

## **Oracle® Identity Manager**

Connector Guide for Oracle eBusiness User Management

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# Preface

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

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**Note:** This is a transitional release following Oracle's acquisition of Thor Technologies. 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.

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## Audience

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

## Documentation Accessibility

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## Related Documents

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

- *Oracle Identity Manager Release Notes*
- *Oracle Identity Manager Installation and Upgrade Guide for JBoss*
- *Oracle Identity Manager Installation and Upgrade Guide for WebLogic*
- *Oracle Identity Manager Installation and Upgrade 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 Connector Framework Guide*
- Connector guides for various third-party applications

## Documentation Updates

Oracle is committed to delivering the best and most recent information available. For information about updates to the Oracle Identity Manager 9.0.1 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
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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## 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 eBusiness User Management is used to integrate Oracle Identity Manager with Oracle eBusiness User Management.

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

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This chapter contains the following sections:

- [Supported Functionality](#)
- [Reconciliation Module](#)
- [Provisioning Module](#)
- [Files and Directories That Comprise 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
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
End Date Updated	Provisioning	Updates the end date of a user
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 the user so that the user is able to log in to Oracle eBusiness User Management

Function	Type	Description
Add Responsibility	Provisioning	Adds a responsibility to a user
Remove Responsibility	Provisioning	Removes a responsibility from a user
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 eBusiness User Management
Update Apps Resource	Reconciliation	Updates an Oracle Identity Manager resource with data received from Oracle eBusiness User Management
Create Link with Oracle HR Employee	Reconciliation	Sets the employee ID of matched Xellerate User to Oracle eBusiness User Management user

## Reconciliation Module

This section describes the elements that the reconciliation module extracts from Oracle eBusiness 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 fields that are used to store user information in Oracle eBusiness User Management. These fields are:

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

## Provisioning Module

The following fields of Oracle eBusiness User Management are provisioned:



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

## Files and Directories That Comprise the Connector

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

Enterprise Applications\Oracle e-Business\Oracle e-Business User Management Rev 2.2.0.zip

These files and directories are listed in the following table.

File in the Installation Media Directory	Description
xml\oracleAppsResAdp.xml	<p>This file contains the following components of the connector:</p> <ul style="list-style-type: none"> <li>■ IT resource type</li> <li>■ IT resource</li> <li>■ Custom process form</li> <li>■ Process tasks and adapters (along with their mappings)</li> <li>■ Resource object</li> <li>■ Provisioning process</li> <li>■ Pre-populate rules</li> </ul>
lib\JavaTask\xlHostAccess.jar	This file contains the class files that are required for provisioning.
lib\ScheduleTask\xlReconOracleApps.jar	This file contains the class files that are required for reconciliation.
lib\JavaTask\connect.properties	<p>This file contains the following connection parameters:</p> <ul style="list-style-type: none"> <li>■ Administrator credentials</li> <li>■ IP address</li> <li>■ Port</li> <li>■ SID of the target system</li> </ul>

File in the Installation Media Directory	Description
OracleApps Scripts\connect.properties	This file is a copy of the file in the OracleApps Scripts directory. It contains the same connection parameters.
docs\B31127_01.pdf docs\html	These are PDF and HTML versions of this guide, which provides instructions to deploy the connector.

The ["Step 3: Copying the Connector Files and External Code"](#) section on page 2-1 provides instructions to copy these files into the required directories.

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## 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: Importing the Connector XML File](#)
- [Step 5: Configuring Reconciliation](#)
- [Step 6: Compiling Adapters](#)

### 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 systems	Oracle eBusiness User Management
External code	JDBC class library ( <code>classes12.jar</code> )  Refer to the " <a href="#">Step 3: Copying the Connector Files and External Code</a> " section on page 2-1 for information about the location of this file.

### 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 ZIP file on the installation media:

Enterprise Applications\Oracle e-Business\Oracle e-Business User Management Rev 2.2.0.zip

Refer to ["Files and Directories That Comprise the Connector"](#) on page 1-3 for more information about these files.

File in the Installation Media Directory	Destination Directory
xml\oracleAppsResAdp.xml	xellerate_home\xlclient
lib\JavaTask\xlHostAccess.jar	xellerate_home\xellerate\JavaTasks
lib\ScheduleTask\xlReconOracleApps.jar	xellerate_home\xellerate\ScheduleTask
lib\JavaTask\connect.properties	xellerate_home\xellerate\JavaTasks
OracleApps Scripts\connect.properties	xellerate_home\xellerate\JavaTasks
docs\B31127_01.pdf	xellerate_home\xellerate\docs
docs\html	

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

In this directory path, *oracle\_home* is the directory in which Oracle9i Database is installed. For example, C:\Oracle.

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

## Step 4: 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 *xellerate\_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 2-3 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. You must remove these nodes. To do this, right-click each such node and then select **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 5: Configuring Reconciliation"](#) section on page 2-3.

## Defining IT Resources

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

Parameter Name	Parameter Description
Admin	User ID to connect to the Oracle eBusiness User Management database The default value is Apps .
AdminCredentials	Password of the administrator
Host	Host name or IP address of the Oracle eBusiness 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 eBusiness User Management server is listening. The default value is 1521 .
SID	SID for the Oracle eBusiness User Management server
TimeStamp	Timestamp for the last reconciliation run The default value is None .

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

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

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## Step 5: Configuring Reconciliation

Configuring reconciliation involves creating scheduled tasks for lookup fields and user reconciliations. To create these scheduled tasks:

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. 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 cleared.
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 appropriate table in the ["Specifying Values for the Scheduled Task Attributes"](#) section on page 2-4 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 6: Compiling Adapters"](#) section on page 2-5.

## 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 Name	Description	Default/Sample Value
Server	Name of the IT resource instance for Oracle eBusiness User Management	Oracle Apps Server
LookupField Name	Lookup field to be reconciled	Oracle.Responsibility.Name

Attribute Name	Description	Default/Sample Value
IsDebug	Debug mode	YES or NO The default is NO .

After you specify values for these task attributes, go 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 Name	Description	Default/Sample Value
Target System	Name of the Resource object	OracleAppsServer
Server	Name of the IT resource instance for Oracle eBusiness 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 eBusiness Employee Reconciliation connector	USR_UDF_EMPLOYEE_ID

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

## Step 6: Compiling Adapters

The following adapters are imported into Oracle Identity Manager when you import the connector XML file. You must compile these adapters before you can use them to provision accounts on the target system.

- adpORACLEAPPSCREATEUSER
- adpORACLEAPPSLOCKUSER
- adpORACLEAPPSUNLOCKUSER
- adpORACLEAPPSRESETPASSWORD
- adpORACLEAPPSUPDATEUSER
- adpORACLEAPPSUPDATEUSERDATE
- adpORACLEAPPSENABLEUSER
- adpORACLEAPPSADDRESPONSIBILITY
- adpORACLEAPPSREMOVERESPONSIBILITY
- adpUPDATEORACLEAPPSLIFESPAN
- adpORACLEAPPSDISABLEUSER

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 the **Compile All** option.

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

3. Click **Start**. Oracle Identity Manager compiles the adapters that you specify.

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.

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**Note:** To compile multiple adapters simultaneously, use the Adapter Manager form. To compile one adapter at a time, use the Adapter Factory form. Refer to *Oracle Identity Manager Tools Reference Guide* for information about how to use these forms.

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## Testing the Connector

After you deploy the connector, you must test it to ensure that it functions as expected. This chapter contains the following sections:

- [Running Test Cases](#)
- [Troubleshooting](#)

### Running Test Cases

This section discusses test cases that you can perform by using the troubleshooting utility.

You can use the troubleshooting utility to directly use the connector for identifying the cause of problems associated with connecting to the target system server and performing basic operations on the target system. The following are sample test cases that you can run by using the troubleshooting utility.

From the `JavaTasks` directory, in which the `xlHostAccess.jar` file is present, perform the following actions.

- Create an Oracle eBusiness User Management user. For information about the procedure to create users, enter the following command:

```
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 description
```

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

- Update an Oracle eBusiness 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 eBusiness User Management user as follows:

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

- Disable an Oracle eBusiness User Management user as follows:

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

- Enable an Oracle eBusiness 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 to the Oracle eBusiness User Management server.	<ul style="list-style-type: none"> <li>■ Ensure that the Oracle eBusiness User Management server is running.</li> <li>■ Check if the user exists in Oracle eBusiness User Management.</li> <li>■ Ensure that Oracle Identity Manager is working. This means checking if the database is running.</li> <li>■ Ensure that all the adapters have been compiled.</li> <li>■ Examine the Oracle Identity Manager record (in the IT Resources form). Ensure that the IP address, admin ID, and admin password are correct.</li> </ul>
Operation Failed Message is displayed on the Oracle Identity Manager Administrative and User Console	<ul style="list-style-type: none"> <li>■ Ensure that the values for the attributes do not contain delimiter characters (white space).</li> <li>■ Ensure that the attribute values do not exceed the specified length.</li> </ul>

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## Known Issues

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

- The connector does not incorporate the Lock User and Unlock User functionality.
- The reconciliation part of Oracle eBusiness User Management does not reconcile data containing characters that are considered as special characters in Oracle eBusiness User Management. This includes characters like the at sign (@) and the dash (-).
- 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.



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