# Oracle® Identity Manager

Connector Guide for Microsoft Exchange 2000 and 2003

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Oracle Identity Manager Connector Guide for Microsoft Exchange 2000 and 2003, Release 9.0.1

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# Preface

*Oracle Identity Manager Connector Guide for Microsoft Exchange 2000 and 2003* provides information about integrating Oracle Identity Manager with Microsoft Exchange 2000 and 2003.

> **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.

## Audience

This guide is intended for users who want to deploy the Oracle Identity Manager connector for Microsoft Exchange 2000 and 2003.

## 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 |
|---|---|
| **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. |

# 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 Microsoft Exchange 2000 and 2003 is used to integrate Oracle Identity Manager with Microsoft Exchange 2000 and 2003.

**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
- 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.

| Process Task | Type | Description |
|---|---|---|
| Create Mailbox | Provisioning | Creates a mailbox in Microsoft Exchange 2000 and 2003 |
| Delete Mailbox | Provisioning | Deletes a provisioned mailbox from Microsoft Exchange 2000 and 2003 |
| Deleted Item Manager Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Deleted Item Manager attribute |
| Disable Mailbox | Provisioning | Disables a provisioned mailbox in Microsoft Exchange 2000 and 2003 |
| Display Name Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Display Name attribute |
| Email Alias Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Email Alias attribute |

| Process Task | Type | Description |
|---|---|---|
| Enable Mailbox | Provisioning | Enables a disabled mailbox in Microsoft Exchange 2000 and 2003 |
| Garbage Collection Period Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Garbage Collection Period attribute |
| Hide From Address Lists Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Hide From Address Lists attribute |
| Mailbox Size Receipt Quota Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Mailbox Size Receipt Quota attribute |
| Mailbox Size Transmit Quota Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Mailbox Size Transmit Quota attribute |
| Mailbox Warning Size Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Mailbox Warning Size attribute |
| Max Incoming Message Size Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Max Incoming Message Size attribute |
| Max Outgoing Message Size Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Max Outgoing Message Size attribute |
| Max Recipients Per Message Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Max Recipients Per Message attribute |
| Disable Mailbox Time Stamp Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Disable Mailbox Time Stamp attribute |
| Set Exchange Related Properties | Provisioning | Updates certain important configurations of a mailbox in Microsoft Exchange 2000 and 2003 |
| Use Storage Defaults Updated | Provisioning | Updates the configuration of a mailbox in Microsoft Exchange 2000 and 2003 according to a change in the Use Storage Defaults attribute |
| Get ObjectGUID from Process | Provisioning | Retrieves the ObjectGUID (unique identifier in Microsoft Active Directory) for an existing provisioned Microsoft Active Directory user, for whom the Microsoft Exchange 2000 and 2003 mailbox needs to be provisioned |
| Create Mailbox | Reconciliation | Reconciles a mailbox from Microsoft Exchange 2000 and 2003 into Oracle Identity Manager |

## Reconciliation Module

The reconciliation module extracts the following elements from the target system to construct reconciliation event records:

- Display Name

- Employee Type
- Mobile Number
- Pager Number
- ObjectGUID
- SAMAccountName
- Mail
- Mail Nick Name
- Garbage Collection Period
- Deleted Item Flags
- Delivery Cont Length
- Submission Cont Length
- DB Over Hard Quota Limit
- DB Over Quota Limit
- DB Storage Quota
- Exchange Recipient Limit
- DB User Defaults
- Exchange Hide From Address Lists
- Employee ID
- Street Address
- Telephone Number
- Other Telephone Number
- Extension Attribute1
- Extension Attribute2
- Extension Attribute3
- Extension Attribute4
- Extension Attribute6
- Extension Attribute8
- Extension Attribute12
- Extension Attribute15
- Exchange Server
- AD Server
- Distinguished Name

## Provisioning Module

The following fields of Microsoft Exchange 2000 and 2003 are provisioned:

- Email Alias
- Display Name

- Garbage Collection Period
- Deleted Item Manager
- Max Incoming Message Size
- Max Outgoing Message Size
- Mailbox Size Receipt Quota
- Mailbox Size Transmit Quota
- Mailbox Warning Size
- Max Recipients Per Message
- Use Storage Defaults
- Hide From Address Lists
- Rout Email
- Employee Type
- Registered Represent
- Desk Location
- PL Proceed
- Company Address
- Mailbox Type
- Mobile Number
- Pager Number
- Routing Email Addr
- Major Business Number
- Other Business Number
- Object GUID

## 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:

```
Collaboration and Messaging Applications\Microsoft Exchange\Microsoft Exchange Rev 3.3.0.zip
```

These files and directories are listed in the following table.

| File in the Installation Media Directory | Description |
|---|---|
| xml\xliExchangeObject.xml | This file contains the following components of the connector:<br>■ IT resource type<br>■ Custom process Form<br>■ Process task and adapters (along with their mappings)<br>■ Resource object<br>■ Provisioning process<br>■ Pre-populate rules |
| xml\xliExchangeSchedulerTask.xml | This XML file contains the parameters for setting up the reconciliation scheduled task. |
| lib\xliExchange.jar | This JAR file contains the class files required for provisioning and reconciliation. |
| docs\B31120_01.pdf<br>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" section on page 2-1 provides instructions to copy these files into the required directories.

# 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
- Step 4: Importing the Connector XML Files
- 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 | Microsoft Exchange 2000 and 2003 |
| Target system host platforms | Microsoft Windows Server 2000 or 2003 |
| Other systems | Microsoft Active Directory |

**Note:** You must deploy the Microsoft Active Directory connector before you can deploy and use the Microsoft Exchange connector.

Refer to *Oracle Identity Manager Connector Guide for Microsoft Active Directory* for instructions to deploy the Microsoft Active Directory connector.

## Step 2: Configuring the Target System

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

## Step 3: Copying the Connector Files

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:

`Collaboration and Messaging Applications\Microsoft Exchange\Microsoft Exchange Rev 3.3.0.zip`

Refer to "Files and Directories That Comprise the Connector" on page 1-4 for more information about these files.

| File in the Installation Media Directory | Destination Directory |
|---|---|
| The following files in the `xml` directory:<br>`xliExchangeObject.xml`<br>`xliExchangeSchedulerTask.xml` | *xellerate_home*`\xellerate\XLIntegrations\Exchange\xml\` |
| `lib\xliExchange.jar` | *xellerate_home*`\xellerate\JavaTasks`<br>*xellerate_home*`\xellerate\ScheduleTask` |
| The following contents of the `docs` directory:<br>`B31120_01.pdf`<br>`html` | *xellerate_home*`\xellerate\XLIntegrations\Exchange\docs` |

# Step 4: Importing the Connector XML Files

To import the connector XML files 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 `xliExchangeObject.xml` file, which is in the *xellerate_home*`\xellerate\XLIntegrations\Exchange\xml` 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 `Exchange Server - Dev` IT resource is displayed.
8. Specify values for the parameters of the `Exchange Server - Dev` 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 `Exchange Server - Dev` 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.

13. Perform the same procedure to import the `xliExchangeSchedulerTask.xml` file, which is in the *`xellerate_home`*`\xellerate\XLIntegrations\Exchange\xml` directory.

After you import the connector XML file, proceed to the "Defining IT Resources" section on page 2-3.

## Defining IT Resources

You must specify values for the `Exchange Server - Dev` IT resource parameters listed in the following table.

| Parameter Name | Parameter Description |
|---|---|
| `Server Name` | Host name of the Microsoft Windows computer on which Microsoft Exchange 2000 and 2003 is installed<br>Sample value: `W2K_HOST`<br>**Note:** The value must be specified in uppercase. |
| `Store Name` | Mailbox store name<br>Sample value: `Mailbox Store (OWX-INT-2K3)`<br>Here, `OWX-INT-2K3` is the host name of the Microsoft Exchange 2000 and 2003 Server. |
| `Last Modified Time Stamp` | Time at which the last reconciliation run was completed<br>This is in the timestamp format `YYYYMMDDHHMMSSZ`. At the end of each reconciliation run, the value is updated with the target system timestamp at that instance.<br>Sample value: `19721001000000Z`<br>The initial value must be `0`. |

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

# Step 5: Configuring Reconciliation

Configuring reconciliation involves creating the reconciliation scheduled task. To create this scheduled task:

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 task are displayed.
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.

After you create the scheduled task, proceed to the "Step 6: Compiling Adapters" section on page 2-4.

## Specifying Values for the Scheduled Task Attributes

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

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

| Attribute Name | Description | Default/Sample Value |
|---|---|---|
| `ADServer` | Name of the Microsoft Active Directory IT resource | `Active Directory Server - Dev` |
| `Server` | Name of the Microsoft Exchange 2000 and 2003 IT resource | `Exchange Server - Dev` |

After you specify values for these scheduled 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.

- `check user process ordered`
- `Exchange Delete Mailbox`
- `AD Set User Property`

- `Set Time Stamp`
- `Get Value Form User Process`
- `Chk Value Set`
- `Exchange Create Mailbox`
- `Exchange Set User Properties`
- `DB Prepopulate UserLogin`

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.

   **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 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.

   **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.

# 3

# Known Issues

The following is a known issue associated with this release of the connector:

The `Server Name` parameter of the IT resource accepts only the host name of the Microsoft Exchange 2000 and 2003 server. Provisioning and reconciliation would not work if the IP address of the computer is provided as the input.

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