Oracle® Identity Manager

Connector Guide for Oracle e-Business User Management

Release 9.0.3

B32362-01

February 2007

ORACLE®

Oracle Identity Manager Connector Guide for Oracle e-Business User Management, Release 9.0.3

B32362-01

Contents

3   Testing and Troubleshooting

4   Known Issues

A   Attribute Mappings Between Oracle Identity Manager and Oracle e-Business User Management

Index

Preface

Oracle Identity Manager Connector Guide for Oracle e-Business User Management provides information about integrating Oracle Identity Manager with Oracle e-Business User Management.

> **Note:** Some parts of the product and documentation still refer to the original Thor company name and Xellerate product name and will be rebranded in future releases.

Audience

This guide is intended for users who want to deploy the Oracle Identity Manager connector for Oracle e-Business User Management.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at

http://www.oracle.com/accessibility/

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

TTY Access to Oracle Support Services

Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, seven days a week. For TTY support, call 800.446.2398.

Related Documents

For more information, refer to the following documents in the Oracle Identity Manager documentation library:

- *Oracle Identity Manager Release Notes*

- *Oracle Identity Manager Installation Guide for JBoss*

- *Oracle Identity Manager Installation Guide for Oracle Containers for J2EE*

- *Oracle Identity Manager Installation Guide for WebLogic*

- *Oracle Identity Manager Installation Guide for WebSphere*

- *Oracle Identity Manager Administrative and User Console Guide*

- *Oracle Identity Manager Administrative and User Console Customization Guide*

- *Oracle Identity Manager Design Console Guide*

- *Oracle Identity Manager Tools Reference Guide*

- *Oracle Identity Manager Audit Report Developer Guide*

- *Oracle Identity Manager Best Practices Guide*

- *Oracle Identity Manager Globalization Guide*

- *Oracle Identity Manager Glossary of Terms*

The following document is available in the Oracle Identity Manager Connector Pack documentation library:

- *Oracle Identity Manager Connector Framework Guide*

Documentation Updates

Oracle is committed to delivering the best and most recent information available. For information about updates to the Oracle Identity Manager 9.0.3 connector documentation set, visit Oracle Technology Network at

http://www.oracle.com/technology/documentation/index.html

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's New in the Oracle Identity Manager Connector for Oracle e-Business User Management?

This chapter provides an overview of the updates made to the connector and documentation for Oracle e-Business User Management in release 9.0.3 of the Oracle Identity Manager connector pack.

> **See Also:** The 9.0.2 release of this guide for information about updates that were new for the 9.0.2 release

The updates discussed in this chapter are divided into the following categories:

- Software Updates

  These include updates made to the connector software.

- Documentation-Specific Updates

  These include major changes made to the connector documentation. These changes are not related to software updates.

  > **See Also:** *Oracle Identity Manager Release Notes*

Software Updates

This section discusses updates made to this release of the connector software.

Enhancement in the Multilanguage Support Feature

In addition to the two languages supported by the earlier release, this release of the connector supports seven new languages. All the supported languages are listed in the "Multilanguage Support" section on page 1-2.

Support for OC4J

Earlier releases of the connector supported the following application servers:

- JBoss Application Server

- BEA WebLogic

- IBM WebSphere

This release of the connector also supports Oracle Containers for J2EE (OC4J).

Documentation-Specific Updates

The following documentation-specific updates have been made in this release of the guide.

- In the "Step 7: Compiling Adapters" section on page 2-7, the instruction about restarting the node has been removed from Step 4 of the procedure to compile adapters.

- In the "Defining IT Resources" section on page 2-4, the description of the TimeStamp parameter now includes a SQL query for determining the time-stamp value for a specific date in the LONG data type format.

- In the Known Issues list in Chapter 4:

    - The issue about not being able to reconcile data containing special characters has been removed.

    - This release of the connector does not support the Japanese language. This point has been added.

1

About the Connector

Oracle Identity Manager automates access rights management, security, and provisioning of IT resources. Oracle Identity Manager connectors are used to integrate Oracle Identity Manager with third-party applications. The connector for Oracle e-Business User Management is used to integrate Oracle Identity Manager with Oracle e-Business User Management.

> **Note:** Oracle Identity Manager connectors were referred to as *resource adapters* prior to the acquisition of Thor Technologies by Oracle.

This chapter contains the following sections:

- Supported Functionality
- Multilanguage Support
- Reconciliation Module
- Provisioning Module
- Files and Directories That Comprise the Connector
- Determining the Release Number of the Connector

Supported Functionality

The following table lists the functions that are available with this connector.

Function	Type	Description
Create User	Provisioning	Creates a user
Disable User	Provisioning	Disables a user
		When this function is run, the end date assigned to the user account is changed to the current date.
Email Updated	Provisioning	Updates the e-mail address of a user
Password Updated	Provisioning	Updates the password of a user
Description Updated	Provisioning	Updates the description of a user
Start Date Updated	Provisioning	Updates the start date of a user's account validity period

Function	Type	Description
End Date Updated	Provisioning	Updates the end date of a user's account validity period
LifeSpan Type Updated	Provisioning	Updates the Life Span type of a user
LifeSpan Updated	Provisioning	Updates the Life Span value of a user
Enable User	Provisioning	Enables a user so that the user is able to log in to Oracle e-Business User Management When this function is run on a disabled user account, the end date of the user account is changed to a null value.
Add Responsibility	Provisioning	Adds a responsibility to a user
Remove Responsibility	Provisioning	Removes a responsibility from a user When this function is run, the end date of the responsibility allocation is changed to the current date.
Employee Id Updated	Provisioning	Updates the employee ID of a user
Update Xellerate user	Reconciliation	Updates an Oracle Identity Manager user with data received from Oracle e-Business User Management
Update Apps Resource	Reconciliation	Updates an Oracle Identity Manager resource with data received from Oracle e-Business User Management
Create Link with Oracle HR Employee	Reconciliation	Sets the employee ID of an Xellerate User to the corresponding Oracle e-Business User Management user

> **See Also:** Appendix A for information about attribute mappings between Oracle Identity Manager and Oracle e-Business User Management

Multilanguage Support

This release of the connector supports the following languages:

- English
- Brazilian Portuguese
- French
- German
- Italian
- Korean
- Simplified Chinese
- Spanish
- Traditional Chinese

> **See Also:** *Oracle Identity Manager Globalization Guide* for information about supported special characters

Reconciliation Module

This section discusses the elements that the reconciliation module extracts from Oracle e-Business User Management to construct reconciliation event records.

Reconciliation can be divided into the following types:

- Lookup Fields Reconciliation
- User Reconciliation

Lookup Fields Reconciliation

Lookup fields reconciliation involves reconciling the Responsibility lookup field.

User Reconciliation

User reconciliation involves reconciling the following fields:

- username
- E-mail
- Desc
- lifeSpanType
- lifeSpanValue
- startDate
- endDate
- employeeId
- respName
- respStartDate
- respEndDate

Provisioning Module

The following fields are provisioned:

- userName
- password
- confPassword
- lifeSpanType
- lifeSpanValue
- startDate
- endDate
- email
- employeeId
- description
- respName
- respStartDate

- respEndDate

> **Note:** During provisioning, if you want to link a newly created user account with an employee account, then you must ensure that the `OracleHR.Employees` lookup field is populated. For this, you must install the Oracle e-Business Employee Reconciliation connector and reconcile employee data.
>
> If you do not want to link a newly created user account with an employee account, then the `OracleHR.Employees` lookup field is not required.

Files and Directories That Comprise the Connector

The files and directories that comprise this connector are compressed in the following directory on the installation media:

`Enterprise Applications\Oracle e-Business\Oracle e-Business User Management`

These files and directories are listed in the following table.

File in the Installation Media Directory	Description
`lib\JavaTask\xlHostAccess.jar`	This file contains the class files that are required for provisioning.
`lib\JavaTask\connect.properties`	This file contains the following connection parameters: ■ Administrator credentials ■ IP address ■ Port ■ SID of the target system
`lib\ScheduleTask\xlReconOracleApps.jar`	This file contains the class files that are required for reconciliation.
`OracleApps Scripts\connect.properties`	This file is a copy of the file in the `lib\JavaTask` directory. It contains the same connection parameters.
Files in the `resources` directory	Each of these resource bundle files contains language-specific information that is used by the connector. **Note:** A **resource bundle** is a file containing localized versions of the text strings that are displayed on the user interface of Oracle Identity Manager. These text strings include GUI element labels and messages displayed on the Administrative and User Console.

File in the Installation Media Directory	Description
xml\oracleAppsResAdp.xml	This file contains definitions for the following components of the connector: ■ IT resource type ■ IT resource ■ Custom process form ■ Process tasks and adapters (along with their mappings) ■ Resource object ■ Provisioning process
xml\XellUserOraApps.xml	This XML file contains the configuration for the Xellerate User. You must import this file only if you plan to use the connector in trusted source reconciliation mode.

The "Step 3: Copying the Connector Files and External Code" section on page 2-2 provides instructions to copy these files into the required directories.

Determining the Release Number of the Connector

To determine the release number of the connector that you have deployed:

1. Extract the contents of the xlReconOracleApps.jar file. For a connector that has been deployed, this file is in the following directory:

   OIM_home\xellerate\JavaTasks

2. Open the manifest.mf file in a text editor. The manifest.mf file is one of the files bundled inside the xlReconOracleApps.jar file.

   In the manifest.mf file, the release number of the connector is displayed as the value of the Version property.

   See Also: *Oracle Identity Manager Design Console Guide*

2

Deploying the Connector

Deploying the connector involves the following steps:

- Step 1: Verifying Deployment Requirements
- Step 2: Configuring the Target System
- Step 3: Copying the Connector Files and External Code
- Step 4: Configuring the Oracle Identity Manager Server
- Step 5: Importing the Connector XML File
- Step 6: Configuring Reconciliation
- Step 7: Compiling Adapters

If you want to configure the connector for multiple installations of Oracle e-Business User Management, then perform the following procedure:

- Configuring the Connector for Multiple Installations of the Target System

Step 1: Verifying Deployment Requirements

The following table lists the deployment requirements for the connector.

Item	Requirement
Oracle Identity Manager	Oracle Identity Manager release 8.5.3 or later
Target system	Oracle e-Business Suite 11.5.10
External code	JDBC class library (`classes12.jar`)
	Refer to the "Step 3: Copying the Connector Files and External Code" section on page 2-2 for information about the location of this file.
Target system user account	APPS user with full privileges
	You provide the credentials of this user account while performing the procedure in the "Defining IT Resources" section on page 2-4.

Step 2: Configuring the Target System

For this connector, you do not need to perform any configuration steps on the target system.

Step 3: Copying the Connector Files and External Code

The connector files to be copied and the directories to which you must copy them are given in the following table.

> **Note:** The directory paths given in the first column of this table correspond to the location of the connector files in the following directory on the installation media:
>
> ```
> Enterprise Applications\Oracle e-Business\Oracle e-Business User Management
> ```
>
> Refer to the "Files and Directories That Comprise the Connector" section on page 1-4 for more information about these files.

File in the Installation Media Directory	Destination Directory
Files in the `JavaTasks` directory	*OIM_home*\xellerate\JavaTasks
`lib\ScheduleTask\xlReconOracleApps.jar`	*OIM_home*\xellerate\ScheduleTask
`OracleApps Scripts\connect.properties`	*OIM_home*\xellerate\JavaTasks
Files in the `resources` directory	*OIM_home*\xellerate\connectorResources
Files in the `xml` directory	*OIM_home*\xlclient

Copy the JDBC class library (`classes12.jar`) from the *oracle_home*\ora92\jdbc\lib\ directory to the *OIM_home*\xellerate\ThirdParty directory.

In this directory path, *oracle_home* is the directory in which Oracle9*i* Database is installed. For example, `C:\Oracle`.

Add this file along with its path in the value of the `CLASSPATH` environment variable.

> **Note:** While installing Oracle Identity Manager in a clustered environment, you copy the contents of the installation directory to each node of the cluster. Similarly, you must copy the `connectorResources` directory and the JAR files to the corresponding directories on each node of the cluster.

Step 4: Configuring the Oracle Identity Manager Server

Configuring the Oracle Identity Manager server involves the following procedures:

> **Note:** In a clustered environment, you must perform this step on each node of the cluster.

- Changing to the Required Input Locale
- Clearing Content Related to Connector Resource Bundles from the Server Cache

Changing to the Required Input Locale

Changing to the required input locale (language and country setting) involves installing the required fonts and setting the required input locale.

To set the required input locale:

> **Note:** Depending on the operating system used, you may need to perform this procedure differently.

1. Open Control Panel.

2. Double-click **Regional Options**.

3. On the Input Locales tab of the Regional Options dialog box, add the input locale that you want to use and then switch to the input locale.

Clearing Content Related to Connector Resource Bundles from the Server Cache

Whenever you add a new resource bundle in the *OIM_home*\xellerate\connectorResources directory or make a change in an existing resource bundle, you must clear content related to connector resource bundles from the server cache.

To clear content related to connector resource bundles from the server cache:

1. In a command window, change to the *OIM_home*\xellerate\bin directory.

2. Enter one of the following commands:

    > **Note:** You must perform Step 1 before you perform this step. If you run the command as follows, then an exception is thrown:
    >
    > *OIM_home*\xellerate\bin*batch_file_name*

    -   On Microsoft Windows:

        ```
        PurgeCache.bat ConnectorResourceBundle
        ```

    -   On UNIX:

        ```
        PurgeCache.sh ConnectorResourceBundle
        ```

    In this command, `ConnectorResourceBundle` is one of the content categories that you can remove from the server cache. Refer to the following file for information about the other content categories:

    OIM_home\xellerate\config\xlConfig.xml

    > **Note:** You can ignore the exception that is thrown when you perform Step 2.

Step 5: Importing the Connector XML File

To import the connector XML file into Oracle Identity Manager:

1. Open the Oracle Identity Manager Administrative and User Console.

2. Click the **Deployment Management** link on the left navigation bar.

3. Click the **Import** link under Deployment Management. A dialog box for locating files is displayed.

4. Locate and open the `OracleAppsResAdp.xml` file, which is in the `OIM_home\xlclient` directory. Details of this XML file are shown on the File Preview page.

5. Click **Add File.** The Substitutions page is displayed.

6. Click **Next**. The Confirmation page is displayed.

7. Click **Next**. The Provide IT Resource Instance Data page for the `Oracle Apps Server` IT resource is displayed.

8. Specify values for the parameters of the `Oracle Apps Server` IT resource. Refer to the table in the "Defining IT Resources" section on page 2-4 for information about the values to be specified.

9. Click **Next**. The Provide IT Resource Instance Data page for a new instance of the `ORACLE` IT resource type is displayed.

10. Click **Skip** to specify that you do not want to define another IT resource. The Confirmation page is displayed.

> **See Also:** If you want to define another IT resource, then refer to *Oracle Identity Manager Tools Reference Guide* for instructions.

11. Click **View Selections**.

    The contents of the XML file are displayed on the Import page. You may see a cross-shaped icon along with some nodes. Remove these nodes by right-clicking each node and then selecting **Remove.**

12. Click **Import.** The connector XML file is imported into Oracle Identity Manager.

After you import the connector XML file, proceed to the "Step 6: Configuring Reconciliation" section on page 2-5.

Defining IT Resources

You must specify values for the `Oracle Apps Server` IT resource parameters listed in the following table.

Parameter	Description
Admin	User ID to connect to the Oracle e-Business User Management database
	The default value is Apps.
AdminCredentials	Password of the administrator
Host	Host name or IP address of the Oracle e-Business User Management server
IsDebug	Debug feature
	The value can be YES or NO. The default value is NO.
Port	TCP/IP port at which the Oracle e-Business User Management server is listening.
	The default value is 1521.

Parameter	Description
SID	SID for the Oracle e-Business User Management server
TimeStamp	Timestamp for the last reconciliation run
	The default value is `0`.
	The time-stamp value that this parameter accepts is of the LONG data type, which stores the date and time value in milliseconds. You can determine the LONG data type equivalent of the required time-stamp value by using a SQL query. For example, to determine the `TimeStamp` parameter value for the date 31-Jan-2006, run the following SQL query:
	`SELECT ROUND((TO_DATE('31012006','ddmmyyyy') - TO_DATE('01011970', 'ddmmyyyy')) * 1440 * 60 * 1000) FROM dual;`
	When you specify the output of this query as the value of the `TimeStamp` parameter, all records that are created or updated after 31-Jan-2006 are reconciled during the next reconciliation run.
ResetPswdOnFirst Logon	Specifies whether or not users are to be prompted to change their passwords at first logon
	The value can be `Yes` or `No`. The default value is `Yes`.

After you specify values for these IT resource parameters, proceed to Step 9 of the procedure to import connector XML files.

> **Note:** You must use the existing standard APPS User to connect to the Oracle e-Business User Management database because only this user has the rights required to update the database.

Step 6: Configuring Reconciliation

Configuring reconciliation involves the following steps:

- Configuring Trusted Source Reconciliation
- Configuring Trusted Source Reconciliation

Configuring Trusted Source Reconciliation

> **Note:** Perform this step of the procedure only if you want to configure trusted source reconciliation. Only one connector can be configured for trusted source reconciliation. If you import the `XellUserOraApps.xml` file while you have another trusted source configured, then both connector reconciliations would stop working.
>
> Refer to *Oracle Identity Manager Connector Framework Guide* for conceptual information about reconciliation configurations.

To configure trusted source reconciliation, you must first import the XML file for trusted source reconciliation as follows:

1. Open the Oracle Identity Manager Administrative and User Console.

2. Click the **Deployment Management** link on the left navigation bar.

3. Click the **Import** link under Deployment Management. A dialog box for locating files is displayed.

4. Locate and open the `XellUserOraApps.xml` file, which is in the `OIM_home\xlclient` directory. Details of this XML file are shown on the File Preview page.

5. Click **Add File**. The Substitutions page is displayed.

6. Click **Next**. The Confirmation page is displayed.

7. Click **Import**.

8. In the message that is displayed, click **Import** to confirm that you want to import the **XML** file and then click **OK**.

Then, set the value of the `IsTrusted` reconciliation scheduled task attribute to `YES` while performing the procedure described in the following section.

Creating the Reconciliation Scheduled Tasks

To create the scheduled tasks for lookup fields and user reconciliations:

1. Open the Oracle Identity Manager Design Console.

2. Expand the **Xellerate Administration** folder.

3. Select **Task Scheduler.**

4. Click **Find**. The details of the predefined scheduled tasks are displayed on two different tabs.

5. For the first scheduled task, enter a number in the **Max Retries** field. This number represents the number of times Oracle Identity Manager should attempt to complete the task before assigning the `ERROR` status to the task.

6. Ensure that the **Disabled** and **Stop Execution** check boxes are not selected.

7. In the Start region, double-click the **Start Time** field. From the date-time editor that is displayed, select the date and time at which you want the task to run.

8. In the Interval region, set the following schedule parameters:

   ■ To set the task to run on a recurring basis, select the **Daily**, **Weekly**, **Recurring Intervals**, **Monthly**, or **Yearly** option.

   If you select the **Recurring Intervals** option, then you must also specify the time interval at which you want the task to run on a recurring basis.

   ■ To set the task to run only once, select the **Once** option.

9. Provide values for the attributes of the scheduled task. Refer to the "Specifying Values for the Scheduled Task Attributes" section on page 2-7 for information about the values to be specified.

   > **See Also:** *Oracle Identity Manager Design Console Guide* for information about adding and removing task attributes

10. Click **Save**. The scheduled task is created. The `INACTIVE` status is displayed in the **Status** field, because the task is not currently running. The task is run at the date and time that you set in Step 7.

11. Repeat Steps 5 through 10 to create the second scheduled task.

After you create both scheduled tasks, proceed to the "Step 7: Compiling Adapters" section on page 2-7.

Specifying Values for the Scheduled Task Attributes

This section provides information about the values to be specified for the following scheduled tasks:

- Lookup Fields Reconciliation Scheduled Task
- User Reconciliation Scheduled Task

Lookup Fields Reconciliation Scheduled Task You must specify values for the following attributes of the lookup fields reconciliation scheduled task.

Attribute	Description	Default/Sample Value
Server	Name of the IT resource instance for Oracle e-Business User Management	Oracle Apps Server
LookupField Name	Lookup field to be reconciled	Oracle.Responsibility. Name
IsDebug	Debug mode	YES or NO The default is NO.

After you specify values for these task attributes, proceed to Step 10 of the procedure to create scheduled tasks.

User Reconciliation Scheduled Task You must specify values for the following attributes of the user reconciliation scheduled task.

Attribute	Description	Default/Sample Value
Target System	Name of the resource object	OracleAppsServer
Server	Name of the IT resource instance for Oracle e-Business User Management	Oracle Apps Server
IsTrusted	Specifies whether or not reconciliation is to be performed in trusted mode	Yes or No The default is Yes.
LinkKey	Key to decide the linking condition to link an APPS user to an employee	EMAIL or USERNAME
LinkField	Name of the employee ID field used in the Oracle e-Business Employee Reconciliation connector	USR_UDF_EMPLOYEE_ID

After you specify values for these task attributes, proceed to Step 10 of the procedure to create scheduled tasks.

Step 7: Compiling Adapters

The following adapters are imported into Oracle Identity Manager when you import the connector XML file:

- adpORACLEAPPSCREATEUSER

- `adpORACLEAPPSRESETPASSWORD`

- `adpORACLEAPPSUPDATEUSER`

- `adpORACLEAPPSUPDATEUSERDATE`

- `adpORACLEAPPSENABLEUSER`

- `adpORACLEAPPSADDRESPONSIBILITY`

- `adpORACLEAPPSREMOVERESPONSIBILITY`

- `adpUPDATEORACLEAPPSLIFESPAN`

- `adpORACLEAPPSDISABLEUSER`

You must compile these adapters before you can use them to provision accounts on the target system.

To compile adapters by using the Adapter Manager form:

1. Open the Adapter Manager form.

2. To compile all the adapters that you import into the current database, select **Compile All**.

   To compile multiple (but not all) adapters, select the adapters you want to compile. Then, select **Compile Selected**.

   > **Note:** Click **Compile Previously Failed** to recompile only those adapters that were not compiled successfully. Such adapters do not have an `OK` compilation status.

3. Click **Start.** Oracle Identity Manager compiles the selected adapters.

4. If Oracle Identity Manager is installed in a clustered environment, then copy the compiled adapters from the *OIM_home*`\xellerate\Adapter` directory to the same directory on each of the other nodes of the cluster. If required, overwrite the adapter files on the other nodes.

To view detailed information about an adapter:

1. Highlight the adapter in the Adapter Manager form.

2. Double-click the row header of the adapter, or right-click the adapter.

3. Select **Launch Adapter** from the shortcut menu that is displayed. Details of the adapter are displayed.

   > **Note:** To compile one adapter at a time, use the Adapter Factory form. Refer to *Oracle Identity Manager Tools Reference Guide* for information about using the Adapter Factory and Adapter Manager forms.

Configuring the Connector for Multiple Installations of the Target System

> **Note:** Perform this procedure only if you want to configure the connector for multiple installations of Oracle e-Business User Management. Refer to *Oracle Identity Manager Design Console Guide* for detailed instructions on performing each step of this procedure.

To configure the connector for multiple installations of the target system:

1. Create and configure one resource object for each target system installation.

   The Resource Objects form is in the Resource Management folder. The `OracleAppsServer` resource object is created when you import the connector XML file. You can use this resource object as the template for creating the remaining resource objects.

2. Create and configure one IT resource for each resource object.

   The IT Resources form is in the Resource Management folder. The `Oracle Apps Server` IT resource is created when you import the connector XML file. You can use this IT resource as the template for creating the remaining IT resources, of the same resource type.

3. Design one process form for each resource object.

   The Form Designer form is in the Development Tools folder. The following process forms are created when you import the connector XML file:

   - `UD_ORACLE_A` (main form)

   - `UD_RESPONS` (child form)

   You can use these process forms as templates for creating the remaining process forms.

4. Create and configure one process definition for each resource object.

   The Process Definition form is in the Process Management folder. The `OracleAppsUser` process definition is created when you import the connector XML file. You can use this process definition as the template for creating the remaining process definitions.

   While creating process definitions for each target system installation, the following steps that you must perform are specific to the creation of each process definition:

   - From the **Object Name** lookup field, select the resource object that you create in Step 1.

   - From the **Table Name** lookup field, select the process form that you create in Step 3.

   - While mapping the adapter variables for the IT Resource data type, ensure that you select the IT resource that you create in Step 2 from the **Qualifier** list.

5. Configure reconciliation for each target system installation. Refer to the "Step 6: Configuring Reconciliation" section on page 2-5 for instructions. Note that only the values of the following attributes are to be changed for each reconciliation scheduled task:

   - `Target System`

   - `Server`

   - `IsTrusted`

   Set the `IsTrusted` attribute to `Yes` for the Oracle e-Business User Management installation that you want to designate as a trusted source. You can designate either a single or multiple installations of Oracle e-Business User Management as the trusted source. For the remaining Oracle e-Business User Management installations, set this attribute to `No`.

6. If required, modify the fields to be reconciled for the Xellerate User resource object.

When you use the Administrative and User Console to perform provisioning, you can specify the IT resource corresponding to the Oracle e-Business User Management installation to which you want to provision the user.

3

Testing and Troubleshooting

After you deploy the connector, you must test it to ensure that it functions as expected. This chapter discusses the following topics related to connector testing:

- Running Test Cases
- Troubleshooting

Running Test Cases

You can use the troubleshooting utility to identify the cause of problems associated with connecting to the target system and performing basic operations on the target system.

To use the troubleshooting utility, in a command window, change to the *OIM_home*\xellerate\JavaTasks directory, in which the xlHostAccess.jar file is present. Then, perform the following actions.

- Create an Oracle e-Business User Management user as follows:

  ```
  java -jar xlHostAccess.jar Create user_name password confirm_password
  LifeSpanType lifespan_value start_date_yyyy-mm-dd end_date_yyyy-mm-dd
  e-mail_addr employeeId description
  ```

  Here, the value of *LifeSpanType* can be either LifeSpanDays or LifeSpanAccesses.

- Update an Oracle e-Business User Management user as follows:

  ```
  java -jar xlHostAccess.jar Update user_name fieldname new_fieldname_value
  ```

  Here, *fieldname* can be any one of the following:

  - Description
  - Email
  - EmployeeId
  - LifeSpanType
  - LifeSpanValue
  - StartDate
  - EndDate

- Reset the password of an Oracle e-Business User Management user as follows:

  ```
  java -jar xlHostAccess.jar ResetPassword user_name newpassword
  confirm_newpassword
  ```

- Disable an Oracle e-Business User Management user as follows:

  ```
  java -jar xlHostAccess.jar Disable user_name
  ```

- Enable an Oracle e-Business User Management user as follows:

  ```
  java -jar xlHostAccess.jar Enable user_name
  ```

Troubleshooting

The following table lists solutions to some commonly encountered errors associated with the connector.

Problem Description	Solution
Oracle Identity Manager cannot establish a connection with the Oracle e-Business User Management server.	■ Ensure that the Oracle e-Business User Management server is running. ■ Check if the user exists in Oracle e-Business User Management. ■ Ensure that Oracle Identity Manager is running. ■ Ensure that all the adapters have been compiled. ■ Use the IT Resources form to examine the Oracle Identity Manager record. Ensure that the IP address, administrator ID, and administrator password are correct.
The Operation Failed message is displayed on the Oracle Identity Manager Administrative and User Console	■ Ensure that the values for the attributes do not contain delimiter characters (white space). ■ Ensure that the attribute values do not exceed the specified length.

4

Known Issues

The following are known issues associated with this release of the connector:

- While reconciling a date field from Oracle e-Business User Management to Oracle Identity Manager, the Oracle Identity Manager API does not accept a blank or null value for the date. Oracle e-Business User Management accepts a null value for the date. Therefore, the value provided in the case of null date is `0000/00/00`.

- SSL functionality is not available with this release of the connector.

- Some Asian languages use multibyte character sets. If the character limit for the fields in the target system is specified in bytes, then the number of Asian-language characters that you can enter in a particular field may be less than the number of English-language characters that you can enter in the same field. The following example illustrates this limitation:

  Suppose you can enter 50 characters of English in the User Last Name field of the target system. If you were using the Japanese language and if the character limit for the target system fields were specified in bytes, then you would not be able to enter more than 25 characters in the same field.

- This release of the connector does not support the Japanese language.

A

Attribute Mappings Between Oracle Identity Manager and Oracle e-Business User Management

The following table discusses attribute mappings between Oracle Identity Manager and Oracle e-Business User Management.

Oracle Identity Manager Attribute	Oracle e-Business User Management Attribute	Description
username	FND_USER.USER_NAME	User name
E-mail	FND_USER.EMAIL_ADDRESS	E-mail address
Desc	FND_USER.DESCRIPTION	User description
lifeSpanValue	FND_USER.PASSWORD LIFESPAN DAYS,FND_USER.PASSWORD LIFESPAN ACCESSES	One of the values is stored based on the values of Life Span type
startDate	FND_USER.START_DATE	Effective Dates From
endDate	FND_USER.END_DATE	Effective Dates To
employeeId	FND_USER.EMPLOYEE_ID	Employee ID
respName	FND_RESPONSIBILITY_VL.RESPONSIBILITY_NAME	Responsibility
respStartDate	FND_USER_RESP_GROUPS_DIRECT.START_DATE	Responsibility start date
respEndDate	FND_USER_RESP_GROUPS_DIRECT.END_DATE	Responsibility end date

Index

P

parameters of IT resources,   2-4
problems,   3-2
process tasks,   1-1
provisioning
   fields,   1-3
   functions,   1-1
   module,   1-3

R

reconciliation
   configuring,   2-5
   functions,   1-1
   lookup fields,   1-3
   module,   1-3
   user,   1-3
requirements for deploying,   2-1

S

scheduled tasks
   attributes,   2-7
   defining,   2-5, 2-6
   lookup fields reconciliation,   2-7
   user reconciliation,   2-7
server cache, clearing,   2-3
supported
   functionality,   1-1
   languages,   1-2
   releases of Oracle Identity Manager,   2-1
   target systems,   2-1

T

target system, multiple installations,   2-8
target systems
   configuration,   2-1
   supported,   2-1
test cases,   3-1
testing the connector,   3-1
troubleshooting,   3-2
troubleshooting utility,   3-1
trusted source reconciliation,   2-5
trusted source reconciliation, configuring,   2-5

U

user attribute mappings,   A-1
user reconciliation,   1-3
user reconciliation scheduled task,   2-7

V

version number of connector, determining,   1-5

X

XML files
   copying,   2-2

description,   1-5
importing,   2-3