

Accessing Data Services Through ALSB (v2.5, v2.6)

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Introduction

ALDSP can be accessed through the DSP Transport in ALSB. In this way ALSB 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.

The following table identifies compatibilities between ALDSP and ALSB releases.

ALSB and ALDSP Release Compatibility

ALDSP	ALSB
Version 2.5	Version 2.5
Version 2.5	Version 2.6

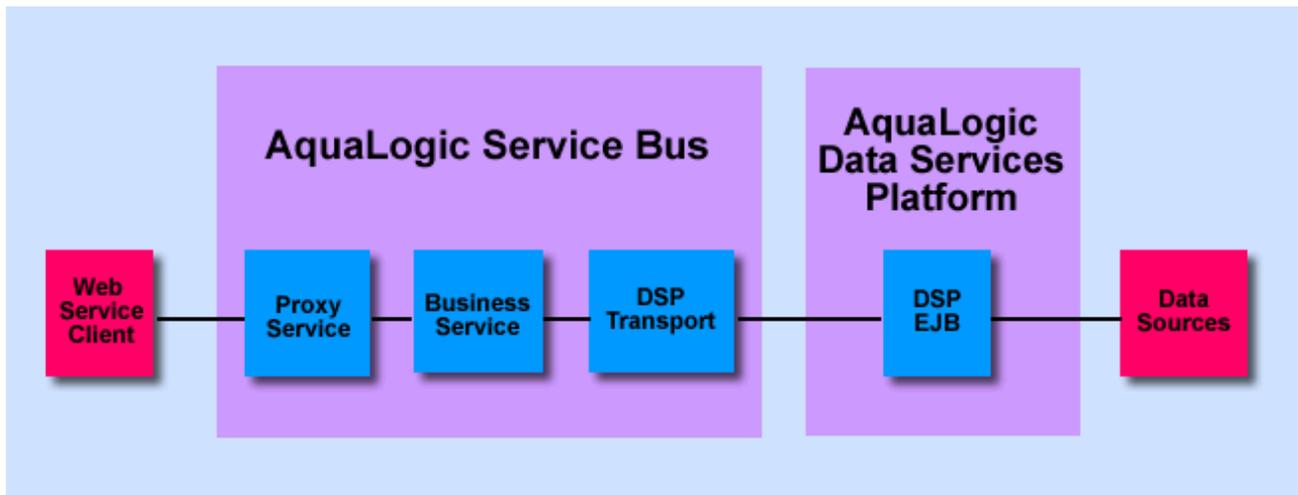
Interoperability Requirements

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 the ALSB.
- ✔ Configure/Create a business service based on the WSDL.
- ✔ Configure/Create a proxy service based on the business service.

Once these tasks have been accomplished you can invoke data services through ALSB

From Data Source to Web Service Client



Using an DSP Transport

The following sample illustrates use of a data service in ALSB. It assumes that you are running ALSB 2.6 under WLS 9.2 and ALDSP 2.5 under WLS 8.1.

Step 1. Start Your Server

Start the ALDSP server, if it is not already running. (For the purpose of this discussion, the sample RTLApp application provided with ALDSP is used.)

Start > Programs > BEA WebLogic Platform 8.1 > BEA AquaLogic Data Services Platform 2.5 > Examples > RTL Demo > Launch RTLDemo Server

Step 2. Generate a WSDL from the Data Service

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

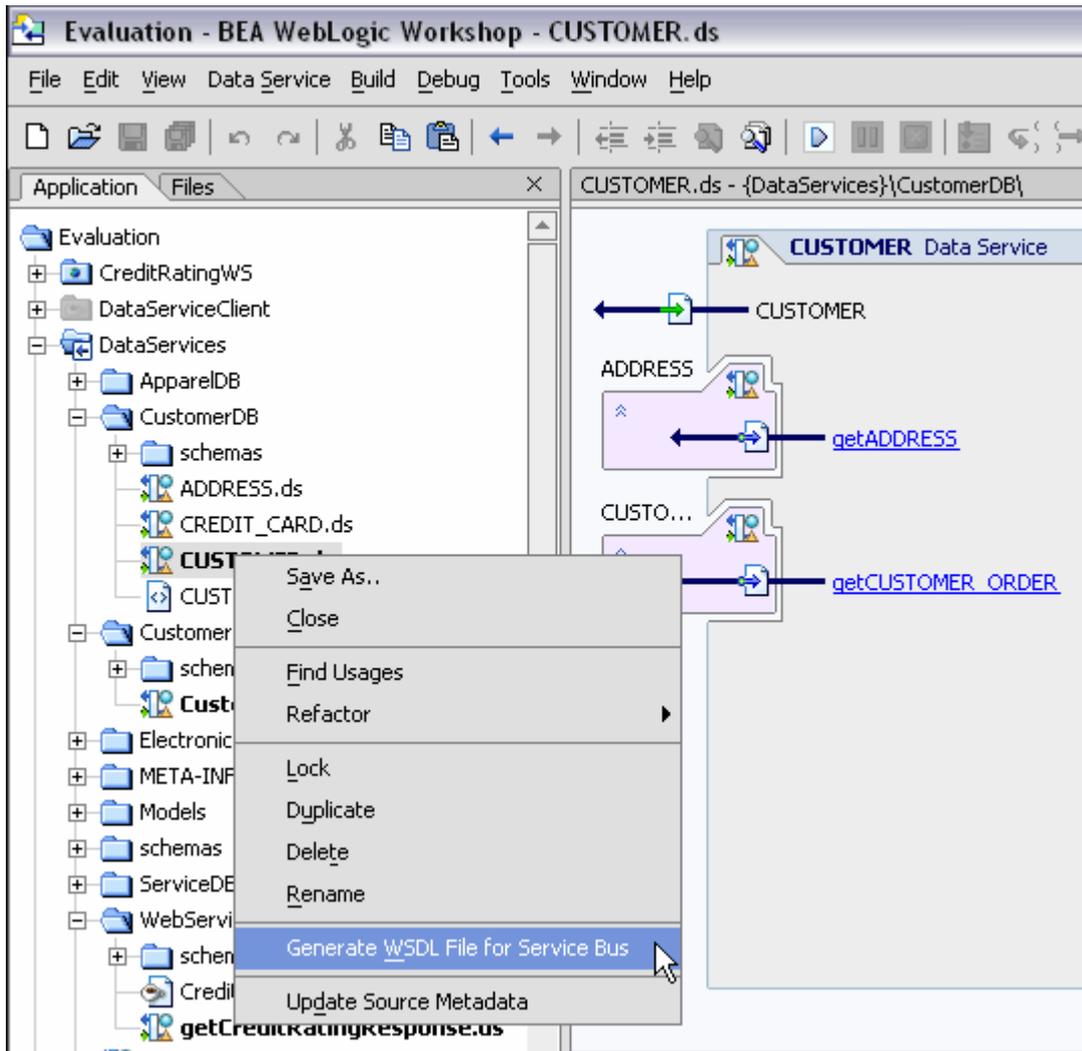
Option A. Generating a WSDL File Using WebLogic Workshop 8.1

1. Start WebLogic Workshop 8.1.
2. In the Application tab (generally the left-most pane) navigate to the data service you want to use. (The example in this topic can be run using the RTLApp Evaluation application. The CUSTOMER data service is used.)

Evaluation/DataServices/CustomerDB/CUSTOMER.ds

3. Right-click on Customer.ds and select the Generate WSDL File for Service Bus option. A WSDL file for the data service will be generated in the same directory where your data service is located.

Generating a WSDL from the Customer Data Service



[ALDSP Projects and Project Components](http://edocs.bea.com/aldsp/docs25/datasrv/gui.html)
<http://edocs.bea.com/aldsp/docs25/datasrv/gui.html>

Option B. Export the WSDL Using the AquaLogic Data Service Console

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

Start > Programs > BEA WebLogic Platform 8.1 > BEA AquaLogic Data Services Platform 2.5 > Examples > RTL Demo > AquaLogic Data Services Console

Alternatively, type <http://localhost:7001/ldconsole> in your Web browser.

2. Log in. The sample uses 'weblogic' (without quotes) as both the username and password.

3. In the project navigator on the left, select the Idplatform project, then your application (RTLApp) below.
4. Navigate to the folder containing your data service (CUSTOMERDB).
5. Click Export WSDL in the far right column of the data service you want to export. In this case, you can save the generated WSDL to any available directory.

 [Using the AquaLogic Data Services Platform Console](http://edocs.bea.com/aldsp/docs25/admin/ldconsole.html)
<http://edocs.bea.com/aldsp/docs25/admin/ldconsole.html>

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: Import the Data Service WSDL into ALSB

From your service bus console import the WSDL generated from your data service. Follow directions in the topic "Adding a WSDL" in [WSDLs](#) in *Using the AquaLogic Service Bus Console*.

 <http://edocs.bea.com/alsb/docs26/consolehelp/wsdl.html>

For the purposes of this example, the ALSB example server and its Default project is used. When the Examples server is running the ALSB Console can be invoked from:

<http://localhost:7021/sbconsole>

Step 4: Create the Business Service

Follow directions in the topic "To Add a Business - Service - General Configuration" in [Business Services](#) in *Using the AquaLogic Service Bus Console*.

 <http://e-docs.bea.com/alsb/docs26/consolehelp/businessServices.html>

For the purposes of the example, you can use the Default project.

The following table lists options you would typically select when creating a business service based around data services. Options not identified may be left at their default setting or adjusted as needed.

Setting Business Service Options

Option	Setting	Comment
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Service Type	WSDL Web Service	Name of the imported Web service
Protocol	dsp	
Load-Balancing Algorithm	any	
End-point URI	t3://localhost:7001/Evaluation	Example shows end-point URI for a typical installation of the Evaluation sample application
Debug level	as needed	Specify 0 for no debug information, or a higher value to output debug information. Specify 1 to output information on the request message, or 3 to output information on the request and response message.
Service Account	as needed	If no service account is specified, ALSB uses an anonymous subject.
Dispatch Policy	default	Select a WLS work manager, if available. The default work manager is presented and used if no other WLS work manager exists. This work manager is used to post the reply message for response processing.

Step 5: Create the Proxy Service

Follow directions in the topic "Adding a Proxy Service Provider" in [Proxy Service Providers](#) in *Using the AquaLogic Service Bus Console*. For the purposes of the example, you can use the Default project.

<http://edocs.bea.com/alsb/docs26/consolehelp/proxyServiceProviders.html>

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

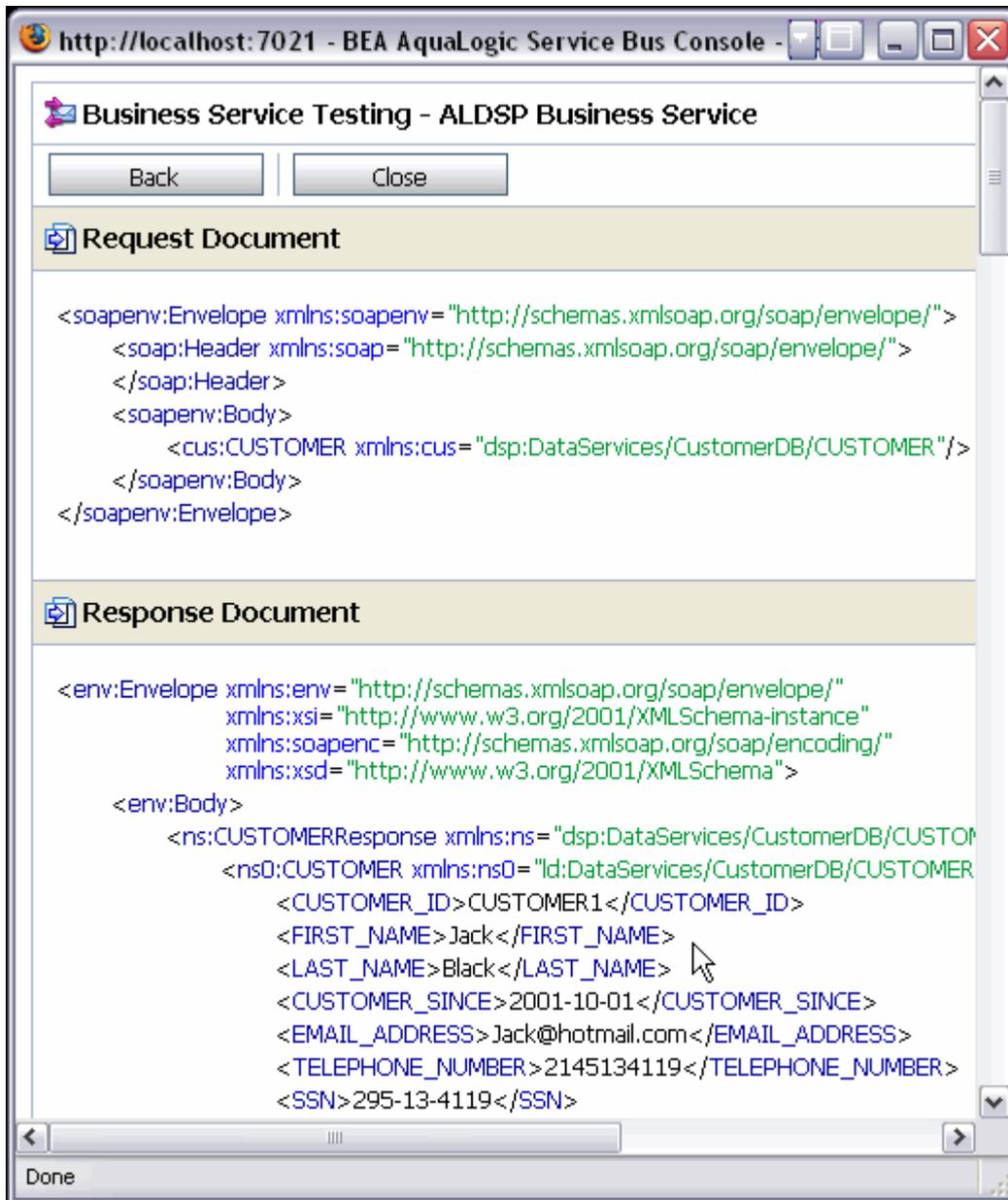
★ The DSP Transport uses whatever character set is provided by the proxy service. Therefore if the default character set needs to be changed prior to invoking a data service transport, the conversion encoding needs to be handled within the proxy service itself.

Step 6: Test Your Setup

1. Select the project or folder where your resources are located, then, under Resources, locate the Business Service you created.
2. Select the Launch Test Console icon under Actions. The Business Service Testing console should

appear. Click Execute. In the response document CUSTOMER data will appear.

Request and Response from the ALSB Test Console



The screenshot shows a web browser window titled "http://localhost:7021 - BEA AquaLogic Service Bus Console". The main content area is titled "Business Service Testing - ALDSP Business Service" and contains two sections: "Request Document" and "Response Document".

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>
    <cus:CUSTOMER xmlns:cus="dsp:DataServices/CustomerDB/CUSTOMER"/>
  </soapenv:Body>
</soapenv:Envelope>
```

Response Document:

```
<env:Envelope 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">
  <env:Body>
    <ns:CUSTOMERResponse xmlns:ns="dsp:DataServices/CustomerDB/CUSTOMER"
      <ns0:CUSTOMER xmlns:ns0="Id:DataServices/CustomerDB/CUSTOMER"
        <CUSTOMER_ID>CUSTOMER1</CUSTOMER_ID>
        <FIRST_NAME>Jack</FIRST_NAME>
        <LAST_NAME>Black</LAST_NAME>
        <CUSTOMER_SINCE>2001-10-01</CUSTOMER_SINCE>
        <EMAIL_ADDRESS>Jack@hotmail.com</EMAIL_ADDRESS>
        <TELEPHONE_NUMBER>2145134119</TELEPHONE_NUMBER>
        <SSN>295-13-4119</SSN>
```

[Using the AquaLogic Service Bus Console](http://e-docs.bea.com/alsb/docs26/consolehelp/index.html)
<http://e-docs.bea.com/alsb/docs26/consolehelp/index.html>

Additional Information

[BEA WebLogic Workshop 8.1 documentation](#)

<http://edocs.bea.com/workshop/docs81/index.html>

 Using the AquaLogic Service Bus Console
<http://edocs.bea.com/alsb/docs26/consolehelp/index.html>

 Using the AquaLogic Data Services Platform Console
<http://edocs.bea.com/aldsp/docs25/admin/ldconsole.html>]

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