Introduction

AquaLogic Data Services Platform can be accessed through an AquaLogic Service Bus Transport. In this way AquaLogic Service Bus can make full use of data services. This approach also allows a more efficient and flexible approach to accessing data services as compared with exposing such services as Web services.

Topics

ALDSP and ALSB Compatability Matrix

Data services created in ALDSP can be accessed through ALSB using the **DSP Transport**. The following table identifies compatibilities between ALDSP and ALSB releases. In most cases, instructions for making ALDSP Data Services available to ALSB using the DSP transport are provided.

ALSB and ALDSP Version Compatibility

AquaLogic Data Services Platform	AquaLogic Service Bus (DSP Transport)	Instructions for Making ALDSP Data Services

		Available to ALSB Using the DSP Transport
Version 2.5	Version 2.5	HTML
Version 2.5	Version 2.6	PDF
Version 3.0	Version 2.5	
Version 3.0	Version 2.6, 2.6.1	HTML PDF
Version 3.0	Version 3.0	HTML PDF

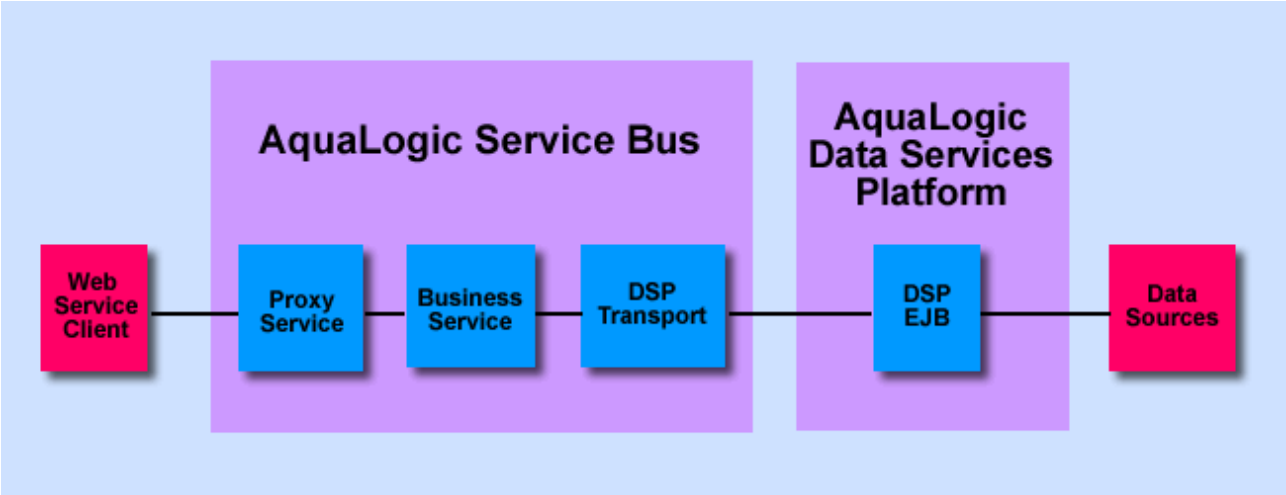
Enabling Data Services for ALSB

To make an ALDSP data service available to an ALSB client you need to:

- Generate a WSDL file for your data service and import the new WSDL into ALSB using the recommended procedure.
- Configure or create a business service based on the WSDL.
- Configure or create a proxy service based on the business service.

After you have completed these tasks you can invoke data services through the appropriate version of ALSB.

From Data Source to Web Service Client



Using the DSP Transport

The example in this section illustrates use of a data service in ALSB using the following versions.

	ALDSP	ALSB
Version(s)	3.0	3.0
WebLogic Server	9.2	10.0

Actions Needed Within ALDSP

Step 1. Start Your Server

Start the AquaLogic Data Services server, if it is not already running. (For the purpose of this discussion, the sample RetailDataspace provided with AquaLogic Data Service Platform is used.)

Start > Programs > BEA Products > BEA AquaLogic Data Services Platform 3.0 > Examples > Start Examples Server

See also: Getting started ALDSP tutorial:
Creating Your First Data Services

Step 2. Generate a WSDL from the Data Service

You can generate a WSDL from your data service in two ways.

Option A. Generating a WSDL File Using Data Services Studio

Detailed instructions available at:
How To Generate a Web Service Map and WSDL from a Data Service

Option B. Export a WSDL Through the ALDSP Console

If a WS file is available, you can use the ALDSP Console to generate a WSDL file.

1. Launch the AquaLogic Data Services Console. On Windows you can do this by choosing:

   Start > Programs > BEA Products > BEA AquaLogic Data Services Platform 3.0 > Examples > AquaLogic Data Services Console

   Alternatively, type http://localhost:7001/dspconsole in your Web browser.
2. Log in. The sample uses 'weblogic' (without quotes) as both the username and password.
3. Click Service Explorer.
4. Navigate to the web service map (example: RetailWebServices.ws) corresponding to the data service for which you want to create the WSDL file.
5. Click View WSDL Definition in the General tab. ALDSP Console opens a new window and displays the WSDL definition.
6. Using a text editor, copy and paste the WSDL definition into a new text document and save the WSDL file.

Getting Started with ALDSP Administration

If you've not already done so, build your data service application (deployment is automatic with a build). A deployed application is needed in order for a client processes to access data through your data services.

Step 3: Obtaining the Web Service Address

The URL address to the WSDL is needed. To obtain this address in Data Services Studio:

1. Right-click on the WS file (example: OrderService.ws)
2. Select Test Web Service
3. When the Test Client opens save the URL address. Here is the address for the OrderService example:

```
http://localhost:7001/RetailDataspace/RetailApplication/OrderManagement/OrderService.ws?WSDL
```

Actions Needed Within ALSB

Step 4: Import the Data Service WSDL into AquaLogic Service Bus

The following generally describes the steps needed to import a WSDL generated in ALDSP into AquaLogic Service Bus.

1. Start the AquaLogic Service Bus server, if it is not already running. For the purposes of this example, the AquaLogic Service Bus example server and the Default project is used. On Windows you can do this by choosing:

   Start > Programs > BEA Products > Examples > AquaLogic Service Bus 3.0 > Start Examples Server

2. Launch the AquaLogic Service Bus Console. On Windows, choose:

   Start > Programs > BEA Products > Examples > AquaLogic Service Bus 3.0 > Service Bus Console

   Alternatively, type http://localhost:7021/sbconsole in your Web browser.

3. Log in. The default user name and password is 'weblogic' (without quotes).
4. Click Project Explorer
5. Enter a new project name (example: dataServiceTest).
6. Click on the name of your new project.
7. In the Project Explorer locate the Create Resource option.
8. From the Select Resource Type dropdown select:

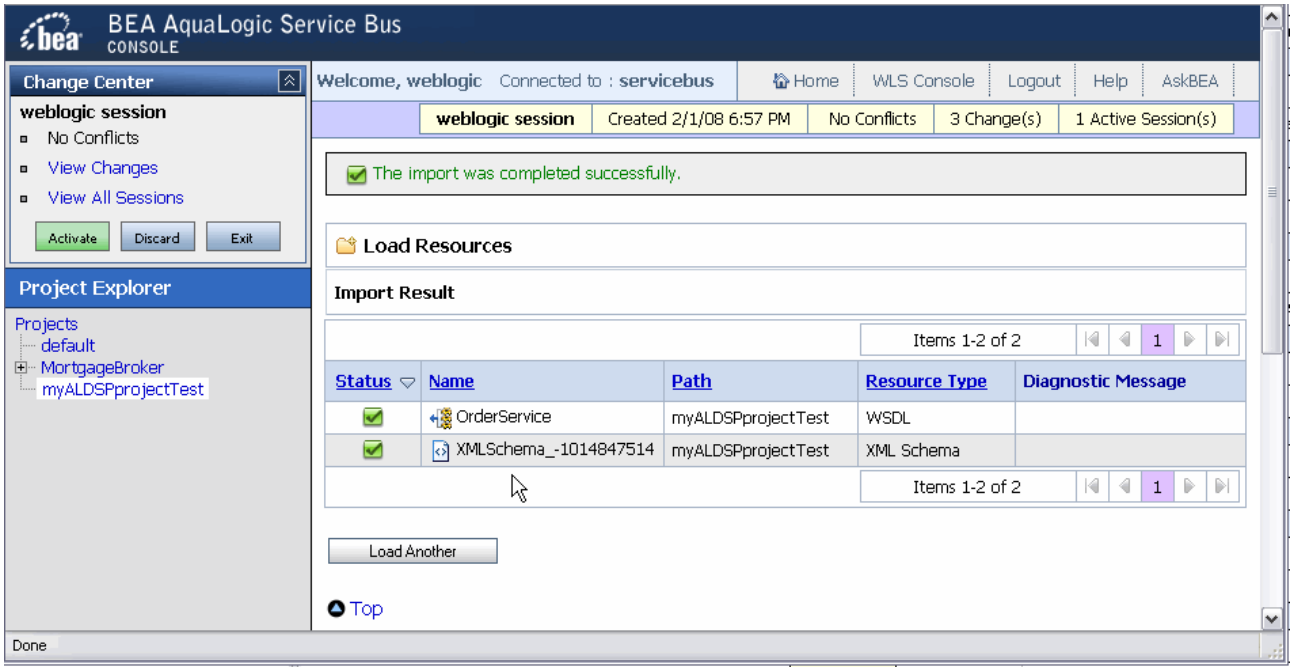
   Bulk > Resources from URL

This opens the wizard from which you can import a WSDL and its associated schema. The following table covers the actions needed to continue the example.

Importing a WSDL as a Bulk Resource

	Wizard Page	Option	Action	Comment
1.	**Load Resources from URL**	URL/Path	**paste the WSDL URL**	The URL / Path is to the address of the WSDL you created (for an example see Obtaining the Web Service Address)
2.		Resource Name	**enter any name**	example: orderService
3.		Resource Type	**enter WSDL**	
4.			**Next**	
5.	**Review Loaded Resources**		**click Import**	

Load Resources from ALDSP WSDL Import



See also:
Loading Resources from a URL

Step 5: Create the Business Service

The following generally describes the steps needed to create a business service from a WSDL imported from ALDSP.

1. In the Project Explorer locate the Create Resource option.
2. From the Select Resource Type dropdown select Business Service.

This opens the wizard from which you can create a business service. The following table covers the actions needed to continue the example.

Creating Business Service for the ALDSP Sample Data Service

	Wizard Page	Option	Action	Comment
1.	**Creating a Business Service - General Config**	Service Name	**enter name**	example: orderService
2.		Description	**any description**	
3.		Service Type	**WSDL Web Service**	
4.			**click Browse...**	browse to web service; example: orderService
5.		Select a WSDL	**click on the WSDL**	
6.	**Select WSDL definitions**	bindings or ports	**click on a SoapBindings or SoapPort**	example: OrderServiceSoapBinding
7.			**click Submit**	
8.	**Creating a Business Service - General Config**		**Next**	
9.	**Creating a Business Service - Transport Config**	Protocol	**dsp**	
10.		Endpoint URI	**enter name of ALDSP project** example: `t3://localhost:7001/RetailDataspace`	
11.			**click Add**	
12.			**Next**	Accept defaults
13.			**Next**	Accept defaults
14.			**Save**	

See Also:
Creating and Configuring Business Services

Step 6: Create the Proxy Service

The following generally describes the steps needed to create a proxy service.

1. In the Project Explorer locate the Create Resource option.
2. From the Select Resource Type dropdown select Proxy Service.

This opens the wizard from which you can create a proxy service. The following table covers the actions needed to continue the example.

Creating a Proxy Service for the ALDSP Sample Data Service

	Wizard Page	Option	Action	Comment
1.	**Creating a Proxy Service - General Config**	Service Name	**enter name**	example: orderService
2.		Description	**any description**	
3.		Service Type	**click on Business Service**	
4.		Business Service	**click Browse**	browse to created business service; example: orderService
5.	**Select Business Service**	Select a WSDL	**click on the radio button associated with the relevant business service**	
6.			**click Submit**	
7.	**Creating a Proxy Service - General Config**		**Next**	example: defaults are OK
8.	**Creating a Proxy Service - Transport Configuration**		**Next**	example: defaults are OK
9.	**Create a Proxy Service - HTTP Transport Configuration**		**Next**	example: defaults are OK
10.	**Create a Proxy Service -**		**Next**	example: defaults are OK

	Operation Selection Configuration			
11.			**Save**	

In practice you would most likely identify the encryption key, digital signature key, and SSL client authentication key. However, for the example, none of these need to be identified.

 The AquaLogic Data Service Platform transport uses the character set provided by the proxy service. Therefore if the default character set needs to be changed prior to invoking a data service transport, the conversion encoding needs to be handled within the proxy service itself.

 **See also:**
Creating and Configuring Proxy Services

Step 7: Test Your Setup

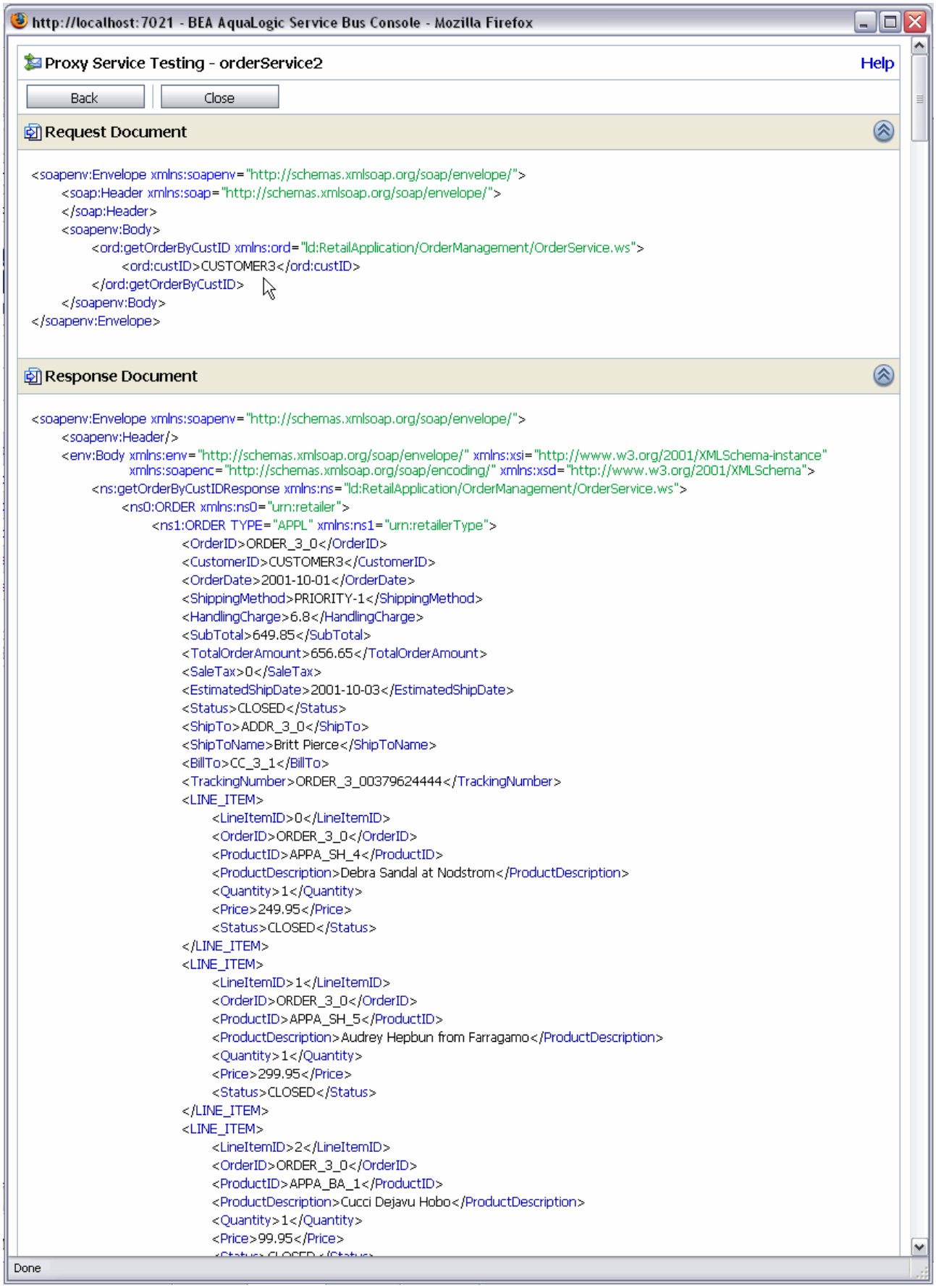
The following steps would allow you to test access to the ALDSP data service through the proxy generated in the above steps.

1. Activate your session; click Submit.
2. In the Project Explorer locate the created proxy service (example: orderService).
3. Select the Launch Test Console icon under Actions. The Proxy Service Testing console appears.
4. From the Available Operations dropdown select your data service operation (example: getOrderByCustID)
5. Modify the Payload with the information needed by the data service (example: CUSTOMER3)

```
<ord:getOrderByCustID xmlns:ord="ld:RetailApplication/OrderManagement/OrderService.ws">
&amp;nbsp;&amp;nbsp;&amp;nbsp; <ord:custID>CUSTOMER3</ord:custID>
</ord:getOrderByCustID>
```

6. Click Execute. The data appears in the response document.

Request and Response from the ALSB Test Console


http://localhost:7021 - BEA AquaLogic Service Bus Console - Mozilla Firefox
Proxy Service Testing - orderService2
Help
Back
Close
Request Document
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Header xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
</soap:Header>
<soapenv:Body>
<ord:getOrderByCustID xmlns:ord="ld:RetailApplication/OrderManagement/OrderService.ws">
<ord:custID>CUSTOMER3</ord:custID>
</ord:getOrderByCustID>
</soapenv:Body>
</soapenv:Envelope>
Response Document
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<soapenv:Header/>
<env:Body xmlns:env="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<ns:getOrderByCustIDResponse xmlns:ns="ld:RetailApplication/OrderManagement/OrderService.ws">
<ns0:ORDER xmlns:ns0="urn:retailer">
<ns1:ORDER TYPE="APPL" xmlns:ns1="urn:retailerType">
<OrderID>ORDER_3_0</OrderID>
<CustomerID>CUSTOMER3</CustomerID>
<OrderDate>2001-10-01</OrderDate>
<ShippingMethod>PRIORITY-1</ShippingMethod>
<HandlingCharge>6.8</HandlingCharge>
<SubTotal>649.85</SubTotal>
<TotalOrderAmount>656.65</TotalOrderAmount>
<SaleTax>0</SaleTax>
<EstimatedShipDate>2001-10-03</EstimatedShipDate>
<Status>CLOSED</Status>
<ShipTo>ADDR_3_0</ShipTo>
<ShipToName>Britt Pierce</ShipToName>
<BillTo>CC_3_1</BillTo>
<TrackingNumber>ORDER_3_00379624444</TrackingNumber>
<LINE_ITEM>
<LineItemID>0</LineItemID>
<OrderID>ORDER_3_0</OrderID>
<ProductID>APPA_SH_4</ProductID>
<ProductDescription>Debra Sandal at Nodstrom</ProductDescription>
<Quantity>1</Quantity>
<Price>249.95</Price>
<Status>CLOSED</Status>
</LINE_ITEM>
<LINE_ITEM>
<LineItemID>1</LineItemID>
<OrderID>ORDER_3_0</OrderID>
<ProductID>APPA_SH_5</ProductID>
<ProductDescription>Audrey Hepbun from Farragamo</ProductDescription>
<Quantity>1</Quantity>
<Price>299.95</Price>
<Status>CLOSED</Status>
</LINE_ITEM>
<LINE_ITEM>
<LineItemID>2</LineItemID>
<OrderID>ORDER_3_0</OrderID>
<ProductID>APPA_BA_1</ProductID>
<ProductDescription>Cucci Dejavu Hobo</ProductDescription>
<Quantity>1</Quantity>
<Price>99.95</Price>
Done

See Also

Using the AquaLogic Service Bus Console

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