

**Oracle® Identity Manager**

Connector Guide for Oracle eBusiness Employee Reconciliation

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Oracle Identity Manager Connector Guide for Oracle eBusiness Employee Reconciliation, Release 9.0.1

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# Preface

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

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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 Employee Reconciliation.

## 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

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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:

<b>Convention</b>	<b>Meaning</b>
<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.
monospace	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 e-Business Employee Reconciliation is used to integrate Oracle Identity Manager with Oracle e-Business Employee Reconciliation.

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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](#)
- [Files and Directories That Comprise the Connector](#)

### Supported Functionality

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

Function	Type	Description
Reconcile New User	Reconciliation	Creates an Oracle Identity Manager user in trusted mode
Reconcile Delete User	Reconciliation	Deletes an Oracle Identity Manager user account, in both trusted and nontrusted mode
Reconcile Updated User	Reconciliation	Updates an Oracle Identity Manager user record during reconciliation, in both trusted and nontrusted mode

### Reconciliation Module

This section describes the elements that the reconciliation module extracts from the target system to construct reconciliation event records.

Reconciliation can be divided into the following types:

- [Lookup Fields Reconciliation](#)
- [Employee Reconciliation](#)

## Lookup Fields Reconciliation

Lookup fields reconciliation involves reconciling the Person ID lookup field.

## Employee Reconciliation

Employee reconciliation involves reconciling the following fields:

- First Name
- email
- PersonId
- Middle Name
- Last Name
- Dept
- SSN
- Title
- Location
- Manager
- City
- PostalCode
- Country
- Telno
- EmployeeNumber
- ManagerId

## 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 Application\Oracle e-Business\Oracle e-Business Employee Reconciliation  
Rev 2.1.1.1.zip
```

These files and directories are listed in the following table.

File Name with Path	Description
xml\oracleHRResAdp.xml	This XML file contains the following components of the connector: <ul style="list-style-type: none"><li>■ IT resource type</li><li>■ Custom process form</li><li>■ Process task</li><li>■ Resource object</li><li>■ Pre-populate rules</li><li>■ Reconciliation process</li><li>■ Lookup definitions</li></ul>

<b>File Name with Path</b>	<b>Description</b>
lib\ScheduleTask\xlReconOraHREmp.jar	This JAR file contains the class files that are required for reconciliation.
docs\B31126_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 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 Apps HRMS 11.5.10
Target systems hosts	Oracle9i Database 9.2.x
External code	JDBC class library ( <code>classes12.jar</code> )

### 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.

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**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  
Employee Reconciliation Rev 2.1.1.zip

Refer to "[Files and Directories That Comprise the Connector](#)" on page 1-2 for more information about these files.

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Files in the Installation Media Directory	Destination Directory
xml\oracleHRResAdp.xml	xellerate_home\xlclient\
lib\ScheduleTask\xlReconOraHREmp.jar	xellerate_home\xellerate\ScheduleTask
docs\B31126_01.pdf docs\html	xellerate_home\xellerate\docs

Copy the JDBC class library (classes12.jar) from the `oracle_home\ora92\jdbc\lib\classes12.jar` directory to the `xellerate_home\xellerate\ThirdParty` directory. Where `oracle_home` is the directory in which Oracle9i Database is installed. For example, `C:\Oracle`.

## Step 4: Importing the Connector XML File

To import the connector XML file:

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 `OracleHRResAdp.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 Substitution page is displayed.
6. Click **Next**. The Confirmation page is displayed.
7. Click **Next**. The Provide IT Resource Instance Data page for the Oracle HR IT resource is displayed.
8. Specify values for the parameters of the Oracle HR IT resource. Use the table given 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 HR 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 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 following Oracle HR IT resource parameter:

Parameter Name	Parameter Description
Admin	User ID to connect to the Oracle eBusiness Employee Reconciliation database The default value is <code>Apps</code> .
AdminCredentials	Password of the administrator
Host	Host name or IP address of the Oracle eBusiness Employee Reconciliation database
IsDebug	Debug feature The value can be YES or NO. The default value is NO.
OracleHREmp.Organ ization Name	Default value for the Oracle Identity Manager Organization name This value is used to create the Xellerate User in trusted mode. The default value is <code>Xellerate Users</code> .
Port	TCP/IP port at which the Oracle eBusiness Employee Reconciliation server is listening The default value is 1521.
SID	SID for the Oracle eBusiness Employee Reconciliation database
TimeStamp	Timestamp for the last reconciliation

After you specify values for the IT resource parameter, 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 for connecting to the Oracle eBusiness Employee Reconciliation 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 employee 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 the scheduled tasks, proceed to [Chapter 3](#).

## 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](#)
- [Employee Reconciliation Scheduled Task](#)

### Lookup Fields Reconciliation Scheduled Task

You must specify values for the following attributes of the lookup fields reconciliation scheduled task.

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**Note:** Attribute values are predefined in the connector XML file that you import. Specify values only for those attributes that you want to change.

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Attribute Name	Description	Default/Sample Value
Server	Name of the IT resource instance that the connector uses to reconcile data	Oracle HR
LookupField Name	Name of the lookup field to be reconciled	OracleHR.Employees

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

### Employee Reconciliation Scheduled Task

You must specify values for the following attributes of the employee reconciliation scheduled task.

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**Note:** Attribute values are predefined in the connector XML file that you import. Specify values only for those attributes that you want to change.

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Attribute Name	Description	Default/Sample Value
Target System Recon - Resource Object name	Name of the resource object	Oracle HR Employee
Server	IT resource instance that the connector uses to reconcile data	Oracle HR
IsTrusted	Specifies whether or not reconciliation must be performed in trusted mode	YES or NO

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



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## Testing the Connector

After you deploy the connector, you must test it to ensure that it functions as expected.

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**Note:** In earlier releases of this guide, the connector was referred to as the *integration*.

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There are two types of tests that you can perform for reconciliation testing:

- A test from the trusted source/target resource to Oracle Identity Manager (a T-X test).
- A test from the nontrusted source/target resource to Oracle Identity Manager (a N-X test).

This chapter contains the following sections:

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

### Connector Test Cases

This section discusses the functional and performance test cases that you can use to test this connector.

Test Case	Type	Test Type	Description/Comments
If an Xellerate User is not found, then create the Xellerate User and provision a resource object for the user.	Functional	T-X	The user should be reconciled successfully.
If the Xellerate User is found, then update the user and the corresponding resource objects.	Functional	T-X	The user should be updated successfully.
Check if resource objects have been provisioned an Xellerate User. If resource objects are found, then do not delete the user. If resource objects are not found, then delete the user.	Functional	T-X	If there are no resource objects, then the user should be deleted successfully from Oracle Identity Manager. If resource objects are found, then the user should not be deleted from Oracle Identity Manager.

Test Case	Type	Test Type	Description/Comments
If the Xellerate User exists, then update the user and the corresponding resource object.	Functional	N-X	The Xellerate User should be updated successfully.
If the Xellerate User is not found, then do not perform any action.	Functional	N-X	No action is performed.

## Troubleshooting

This section provides solutions to a commonly encountered problem associated with the connector.

**Problem:**

Oracle Identity Manager cannot establish a connection with the Oracle e-Business Employee Reconciliation server.

**Solution:**

- Ensure that the Oracle e-Business Employee Reconciliation server is running.
- Ensure that the Oracle Identity Manager server is running.
- Examine the Oracle Identity Manager record (in the IT Resources form). Ensure that the IP address, admin ID, and admin password are correct.

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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 functions.
- The reconciliation module does not reconcile data containing characters that are considered as special characters by Oracle Identity Manager. This includes characters like the at sign (@) and the dash (-).
- While reconciling a date field from Oracle e-Business Employee Reconciliation to Oracle Identity Manager, the Oracle Identity Manager API does not accept a blank or null value for the date. However, Oracle e-Business Employee Reconciliation 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 in this release.



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