



BEA WebLogic Adapter for SWIFT

Installation and Configuration Guide for WebLogic Integration 7.0

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Table of Contents

About This Document

Audience.....	v
Related Information.....	vi
Contact Us!.....	vi
Documentation Conventions	vii

1. Installing the Adapter

Path Representation.....	1-2
Step 1. Obtaining the Adapter	1-3
Step 2. Configuring the Domain.....	1-3
Step 3. Updating the BEA License.....	1-4
Step 4. Deploying the Adapter	1-5
Step 5. Creating or Updating the Adapter Group	1-11
Creating the Adapter Group	1-12
Adding the User Name to the Adapter Group.....	1-13
Using the Adapter with MQSeries as a Transport.....	1-14
Next Steps.....	1-15



About This Document

This document explains how to install the BEA WebLogic Adapter for SWIFT for WebLogic Integration 7.0, which is used to develop client-server and server-to-server, n-tier interfaces between SWIFT standardized systems. It describes how to install the BEA WebLogic Adapter for SWIFT using the MQSeries transport within WebLogic Integration interfaces between SWIFT and other Web applications.

This document contains one chapter, “[Installing the Adapter](#),” which describes how to install the BEA WebLogic Adapter for SWIFT.

Audience

This document is written for system integrators who develop client interfaces between SWIFT message systems and other Web applications. It describes how to install the BEA WebLogic Adapter for SWIFT to develop application environments with a specific focus on message integration. It is assumed that readers know Web technologies and have a general understanding of SWIFT messages and Microsoft Windows and UNIX systems.

Related Information

The BEA corporate Web site provides all documentation for WebLogic Server and WebLogic Integration. For information about these products, go to <http://e-docs.bea.com>. Documents that you may find helpful when installing the BEA WebLogic Adapter for SWIFT are:

- BEA WebLogic Adapter for SWIFT User Guide
- BEA WebLogic Adapter for SWIFT Release Notes
- BEA WebLogic Platform installation and user documentation, which is available at the following URL:

<http://edocs.bea.com/platform/docs70/index.html>
- BEA Application Explorer Installation Guide

Contact Us!

Your feedback on the BEA WebLogic Integration 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 the BEA WebLogic Integration documentation.

In your e-mail message, please indicate which version of the BEA WebLogic Adapter for SWIFT documentation you are using.

If you have any questions about this version of BEA WebLogic Integration, or if you have problems installing and running BEA WebLogic Integration, 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

Documentation Conventions

The following documentation conventions are used throughout this document.

Convention	Item
boldface text	Indicates terms defined in the glossary.
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
<i>italics</i>	Indicates emphasis or book titles.
monospace text	Indicates code samples, commands and their options, data structures and their members, data types, directories, and file names and their extensions. Monospace text also indicates text that you must enter from the keyboard. <i>Examples:</i> #include <iostream.h> void main () the pointer psz chmod u+w * \tux\data\ap .doc tux.doc BITMAP float
monospace boldface text	Identifies significant words in code. <i>Example:</i> void commit ()

Convention	Item
<i>monospace</i> <i>italic</i> <i>text</i>	Identifies variables in code. <i>Example:</i> String <i>expr</i>
UPPERCASE TEXT	Indicates device names, environment variables, and logical operators. <i>Examples:</i> LPT1 SIGNON OR
{ }	Indicates a set of choices in a syntax line. The braces themselves should never be typed.
[]	Indicates optional items in a syntax line. The brackets themselves should never be typed. <i>Example:</i> buildobjclient [-v] [-o name] [-f <i>file-list</i>]... [-l <i>file-list</i>]...
	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.
...	Indicates one of the following in a command line: <ul style="list-style-type: none">■ That an argument can be repeated several times in a command line■ That the statement omits additional optional arguments■ That you can enter additional parameters, values, or other information The ellipsis itself should never be typed. <i>Example:</i> buildobjclient [-v] [-o name] [-f <i>file-list</i>]... [-l <i>file-list</i>]...
. . .	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

1 Installing the Adapter

You can use the BEA WebLogic Adapter for SWIFT to integrate SWIFT messages and SWIFT systems into your WebLogic Integration Java 2 Enterprise Edition (J2EE) application server environment. The installation in this manual is based on a transport protocol of IBM WebSphere MQ (that is, MQSeries). For help with other transports, see the related adapter installation document. Installation is dependant on the underlying resources of WebLogic Server and WebLogic Integration, as well as on IBM MQ MQSeries. After this infrastructure is in place, installation includes the addition of a J2EE Enterprise Application Archive (.ear file), and the creation of an Application View (AppView) for the event adapter and the service adapter.

This section includes the following topics:

- [Path Representation](#)
- [Step 1. Obtaining the Adapter](#)
- [Step 2. Configuring the Domain](#)
- [Step 3. Updating the BEA License](#)
- [Step 4. Deploying the Adapter](#)
- [Step 5. Creating or Updating the Adapter Group](#)
- [Using the Adapter with MQSeries as a Transport](#)
- [Next Steps](#)

The BEA WebLogic Adapter for SWIFT supports many different transport protocols for SWIFT formatted messages. The transport protocol of choice must be installed prior to installation of the BEA WebLogic Adapter for SWIFT. This document will describe the process for one sample transport, IBM's MQSeries. For other transports, please see the related documentation for the associated transport.

Before you install the BEA WebLogic Adapter for SWIFT, you must review the *BEA WebLogic Adapter for SWIFT Release Notes* to ensure that you have the required prerequisite software installed. The *BEA WebLogic Adapter for SWIFT Release Notes* is available at the following URL:

<http://edocs.bea.com/wlapters/doc703/index.html>

Path Representation

Because the location of files in the WebLogic Integration environment depends on options selected during installation and configuration, the conventions that follow are used throughout to represent paths.

- *BEA_HOME* represents the BEA Home directory specified for your WebLogic installation.

For example, if you install the product in the default location on a Windows system, *BEA_HOME* represents `c:\bea`.

- *WLI_HOME* represents the root of your WebLogic Integration installation.

For example, if you install WebLogic Integration 7.0 in the default location on a Windows system, *WLI_HOME* represents `c:\bea\weblogic700\integration`.

- The term *domain* denotes the name of a domain.

In WebLogic Integration 7.0, a new tool, the Configuration Wizard, is used to create custom user domains. When you use the Configuration Wizard to set up the domain configuration stored on the administration server, you are prompted to assign a domain name, *domain*, and to specify the location to which the *domain* directory will be installed. The files required by the administration server are installed in the *domain* directory under the specified location.

For additional information, see *Using the Configuration Wizard* which is available at the following URL:

<http://edocs.bea.com/platform/docs70/configwiz/index.html>

For example, if you accept the Configuration Wizard default location, *BEA_HOME\user_projects*, the files required by the administration server are installed in the following directory:

BEA_HOME\user_projects\domain

- *DOMAIN_HOME* represents the complete path to the root of a domain.

For example, if you use the WebLogic Integration 7.0 Configuration Wizard to create a domain in the default location on a Windows system, *DOMAIN_HOME* represents `c:\bea\weblogic700\user_projects\domain`.

Note: *WLI_HOME* and *BEA_HOME* (italicized) also represent the corresponding Windows and UNIX environment variables. For example, the literal interpretation of *WLI_HOME* is `%WLI_HOME%` for Windows and `$WLI_HOME` for UNIX.

Unlike *WLI_HOME* and *BEA_HOME*, *DOMAIN_HOME* is not an environment variable that is set by default in the WebLogic Integration environment.

Step 1. Obtaining the Adapter

The BEA WebLogic Adapter for SWIFT software is packaged as an EAR file (`BEA_SWIFT_1_0_70.ear`). You can obtain the software on CD or download it from www.bea.com.

Step 2. Configuring the Domain

The adapter can only be deployed in a domain that includes support for application integration functionality. If you have not already done so, use the Configuration Wizard to create the domain and select one of the following domain templates:

- Enterprise application integration (EAI) domain template
- WebLogic Integration (WLI) domain template
- Platform domain template

For the information you need to configure a fully functional domain based on the template, see the appropriate section of the *Configuration Wizard Template Reference*:

- For the EAI domain template, see the following URL:

<http://edocs.bea.com/platform/docs70/template/eaidomain.html>

- For the WLI domain template, see the following URL:

<http://edocs.bea.com/platform/docs70/template/wlidomain.html>

- For the platform domain template, see the following URL:

<http://edocs.bea.com/platform/docs70/template/platjar.html>

For general information about using the Configuration Wizard, see *Using the Configuration Wizard* at the following URL:

<http://edocs.bea.com/platform/docs70/configwiz/index.html>

When you use the Configuration Wizard to create a domain based on the WLI or EAI domain template, a domain-specific version of the Database Wizard is installed in the `DOMAIN_HOME` directory. You must run the Database Wizard for the domain to initialize the database repository with the required tables and system data. For additional information, see “Configuring the Database for a Domain” in *Starting, Stopping and Customizing BEA WebLogic Integration*, at the following URL:

<http://edocs.bea.com/wli/docs70/config/index.htm>

Step 3. Updating the BEA License

The BEA WebLogic Adapter for SWIFT cannot be used without a valid software license. If you have downloaded the adapter for evaluation, you must obtain an evaluation license as described on the adapter download page. If you have purchased a license for the adapter, the license file is typically sent to you as an e-mail attachment.

When you have obtained a valid license for the adapter, update your `license.bea` file by completing the following steps:

1. Save the license file that you obtained with a name other than `license.bea`, in the `BEA_HOME` directory. For example, save the file as `swift_adapter_license.bea`. Use this file as the `license_update_file` in step 4 of this procedure.

Warning: Do not overwrite or change the name of the existing `license.bea` file.

2. Perform the step appropriate for your platform:
 - On a Windows system, open an MS-DOS session and go to the `BEA_HOME` directory.
 - On a UNIX system, go to the `BEA_HOME` directory.
3. If it is not already included, add the JDK to your `PATH` variable by executing the command appropriate to your system:
 - On a Windows system:

```
set PATH=BEA_HOME\jdk131_03\bin;%PATH%
```
 - On a UNIX system:

```
PATH=BEA_HOME/jdk131_03/bin:$PATH
export PATH
```
4. Merge the license update file into your existing license by executing the command appropriate to your system:
 - On a Windows system:

```
UpdateLicense license_update_file
```
 - On a UNIX system:

```
sh UpdateLicense.sh license_update_file
```

Here, `license_update_file` is the name to which you saved the license update file in step 1.

Save a copy of your updated `license.bea` file in a safe place outside the WebLogic Integration and application installation directories.

Step 4. Deploying the Adapter

After the BEA WebLogic Adapter for SWIFT is installed, it must be deployed to your domain. To configure and deploy an adapter using the WebLogic Server Administration Console, complete the following steps:

1. Start WebLogic Server.

1 *Installing the Adapter*

2. Start the WebLogic Server Administration Console in a browser using the following URL:

`http://host:port/console/`

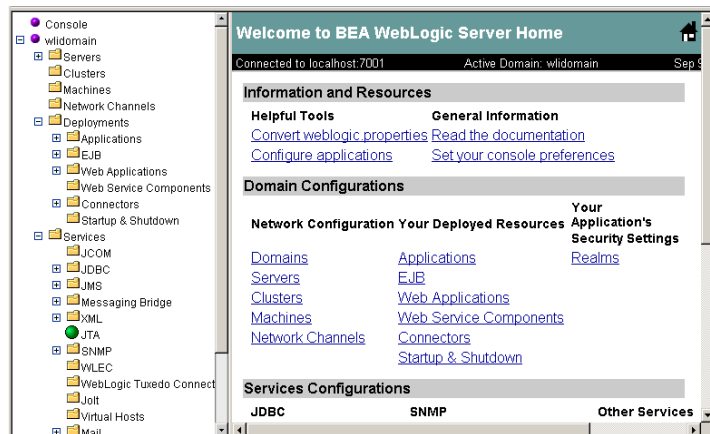
Here, *host* represents the machine on which WebLogic Server is running and *port* represents the listening port.

For example, `http://localhost:7001/console/`

3. When prompted, enter the user name and password for the server.

The WebLogic Server Administration Console opens.

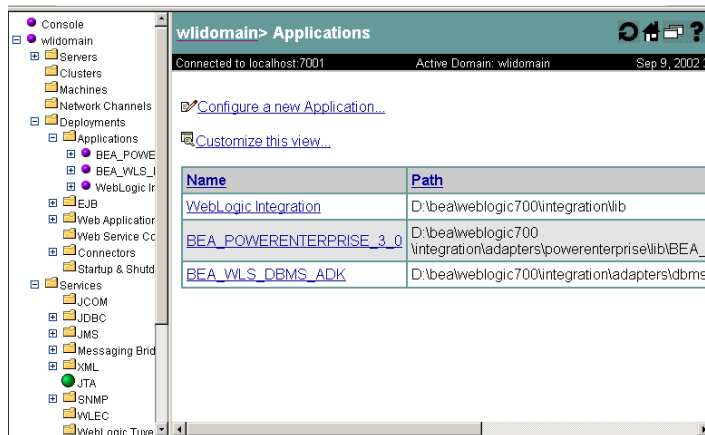
Figure 1-1 WebLogic Server Console



4. In the left pane, choose Deployments and then Applications from the navigation tree.

The console displays the Applications window.

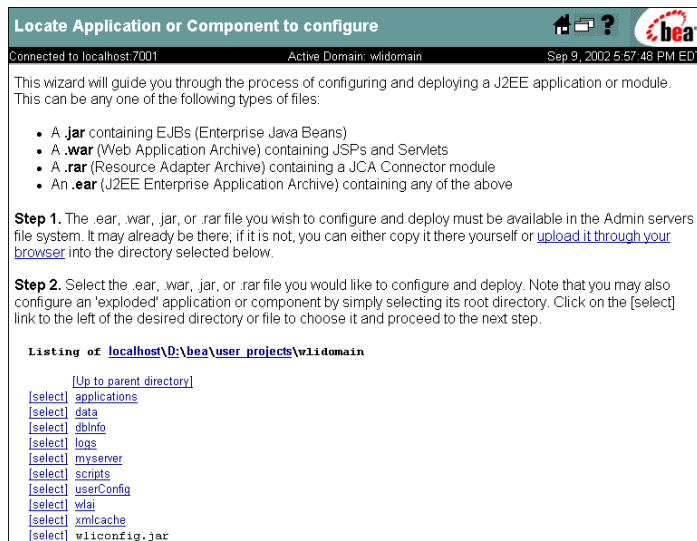
Figure 1-2 Applications Window



5. Click the Configure a new Application link.

The console displays the Locate Application or Component to configure window.

Figure 1-3 Locate Application or Component to Configure Window



6. Do one of the following:

If you copied the `BEA_SWIFT_1_0_70.ear` file to a directory on the administrative server, navigate to that directory. For example, if you copied the file to the `D:\bea\AdapterEars` directory, select the directory as shown in the following figure.

Figure 1-4 Locating the Adapter EAR File

Listing of [localhost\D:\bea\AdapterEars](#)

[\[Up to parent directory\]](#)
[\[select\]](#) `BEA_SWIFT_1_0_70.ear`

If you have not copied the `BEA_SWIFT_1_0_70.ear` file to a directory on the administrative server, do the following:

- a. Navigate to the directory to which the file will be uploaded.

For example, to upload the adapter from your local machine to the `D:\bea\AdapterEars` directory on the administrative server, select the directory as shown in the following figure.

Figure 1-5 Selecting the Target Directory

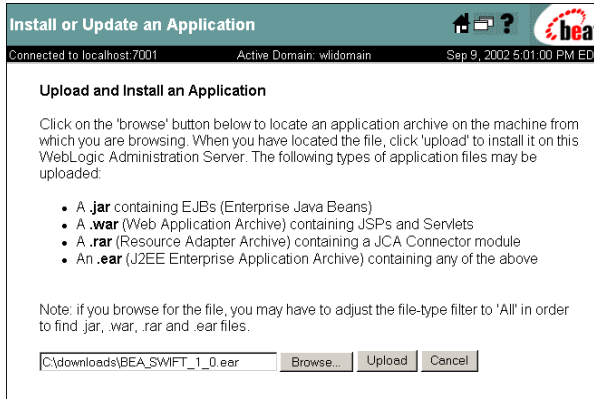
Listing of [localhost\D:\bea\AdapterEars](#)

[\[Up to parent directory\]](#)

- b. Click the upload it through your browser link to display the Install or Update an Application window.
- c. Click Browse to display the Choose File dialog box.
- d. In the Choose File dialog box, locate the file, and then click Open.

The console displays the selected location.

Figure 1-6 Install or Update an Application Window



e. Click Upload.

The browser status bar indicates upload progress. When the upload is complete, you are returned to the Locate Application or Component to configure window. The uploaded file now resides in the directory selected in step a.

Figure 1-7 Adapter EAR File Uploaded to Administrative Server

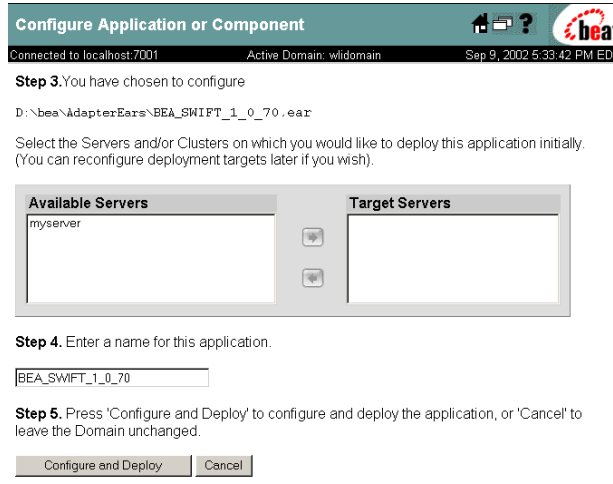
Listing of [localhost\D:\bea\AdapterEars](#)

[\[Up to parent directory\]](#)
[\[select\]](#) BEA_SWIFT_1_0_70.ear

7. Click the [select] link to the left of the adapter EAR file.

The console displays the Configure Application or Component window.

Figure 1-8 Configure Application or Component Window

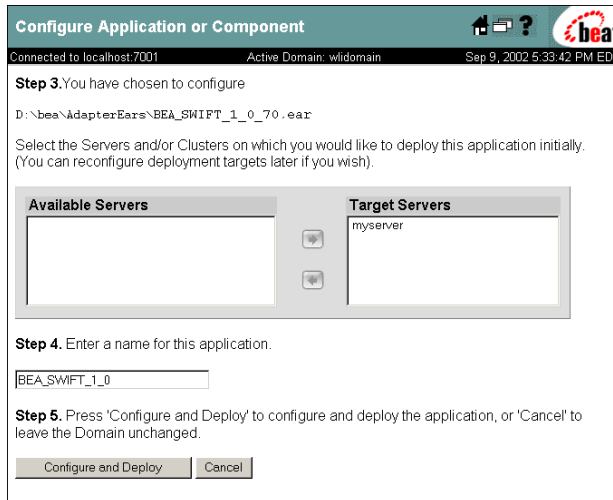


8. Select the servers or clusters on which to deploy the adapter by using the arrow buttons to move entries from the available list to the target list.
9. You must change the application name from BEA_SWIFT_1_0_70 to BEA_SWIFT_1_0.

Note: If you do not change the application name, the adapter will not be available to application views.

The following figure shows a configured application.

Figure 1-9 Configured Application



10. Click **Configure and Deploy**.

The console displays the deployment status, which includes a description, status, begin time, and end time for the deployed adapter.

Step 5. Creating or Updating the Adapter Group

Before you create an application view that uses the events or services supported by an adapter, the following requirements must be met:

- The user group, `adapter`, must be defined.
- The administrative server user name must be a member of the `adapter` group.

The action required to complete the configuration depends on which domain template you selected when you created the domain. See the following table for guidelines.

Table 1-1 Configuration Requirements

If you created a domain based on the . . .	And the administrative server user name is . . .	Then . . .
Platform domain template	Any value	Create the adapter group and add the administrative user name to it as described in “Creating the Adapter Group” on page 1-12.
WLI or EAI domain template	system	The adapter group is already defined. This group includes the system user name by default. No further configuration is required.
WLI or EAI domain template	A value other than system	The adapter group is already defined. Add the user name to the group as described in “Adding the User Name to the Adapter Group” on page 1-13.

Creating the Adapter Group

To create the `adapter` group and add the administrative server user name to it, complete the following steps:

1. In the left pane of the WebLogic Server Administration Console, choose Compatibility Security and then Groups from the navigation tree.
2. Click the Create a New Group link to display the Group window.

Figure 1-10 Group Window

The figure shows a web form titled "Group". It contains three input fields: "Name:" with the value "MyGroup", "Add [Users](#):", and "Add [Groups](#):". There is an "Apply" button at the bottom right.

3. Enter `adapter` in the Name field.
4. Enter the administrative server user name in the Add Users field.
5. Click Apply.

The Group window is updated as shown in the following figure.

Figure 1-11 Group Window

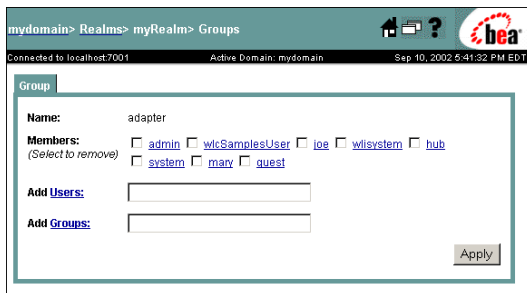
The figure shows the updated "Group" web form. The "Name:" field now contains "adapter". The "Add [Users](#):" field contains "username" with a checkbox to its left. Below the "Add [Users](#):" field, there is a link "(Select to remove)". The "Add [Groups](#):" field is empty. The "Apply" button is still present at the bottom right.

Adding the User Name to the Adapter Group

To add the administrative server user name to the `adapter` group, complete the following steps:

1. In the left pane of the WebLogic Server Administration Console, choose Compatibility Security and then Groups from the navigation tree.
The console displays the groups currently defined for the domain.
2. Locate and click the link for the `adapter` group to display the group definition.

Figure 1-12 Group Definition



3. If the administrative server user name is not included in the Members list, enter the user name in the Add Users field.
4. Click Apply to add the user name to the group.
The name is added to the Members list.

Using the Adapter with MQSeries as a Transport

To interact with IBM MQSeries (now known as WebSphere MQ), you must first install MQSeries or MQSeries Client on the machine where the BEA WebLogic Adapter for SWIFT will be installed. Additionally, you must install the MA88 SupportPac. This SupportPac provides support for developing MQSeries applications in Java (for deployment on MQSeries v5.2) through the following Java-based APIs:

- MQSeries classes for Java
- MQSeries classes for Java Message Service (JMS)

The SupportPac may be downloaded from the following URL:

<http://www-3.ibm.com/software/ts/mqseries/txppacs/ma88.html>

and is available on the following platforms:

- AIX

- HP-UX 10-20
- HP-UX 11
- iSeries
- Linux for Intel
- Linux for S/390
- Microsoft Windows 95
- Microsoft Windows 98
- Microsoft Windows NT
- Microsoft Windows 2000
- OS/390 V2R9 or higher (including z/OS)
- Sun Solaris

Next Steps

When you have successfully installed and deployed the adapter, you can log on to the WebLogic Integration Application View Console to create application views that employ events and services supported by the BEA WebLogic Adapter for SWIFT. For more information, see the *BEA WebLogic Adapter for SWIFT User Guide*.

