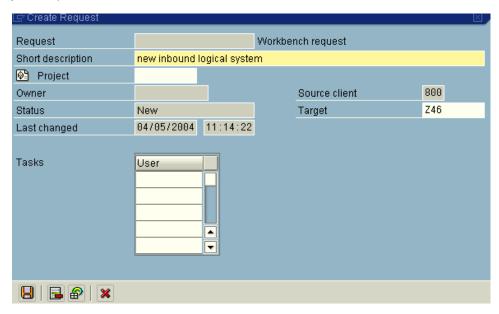
- **a.** In the Log.System column, type the Logical System, for example, IA_IN.
- **b.** In the Name column, type a corresponding description.
- **5.** Click Save.

The Prompt for Workbench request window opens as shown in the following image. It includes fields for View maintenance and Request as well as several buttons.



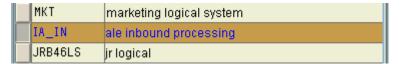
6. Click the *Create Request* icon.

The Create Request window opens as shown in the following image. It includes fields that are already populated (such as Owner, Status, Last Changed, Source client, and so forth), empty fields (such as Request and Project) in which to specify information about your request, and a Tasks list.



- **a.** In the Request field, type a name.
- **b.** In the Short description field, type a brief description of your request.
- 7. Click Save.

The logical system you configured, for example, IA_IN, appears in the list as shown in the following image.



Configuring a Distribution Model

A distribution model is used to describe the Application Link Enabling (ALE) message flow between logical systems. Business objects are distributed to connected recipients according to a unique distribution model that can contain rules of varying complexity depending on the type of business objects involved.

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Procedure: How to Configure a Distribution Model

The following image shows the /nbd64 transaction in the field under the menu bar.

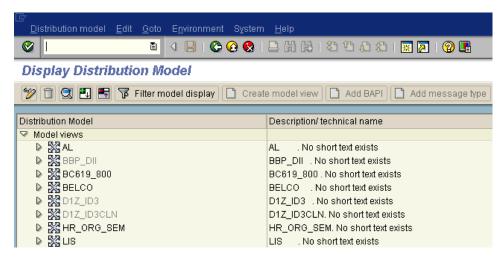


Display IMG

To configure a distribution model:

1. Execute the /bd64 transaction.

The Display Distribution Model window opens and displays a list of available distribution models and their descriptions as shown in the following image.



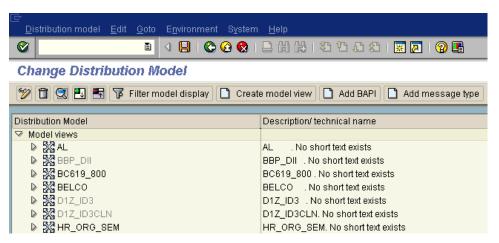
2. In the menu bar, click Distribution model.

The Distribution model menu opens as shown in the following image.



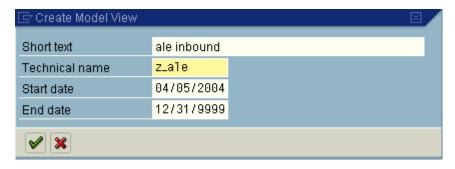
3. Select Switch processing mode.

The Display Distribution Model window switches to the Change Distribution Model. window as shown in the following image.



4. Click the *Create model view* button.

The Create Model View window opens and includes fields for the name of your distribution model and for Start and End dates as shown in the following image.



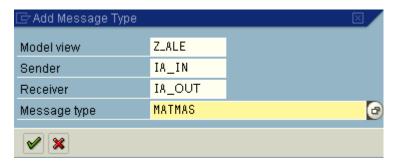
- **a.** In the Short text field, type a model view name, for example, ale inbound.
- **b.** In the Technical name filed, type a technical name, for example, z_ale, which also serves as a description.
- **5.** To enter the information, click the checkmark icon.

You are returned to the main Change Distribution Model window.

The distribution model you configured is now added to the list.

6. Click the *Add message type* button.

The Add Message Type window opens and includes fields where you can name and specify your message type.



- **a.** In the Sender field, type the logical system you configured, for example, IA_IN.
- **b.** In the Receiver field, type the logical system you configured, for example, IA_OUT.
- c. In the Message type field, type the message type to use, for example, MATMAS.
 To browse from a list of available message types, you can click the icon to the right of the field.
- To enter the information, click the checkmark.You are returned to the main Change Distribution Model window.
- **8.** Click Save.

Defining a Partner Profile

Partner profiles are a requirement for data exchange. You define who can exchange messages with the mySAP system using a specified port.

Procedure: How to Define a Partner Profile

The following image shows the /nwe20 transaction in the field under the menu bar.

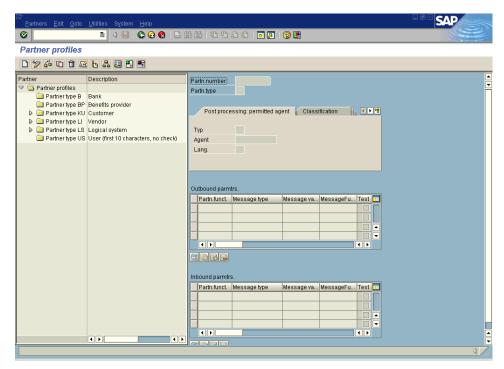


Change Distribution Model

To define a partner profile for a specific IDoc:

1. Execute the *we20* transaction.

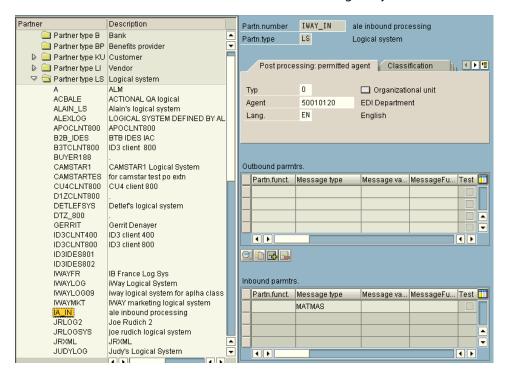
The Partner profiles window opens and displays two panes with information about the logical system as shown in the following image.



- **a.** If no Partner profile currently exists, click the *Create* icon on the tool bar or press *F5*.
- **b.** Click *Save* once you have created your Partner profile.
- **2.** In the left pane, expand *Partner type LS* and select the logical system you configured from the list, for example, IA_IN.

The right pane displays the details of the expanded folder including the logical system and type, language, and so forth, as shown in the following image.

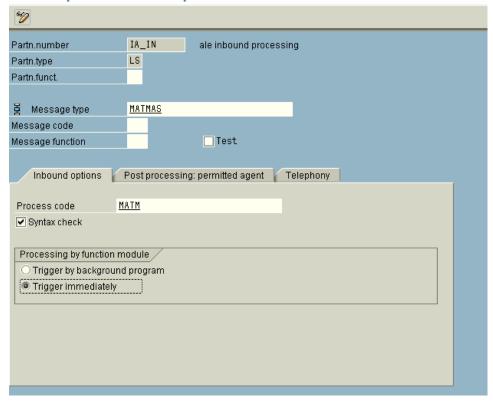
Note: The Partn.number field refers to the name of the logical system.



- 3. Click Save.
- **4.** From the Inbound parameters table in the lower right, click the *Create inbound* parameter icon.

The Partner profiles: Inbound parameters window opens as shown in the following image.

Partner profiles: Inbound parameters



- **a.** In the Message type field, type the message type to use, for example, MATMAS. The Inbound options tab is selected by default.
- **b.** In the Process code field, enter the process code you want to use, for example, MATM.
- **c.** In the Processing by function module area, select one of the following options:
 - **Trigger by background program.** In this case, the BEA SmartConnect for mySAP writes IDocs to the mySAP database, which are processed immediately.
 - **Trigger immediately.** In this case, the BEA SmartConnect for mySAP waits for the mySAP system to process IDocs. This can take from one to fifteen minutes.
- **5.** Click Save.

CHAPTER 3

Creating XML Schemas

Topics:

- Overview
- Starting BEA SmartConnect Explorer
- Establishing a Target for mySAP
- Viewing Application System Objects
- Creating an XML Schema

The following section describes how to create XML schemas for mySAP business objects using BEA SmartConnect Explorer.

Overview

BEA SmartConnect for mySAP enables the processing of mySAP BAPIs, RFCs, and IDocs. You can use BEA SmartConnect Explorer to create the required XML schemas and Web services for integration with AquaLogic Service Bus (ALSB).

You must verify that mySAP is installed, configured, and available for client access. BEA SmartConnect Explorer need not reside on the same system as the application system being accessed, but network access is required.

Starting BEA SmartConnect Explorer

Before you can use BEA SmartConnect Explorer to browse metadata and create XML schemas, 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*.
- **3. 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

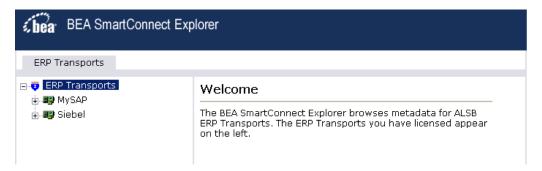
Is the name of the machine where the server for your AquaLogic Service Bus domain is running.

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 for mySAP.

Establishing a Target for mySAP

To browse mySAP business objects, you must create a target for the system you intend to use. The target serves as your connection point and is automatically saved after you create it. You must establish a connection to this system every time you start BEA SmartConnect Explorer or after you disconnect from the system.

Creating a New Target

To connect to an mySAP system, you must define a new target. The target holds your logon parameters for the mySAP 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 MySAP 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 MYSAP target pane opens on the right as shown in the following image.

Add a new MYSAP target

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: MySAPTarget

Description:

Target Type: Application Server

Perform the following steps:

- **a.** In the Target Name field, type a name for the target, for example, MySAPTarget.
- **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 Application Server.

4. Click Next.

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

Set connection info

User	System	Advar	nced	Security		
Client:		800				
User:		iway2				
Password:		•••••				
Language:		EN				
Codepage:						
Authentication mode:		Password				
Help	< Ba	k Fin	ish	Cancel		

The User tab (required) enables you to provide authentication information for the mySAP system to which you are connecting.

Note: For systems based on 6.40 UNICODE, all parameter values are case sensitive. As a result, the values you specify using BEA SmartConnect Explorer must match those that have been configured on your system. This also applies to user names and passwords.

- **a.** In the Client field, type the client number defined for the mySAP application for client communications.
- **b.** In the User field, type a valid user ID for the mySAP application.
- **c.** In the Password field, type a valid password for the mySAP application.
- In the Language field type a language key.
 EN (English) is the default.
- **e.** In the Codepage field, type a character code page value.
- f. From the Authentication mode drop-down list, select Password.
- **5.** Click the *System* tab.

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

Set connection info

<u>User</u>	System		Advanced	<u>Security</u>
Application Server: System number:		isdsn	2	
Connection pool name:		p1		
Connection pool size:		2		
Connection timeout (min):		10		
Connection wait time (sec):		30		
Help	< Back	7	Finish	Cancel
		_		

The System tab (required) enables you to provide the application server name, system number, and connection pooling information for the mySAP system to which you are connecting.

Note: The mySAP connection parameters are consistent with those found in your mySAP system. For more information on parameter values that are specific to your mySAP configuration, consult your mySAP system administrator.

- **a.** In the Application Server field, type the host name or IP address for the computer that is hosting the mySAP application.
- **b.** In the System Number field, type the system number defined to mySAP for client communications.
- **c.** In the Connection pool name field, enter the name of your mySAP connection pool. A default value (p1) is already provided.
- **d.** In the Connection pool size field, specify the number of client connections in a pool you want to make available to mySAP. A default connection pool size of 2 is available by default.

Note: A value of 1 does not create a connection pool. Instead, a single mySAP connection with sequential processing is shared. A pooled connection invokes multiple connections to SAP with parallel processing.

- **e.** In the Connection timeout (min) field, specify a timeout value for your connection pool in minutes. 10 minutes is the default value.
- **f.** In the Connection wait time (sec) field, specify a wait time for your connection pool in seconds. 30 seconds is the default value.

Connections to an ERP server take up valuable resources on both the client and the remote server. You can create a pool of connections to minimize the resource and time constraints. In estimating the size of the pool, you may calculate pool size by the amount of server resources to be consumed, the number and size of the documents to be received, and the size of your Java Virtual Machine. The section of mySAP documentation "Memory Management (BC-CST-MM)" explains in detail the resources required on the mySAP system.

6. To view the Advanced tab, click Advanced.

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

User System Advanced Security Edi version: 3 IDOC release: IDOC release provider: IDOC DOCREL field Error Handling: Throws Exception Commit with Wait: SAP trace:

Set connection info

The Advanced tab enables you to specify your EDI and IDoc versions, and configure error handling. The following fields are available:

Finish

Cancel

a. From the EDI version drop-down list, select the Electronic Data Interchange (EDI) document version you are using with the BEA SmartConnect for mySAP.

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< Back

Version 3 is the default value.

- **b.** In the IDOC release field, specify the IDOC versioning you want to use for your connection.
- **c.** From the IDOC release provider drop-down list, select, *IDOC DOCREL field* (default), *SAP release*, or *user input*.
- **d.** From the Error Handling drop-down list:

If your application is **Java centric**, select *Throws Exception* so that code components can catch the exception and react accordingly.

If your application is **document based**, select *Creates Error Document* to create an XML document that contains the Java exception.

It is up to your application to read the XML document and obtain the error.

e. If a high degree of accuracy is required in your application, select the *Commit with Wait* check box.

The transport waits until all records are physically written to the database before returning from the function call. The "Commit With Wait" has a performance impact on transport performance, so consider carefully before selecting it. The commit behavior of BAPIs is described in the mySAP documentation under "BAPI Programming Guide and Reference (CA-BFA)."

All mySAP Business Objects that change data must commit work to the database. Some BAPIs developed in version 3.1 of the ERP system use an internal commit behavior, and their commit behavior cannot be changed by the transport. As soon as they are called, they commit the work they did.

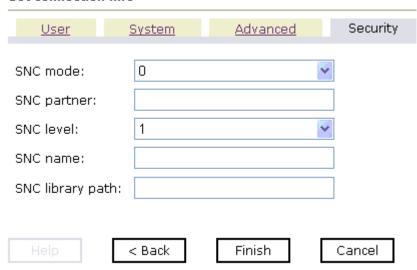
BAPIs developed since release 3.1 use the external commit method. The transport issues a commit command, and the commit is put in the database queue. If there is an application error in the first part of the commit, the error message "Posting could not be carried out" is returned, and the transport rolls back the transaction. If in writing to the database, a database error occurs, a short dump is issued in the database records of mySAP, but no message is returned to the transport about the failure.

This option is disabled by default.

- **f.** To enable SAP traces, select the SAP trace check box.
- **7.** To view the Security tab, click *Security*.

The Security tab becomes active as shown in the following image.

Set connection info



The Security tab enables you to specify Secure Network Communication (SNC) information for the mySAP system to which you are connecting.

SNC provides protection for the communication links between the distributed components of an ERP System. Using SNC, mySAP ERP can support products that adhere to the GSS-API Version 2 standard. To enable SNC:

- Select 1 from the SNC mode drop-down list.By default, SNC is disabled.
- **b.** In the SNC partner field, type the name of the RFC server or message server (load balancing) that provides the SNC services.
- **c.** From the SNC level drop-down list, select the version of the SNC library.
- **d.** In the SNC name field, type the name of the SNC library you are using.
- e. In the SNC library path field, type the path to the SNC library.
- **8.** After you provide all the required information for your target, click *Finish*.

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



Connecting to a Target

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

Procedure: How to Connect to a Target

To connect to a target:

- 1. In the left pane, expand the MySAP node and select the target you defined, for example, MySAPTarget.
- 2. In the right pane, move the pointer over *Operations*.

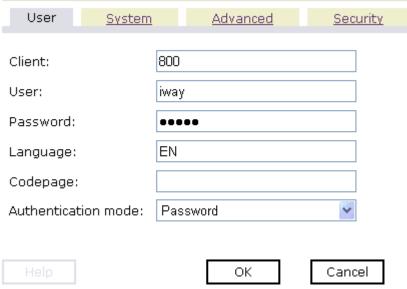
The following image shows the target, with a red 'x', selected in the left pane. In the right pane, the Operations menu appears in its expanded form.



3. Select Connect.

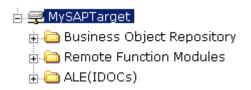
The Connect to MySAPTarget pane opens on the right.

Connect to MySAPTarget



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

The MySAPTarget 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 my*SAPTarget* node.

The following mySAP business objects appear:

- Business Object Repository
- Remote Function Modules
- ALE (IDOCs)

Disconnecting From a Target

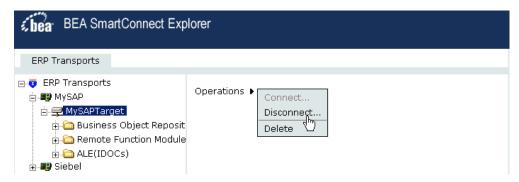
Although you can maintain multiple open connections to different application systems, it is a good practice to close connections when you are not using them.

Procedure: How to Disconnect From a Target

To disconnect from a target:

- **1.** From the left pane, click the target, for example, mySAPTarget, to which you are connected.
- 2. In the right pane, move the pointer over *Operations*.

The following image shows the target selected in the left pane. In the right pane, the Operations menu appears expanded to display options.



3. Select Disconnect.

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

In the left pane, the MySAPTarget 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 mySAP 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, MySAPTarget.

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 MYSAP target MySAPTarget

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: MySAPTarget

Description:

Target Type: Application Server

- **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

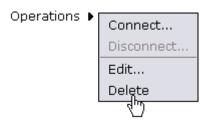
In addition to closing a target, you can delete a target that is no longer required. You can delete it whether or not it is closed. If open, the target automatically closes before it is deleted.

Procedure: How to Delete a Target

To delete a target:

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

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 MySAPTarget node disappears from the left pane.

Viewing Application System Objects

After you are connected to mySAP, BEA SmartConnect Explorer enables you to explore and browse business object metadata. For example, BEA SmartConnect Explorer enables you to view mySAP BAPI, RFC, and iDoc metadata stored in the mySAP Business Object repository.

Note: Depending on the release or service pack installed, certain RFCs, for example, RFC_CUSTOMER_GET, may not exist in your particular mySAP system. Therefore, the examples included in this documentation may not be relevant to your system. If this is the case, you should use the examples as a general reference and choose an RFC that exists within your mySAP application environment.

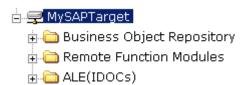
Note: All mySAP BAPIs must be remotely enabled from your mySAP system to view their available segments (methods) in BEA SmartConnect Explorer and publish WSDLs. For more information on remotely enabling BAPIs, see your mySAP system documentation.

Procedure: How to View Application System Objects

To view application system objects:

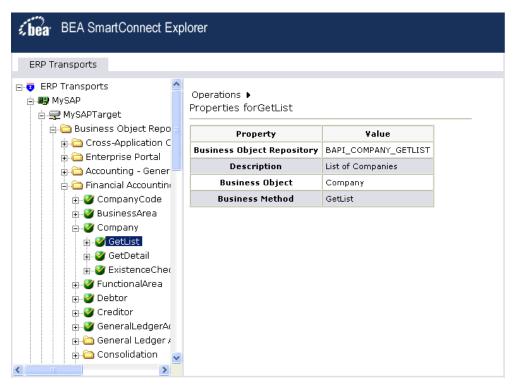
1. Click the icon to the left of the target name, for example, MySAPTarget.

This expands the target to expose the available application system objects as shown in the following image.



- **2.** To expand the desired mySAP repository node, click the icon to the left of the repository name, for example, Business Object Repository.
- 3. In the list under Business Object Repository, click the icon next to Financial Accounting.

A list of business objects related to Financial Accounting appears in the left pane. In the right pane, the collapsed Operations menu and a table listing properties and values for the BAPI method named BAPI_COMPANY_GETLIST appears as shown in the following image.



Perform the following steps:

- **a.** Scroll down and click the icon next to the *Company* business object.
- **b.** Click the icon next to the BAPI method called *GetList*.
- **4.** In the right pane, move the pointer over *Operations* to view the context menu.

The following image shows the Operations menu expanded over the table listing properties and values for the BAPI method named BAPI_COMPANY_GETLIST in the right pane.



The following options are available from the context menu:

- **Help** provides information about BAPI, RFC, and IDoc usage.
- Test Run simulates running the selected RFC or BAPI with sample data you provide.
- Generate Schema generates XML request and response schemas for the mySAP business object you selected.
- Publish WSDLs generates a WSDL document based on the XML schema that can be integrated with BEA AquaLogic Service Bus.

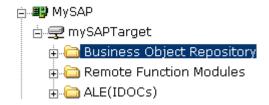
Procedure: How to Search for a Specific MySAP Business Object

You can use the search function in BEA SmartConnect Explorer to locate a mySAP business object.

- 1. Start BEA SmartConnect Explorer and connect to your mySAP system target.
- 2. Expand the target and select Business Object Repository, Remote Function Modules, or ALE(IDOCs).

The following image shows Business Object Repository selected in the left pane.

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3. In the right pane, move the cursor over *Operations* and select *Search* from the menu.

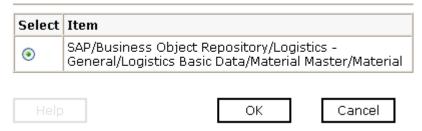
The following image shows the Search feature that appears in the right pane. It has a search path input area.

The BEA SmartConnect Explorer can search metadata exposed by an adapter to locate specific functionality. Search path: Material OK Cancel

- **4.** Enter the name of the business object you want to search for in the Search path text entry box, for example, Material.
- **5.** Click *OK*.

The following image show the search results that appear when a search for Material is conducted against the Business Object Repository.

Search Result(s)



6. Select the radio button next to the item in which you are interested and click *OK*.

BEA SmartConnect Explorer locates the business object you selected in the left pane, for example, Material.



Creating an XML Schema

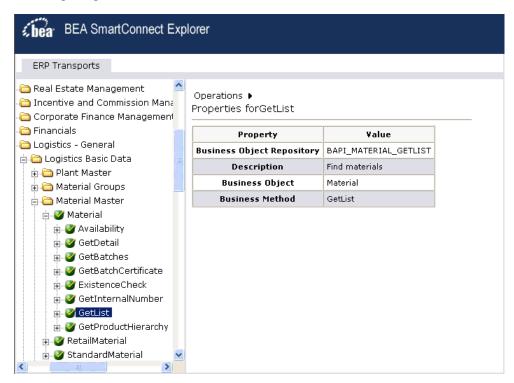
After you browse the mySAP business object repository, you can generate XML request and response schemas for the object you wish to use with your BEA SmartConnect for mySAP.

Procedure: How to Create XML Schemas

To create XML request and response schemas for the mySAP BAPI method called BAPI_MATERIAL_GETLIST:

1. In the Business Object Repository, select the *GetList* method.

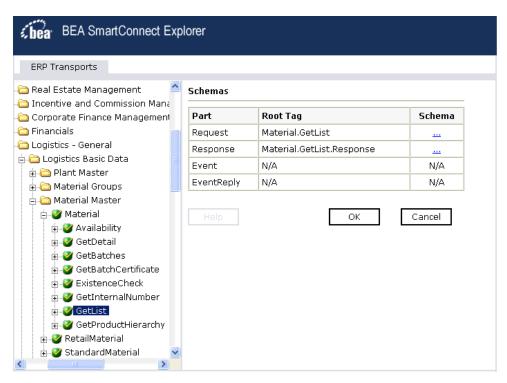
In the right pane, the collapsed Operations menu and a table listing properties and values for the BAPI method named BAPI_MATERIAL_GETLIST appears as shown in the following image.



2. In the right pane, move the pointer over *Operations* and select *Generate Schema* from the menu.

Request, response, and event schemas are created for your business object.

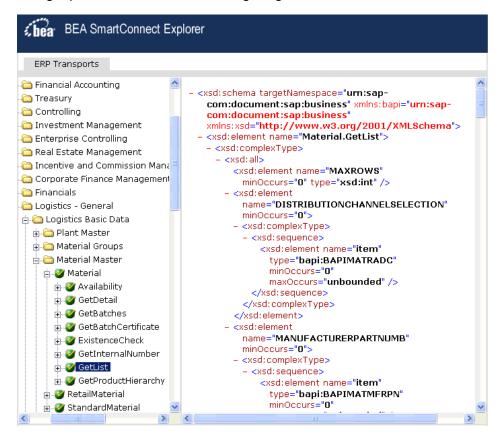
The following image shows the Schemas pane that opens on the right with a table that lists and defines the root tag for each schema and provides hyperlinks to click to view each schema.



3. Click the hyperlink associated with the type of schema you want to view.

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For example, if you click the hyperlink for the Request schema, the schema appears in the right pane as shown in the following image.



4. To return to the previous window, click the *Back* button on your Web browser.

After you browse the list of business objects on your mySAP 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 4, Publishing WSDL Documents.

Creating an XML Schema

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CHAPTER 4

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 the mySAP business object repository, 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. The procedure uses the mySAP BAPI method called BAPI_MATERIAL_GETLIST as an example.

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

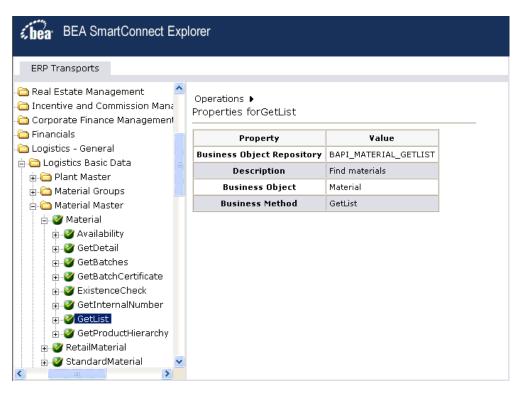
To publish a WSDL:

1. From the Business Object Repository, select the *GetList* method from the Material Master group.

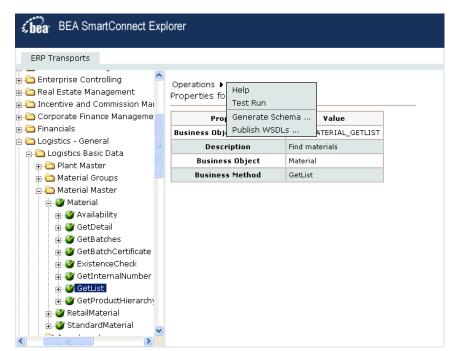
The following image shows the Operations menu in the right pane and a table listing properties and values for the BAPI method called BAPI_MATERIAL_GETLIST.

Note: All mySAP BAPIs must be remotely enabled from your mySAP system to view their available segments (methods) in BEA SmartConnect Explorer and publish WSDLs. For more information on remotely enabling BAPIs, see your mySAP system documentation.

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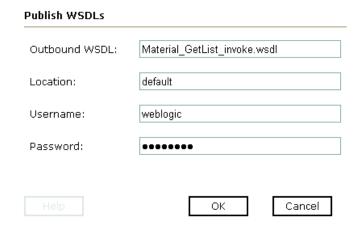
2. In the right pane, move the pointer over *Operations*.



The Operations menu expands as shown in the following image to display options.

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.



Perform the following steps:

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- **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 Agualogic Service Bus.

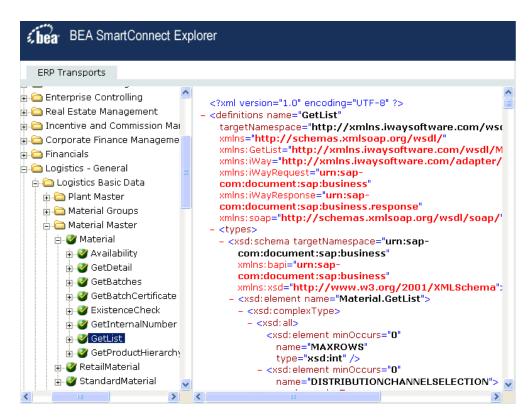
4. Click *OK*.

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

Publish WSDLs



For example, if you click the hyperlink for the Material_GetList_invoke WSDL file, the WSDL appears in the right pane as shown in the following image.



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 5, Creating a Business Service Using BEA SmartConnect for mySAP.

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*.

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CHAPTER 5

Creating a Business Service Using BEA SmartConnect for mySAP

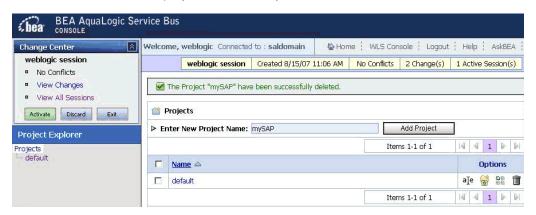
Topics:

- 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 mySAP.

Getting Started

After you deploy the BEA SmartConnect for mySAP, open the BEA AquaLogic Service Bus Console and create a new project folder for mySAP.



Under the mySAP folder, create Service Account, Business Service, and Proxy Service subfolders.

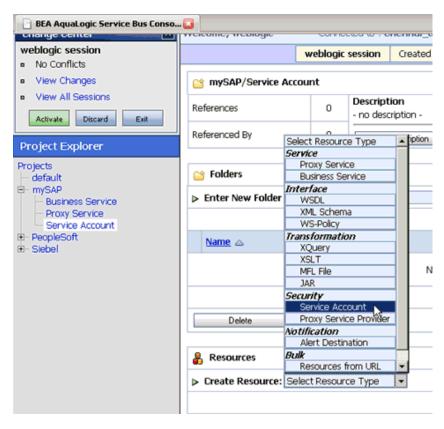
Creating a Service Account

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

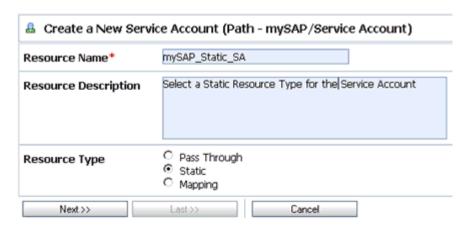
Procedure: How to Create a Service Account

To create a Service Account:

5-2



- 1. Select the Service Account folder you created for mySAP 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.



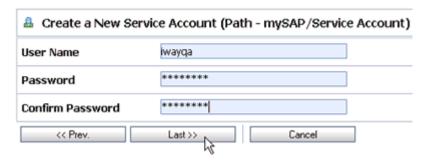
Perform the following steps:

- **a.** In the Resource Name field, enter a name for the resource, for example, mySAP_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 mySAP system.

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

5. Click *Last*.

The Create a New Service Account - Summary page opens.

Create New Service Account - Summary [Path -mySAP/Service Account]		
General Configuration		
Name	mySAP_Static_SA	
Description	Select a Static Resource Type for the Service Account	
Туре	Static	
Static Credentials		
User Name	iwayqa	
Password	*******	
Save Cancel		

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

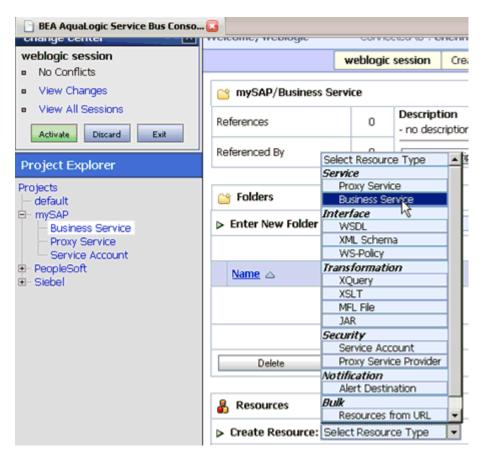
You are now ready to create your Business Service using the BEA SmartConnect for mySAP.

Creating a Business Service

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

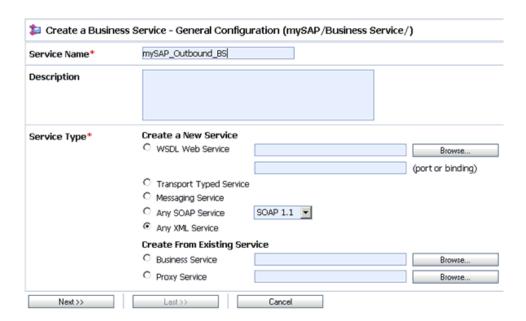
Procedure: How to Create a Business Service

To create a Business Service:



- 1. Select the Business Service folder you created for mySAP 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.

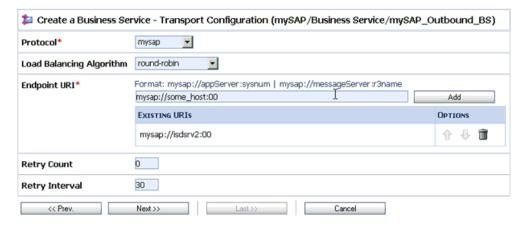
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Perform the following steps:

- **a.** In the Service Name field, enter a name for the Business Service, for example, mySAP_Outbound_BS.
- **b.** Select Any XML Service from the Service Type list.
- 3. Click Next.

The Create a Business Service - Transport Configuration page opens.



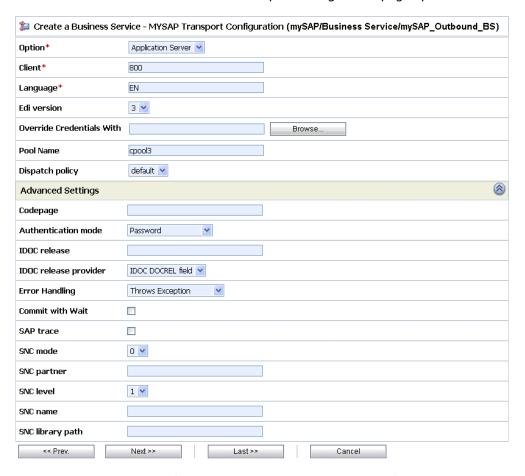
Perform the following steps:

- **a.** Select *mysap* 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 - MYSAP Transport Configuration page opens.



This page allows you to configure basic and advanced properties for a Business Service using the mySAP transport protocol. For a complete description of these properties, see *mySAP Transport Configuration Properties* on page 5-11.

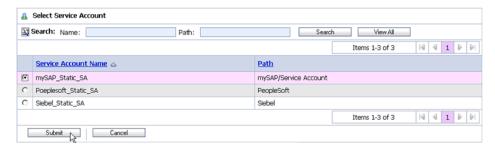
Perform the following steps:

a. Select Application Server from the Option drop-down list.

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- **b.** In the Client field, type the client number defined for the mySAP application for client communications.
- **c.** In the Language field, type a language key, for example EN (English).
- **d.** From the EDI version drop-down list, select the Electronic Data Interchange (EDI) document version you are using with the BEA SmartConnect for mySAP, for example, 3.
- **e.** In the Override Credentials With field, click *Browse*.

The Select Service Account page opens.



f. Select the Service Account you created, for example, *mySAP_Static_SA*.

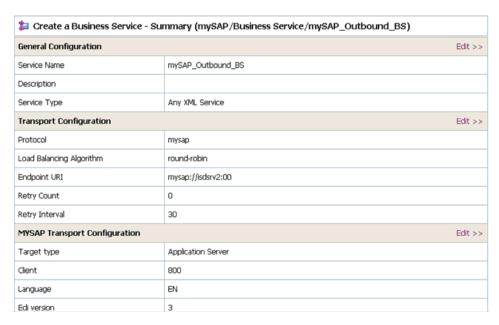
Note: If you have a mySAP connection pool configured and specify its name in the Pool Name field (MYSAP Transport Configuration page), the mySAP transport will use the connection pool's credentials for authentication purposes and override the Service Account that is selected.

g. Click Submit.

You are returned to the Create a Business Service - MYSAP Transport Configuration page.

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, the following message is displayed on the top of the page:

The Service "mySAP_Outbound_BS" was created successfully.

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.

Reference: mySAP Transport Configuration Properties

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

Property	Description
Option	Select the type of connection for the mySAP transport protocol. Select <i>Application Server</i> from the drop-down list, which is also the default value.
Client	Type the client number defined for the mySAP application for client communications.
Language	Type a language key. EN (English) is the default value.
EDI Version	Select the Electronic Data Interchange (EDI) document version you are using with the mySAP transport protocol. Version 3 is the default value.
Override Credentials With	Allows you to select a Service Account you have previously created to use for mySAP transport authentication. For more information on creating Service Accounts, see <i>Creating a Service Account</i> on page 5-2.
Pool Name	Type the name of your mySAP connection pool.
	Note: If you have a mySAP connection pool configured and specify its name in the Pool Name field (MYSAP Transport Configuration page), the mySAP 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	
Codepage	Specifies the character encoding to be used with the mySAP transport protocol.
Authentication mode	Specifies the authentication mode the mySAP transport protocol will use to connect with mySAP. By default, <i>Password</i> is selected.

Property	Description
IDOC release	Specifies the IDOC versioning you want to use for your connection.
IDOC release provider	Specifies an IDOC release provider for your connection. Values that are available in the drop-down list include:
	IDOC DOCREL field (Default)
	SAP release
	• user input
Error Handling	Specifies the error handling the mySAP transport protocol will use.
	If your application is Java centric, select <i>Throws Exception</i> so that code components can catch the exception and react accordingly. This is the default value.
	If your application is document based, select <i>Creates Error Document</i> to create an XML document that contains the Java exception.

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Property	Description
Commit with Wait	Select this check box if a high degree of accuracy is required in your application.
	If Commit with Wait is selected, the mySAP transport waits until all records are physically written to the database before returning from the function call. In addition, this option may have a performance impact on mySAP transport performance, so consider carefully before selecting it. The commit behavior of BAPIs is described in the mySAP documentation under BAPI Programming Guide and Reference (CA-BFA).
	All mySAP Business Objects that change data must commit work to the database. Some BAPIs developed in version 3.1 of the ERP system use an internal commit behavior, and their commit behavior cannot be changed by the mySAP transport. As soon as they are called, they commit the work they completed.
	BAPIs developed since release 3.1 use the external commit method. The mySAP transport issues a commit command, and the commit is put in the database queue. If there is an application error in the first part of the commit, the error message "Posting could not be carried out" is returned, and the mySAP transport rolls back the transaction. If in writing to the database, a database error occurs, a short dump is issued in the database records of mySAP, but no message is returned to the mySAP transport about the failure.
SAP trace	Select this check box to enable SAP traces.
SNC mode	SNC provides protection for the communication links between the distributed components of an ERP system. Using SNC, mySAP ERP can support products that adhere to the GSS-API Version 2 standard.
	To enable SNC, select 1 from the SNC mode drop-down list.
	By default, SNC is disabled.
SNC partner	Type the name of the RFC server or message server (load balancing) that provides the SNC services.
SNC level	Select a version of the SNC library from the SNC level drop-down list.

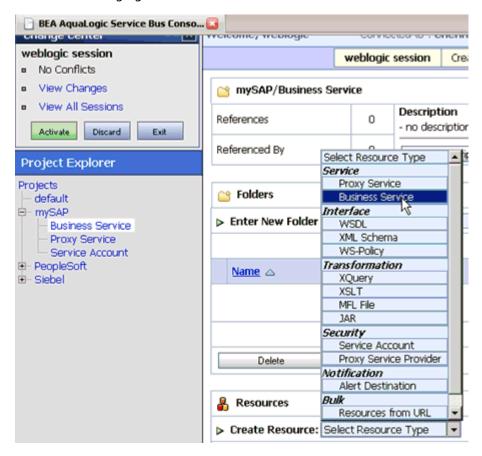
Property	Description
SNC name	Type the name of the SNC library you are using.
SNC library path	Type the path to the SNC library.

Creating a Messaging Service

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

Procedure: How to Create a Messaging Service

To create a Messaging Service:



- **1.** Select the *Business Service* folder you created for mySAP in the left pane.
- **2.** In the right pane, select *Business Service* from the Create Resource menu.

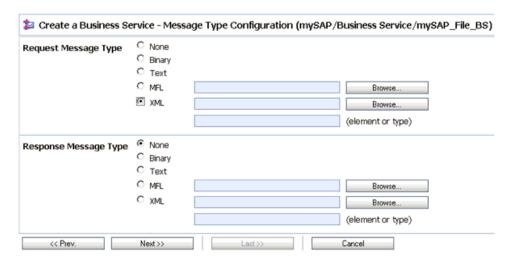


The Create a Business Service - General Configuration page opens.

Perform the following steps:

- **a.** In the Service Name field, enter a name for the Business Service, for example, mySAP_File_BS.
- **b.** Select *Messaging Service* from the Service Type list.
- 3. Click Next.

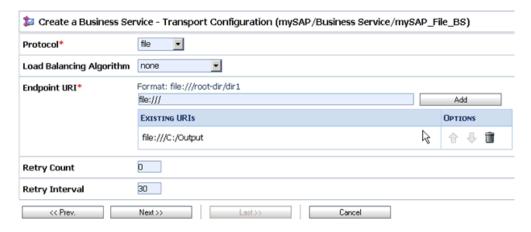
The Create a Business Service - Message Type Configuration page opens.



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 file from the Protocol drop-down list.
- **b.** In the Endpoint URI field, provide the location of the output folder, for example:

file:///C:/Output

5. Click Next.

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

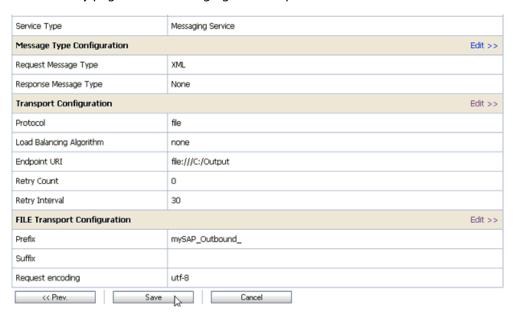


Perform the following steps:

- **a.** In the Prefix field, specify a prefix that will be used for the document, for example, mySAP_Outbound_.
- **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 6, *Creating a Proxy Service Using BEA SmartConnect for mySAP*.

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CHAPTER 6

Creating a Proxy Service Using BEA SmartConnect for mySAP

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 mySAP.

Creating a Proxy Service

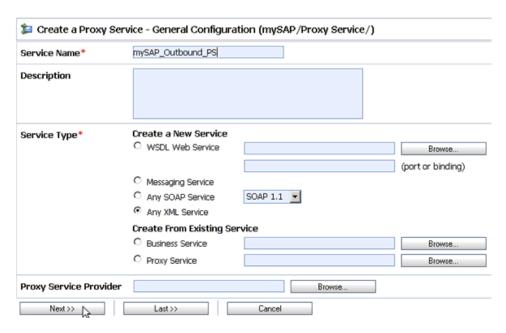
The following section describes how to create a Proxy Service in AquaLogic Service Bus (ALSB) using the mysap transport protocol.

Procedure: How to Create a Proxy Service

To create a Proxy Service:



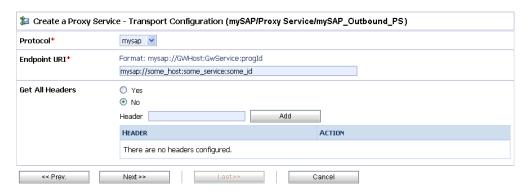
- 1. Select the *Proxy Service* folder you created for mySAP in the left pane.
- **2.** In the right pane, select *Proxy Service* from the Create Resource menu. The Create a Proxy Service General Configuration page opens.



Perform the following steps:

- **a.** In the Resource Name field, enter a name for the resource, for example, mySAP_Outbound_PS.
- **b.** In the Description field, enter a brief description (optional).
- **c.** Select *Any XML Service* from the Service Type list.
- 3. Click Next.

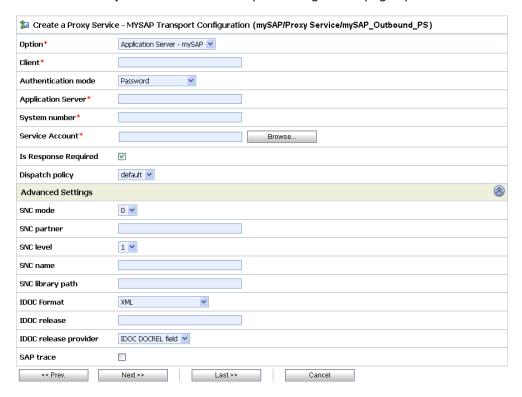
The Create a Proxy Service - Transport Configuration page opens.



Perform the following steps:

- **a.** Select *mysap* from the Protocol drop-down list.
- **b.** In the Endpoint URI field, provide a valid endpoint URI.
- 4. Click Next.

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



This page allows you to configure basic and advanced properties for a Proxy Service using the mySAP transport protocol. For a complete description of these properties, see mySAP Transport Configuration Properties on page 6-7.

Perform the following steps:

- Select Application Server mySAP from the Option drop-down list.
- **b.** In the Client field, type the client number defined for the mySAP application for client communications.
- **c.** In the Application Server field, type the host name or IP address for the computer that is hosting the mySAP application.
- **d.** In the System number field, type the system number defined to mySAP for client communications.

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

The Select Service Account page opens.

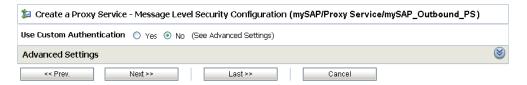


f. Select the Service Account you created, for example, *mySAP_Static_SA*, and click *Submit*.

You are returned to the Create a Business Service - MYSAP Transport Configuration page.

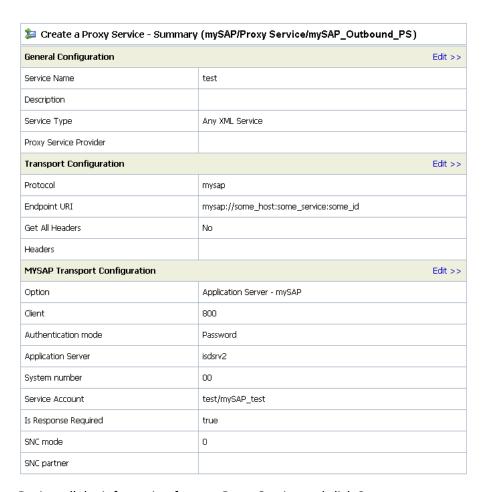
5. Click Next.

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 Proxy 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.

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You are now ready to configure a Pipeline.

Reference: mySAP Transport Configuration Properties

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

Property	Description
Option	Select the type of connection for the mySAP transport protocol. Select <i>Application Server</i> from the drop-down list, which is also the default value.
Client	Type the client number defined for the mySAP application for client communications.
Authentication mode	Specifies the authentication mode that the mySAP transport protocol will use to connect with mySAP. Password is the default value.
Application Server	Type the host name or IP address for the computer that is hosting the mySAP application.
System number	Type the system number defined to mySAP for client communications.
Service Account	Allows you to select a Service Account you have previously created.
Is Response Required	Select this check box if the service expects a response.
Dispatch policy	Designates which server execute thread should be used. The default policy is automatically selected.
Advanced Settings	
SNC mode	SNC provides protection for the communication links between the distributed components of an ERP system.
	If you are using SAP Enterprise Portal, the J2EE engine generates the SAP logon ticket automatically. A possible SNC scenario would be from SAP Enterprise Portal to the mySAP transport.
	To enable SNC, select 1 from the SNC mode drop-down list.
	By default, SNC is disabled.

Property	Description
SNC partner	Type the name of the RFC server or message server (load balancing) that provides the SNC services.
SNC level	Select a version of the SNC library from the SNC level drop-down list.
SNC name	Type the name of the SNC library you are using.
SNC library path	Type the path to the SNC library.
IDOC Format	Select one of the following types of IDOC formats from the drop-down list:
	XML (Default)
	XML-CDATA-ENVELOPED
	NATIVE-IDOC
IDOC release	Specifies the IDOC versioning you want to use for your connection.
IDOC release provider	Specifies an IDOC release provider for your connection. Values that are available in the drop-down list include:
	IDOC DOCREL field (Default)
	SAP release
	user input
SAP trace	Select this check box to enable SAP traces.

Configuring a Pipeline

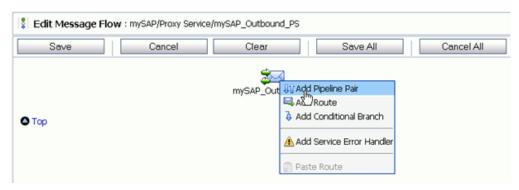
The following section describes how to configure a Pipeline in AquaLogic Service Bus (ALSB).

Procedure: How to Configure a Pipeline

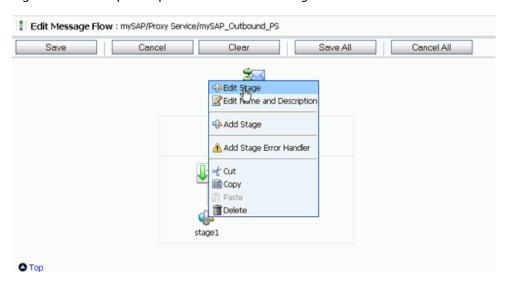
To configure a Pipeline:

- 1. Select the *Proxy Service* folder you created for mySAP 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.

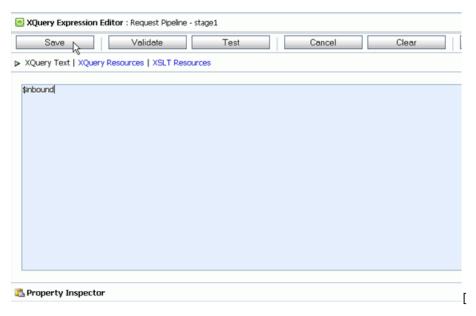
Configuring a Pipeline



- 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*.



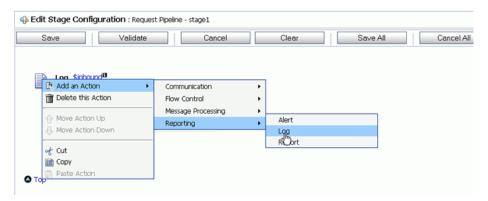
The Edit Stage Configuration page appears showing the request.

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.

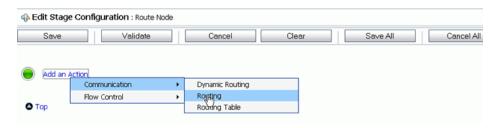
Adding a Route Node for the Proxy Service

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

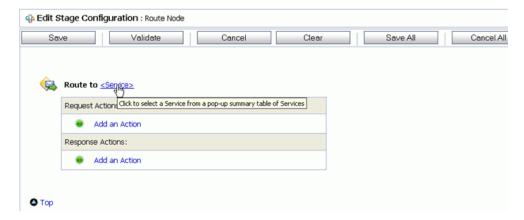
Procedure: How to Add a Route Node

To add a Route Node:

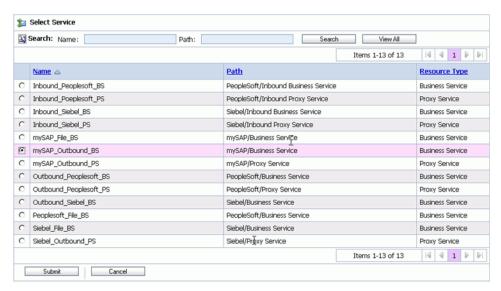
- 1. From the Request Pipeline edit stage, select the Add an Action.
- 2. Right-click the Request Pipeline and select Edit Stage.
- **3.** Select *Add an Action* to add an action for the Route node.
- **4.** Select *Routing* from the *Communication* submenu.



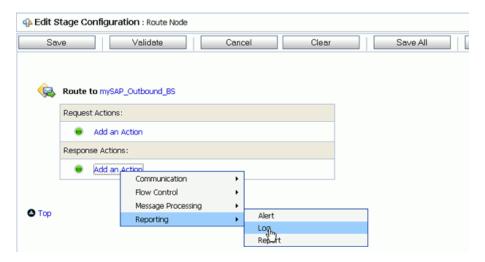
5. Click *<Service>* to select from a list of services.



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.

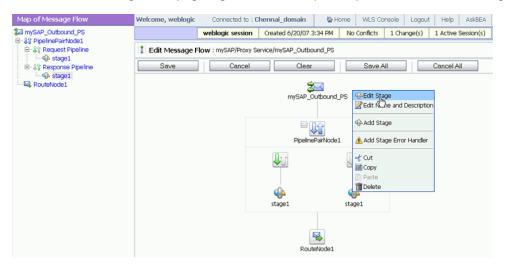
Adding and Editing a Stage in the Response Pipeline

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

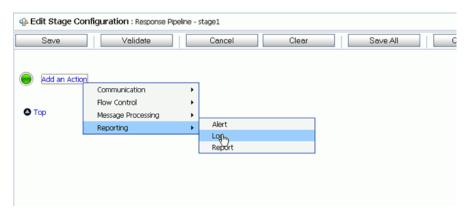
Procedure: How to Add and Edit a Stage in the Response Pipeline

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.

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



8. Save the Edit Configuration Stage.

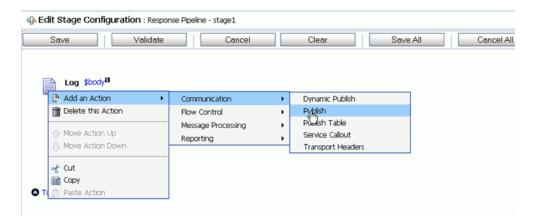
Publishing the Proxy Service

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

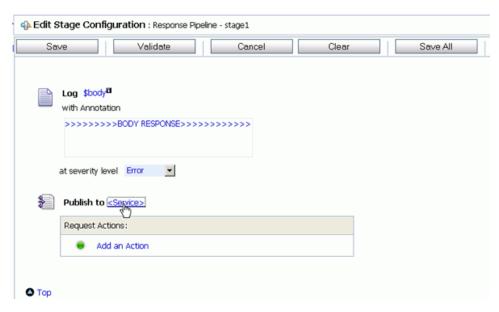
Procedure: How to Publish the Proxy Service

From the Edit Stage Configuration page:

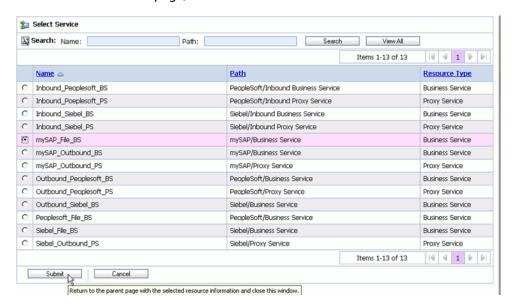
- **1.** Right-click the Response Pipeline and select *Add an Action*.
- 2. Select Publish from the Communication submenu.



3. Click *<Service>* to select from a list of services.



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

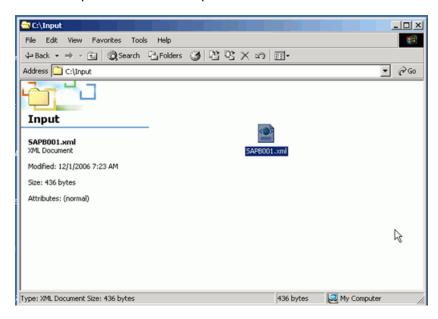


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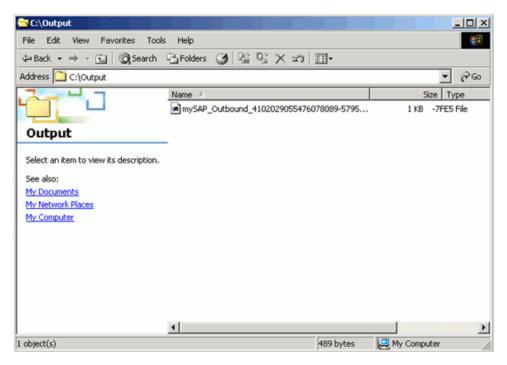
5. Validate the Configuration and click *Save*.



- **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.



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CHAPTER 7

Creating a Business Service For Inbound mySAP Processing

Topics:

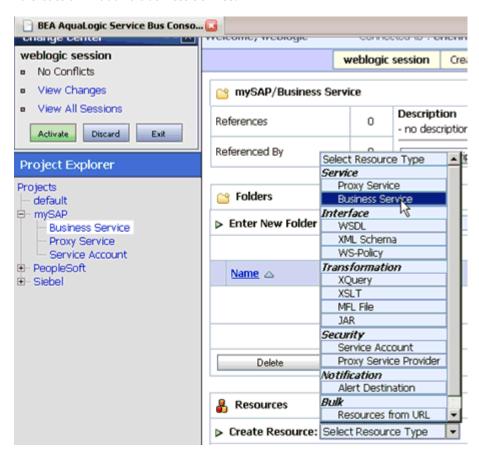
 Creating a Business Service for Inbound mySAP Processing The following section describes how to create a Business Service for inbound (event) mySAP processing in AquaLogic Service Bus (ALSB) using BEA SmartConnect for mySAP.

Creating a Business Service for Inbound mySAP Processing

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

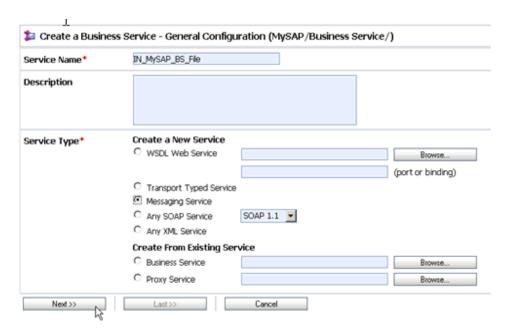
Procedure: How to Create an Inbound Business Service

To create an inbound Business Service:



- 1. Select the Business Service folder you created for mySAP 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.

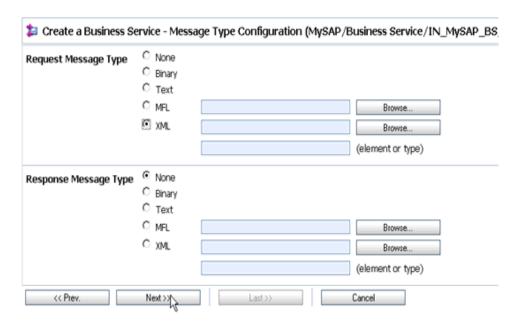
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Perform the following steps:

- **a.** In the Service Name field, enter a name for the Business Service, for example, IN_mySAP_BS_File.
- **b.** Select *Messaging Service* from the Service Type list.
- 3. Click Next.

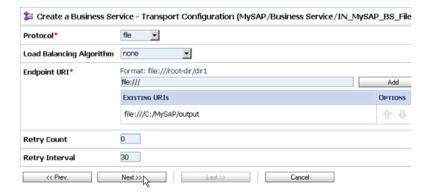
The Create a Business Service - Message Type Configuration page opens.



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 *file* from the Protocol drop-down list.

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b. In the Endpoint URI field, provide the location of the output folder, for example:

file:///C:/Output

5. Click Next.

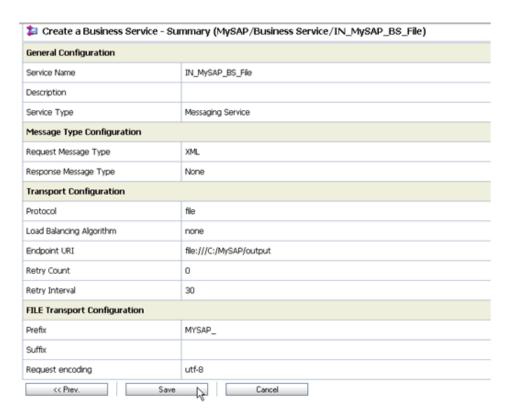
The Create a Business Service - FILE Transport Configuration page opens.



Perform the following steps:

- **a.** In the Prefix field, specify a prefix that will be used for the document, for example, MYSAP_.
- **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.

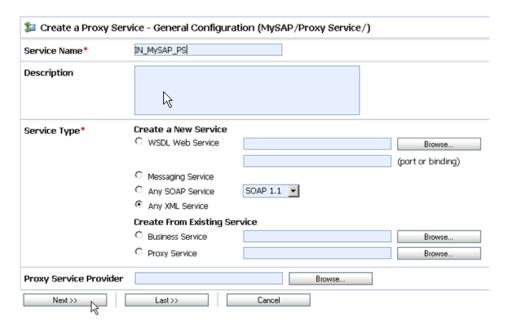
You can now create an inbound proxy service.

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Procedure: How to Create an Inbound Proxy Service

To create an inbound Proxy Service:

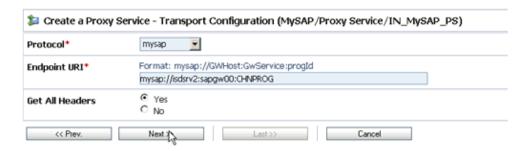
- 1. Select the *Proxy Service* folder you created for mySAP in the left pane.
- **2.** In the right pane, select *Proxy Service* from the Create Resource menu. The Create a Proxy Service General Configuration page opens.



Perform the following steps:

- **a.** In the Service Name field, enter a name for the resource, for example, IN_MySAP_PS.
- **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.



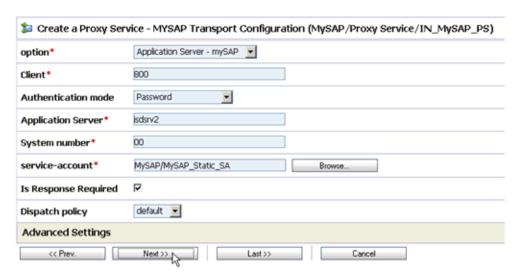
Perform the following steps:

- **a.** Select *mysap* from the Protocol drop-down list.
- **b.** In the Endpoint URL field, provide the location of the input file location, for example:

mysap://isdsrv2:sapgw00:CHNPROG

- **c.** Select *Yes* from the Get All Headers list.
- 4. Click Next.

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



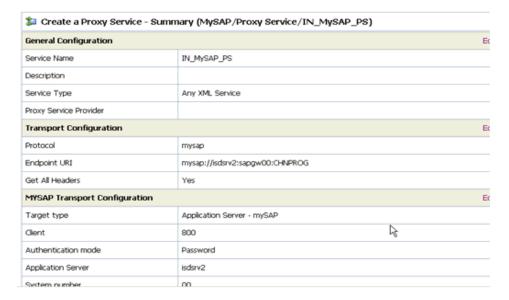
Perform the following steps:

- **a.** Select Application Server mySAP from the option drop-down list.
- **b.** In the Client field, type the client number defined for the mySAP application for client communications.

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- **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, for example MySAP/MySAP_Static_SA.
- 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.



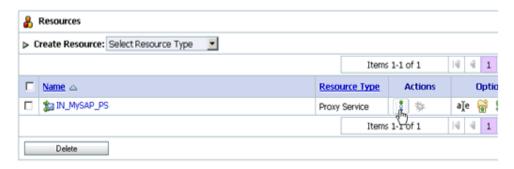
- **8.** Review all the information for your Proxy Service and click *Save*.
- **9.** Click *Activate* in the Change Center to save the changes in the session. You are now ready to configure a Pipeline.

Procedure: How to Configure a Pipeline in the Proxy Service

To configure a Pipeline in the Proxy Service:

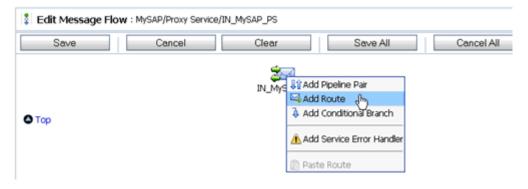


1. Select the *Proxy Service* folder you created for mySAP in the left pane.

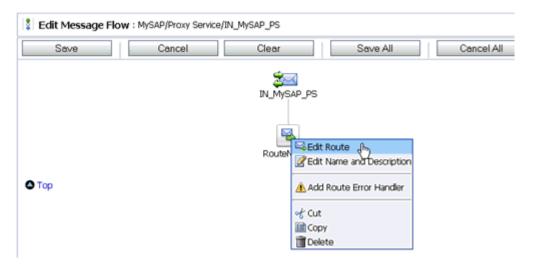


2. Select Edit Message Flow in the right pane.

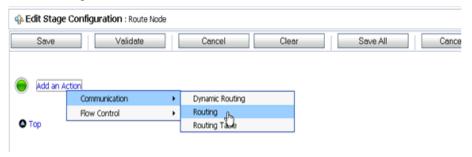
The Edit Message Flow page opens.



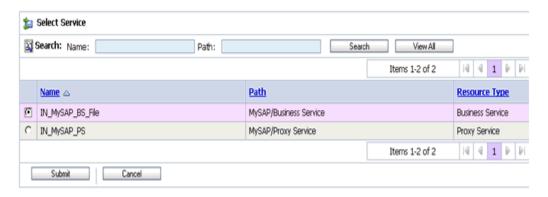
- 3. Right-click the service name and select Add Route from the context menu.
- **4.** Right-click the Route Node and select *Edit Route*.



- **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 file 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 SAP GUI.

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APPENDIX A

BEA SmartConnect for mySAP Use Cases

Topics:

- Publishing BAPI_CUSTOMER_GETDETAIL to ALSB Using BEA SmartConnect Explorer
- Creating an ALSB Business Service Using a Published mySAP WSDL
- Creating an ALSB Proxy Service Using a Published mySAP WSDL

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

Publishing BAPI_CUSTOMER_GETDETAIL 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 mySAP backend system and publish a WSDL document into ALSB so it can be used with BEA SmartConnect for mySAP.

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

- Starting BEA SmartConnect Explorer.
- Creating a target for the mySAP Transport.
- Establishing a connection to the mySAP Transport.
- Browsing available mySAP 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:

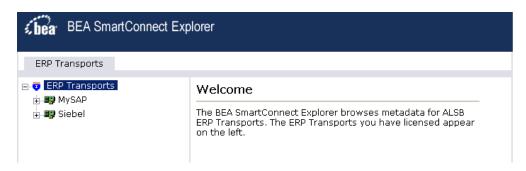
hostname

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.



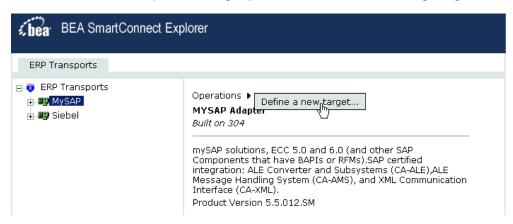
A-2 BEA Systems, Inc.

Procedure: How to Create a Target for the mySAP Transport

To create a target for the mySAP Transport:

- 1. In the left pane of BEA SmartConnect Explorer, click the *MySAP* 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 MYSAP target pane opens on the right as shown in the following image.

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: MySAPTarget Description: Target Type: Application Server

Perform the following steps:

- **a.** In the Target Name field, type a name for the target, for example, MySAPTarget.
- **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 Application Server.

4. Click Next.

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

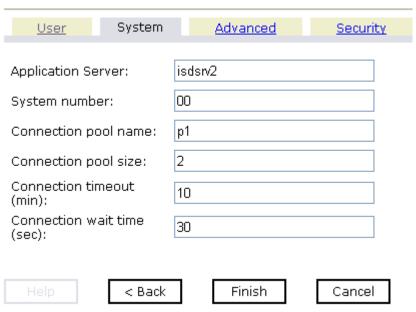
Set connection info User System <u>Advanced</u> Security 800 Client: User: iway2 Password: EΝ Language: Codepage: Authentication mode: Password < Back Finish Cancel

The User tab (required) enables you to provide authentication information for the SAP system to which you are connecting.

- **5.** Enter the required information according to your mySAP system configuration. For more information on the values that are found in the User tab, see Chapter 3, *Creating XML Schemas*.
- **6.** Click the *System* tab.

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

Set connection info

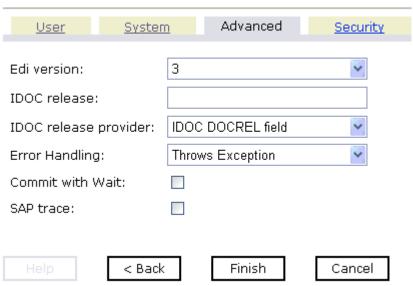


The System tab (required) enables you to provide the application server name, system number, and connection pooling information for the SAP system to which you are connecting.

- 7. Enter the required information according to your mySAP system configuration.
 For more information on the values that are found in the System tab, see Chapter 3, Creating XML Schemas.
- **8.** To view the Advanced tab, click *Advanced*.

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

Set connection info



The Advanced tab enables you to specify your EDI and IDoc versions, and configure error handling.

- 9. Enter the information according to your mySAP system configuration.
 For more information on the values that are found in the Advanced tab, see Chapter 3, Creating XML Schemas.
- **10.** To view the Security tab, click *Security*.

User System Advanced Security

SNC mode:
SNC partner:
SNC level:
SNC name:
SNC library path:

Help < Back Finish Cancel

The Security tab becomes active as shown in the following image.

The Security tab enables you to specify Secure Network Communication (SNC) information for the SAP system to which you are connecting.

- 11. Enter the security information according to your mySAP system configuration.
 For more information on the values that are found in the Security tab, see Chapter 3, Creating XML Schemas.
- **12.** After you provide all the required information for your target, click *Finish*.

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



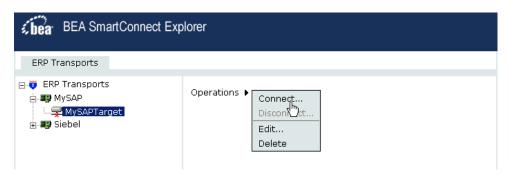
Set connection info

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

To connect to a target for the mySAP Transport:

- 1. In the left pane, expand the MySAP node and select the target you defined, for example, MySAPTarget.
- **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.

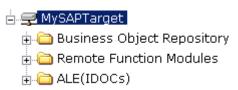
The Connect to MySAPTarget pane opens on the right.

Connect to MySAPTarget

User <u>System</u>	<u>Advanced</u> <u>Security</u>
Client:	800
User:	iway
Password:	••••
Language:	EN
Codepage:	
Authentication mode:	Password
Help	OK Cancel

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

The MySAPTarget 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 my*SAPTarget* node.

The following mySAP business objects appear:

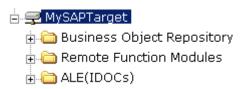
- Business Object Repository
- Remote Function Modules
- ALE (IDOCs)

Procedure: How to Browse Available mySAP Business Objects

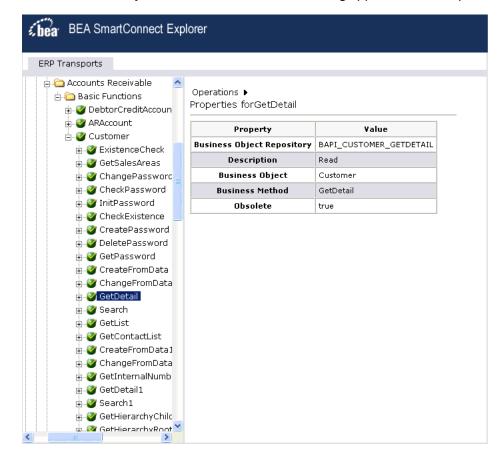
To browse available mySAP business objects:

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

This expands the target to expose the available application system objects as shown in the following image.



- **2.** To expand the desired SAP repository node, click the icon to the left of the repository name, for example, Business Object Repository.
- **3.** In the list under Business Object Repository, click the icon next to *Financial Accounting*.



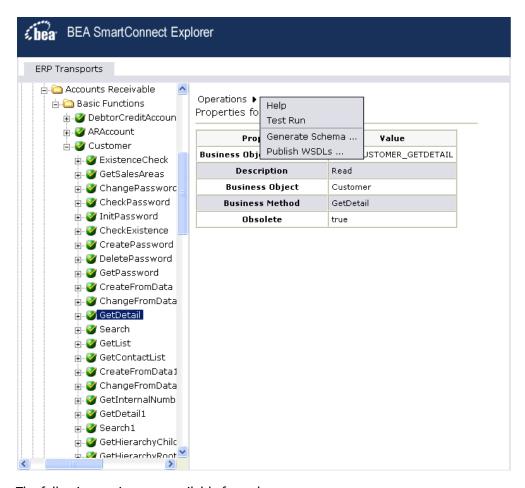
A list of business objects related to Financial Accounting appears in the left pane.

Perform the following steps:

- a. Expand the Accounts Receivable folder.
- **b.** Expand the Basic Functions folder.
- **a.** Scroll down and expand the *Customer* business object.
- **b.** Select the BAPI method called *GetDetail*.
- **4.** In the right pane, move the pointer over *Operations* to view the context menu.

The following image shows the Operations menu expanded over the table listing properties and values for the BAPI method named BAPI_CUSTOMER_GETDETAIL in the right pane.

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The following options are available from the context menu:

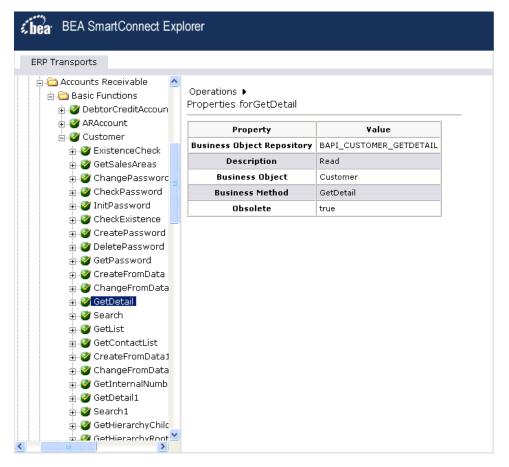
- Help provides information about BAPI, RFC, and IDoc usage.
- Test Run simulates running the selected RFC or BAPI with sample data you provide.
- Generate Schema generates XML request and response schemas for the SAP business object you selected.
- Publish WSDLs generates a WSDL document based on the XML schema that can be integrated with BEA AquaLogic Service Bus.

Procedure: How to Publish a WSDL Document

To publish a WSDL document:

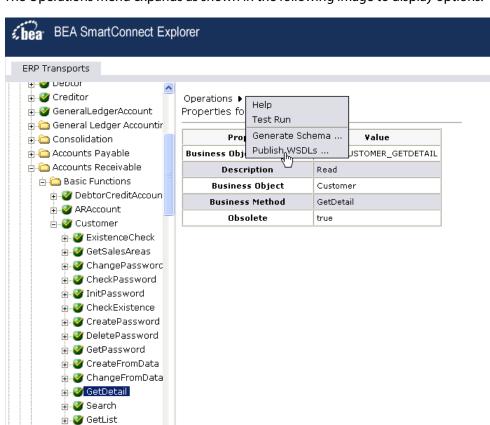
1. From the Business Object Repository, select the *GetDetail* method from Financial Accounting-->Accounts Receivable-->Basic Functions-->Customer.

The following image shows the Operations menu in the right pane and a table listing properties and values for the BAPI method called BAPI_CUSTOMER_GETDETAIL.



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

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The Operations menu expands as shown in the following image to display options.

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:	Customer_GetDetail_invoke.wsdl
Location:	default
Username:	pgmanh
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 "/".

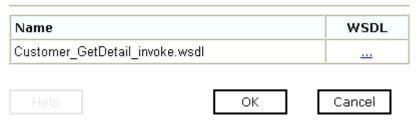
- **c.** In the Username field, type your username to access the BEA Aqualogic Service Bus.
- **d.** In the Password field, type your password to access the BEA Aqualogic Service Bus.

4. Click *OK*.

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

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Publish WSDLs



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 5, Creating a Business Service Using BEA SmartConnect for mySAP.

- **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 mySAP WSDL

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

1. Open the BEA AquaLogic Service Bus Console.

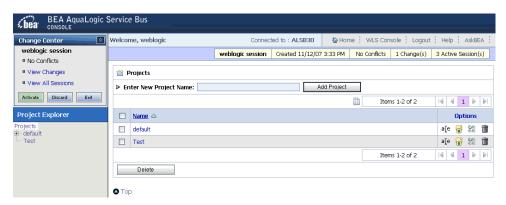


2. In the Change Center, which is located in the top left corner of the console, click *Create* to start a session.



3. In the left pane, click *Project Explorer*.

The Project Explorer opens and displays a list of available projects in the left pane.



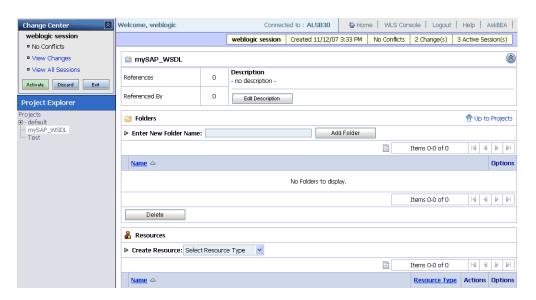
4. In the Projects pane, type a name for your new project, for example, mySAP_WSDL.



5. Click Add Project.

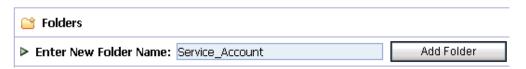
The new project, for example, mySAP_WSDL, is listed in the left pane, as shown in the following image.

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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.



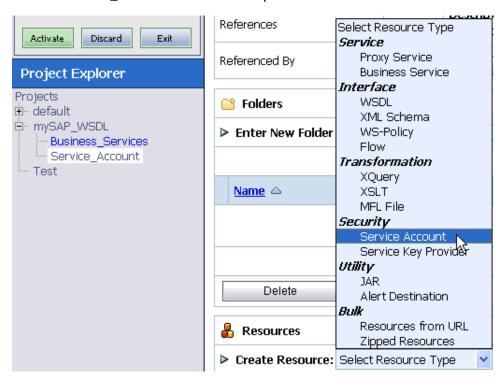
8. Create another folder called Business_Services using the same steps described above.

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 mySAP system when using Business Services.

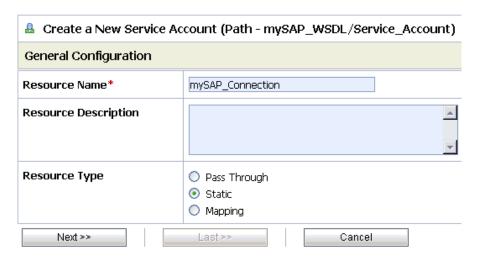
9. Select the *Service Account* folder in the left pane.



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

The Create a New Service Account page opens.

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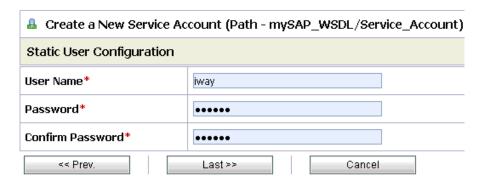
Perform the following steps:

- **a.** In the Resource Name field, enter a name for the Service Account, for example, mySAP_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.

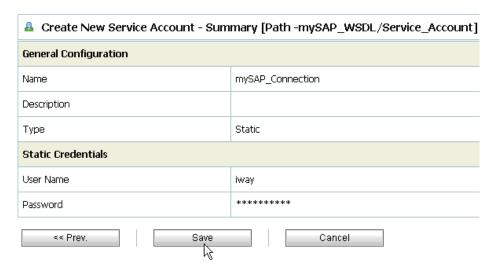


12. Enter a valid user name and password that will be used by BEA SmartConnect for mySAP to access the mySAP system.

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 mySAP WSDL.

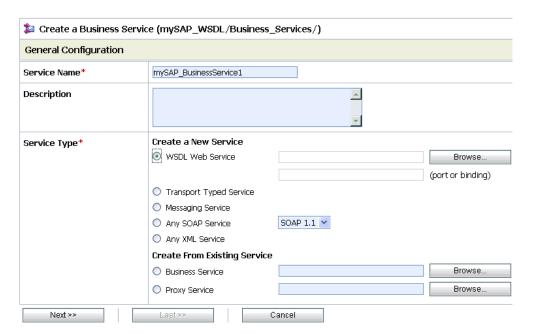
15. Select the *Business_Services* folder in the left pane.

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

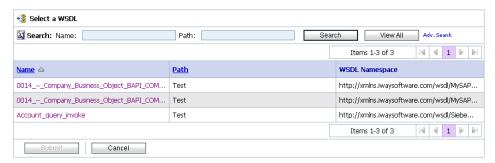
The Create a Business Service (General Configuration) page opens.



Perform the following steps:

- **a.** In the Service Name field, enter a name for the Business Service, for example, mySAP_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.

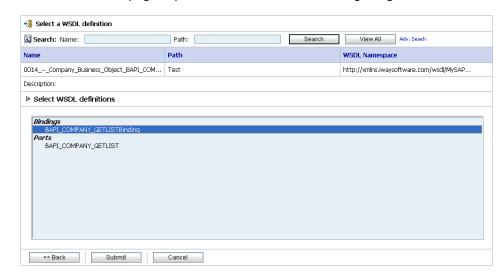


For more information on how to publish WSDLs, see Chapter 4, Publishing WSDL Documents.

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

0014 -- Company_Business_Object_BAPI_COMPANY_GETLIST_invoke

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The Select a WSDL page expands as shown in the following image.

- **d.** Select an available binding for the mySAP WSDL you selected, for example:

 BAPI_COMPANY_GETLISTBINDING
- e. Click Submit.

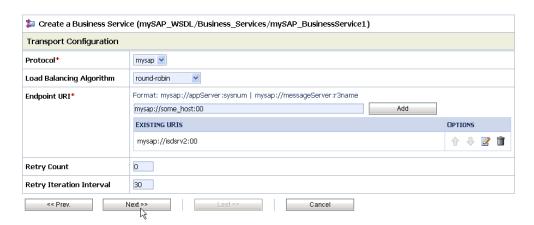
You are returned to the Create a Business Service (General Configuration) page.



The WSDL Web Service fields contain the appropriate information for the mySAP 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 *mysap*.
- **b.** In the Endpoint URI field, provide the specific URI for your Business Service, using the following format:

mysap://appServer:sysnum

where:

appserver

Is the host name or IP address for the machine that is hosting the mySAP application.

sysnum

Is the system number defined for the mySAP application for client communications.

c. Click Add.

The Endpoint URI is added to the Existing URIs list.

18. Click Next.

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



This page allows you to configure basic and advanced properties for a Business Service using the mySAP transport protocol. For a complete description of these properties, see mySAP Transport Configuration Properties in Chapter 5, Creating a Business Service Using BEA SmartConnect for mySAP.

Perform the following steps:

- **a.** Select Application Server from the Option drop-down list.
- **b.** In the Client field, type the client number defined for the mySAP application for client communications.
- **c.** In the Language field, type a language key, for example EN (English).
- **d.** From the EDI version drop-down list, select the Electronic Data Interchange (EDI) document version you are using with the mySAP transport protocol, for example, 3.
- e. In the Service Account field, click Browse.

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

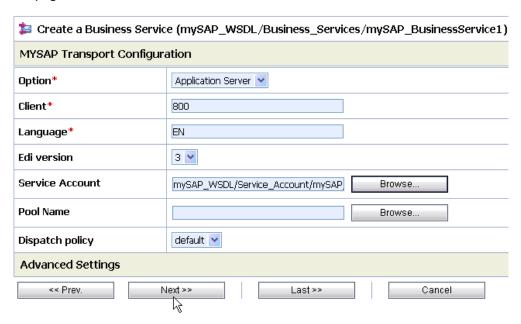


f. Select the Service Account you created, for example, mySAP_Connection.

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

g. Click Submit.

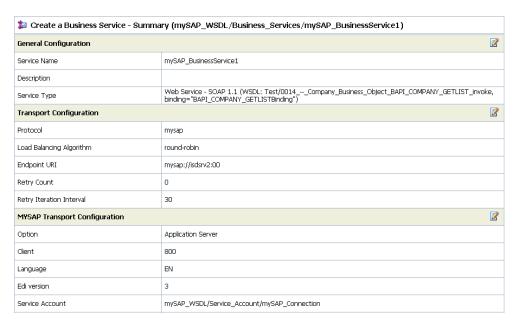
You are returned to the Create a Business Service (MYSAP Transport Configuration) page.



19. Click Next.

The Create a Business Service - Summary page opens.

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

You are returned to the mySAP_WSDL/Business_Services page.

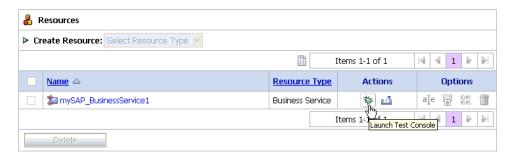
If there are no errors, the following message is displayed on the top of the page:

☑ The Service "mySAP_BusinessService1" was created successfully.

21. Activate your changes in AquaLogic Service Bus.

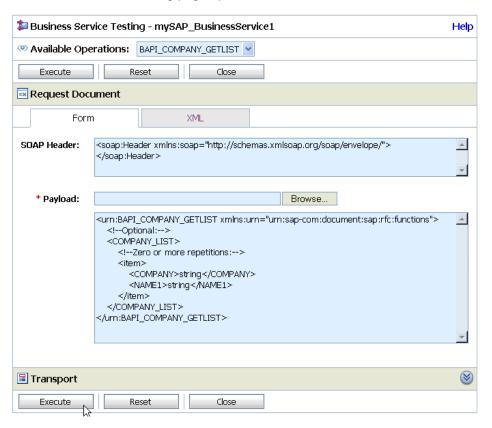


22. Click *Activate* in the Change Center, which is located in the top left corner of the console.



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.

A-28

24. Click Execute.

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

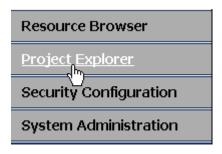
Creating an ALSB Proxy Service Using a Published mySAP WSDL

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

1. Open the BEA AquaLogic Service Bus Console.

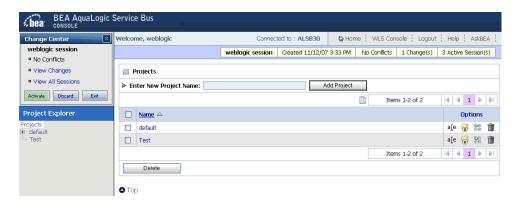


2. In the Change Center, which is located in the top left corner of the console, click *Create* to start a session.



3. In the left pane, click *Project Explorer*.

The Project Explorer opens and displays a list of available projects in the left pane.

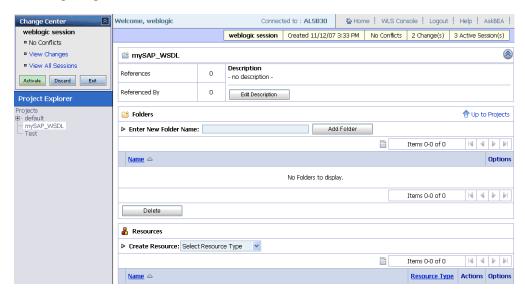


4. In the Projects pane, type a name for your new project, for example, mySAP_WSDL.



5. Click Add Project.

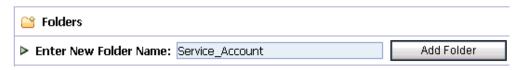
The new project, for example, mySAP_WSDL, is listed in the left pane, as shown in the following image.



It is always a good practice to create folders for your project to organize any components you will use for your service.

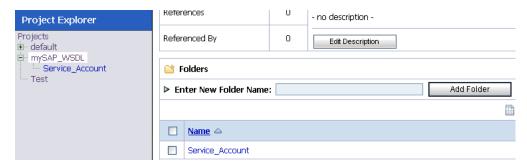
A-30 BEA Systems, Inc.

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 Proxy_Services using the same steps described above.

The left pane of your Project Explorer should now have two folders (Proxy_Services and Service_Account) available for your project, as shown in the following image.



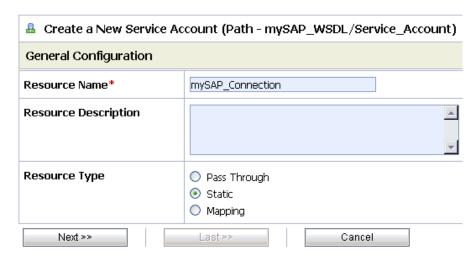
You are now ready to create a new Service Account for your project that will be used to authenticate a connection to the mySAP system when using Proxy Services.

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.



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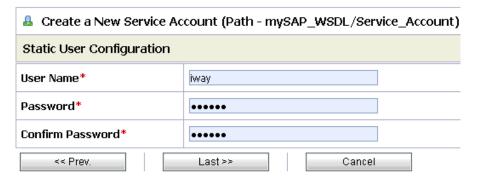
Perform the following steps:

- **a.** In the Resource Name field, enter a name for the Service Account, for example, mySAP_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 for Proxy Services.

11. Click *Next*.

The Static User Configuration page opens.

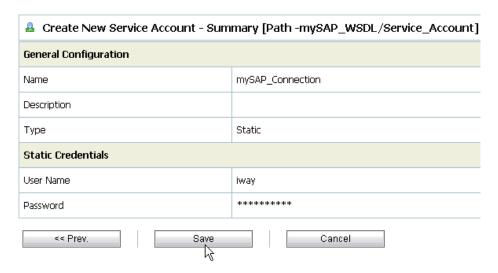


12. Enter a valid user name and password that will be used by BEA SmartConnect for mySAP to access the mySAP system.

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.

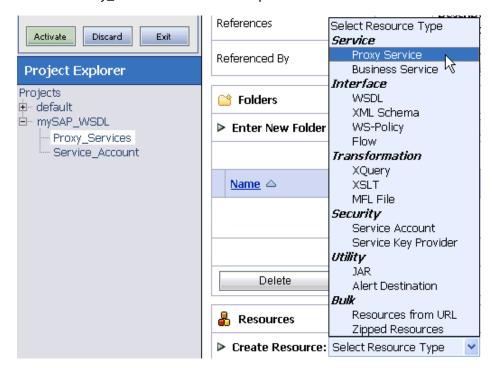


14. Click *Save* to save the configuration details for your Service Account.

You are now ready to create a new Proxy Service for your project that will use a

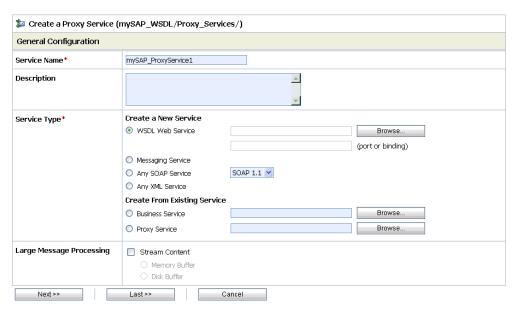
15. Select the *Proxy_Services* folder in the left pane.

published mySAP WSDL.



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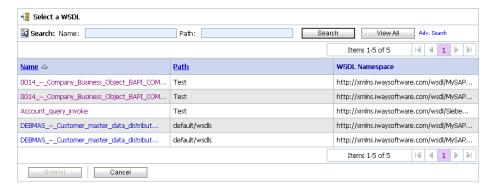
16. From the Create Resource drop-down list in the Resources section, select *Proxy Service*. The Create a Proxy Service (General Configuration) page opens.



Perform the following steps:

- **a.** In the Service Name field, enter a name for the Proxy Service, for example, mySAP_ProxyService1.
- **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.

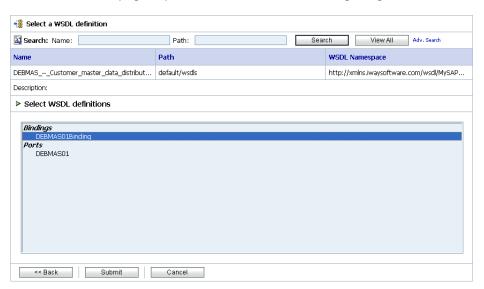


For more information on how to publish WSDLs, see Chapter 4, *Publishing WSDL Documents*.

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

DEBMAS -- Customer_master_data_distribution_DEBMAS01_invoke

The Select a WSDL page expands as shown in the following image.



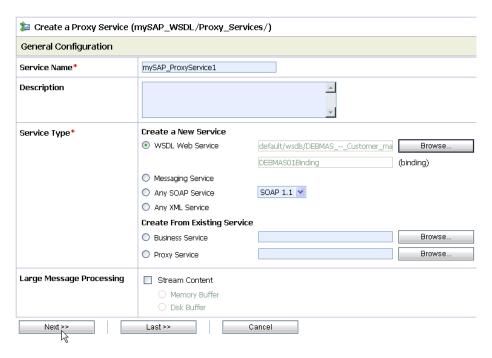
d. Select an available binding for the mySAP WSDL you selected, for example:

DEBMAS01Binding

e. Click Submit.

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

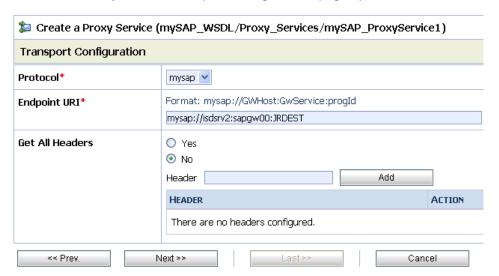
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The WSDL Web Service fields contain the appropriate information for the mySAP WSDL you selected, including the binding.

17. Click Next.

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



Perform the following steps:

- **a.** From the Protocol drop-down list, select *mysap*.
- **b.** In the Endpoint URI field, provide the specific URI for your Proxy Service, using the following format:

mysap://GWHost:GWService:progID

where:

GWHost

Is the mySAP Gateway Host you are using.

GWService

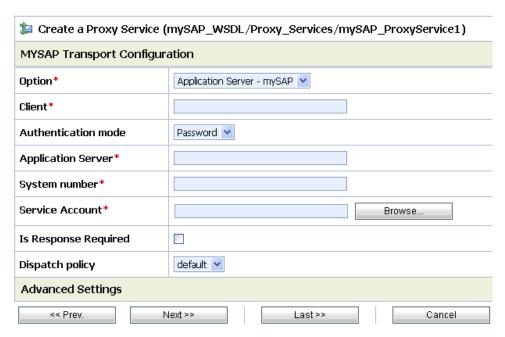
Is the mySAP Gateway Service.

progID

Is the mySAP Program ID.

18. Click Next.

The Create a Proxy Service (MYSAP Transport Configuration) page opens.



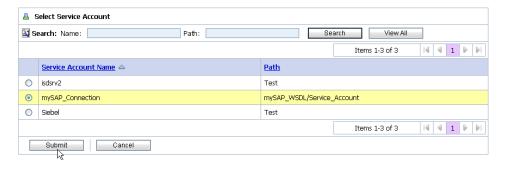
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This page allows you to configure basic and advanced properties for a Proxy Service using the mySAP transport protocol. For a complete description of these properties, see mySAP Transport Configuration Properties in Chapter 6, Creating a Proxy Service Using BEA SmartConnect for mySAP.

Perform the following steps:

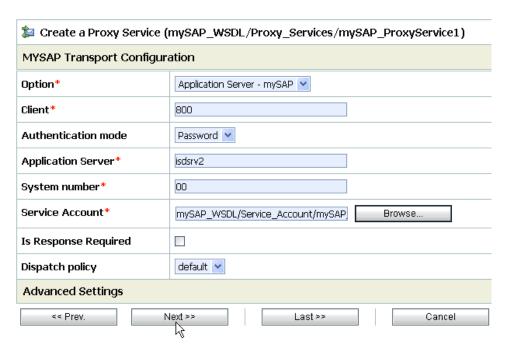
- **a.** Select Application Server from the Option drop-down list.
- **b.** In the Client field, type the client number defined for the mySAP application for client communications.
- **c.** In the Application Server field, type the host name or IP address for the machine that is hosting the mySAP application.
- **d.** In the System number field, type the system number defined for the mySAP application for client communications.
- **e.** In the Service Account field, click *Browse*.

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



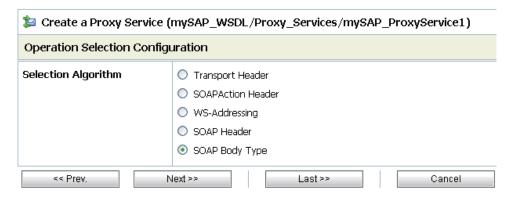
- **f.** Select the Service Account you created, for example, mySAP_Connection.
- **g.** Click Submit.

You are returned to the Create a Proxy Service (MYSAP Transport Configuration) page.



19. Click Next.

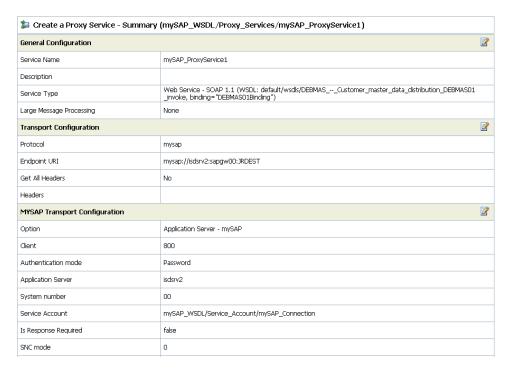
The Operation Selection Configuration page opens.



20. Select a selection algorithm that the Proxy Service will use and click *Next*.

The Create a Proxy Service - Summary page opens.

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

You are returned to the mySAP_WSDL/Proxy_Services page.

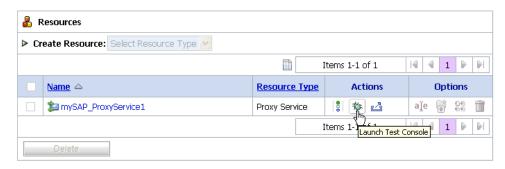
If there are no errors, the following message is displayed on the top of the page:



22. Activate your changes in AquaLogic Service Bus.

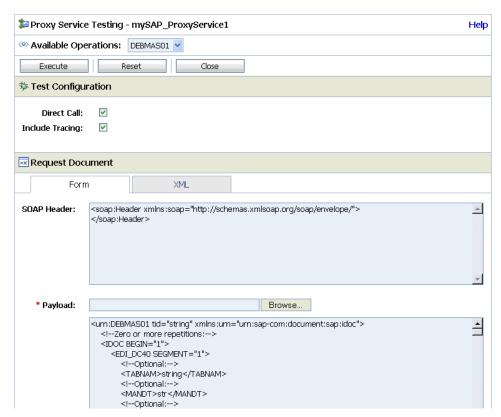


23. Click *Activate* in the Change Center, which is located in the top left corner of the console.



To test your Proxy Service, click the *Launch Test Console* icon in the Actions column. of the Resources section.

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



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

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

25. Click Execute.

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

Creating an ALSB Proxy Service Using a Published mySAP WSDL

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