BEA WebLogic Adapter for ISO 15022

Installation and Configuration Guide

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About This Document

This document explains how to install and configure the BEA WebLogic Adapter for ISO15022. This document is organized as follows:

- Chapter 1, "Installing the BEA WebLogic Adapter for ISO 15022," explains how to install the adapter.
  - Preparing to Install the Adapter
  - Step 1. Obtain the BEA WebLogic Adapter for ISO 15022
  - Step 2. Configure the Domain
  - Step 3. Extract the Adapter Files and Change the WebLogic Startup Script
  - Step 4. Update the BEA License
  - Step 5. Deploy the Adapter
  - Step 6. Create an Adapter Administrative User
  - Next Steps

Who Should Read This Documentation

This document is intended for the following members of an integration team:

- Integration Specialists—Lead the integration design effort. Integration specialists have expertise in defining the business and technical requirements of integration projects, and in designing integration solutions that implement specific features of WebLogic Integration.

The skills of integration specialists include business and technical analysis, architecture design, project management, and WebLogic Integration product knowledge.

- Technical Analysts—Provide expertise in an organization's information technology infrastructure, including telecommunications, operating systems, applications, data repositories, future technologies, and IT organizations. The skills of technical analysts include technical analysis, application design, and information systems knowledge.
- Enterprise Information System (EIS) Specialists—Provide domain expertise in the systems that are being integrated using WebLogic Integration adapters. The skills of EIS specialists include technical analysis and application integration design.
- System Administrators—Provide in-depth technical and operational knowledge about databases and applications deployed in an organization. The skills of system administrators include capacity and load analysis, performance analysis and tuning, deployment topologies, and support planning.

What You Need to Know

This document assumes that you have an understanding of:

- Web technologies
- WebLogic Integration
- ISO15022 software, system, and environment. This includes understanding of ISO15022 tools and configuration as well as processes and data models.
- Your specific ISO15022 business needs and applications.

Product Documentation on the dev2dev Web Site

BEA product documentation, along with other information about BEA software, is available from the BEA dev2dev Web site:

`http://dev2dev.bea.com`

To view the documentation for a particular product, select that product from the list on the dev2dev page; the home page for the specified product is displayed. From the menu on the left side of the screen, select Documentation for the appropriate release. The home page for the complete documentation set for the product and release you have selected is displayed.

Related Information

Readers of this document may find the following documentation and resources especially useful:

- *BEA WebLogic Adapter for ISO 15022 Release Notes*

  http://edocs.bea.com/wladapters/ISO15022/docs811/pdf/relnotes.pdf

- *BEA WebLogic Integration Adapter for ISO 15022 User Guide*

  http://edocs.bea.com/wladapters/ISO15022/docs811/pdf/user.pdf

- *Introduction to the BEA WebLogic Adapters*

  http://edocs.bea.com/wladapters/docs81/pdf/intro.pdf

- BEA WebLogic Adapters 8.1.1 Dev2Dev Product documentation

  http://dev2dev.bea.com/products/wladapters/index.jsp

- Application Integration documentation

  http://edocs.bea.com/wli/docs81/aiover/index.html

- BEA WebLogic Integration documentation

  http://edocs.bea.com/wli/docs81/index.html

- BEA WebLogic Platform documentation

  http://edocs.bea.com/platform/docs81/index.html

- ISO15022 documentation

  http://www.iso.org

Contact Us!

Your feedback on the BEA WebLogic Adapter for ISO15022 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 Adapter for ISO15022 documentation.

In your e-mail message, please indicate that you are using the documentation for BEA WebLogic Adapter for ISO15022 and the version of the documentation.

If you have any questions about this version of BEA WebLogic Adapter for ISO15022, or if you have problems using the BEA WebLogic Adapter for ISO15022, 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.
italics	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.
	Examples:
	`#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. *Example*: `void` **`commit`** `( )`

Convention	Item
monospace italic text	Identifies variables in code. *Example*: `String expr`
UPPERCASE TEXT	Indicates device names, environment variables, and logical operators. *Example*s: 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. *Example*: `buildobjclient [-v] [-o name ] [-f file-list]... [-l file-list]...`
|	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.
`...`	Indicates one of the following in a command line: • 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. *Example*: `buildobjclient [-v] [-o name ] [-f file-list]... [-l file-list]...`
. . .	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

CHAPTER 1

Installing the BEA WebLogic Adapter for ISO 15022

BEA WebLogic Adapter for ISO 15022 allows you to integrate ISO 15022 messages and ISO 15022 systems into your Java 2 Enterprise Edition (J2EE) application server environment. The installation instructions provided in this manual are based on a transport protocol of IBM WebSphere MQ (that is, MQSeries). For information on other transports, see the related adapter installation document.

Installation is dependent on the underlying resources of WebLogic Server and WebLogic Integration, as well as on IBM 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 for the event adapter and the service adapter.

This section explains how to install the BEA WebLogic Adapter for ISO 15022 with WebLogic Integration on both Windows and UNIX systems. It is organized as follows:

- Preparing to Install the Adapter
- Installing the Adapter
- Next Steps

Preparing to Install the Adapter

Before you install the BEA WebLogic Adapter for ISO 15022, be sure to complete the following tasks:

- Review the Release Notes
- Install the Transport Infrastructure
- Understand the Representation of Paths

Review the Release Notes

The *BEA WebLogic Adapter for ISO 15022 Release Notes* contain important information about the software you must install prior to installing the BEA WebLogic Adapter for ISO 15022. Also, be sure to check the release notes for information about any required patches for your system. The *BEA WebLogic Adapter for ISO 15022 Release Notes* are available at the following URL:

`http://edocs.bea.com/wladapters/iso15022/docs811/pdf/relnotes.pdf`

Install the Transport Infrastructure

Before you install the adapter, you must install the transport infrastructure you intend the adapter to use. The instructions here use MQSeries as the transport, and they assume that MQSeries is installed and configured on your system. To learn more about the transports the adapter supports, see the *BEA WebLogic Adapter for ISO 15022 Release Notes* at the following URL:

`http://edocs.bea.com/wladapters/iso15022/docs811/pdf/relnotes.pdf`

To learn more about installing transport infrastructure, see the vendor's documentation for that software.

Understand the Representation of Paths

When you install WebLogic Integration, you specify the locations for files. Some of these files are required by the adapter. This document uses the following conventions to represent the locations of these files.

- *`BEA_HOME`* represents the BEA Home directory of your WebLogic installation. For example:
  - If you install the product in the default location on a Windows system, *`BEA_HOME`* represents `c:\bea`.

  - If you install the product in the default location on a UNIX system, *BEA_HOME* represents `/bea`.

- *WLI_HOME* represents the root of your WebLogic Integration installation. For example:
  - If you install WebLogic Integration in the default location on a Windows system, *WLI_HOME* represents `c:\bea\weblogic81\integration`.
  - If you install WebLogic Integration in the default location on a UNIX system, *WLI_HOME* represents `/bea/weblogic81/integration`.
- *domain* is used to indicate the name of a domain.

  You use the Configuration Wizard to create custom user domains. When you set up the domain configuration with the Configuration Wizard, you must specify a domain name, *domain*. You must also indicate where the directory associated with this domain is created. This directory contains files required for that domain. To learn more about the Configuration Wizard, see *Using the Configuration Wizard* which is available at the following URL:

  `http://edocs.bea.com/platform/docs81/confgwiz/index.html`
- *DOMAIN_HOME* represents the complete path to the root of a domain.

  For example, if you use the Configuration Wizard to create a domain in the default location on a Windows system, *DOMAIN_HOME* represents `c:\bea\weblogic81\user_projects\`*domain*.

  If you use the Configuration Wizard to create a domain in the default location on a UNIX system, *DOMAIN_HOME* represents `/bea/weblogic81/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.

Installing the Adapter

This section explains how to install the BEA WebLogic Adapter for ISO 15022 with WebLogic Integration. It includes the following steps:

- Step 1. Obtain the BEA WebLogic Adapter for ISO 15022
- Step 2. Configure the Domain

- Step 3. Extract the Adapter Files and Change the WebLogic Startup Script
- Step 4. Update the BEA License
- Step 5. Deploy the Adapter
- Step 6. Create an Adapter Administrative User

Step 1. Obtain the BEA WebLogic Adapter for ISO 15022

To obtain the EAR file containing the BEA WebLogic Adapter for ISO 15022 software (`BEA_ISO15022_8_1.ear`), do one of the following:

- Download the file from the following URL:

  `http://commerce.bea.com/products/weblogicadapters/wl_adapter_home.jsp`

- Obtain the software on CD.

Step 2. Configure the Domain

You must deploy the BEA WebLogic Adapter for ISO 15022 in a domain that supports application integration functionality. You can create one of your own, or use the sample integration domain. The sample integration domain is:

- On Windows: *`BEA_HOME`*`\weblogic81\samples\domains\integration`
- On UNIX: *`BEA_HOME`*`/weblogic81/samples/domains/integration`

If you have not already done so, use the Configuration Wizard to create the domain using the Integration domain template.

To learn more about the Configuration Wizard, see the *Configuration Wizard Template Reference* at the following URL:

`http://edocs.bea.com/platform/docs81/confgwiz/index.html`

Step 3. Extract the Adapter Files and Change the WebLogic Startup Script

This section explains how to extract the BEA WebLogic Adapter for ISO 15022 files and edit your WebLogic startup script to add jar files to the CLASSPATH, and adjust the PATH.

Note: For WebLogic Integration 8.1 SP2, the script file you edit is `setDomainEnv.cmd` or `setDomainEnv.sh`. For versions of WebLogic Integration, earlier than 8.1 SP2, the file name is `startWeblogic.cmd` or `startWebLogic.sh`.

Set the classpath using the procedure appropriate for your system:

- Extracting Files and Adjusting the Classpath for Windows
- Extracting Files and Adjusting the Classpath for UNIX

Extracting Files and Adjusting the Classpath for Windows

To extract the BEA WebLogic Adapter for ISO 15022 files and edit the WebLogic script:

1. Use WinZip (or another similar extracting product) to extract the `BEA_ISO15022_8_1.ear` file to a directory of your choice (for example, *`BEA_HOME`*`\adapters\iso15022`).
2. Go to the root directory for your domain:

   `cd` *`DOMAIN_HOME`*

   Note: You must choose a domain that supports application integration functionality.
3. Open the script file with an ASCII editor. For WebLogic Integration 8.1 SP2, the file is `setDomainEnv.cmd`. For earlier versions of WebLogic Integration, the file is `startWebLogic.cmd`.
4. Find the following command in the script file:

   ```
   set CLASSPATH=%ARDIR%\ant\ant.jar;%JAVA_HOME%\jre\lib\rt.jar
   ```
5. Immediately *after* this command line, insert the following command lines so that the `CLASSPATH` and `PATH` point to the files you extracted in Step 1:

   ```
   rem ===== Libraries for MQSeries =====
   set CLASSPATH=%CLASSPATH%;MQSeries_Dir\Java\lib\com.ibm.mqjms.jar
   set CLASSPATH=%CLASSPATH%;MQSeries_Dir\Java\lib\com.ibm.mq.jar
   set CLASSPATH=%CLASSPATH%;MQSeries_Dir\Java\lib\com.ibm.mqbind.jar
   ```

   Here, *`MQSeries_Dir`* is the location of your MQSeries installation, for example,
   `D:\Program Files\MQSeries`
   and BEA_HOME is the BEA home directory.

   Note: If you are unable to start the server due to an “input path too long” error, you may need to adjust the locations of these files or your classpath entries to create a shorter path.
6. Save your changes and close the script file.

Extracting Files and Adjusting the Classpath for UNIX

To extract the BEA WebLogic Adapter for ISO 15022 files and edit the WebLogic script:

1. Use jar (or another similar extracting product) to extract `BEA_ISO15022_8_1.ear` to a directory of your choice (for example, *`BEA_HOME`*`/adapters/iso15022`).

2. Go to the root directory for your domain:

   ```
   cd DOMAIN_HOME
   ```

   Note: You must choose a WebLogic Integration domain that supports application integration functionality.

3. Open the WebLogic script file with an editor. For WebLogic Integration 8.1 SP2, the file is `setDomainEnv.sh`. For earlier versions of WebLogic Integration, the file is `startWebLogic.sh`.

4. Find the following command in the script file:

   ```
   CLASSPATH="${ARDIR}/ant/ant.jar;${JAVA_HOME}/jre/lib/rt.jar"
   ```

   Note: Depending on your configuration, your `startWeblogic.sh` file may be slightly different from this example.

5. Immediately *after* this command line, insert the following command lines so that the `CLASSPATH` and `PATH` point to the files you extracted in Step 1:

   ```
   rem ===== Libraries for MQSeries =====
   CLASSPATH=$CLASSPATH:MQSeries_Dir/Java/lib/com.ibm.mqjms.jar
   CLASSPATH=$CLASSPATH:MQSeries_Dir/Java/lib/com.ibm.mq.jar
   CLASSPATH=$CLASSPATH:MQSeries_Dir/Java/lib/com.ibm.mqbind.jar

   Here, MQSeries_Dir is the location of your MQSeries installation, for
   example,
   /opt/MQSeries
   and BEA_HOME is the BEA home directory.
   ```

6. Save your changes and close the script file.

Step 4. Update the BEA License

In order to use the BEA WebLogic Adapter for ISO 15022 you must have a valid software license. If you have downloaded the adapter for evaluation, see the instructions on the adapter download page to obtain an evaluation license. If you have purchased a license for the adapter, you should receive the license file as an e-mail attachment. Once you have the license file for the adapter, you must update your `license.bea` file to include the new information for the adapter.

To update your `license.bea` file:

1. Save the adapter license file in the *`BEA_HOME`* directory. To avoid overwriting your `license.bea` file, use a name other than `license.bea`. For example, save the file as `iso15022_adapter_license.bea`. The adapter license file is the *`license_update_file`* referred to in step 4 of this procedure.

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

2. Go to the *`BEA_HOME`* directory:
   - 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. Add the JDK to your `PATH` variable. If it is already included, skip to step 4.
   - On a Windows system:

     ```
     set PATH=BEA_HOME\jdk141_03\bin;%PATH%
     ```

   - On a UNIX system:

     ```
     PATH=BEA_HOME/jdk141_03/bin:$PATH
     export PATH
     ```

4. Merge the adapter license file into your existing license:
   - 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 of the adapter license file you saved in step 1.
5. Save a backup copy of your updated `license.bea` file. This backup location should be a safe place that is neither the WebLogic Integration nor the application installation directories.

Step 5. Deploy the Adapter

After you have installed the BEA WebLogic Adapter for ISO 15022, you must deploy it to your domain.

To deploy the adapter:

1. Start WebLogic Server in your domain.

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

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

   Where,

   – *host* represents the machine on which WebLogic Server is running

   – *port* represents the listening port.

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

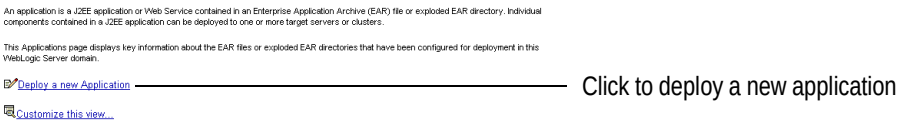
3. Enter the user name and password for the server.

   The WebLogic Server Administration Console appears.

4. In the left pane, expand the Deployments node.

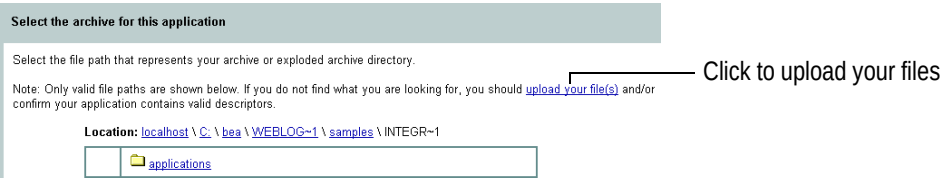
5. Under the Deployments node, right-click Applications, and select Deploy a New Application.

   The Administration Console displays the Deployment Assistant in the right panel.



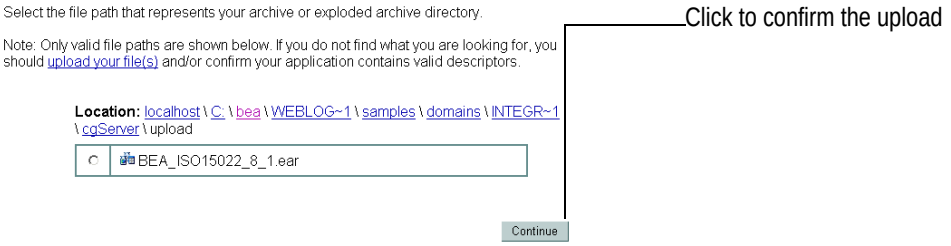
6. Click the upload your files(s) link.

   The Administration Console displays the Install or Update an Application window.



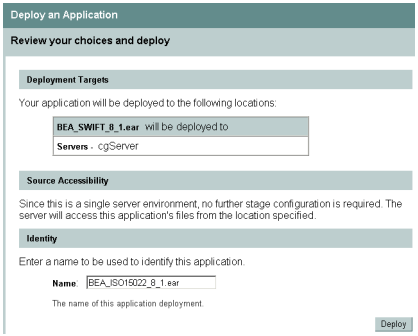
7. Click Browse, navigate to the directory in which the `BEA_ISO15022_8_1.ear` file resides, and then click Upload.

The Administration Console prompts you to confirm the uploaded application.



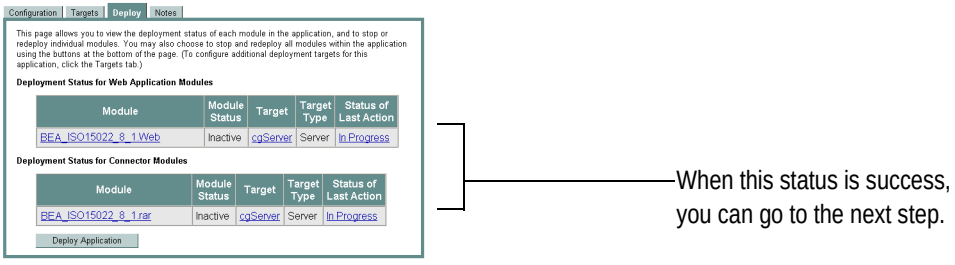
8. Click the radio button next to the application file and then click Continue.

   The Administration Console uploads the file and displays the Deploy an Application window (specifying the default target server).



9. Click Deploy.

   The Administration Console deploys the application and displays its deployment status.



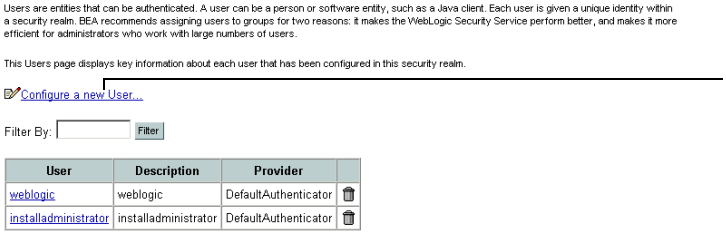
Step 6. Create an Adapter Administrative User

If you want to manage security for the BEA WebLogic Adapter for ISO 15022, you can create an administrative user (such as `iso15022AdapterAdmin`) who is authorized to log in to the Application View Console, create application views, configure services and events, deploy, and test. This adapter administrator also needs to be added to the `Administrators` group.

To create a new adapter administrative user:

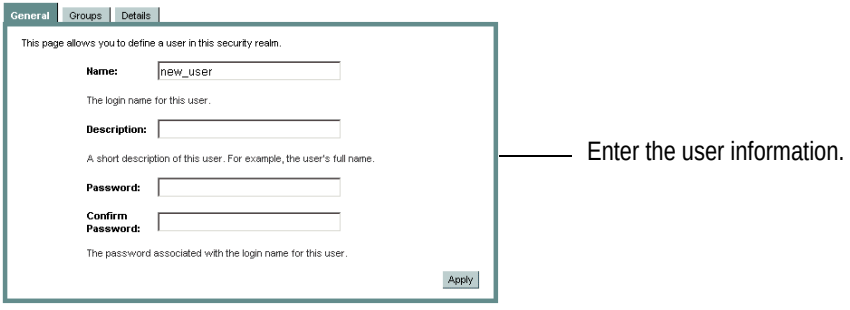
1. In the left pane of theWebLogic Server Administration Console, click the Security node.
2. In the left pane, click the Realms node.
3. In the left pane, click the name of the realm for which you want to configure security.
4. In the left pane, click Users.

   The Users page appears.



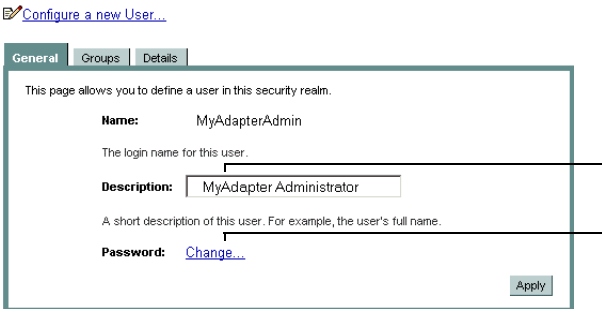
5. Click the Configure a New User link.

   The Create User page appears.



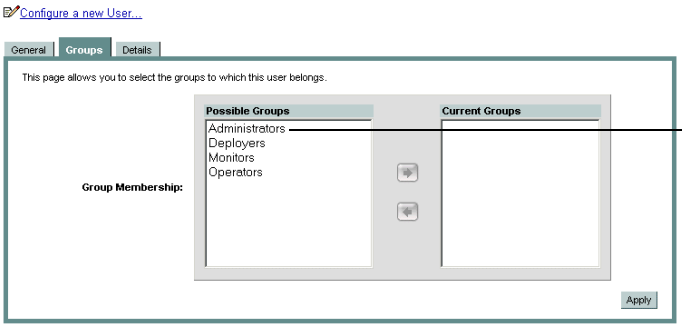
6. Enter the user name, description and password, and then click Apply.

   The User page appears.



7. Click the Groups tab.

   The Groups page appears.



8. In the Possible Groups list, select Administrators and then click the right arrow to add the Administrators group to the list of current groups.
9. Click Apply.
10. In the left pane, click the Users node and confirm that the user you created appears in the list of users.

Next Steps

After you have finished installing the BEA WebLogic Adapter for ISO 15022, you can proceed to the following task:

- Starting Integration with ISO 15022

Starting Integration with ISO 15022

After you have successfully installed and deployed the BEA WebLogic Adapter for ISO 15022 and the BEA Application Explorer, you can begin integrating with your ISO 15022 system using the adapter and BEA WebLogic Integration. To learn more about integrating with ISO 15022, see the *BEA WebLogic Adapter for ISO 15022 User Guide* at the following URL:

http://edocs.bea.com/wladapters/iso15022/docs811/pdf/user.pdf

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