

Oracle® Identity Manager

Connector Guide for UNIX Telnet

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Contents

Preface	v
Audience	v
Documentation Accessibility	v
Related Documents	vi
Documentation Updates	vii
Conventions	vii
 What's New in the Oracle Identity Manager Connector for UNIX Telnet?	 ix
Software Updates	ix
Documentation-Specific Updates	x
 1 About the Connector	
Supported Functionality	1-1
Multilanguage Support	1-3
Reconciliation Module	1-3
Provisioning Module	1-3
Files and Directories That Comprise the Connector	1-4
Determining the Release Number of the Connector	1-5
 2 Deploying the Connector	
Step 1: Verifying Deployment Requirements	2-1
Step 2: Configuring the Target System	2-2
Configuration Steps for Solaris and Linux	2-2
Configuration Steps for AIX	2-2
Configuration Steps for HP-UX	2-3
Step 3: Copying the Connector Files	2-3
Step 4: Configuring the Oracle Identity Manager Server	2-4
Changing to the Required Input Locale	2-4
Clearing Content Related to Connector Resource Bundles from the Server Cache	2-4
Step 5: Importing the Connector XML Files	2-5
Defining IT Resources	2-6
Step 6: Configuring Reconciliation	2-7
Adding Prerequisites for Reconciliation	2-7
Configuring System Properties	2-7
Configuring Trusted Source Reconciliation Oracle Identity Manager Entities	2-8

Defining Scheduled Tasks.....	2-8
Specifying Values for the Scheduled Task Attributes	2-9
Enabling Reconciliation in Oracle Identity Manager Release 9.0.1	2-10
Step 7: Compiling Adapters	2-10
Configuring the Connector for Multiple Installations of the Target System	2-12

3 Testing and Troubleshooting

Running Connector Tests.....	3-1
Troubleshooting.....	3-2

4 Known Issues

Index

Preface

Oracle Identity Manager Connector Guide for UNIX Telnet provides information about integrating Oracle Identity Manager with UNIX Telnet.

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 UNIX Telnet.

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 Guide for BMC Remedy User Management*
- *Oracle Identity Manager Connector Guide for CA-ACF2 Advanced*
- *Oracle Identity Manager Connector Guide for CA-Top Secret Advanced*
- *Oracle Identity Manager Connector Guide for Database Application Tables*
- *Oracle Identity Manager Connector Guide for Database User Management*
- *Oracle Identity Manager Connector Guide for IBM RACF*
- *Oracle Identity Manager Connector Guide for IBM RACF Advanced*
- *Oracle Identity Manager Connector Guide for IBM Lotus Notes and Domino*
- *Oracle Identity Manager Connector Guide for Microsoft Active Directory*
- *Oracle Identity Manager Password Synchronization Module for Microsoft Active Directory Installation and Configuration Guide*
- *Oracle Identity Manager Connector Guide for Microsoft Exchange 2000 and 2003*
- *Oracle Identity Manager Connector Guide for Microsoft Exchange 5.5*
- *Oracle Identity Manager Connector Guide for Microsoft Windows 2000*
- *Oracle Identity Manager Connector Guide for Microsoft Windows NT 4.0*
- *Oracle Identity Manager Connector Guide for Novell eDirectory*
- *Oracle Identity Manager Connector Guide for Novell GroupWise*
- *Oracle Identity Manager Connector Guide for Oracle e-Business Employee Reconciliation*
- *Oracle Identity Manager Connector Guide for Oracle e-Business User Management*
- *Oracle Identity Manager Connector Guide for Oracle Internet Directory*
- *Oracle Identity Manager Connector Guide for PeopleSoft Employee Reconciliation*

- *Oracle Identity Manager Connector Guide for PeopleSoft User Management*
- *Oracle Identity Manager Connector Guide for Siebel Enterprise Applications*
- *Oracle Identity Manager Connector Guide for RSA Authentication Manager*
- *Oracle Identity Manager Connector Guide for RSA ClearTrust*
- *Oracle Identity Manager Connector Guide for SAP CUA*
- *Oracle Identity Manager Connector Guide for SAP Employee Reconciliation*
- *Oracle Identity Manager Connector Guide for SAP Enterprise Portal*
- *Oracle Identity Manager Connector Guide for SAP User Management*
- *Oracle Identity Manager Connector Guide for Sun Java System Directory*
- *Oracle Identity Manager Connector Guide for UNIX SSH*
- *Oracle Identity Manager Connector Guide for UNIX Telnet*

Documentation Updates

Oracle is committed to delivering the best and most recent information available. For information about updates to the Oracle Identity Manager 9.0.2 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.
<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.

What's New in the Oracle Identity Manager Connector for UNIX Telnet?

This chapter provides an overview of the updates made to the connector and documentation for UNIX Telnet in release 9.0.2 of the Oracle Identity Manager connector pack.

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 the following software updates implemented in this release of the connector.

Incorporation of Multilanguage Support

In addition to English, this release of the connector supports the French and Japanese languages. The following are documentation updates pertaining to the incorporation of this feature:

- The installation media directory includes resource bundle files for the languages supported by the connector. These resource bundle files are described in the ["Files and Directories That Comprise the Connector"](#) section on page 1-4.
- The ["Step 3: Copying the Connector Files"](#) section on page 2-3 specifies the destination directory into which you must copy the resource bundle files during the deployment procedure.
- The ["Step 4: Configuring the Oracle Identity Manager Server"](#) section on page 2-4 describes the procedure to change to the required input locale and to clear content related to connector resource bundles from the server cache.
- A new resource parameter has been added to carry locale and character encoding format information to the target system. This parameter is described in the ["Defining IT Resources"](#) section on page 2-6.

- [Chapter 4, "Known Issues"](#) discusses two new issues related to the use of non-English locales.

Determining the Release Number of the Connector

To determine the release number of the connector, follow the instructions in the ["Determining the Release Number of the Connector"](#) section on page 1-5.

Other New Parameters in the IT Resource Definition

The following parameter has been added in the ["Defining IT Resources"](#) section on page 2-2:

Supported Character Encoding (en_US) - Target

New Reconciliation Scheduled Task Attribute

The `Date Format` attribute has been added in the ["Specifying Values for the Scheduled Task Attributes"](#) section on page 2-9.

Additions to the Known Issues List

The following item has been added to the Known Issues List in [Chapter 4](#):

A disabled user account is reenabled when you run the Set Password function.

Documentation-Specific Updates

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

- In the ["Supported Functionality"](#) section on page 1-1, descriptions of the following functions have been expanded:
 - Set Password
 - Update Secondary Group Names
- Oracle Identity Manager uses a UNIX Telnet user account to connect to and exchange data with UNIX Telnet. The ["Step 1: Verifying Deployment Requirements"](#) section on page 2-1 provides information about the minimum rights that must be assigned to this user account.
- The "Installing Required and Optional Enablement Patches" section has been removed from the ["Step 2: Configuring the Target System"](#) section on page 2-2. Instead, the URL of a page on the HP Web site, which provides the same information, has been provided.
- Instructions to copy the connector JAR files and adapter files to all the nodes of a clustered environment have been added in the following sections:
 - [Step 3: Copying the Connector Files](#) on page 2-3
 - [Step 4: Configuring the Oracle Identity Manager Server](#) on page 2-4
 - [Step 7: Compiling Adapters](#) on page 2-10
- Instructions and pointers to information about configuring trusted source reconciliation have been moved to the ["Configuring Trusted Source Reconciliation Oracle Identity Manager Entities"](#) on page 2-8.
- Instructions to enable reconciliation in Oracle Identity Manager release 9.0.1 have been added in the ["Enabling Reconciliation in Oracle Identity Manager Release 9.0.1"](#) section on page 2-10.

- Instructions to use Oracle Identity Manager for linking multiple installations of UNIX Telnet are given in the ["Configuring the Connector for Multiple Installations of the Target System"](#) section on page 2-12.

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 Telnet is used to integrate Oracle Identity Manager with Telnet.

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	<p>Creates a user</p> <p>When you use this function, in the User Defined process form:</p> <ul style="list-style-type: none">■ On Solaris, the value in the Secondary Group Names field must be different from the value in the Primary Group Name field.■ On HP-UX, the Inactive Account field must be populated only when the UNIX server is configured in trusted mode.■ Before populating the Skeleton directory field, data must be populated in the Home Directory field and the Create Home Directory check box must also be selected.■ While specifying a value in the GECOS field, ensure that there are no spaces.
Delete User	Provisioning	Deletes a provisioned user on the UNIX server

Function	Type	Description
Update User UID	Provisioning	Updates user properties according to a change in the User UID attribute
Update User Group	Provisioning	Updates user properties according to a change in the User Group attribute
Update User Password Change Time	Provisioning	Updates user properties according to a change in the User Password Change Time attribute
Update Shell	Provisioning	Updates user properties according to a change in the Shell attribute
Update Home Directory	Provisioning	Updates user properties according to a change in the Home Directory attribute
Update Account Expiry Date	Provisioning	Updates user properties according to a change in the Account Expiry Date attribute
Update User GECOS	Provisioning	Updates user properties according to a change in the User GECOS attribute
Set Password	Provisioning	<p>Updates user properties according to a change in the Password attribute</p> <p>The change in the password must be the password settings requirements, if there are any.</p>
Update Secondary Group Names	Provisioning	<p>Updates user properties according to a change in the Secondary Group Names attribute</p> <p>Do not update the User Login field when you update the Secondary Group Names value.</p> <p>When you specify the secondary group name for the first time and then run this function, the primary group name is assigned the same value as the secondary group name. However, after the value of the primary group name is changed, you cannot set the secondary group name to the same value.</p> <p>On Solaris, the value of the Secondary Group Names field in the User Defined process form must always be different from the value of the Primary Group Name field.</p>
Update Inactive Days	Provisioning	<p>Updates user properties according to a change in the Update Inactive Days attribute</p> <p>This function is not supported on AIX 5.2.</p>
Update User Login	Provisioning	<p>Updates user properties according to a change in the User Login attribute</p> <p>Do not update the Secondary Group Names field when you update the User Login field.</p> <p>On AIX 5.2, if the User GECOS value contains spaces, then this function does not work.</p>
Disable User	Provisioning	<p>Disables an existing user on the UNIX server</p> <p>Note: Suppose that a user on the UNIX server is disabled. If the Set Password function is run on this user account, then the account is automatically reenabled.</p>
Enable User	Provisioning	<p>Enables a disabled existing user on the UNIX server</p> <p>Before running this function, the Set Password function must be run.</p> <p>This function is not supported on an HP-UX (trusted) server.</p>
Trusted Reconciliation for User	Reconciliation	Creates Xellerate User accounts corresponding to the reconciled user accounts from the UNIX server

Function	Type	Description
Create User	Reconciliation	Reconciles user accounts from the UNIX server
Update User	Reconciliation	Updates the attributes of previously reconciled user accounts from the UNIX server

Multilanguage Support

In addition to English, this release of the connector supports the following languages:

- French
- Japanese

Reconciliation Module

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

- User Login
- User UID
- Primary Group Name
- Default Shell
- Home Directory
- GECOS
- Password Change Time
- Account Expiry Date

Note: For a trusted configuration (such as the HP-UX trusted mode), the Password Change Time and Account Expiry Date fields are not reconciled.

Provisioning Module

The following fields are provisioned:

- User Login
- Password
- Secondary Group Names
- User UID
- Primary Group Name
- Default Shell
- GECOS
- Home Directory
- Account Expiry Date
- Password Change Time
- Create Home Directory

- Skeleton Directory
- Inactive Days

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:

Operating Systems\UNIX\Unix Telnet Rev 4.2.0.zip

These files and directories are listed in the following table.

File in the Installation Media Directory	Description
xml\XLITelnet_DM.xml	<p>This file contains definitions for the following Telnet User components of the connector:</p> <ul style="list-style-type: none"> ■ Telnet User IT resource type ■ Custom process form ■ Process task and rule generator adapters (along with their mappings) ■ Resource object ■ Provisioning process ■ Pre-populate rules that are used with this connector
xml\XLITelnetSchedulerTask_DM.xml	This file contains the scheduled task for reconciliation.
xml\XLITelnet_Trusted_DM.xml	<p>This file contains definitions for the following Telnet User components of the connector for a trusted system (HP-UX):</p> <ul style="list-style-type: none"> ■ Telnet User IT resource type ■ Custom process form ■ Process task and rule-generator connectors (along with their mappings) ■ Resource object ■ Provisioning process ■ Pre-populate rules that are used with this connector
lib\xliTelnet.jar	This file contains the Java classes that are required to support provisioning.
ext\sshfactory.jar	This file contains the JScape libraries. These libraries are used to open an SSH session with the target server.
Files in the resources directory	Each of these files contains locale-specific information that is used by the connector.
tests	This is the test suite for the Telnet connector.
tests\config\config.properties	This file specifies the properties required by the client for running test calls from the Oracle Identity Manager server.
tests\lib\xliTelnetTest.jar	This file contains the Java classes required to run the client for running test calls from the Oracle Identity Manager server.

File in the Installation Media Directory	Description
tests\scripts\telnet.sh	This file contains the script required to run the client for running test calls from the Oracle Identity Manager server.
docs\B32177_01.pdf	This guide, which provides instructions to deploy the connector.

Note: The files in the `tests` directory are used only to run tests on the connector.

The ["Step 3: Copying the Connector Files"](#) section on page 2-3 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:

1. Extract the contents of the `xliTelnet.jar` file. This file is in the `lib` directory inside the installation media directory.
2. Open the `manifest.mf` file in a text editor, which is one of the files bundled inside the `xliTelnet.jar` file.

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

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: Configuring the Oracle Identity Manager Server](#)
- [Step 5: Importing the Connector XML Files](#)
- [Step 6: Configuring Reconciliation](#)
- [Step 7: Compiling Adapters](#)

If you want to configure the connector for multiple installations of UNIX Telnet, 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 systems	The target system can be any one of the following: <ul style="list-style-type: none">■ Solaris 8, Solaris 9, or Solaris 10■ HP-UX 11.11 (trusted/nontrusted)■ Linux (Red Hat Advanced Server 2.1, Red Hat Enterprise Linux 3.x, or Red Hat Linux 4.x)■ AIX 4.3 or AIX 5.2
External code	JSCAPE Telnet/SSH Libraries (SSH factory)
Other systems	Operating system patches (HP-UX)
Target system user account	root You provide the credentials of this user account while performing the procedure in the "Defining IT Resources" section on page 2-6.

Item	Requirement
Character encoding (en_US) supported by the target system	<p>The target system must support en_US character encoding standards such as UTF-8 and iso8859.</p> <p>Use the following command to check the en_US character encoding standards that the target system supports:</p> <pre>locale -a</pre> <p>Note: If the target system does not support any of the en_US character encoding standards, then you must install the en_US language pack.</p>

Step 2: Configuring the Target System

This section provides instructions to configure the target system on the following platforms:

- [Configuration Steps for Solaris and Linux](#)
- [Configuration Steps for AIX](#)
- [Configuration Steps for HP-UX](#)

Configuration Steps for Solaris and Linux

Perform the following steps for Solaris and Linux environments:

1. Ensure that the `/etc/passwd` and `/etc/shadow` files are available on the UNIX server.
2. Ensure that a `passwd` mirror file is created on the target server by using a command similar to the following:

```
cp /etc/passwd /etc/passwd1
```

The same file name with the path must be inserted in the `Password Mirror File/User Mirror File` (AIX) attribute of the reconciliation scheduled task.

3. Ensure that a `shadow` mirror file is created on the target server by using a command similar to the following:

```
cp /etc/shadow /etc/shadow1
```

The name and path of this file must be specified for the `Shadow Mirror File` attribute of the reconciliation scheduled task.

Configuration Steps for AIX

Perform the following steps for AIX environments:

1. Ensure that the `/etc/passwd` and `/etc/security/user` files are available on the server.
2. Ensure that a user mirror file is created on the server by using a command similar to the following:

```
lsuser -c -a id pgrp gecos home shell expires maxage ALL |  
tr '#' ' ' > /mainUserFile1
```

The name and path of this file must be specified for the `Passwd Mirror File/User Mirror File (AIX)` attribute of the scheduled task for reconciliation.

Configuration Steps for HP-UX

Perform the following steps for HP-UX environments:

1. Log in as root and then run the following command:

```
/usr/bin/sam
```

2. Select **Auditing and Security** and **System Security Policies**. A message is displayed asking if you want to switch to the trusted mode.
3. Click **OK**.

If the following message is displayed, then skip the next step:

```
System changed successfully to trusted system
```

4. Ensure that the `/etc/passwd` and `/etc/shadow` directories are available on the target server.

If the shadow file does not exist, then follow the installation instructions at

<http://docs.hp.com/en/5991-0909/index.html>

All the patches are available in the HP patch database, which you can download from

<http://www5.itrc.hp.com/>

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:

Operating Systems\UNIX\Unix Telnet Rev 4.2.0.zip

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 <code>xml</code> directory	<code>OIM_home/xellerate/XLIntegrations/Telnet/xml</code>
<code>lib\xliTelnet.jar</code>	<code>OIM_home/xellerate/JavaTasks</code>
<code>lib\xliTelnet.jar</code>	<code>OIM_home/xellerate/ScheduleTask</code>
<code>ext\sshfactory.jar</code>	<code>OIM_home/xellerate/ThirdParty</code>
Files in the <code>resources</code> directory	<code>OIM_home/xellerate/connectorResources</code>
Files in the <code>tests</code> directory	<code>OIM_home/xellerate/XLIntegrations/Telnet/tests</code>

File in the Installation Media Directory	Destination Directory
docs\B32177_01.pdf	<i>OIM_home</i> /xellerate/docs/Telnet

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 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 file in the `OIM_home\xellerate\connectorResources` directory or make a change in an existing resource bundle file, 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 Files

To import the connector XML files into Oracle Identity Manager:

Note: If you do not import the connector files in the specified order, then the connector may not work.

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 `XLITelnet_DM.xml` file, which is in the `OIM_home/xellerate/XLIntegrations/Telnet/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 `Telnet server-Solaris` IT resource is displayed.
8. Specify values for the parameters of the `Telnet server-Solaris` IT resource. Refer to the table in the "[Defining IT Resources](#)" section on page 2-6 for information about the values to be specified.
9. Click **Next**. The Provide IT Resource Instance Data page for a new instance of the `TELNET Server` 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 in the Deployment Manager – Import window. Remove these nodes by right-clicking each node and then selecting **Remove**.

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

13. Perform the same procedure to import the `XLITelnetSchedulerTask_DM.xml` file, which is in the `OIM_home/xellerate/XLIntegrations/Telnet/xml` directory.

14. If you plan to use the connector in trusted source reconciliation mode, then perform the same procedure to import the `XLITelnet_Trusted_DM.xml` file. This file is in the `OIM_home/xellerate/XLIntegrations/Telnet/xml` directory.

Caution: Only one connector can be configured for trusted source reconciliation. If you import the `XLITelnet_Trusted_DM.xml` file while you have another trusted source configured, then both connector reconciliations would stop working.

After you import the connector XML files, proceed to the ["Step 6: Configuring Reconciliation"](#) section on page 2-7.

Defining IT Resources

You must specify values for the Telnet server- Solaris IT resource parameters listed in the following table.

Parameter	Description
Admin UserId	User ID of the administrator root
Admin Password	Password of the administrator dead_line
Server IP Address	Server IP address
Port	The port at which the Telnet service is running on the server Default value: 23
Server OS	Specify one of the following: <ul style="list-style-type: none"> ■ AIX ■ HP-UX ■ SOLARIS ■ LINUX
Shell Prompt	# or \$

Parameter	Description
Login Prompt	Login prompt that is displayed when you log in to the server login:
Password Prompt	Password prompt that is displayed when you log in to the server Password:
Whether Trusted System (HP-UX)	YES (for trusted HP-UX System) or NO (for nontrusted HP-UX system)
Target Locale	Target locale You can specify any one of the following values: <ul style="list-style-type: none"> ■ en_US for English ■ ja_JP for Japanese ■ fr_FR for French Note: You must not make any change (uppercase or lowercase) in the value that you specify.
Supported Character Encoding (en_US) - Target	Encoding format for the en_US target locale The default value is UTF-8. Note: You can check which en_US encoding formats the target system supports by using the following command: locale -a

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

Step 6: Configuring Reconciliation

This section describes the following steps involved in configuring the Oracle Identity Manager server:

- [Adding Prerequisites for Reconciliation](#)
- [Defining Scheduled Tasks](#)
- [Enabling Reconciliation in Oracle Identity Manager Release 9.0.1](#)

Adding Prerequisites for Reconciliation

This section discusses the following topics:

- [Configuring System Properties](#)
- [Configuring Trusted Source Reconciliation Oracle Identity Manager Entities](#)

Configuring System Properties

To configure system properties:

1. Open the Oracle Identity Manager Design Console.
2. Navigate to the System Configuration page.

3. Check if there is an entry for "Default date format." If this entry is not there, then perform Step 4.
4. Add a new entry in the Server category:
 - Name: `Default date format`
 - Keyword: `XL.DefaultDateFormat`
 - Value: `yyyy/MM/dd hh:mm:ss z`
5. Click **Save**.

Configuring Trusted Source Reconciliation Oracle Identity Manager Entities

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 configure trusted source reconciliation for this connector 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.

This procedure involves the following steps:

1. Open the Oracle Identity Manager Design Console.
2. In the Resource Object form:
 - a. Search for the Xellerate User.
 - b. On the Object Reconciliation tab, add the required reconciliation fields. Add all the reconciliation fields that will be needed to provide input for mandatory fields in the Xellerate User form, for example, fields such as User Login and First Name. Only one mandatory field, Password, can be left unmapped. All the mandatory fields of the User Defined process form must be mapped.
3. In the Process Definition form:
 - a. Search for the Xellerate User.
 - b. On the Reconciliation Field Mappings tab, add the required reconciliation field mappings. All the mandatory fields of the User Defined process form should be mapped.
4. In the Reconciliation Rules form:
 - a. Create a new rule for the Xellerate User resource object, with a rule element.
 - b. Select the **Active** check box.

Defining Scheduled Tasks

To create the reconciliation 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 tasks are displayed.

5. Enter a number in the **Max Retries** field. This number represents the number of times Oracle Identity Manager must 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 user-configurable attributes of the scheduled task. Refer to the ["Specifying Values for the Scheduled Task Attributes"](#) section on page 2-9 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 ["Enabling Reconciliation in Oracle Identity Manager Release 9.0.1"](#) section on page 2-10.

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	Description	Sample Value
Server	Name of the IT Resource	Telnet server-Solaris
Passwd Mirror File/User Mirror File	Name of the password mirror file/user mirror file This attribute is used only on AIX.	/etc/passwd1
Shadow Mirror File	Name of the shadow mirror file Note: The value of this attribute must not be null or blank, even for an HP-UX trusted system. However, the reconciliation process on an HP-UX trusted system ignores this attribute.	/etc/shadow1

Attribute	Description	Sample Value
Target System Recon - Resource Object name	Name of the target system resource object	Telnet User
Trusted Source Recon - Resource Object name	Name of the trusted source resource object	Default value: Xellerate User Specify false (in lowercase) if you do not want to configure trusted source reconciliation
Date Format	Format in which date values sent from the target system are to be saved during reconciliation The value that you specify must be the same as the value specified in the " Configuring System Properties " section on page 2-7.	yyyy/MM/dd hh:mm:ss z

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

Enabling Reconciliation in Oracle Identity Manager Release 9.0.1

If you are using Oracle Identity Manager release 9.0.1, then you must perform the following procedure to enable reconciliation:

See Also: *Oracle Identity Manager Design Console Guide*

1. Open the Process Definition form for the Telnet User. This form is in the Process Management folder.
2. Click the **Reconciliation Field Mappings** tab.
3. For each field that is of the IT resource type:
 - a. Double-click the field to open the Edit Reconciliation Field Mapping window for that field.
 - b. Deselect **Key Field for Reconciliation Matching**.

Step 7: Compiling Adapters

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

- Telnet Disable User
- Telnet Delete User
- Telnet Default Shell Updated
- Telnet Create User
- Telnet Set Password
- Telnet User UID Updated
- Telnet GECOS Updated

- Telnet Home Directory Updated
- Telnet Primary Group Name Updated
- Telnet Account Expiry Date Updated
- Telnet Password Change Time Updated
- Telnet Secondary Group Names Updated
- Telnet Inactive Days Updated
- Telnet User Login Updated
- Telnet Enable User
- Telnet Prepopulate User Login
- Telnet Prepopulate End Date

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. Then, restart each node.

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 UNIX Telnet. 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 IT resource for each target system installation.
The IT Resources form is in the Resource Management folder. An 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.
2. Configure reconciliation for each target system installation. Refer to the "[Step 6: Configuring Reconciliation](#)" section on page 2-7 for instructions. Note that you only need to modify the attributes that are used to specify the IT resource and to specify whether or not the target system installation is to be set up as a trusted source.
You can designate either a single or multiple installations of UNIX Telnet as the trusted source.
3. 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 UNIX Telnet installation to which you want to provision the user.

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 Connector Tests](#)
- [Troubleshooting](#)

Running Connector Tests

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.

Before you use the troubleshooting utility, you must set the required values in the `config.properties` file. This file is in the `OIM_home/xellerate/XLIntegrations/Telnet/tests/config/config.properties` directory. Use the information in the following table to modify the default attributes of the `config.properties` file.

Attribute	Description	Default Attribute (Sample Value)
hostname	IP address of the target server on which Telnet provisioning is to be performed	10.1.1.114
loginPrompt	Login prompt of the target server Default login	login
passwordPrompt	Password prompt of the UNIX server Default password	Password
shellPrompt	Default shell prompt of the UNIX server: # for Solaris, Linux, and HP-UX \$ for AIX	#
Port	Port at which the Telnet server is listening	23
Os Type	Operating system type of the UNIX server Accepted values are SOLARIS, LINUX, HP-UX, and AIX.	SOLARIS
adminpassword	Admin user password	dead_line
Admin	UNIX server administrator credentials for the Telnet server	root

Attribute	Description	Default Attribute (Sample Value)
Action	Action to be tested The value can be any of the following: <ul style="list-style-type: none"> ■ CREATE ■ MODIFY ■ DELETE 	CREATE
UserName	User attribute	jdoe
UID	New user UID for the user identified by UserName	12548

After you specify values in the `config.properties` file, run the following script:

```
OIM_home/xellerate/XLIntegrations/Telnet/tests/scripts/telnet.sh
```

Troubleshooting

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

Problem Description	Solution
Process definition: TELNET User Process task: Create User Returned Error Message: Not able to connect successfully to the UNIX server Returned Error Code: TELNET_USERCREATION_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials entered in the IT resource.
Process definition: TELNET User Process task: Create User Returned Error Message: User does not have creation rights on the UNIX server Returned Error Code: TELNET_USERCREATION_NORIGHTS_FAIL	Check the admin credentials entered in the IT resource.
Process definition: TELNET User Process task: Create User Returned Error Message: Oracle Identity Manager is not able to create a user successfully due to a missing password file Returned Error Code: TELNET_USERCREATION_MISSINGPASSWD_FILE_FAIL	Check the availability of the <code>/etc/passwd</code> file on the UNIX server.

Problem Description	Solution
Process definition: TELNET User Process task: Create User Returned Error Message: User name already exists on the UNIX server Returned Error Code: TELNET_USERCREATION_USEREXISTS_FAIL	Check the user name that you have entered. A user with the same name already exists on the UNIX server.
Process definition: TELNET User Process task: Create User Returned Error Message: User ID already exists and is unique or specified user ID is out of range Returned Error Code: TELNET_USERCREATION_USERID_FAIL	Check the user ID that you have entered. Another user may have the same user ID on the UNIX server or the value of the user ID may be out of range.
Process definition: TELNET User Process task: Create User Returned Error Message: User name too long Returned Error Code: TELNET_USERCREATION_NAMEFORMAT_FAIL	Check the user name that you have entered.
Process definition: TELNET User Process task: Create User Returned Error Message: User ID already exists and is unique or specified user ID is out of range Returned Error Code: TELNET_USERCREATION_USERID_FAIL	Check the user ID that you have entered. Another user may have the same ID on the UNIX server or the value of the user ID may be out of range.
Process definition: TELNET User Process task: Create User Returned Error Message: Group name or ID mismatch Returned Error Code: TELNET_USERCREATION_NOGROUP_FAIL	Check the primary group name that you have entered. The group name entered should exist on the UNIX server. In addition, spaces are not allowed in the group name.
Process definition: TELNET User Process task: Create User Returned Error Message: Missing default shell Returned Error Code: TELNET_USERCREATION_NOSHELL_FAIL	Check the default shell that you have specified. The default shell specified should be installed on the UNIX server.

Problem Description	Solution
Process definition: TELNET User Process task: Create User Returned Error Message: Wrong expiry date Returned Error Code: TELNET_USERCREATION_DATERANGE_FAIL	Check the date selected.
Process definition: TELNET User Process task: Create User Returned Error Message: Wrong password change time Returned Error Code: TELNET_USERCREATION_WRONGCHANGETIME_FAIL	Check the password change time that you have entered.
Process definition: TELNET User Process task: Create User Returned Error Message: Wrong GECOS data Returned Error Code: TELNET_USERCREATION_GECOSFORMAT_FAIL	Check the GECOS data that you have entered. Spaces are not allowed.
Process definition: TELNET User Process task: Create User Returned Error Message: Wrong Home Directory Returned Error Code: TELNET_USERCREATION_HOMEDIR_FAIL	Check the home directory that you have specified.
Process definition: TELNET User Process task: Create User Returned Error Message: Wrong Home Directory Returned Error Code: TELNET_USERCREATION_SETPASSWORD_FAIL	Check the password that you specify.
Process definition: TELNET User Process task: Delete User Returned Error Message: Not able to connect to the UNIX server Returned Error Code: TELNET_USERDELETION_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.

Problem Description	Solution
Process definition: TELNET User Process task: Delete User Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_USERDELETION_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Delete User Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_USERDELETION_NOUSER_FAIL	Check if the particular user exists on the UNIX server.
Process definition: TELNET User Process task: GECOS Updated Returned Error Message: Not able to connect to the UNIX server Returned Error Code: TELNET_UPDATEGECOS_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: GECOS Updated Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_UPDATEGECOS_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: GECOS Updated Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_UPDATEGECOS_NOUSER_FAIL	Check if the particular user exists on the UNIX server.
Process definition: TELNET User Process task: GECOS Updated Returned Error Message: Update user GECOS failed due to data format or size Returned Error Code: TELNET_UPDATEGECOS_FORMAT_FAIL	Check the GECOS data that you have entered. Spaces are not allowed.

Problem Description	Solution
<p>Process definition: TELNET User</p> <p>Process task: Password Change Time Updated</p> <p>Returned Error Message:</p> <p>Not able to connect to the target system</p> <p>Returned Error Code:</p> <p>TELNET_UPDATECHANGETIME_NOTCONNECTED_FAIL</p>	<p>Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: Password Change Time Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager administrator does not have deletion rights on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATECHANGETIME_NORIGHTS_FAIL</p>	<p>Check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: Password Change Time Updated</p> <p>Returned Error Message:</p> <p>User does not exist on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATECHANGETIME_NOUSER_FAIL</p>	<p>Check if the user exists on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: Password Change Time Updated</p> <p>Returned Error Message:</p> <p>Update password change time failed due to wrong change time format</p> <p>Returned Error Code:</p> <p>TELNET_UPDATECHANGETIME_WRONGCHANGETIME_FAIL</p>	<p>Check the Password Change Time value that you have specified.</p>
<p>Process definition: TELNET User</p> <p>Process task: Home Directory Updated</p> <p>Returned Error Message:</p> <p>Not able to connect to the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEHOMEDIR_NOTCONNECTED_FAIL</p>	<p>Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.</p>

Problem Description	Solution
Process definition: TELNET User Process task: Home Directory Updated Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_UPDATEHOMEDIR_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Home Directory Updated Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_UPDATEHOMEDIR_NOUSER_FAIL	Check if the user exists on the UNIX server.
Process definition: TELNET User Process task: Home Directory Updated Returned Error Message: Update user home directory failed due to wrong directory Returned Error Code: TELNET_UPDATEHOMEDIR_INVALIDDIR_FAIL	Check the Home Directory that you have specified.
Process definition: TELNET User Process task: Default Shell Updated Returned Error Message: Not able to connect to the UNIX server Returned Error Code: TELNET_UPDATESHELL_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Default Shell Updated Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_UPDATESHELL_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Default Shell Updated Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_UPDATESHELL_NOUSER_FAIL	Check if the user exists on the UNIX server.

Problem Description	Solution
<p>Process definition: TELNET User</p> <p>Process task: Default Shell Updated</p> <p>Returned Error Message:</p> <p>Update user shell failed because the specified shell does not exist</p> <p>Returned Error Code:</p> <p>TELNET_UPDATESHELL_NOTEXIST_FAIL</p>	<p>Check the default shell that you have entered. The default shell specified should be installed on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: User UID Updated</p> <p>Returned Error Message:</p> <p>Not able to connect to the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEUID_NOTCONNECTED_FAIL</p>	<p>Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: User UID Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager administrator does not have deletion rights on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEUID_NORIGHTS_FAIL</p>	<p>Check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: User UID Updated</p> <p>Returned Error Message:</p> <p>User does not exist on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEUID_NOUSER_FAIL</p>	<p>Check if the user exists on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: User UID Updated</p> <p>Returned Error Message:</p> <p>User UID already exists and unique</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEUID_UNIQUE_FAIL</p>	<p>Check the user UID that you have specified. Another user may have the same UID on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: User UID Updated</p> <p>Returned Error Message:</p> <p>Specified user UID is too long</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEUID_SIZE_FAIL</p>	<p>Check the user UID that you have specified. The value specified is out of the acceptable range.</p>

Problem Description	Solution
Process definition: TELNET User Process task: Account Expiry Date Updated Returned Error Message: Not able to connect to the UNIX server Returned Error Code: TELNET_UPDATEEXPDATE_NOTCONNECTED_FAIL	Check whether the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Account Expiry Date Updated Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_UPDATEEXPDATE_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Account Expiry Date Updated Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_UPDATEEXPDATE_NOUSER_FAIL	Check if the user exists on the UNIX server.
Process definition: TELNET User Process task: Account Expiry Date Updated Returned Error Message: User expiry date not updated due to wrong date Returned Error Code: TELNET_UPDATEEXPDATE_DATERANGE_FAIL	Check the account expiry date that you have specified.
Process definition: TELNET User Process task: Primary Group Name Updated Returned Error Message: Not able to connect to the UNIX server Returned Error Code: TELNET_UPDATEGROUP_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Primary Group Name Updated Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_UPDATEGROUP_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.

Problem Description	Solution
Process definition: TELNET User Process task: Primary Group Name Updated Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_UPDATEGROUP_NOUSER_FAIL	Check if the user exists on the UNIX server.
Process definition: TELNET User Process task: Primary Group Name Updated Returned Error Message: Group name or group ID does not exist on the UNIX server Returned Error Code: TELNET_UPDATEGROUP_NOGROUP_FAIL	Check the primary group name that you have specified.
Process definition: TELNET User Process task: Password Updated Returned Error Message: Not able to connect to the UNIX server Returned Error Code: TELNET_SETPASSWORD_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Password Updated Returned Error Message: Oracle Identity Manager administrator does not have deletion rights on the UNIX server Returned Error Code: TELNET_SETPASSWORD_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Password Updated Returned Error Message: User does not exist on the UNIX server Returned Error Code: TELNET_SETPASSWORD_NOUSER_FAIL	Check if the user exists on the UNIX server.
Process definition: TELNET User Process task: Password Updated Returned Error Message: Group name or group ID does not exist on the UNIX server Returned Error Code: TELNET_SETPASSWORD_MISMATCH_FAIL	The password specified and the one entered again for confirmation must match.

Problem Description	Solution
<p>Process definition: TELNET User</p> <p>Process task: Password Updated</p> <p>Returned Error Message:</p> <p>Group name or group ID does not exist on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_SETPASSWORD_SIZE_FAIL</p>	<p>Enter the password according to the policy defined on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: Secondary Group Name Updated</p> <p>Returned Error Message:</p> <p>User does not exist on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATESECONDARYGROUP_NOUSER_FAIL</p>	<p>Check if the user exists on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: Secondary Group Name Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager administrator does not have deletion rights on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATESECONDARYGROUP_NORIGHTS_FAIL</p>	<p>Check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: Secondary Group Name Updated</p> <p>Returned Error Message:</p> <p>Group name or group ID does not exist on the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATESECONDARYGROUP_NOGROUP_FAIL</p>	<p>Check the secondary group names that you specify.</p>
<p>Process definition: TELNET User</p> <p>Process task: Secondary Group Name Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager is not able to connect successfully to the UNIX server</p> <p>Returned Error Code:</p> <p>TELNET_UPDATESECONDARYGROUP_NOTCONNECTED_FAIL</p>	<p>Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.</p>

Problem Description	Solution
<p>Process definition: TELNET User</p> <p>Process task: Inactive Days Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager administrator does not have update rights in Target System</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEINACTIVEDAYS_NORIGHTS_FAIL</p>	<p>Check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: Inactive Days Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager is not able to connect successfully to the target system</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEINACTIVEDAYS_NOTCONNECTED_FAIL</p>	<p>Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.</p>
<p>Process definition: TELNET User</p> <p>Process task: Inactive Days Updated</p> <p>Returned Error Message:</p> <p>User does not exist on the target system</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEINACTIVEDAYS_NOUSER_FAIL</p>	<p>Check if the user exists on the UNIX server.</p>
<p>Process definition: TELNET User</p> <p>Process task: Inactive Days Updated</p> <p>Returned Error Message:</p> <p>Invalid numeric number</p> <p>Returned Error Code:</p> <p>TELNET_UPDATEINACTIVEDAYS_INVALID_NUMERIC_ARGUMENT_FAIL</p>	<p>Check if the value specified in the Inactive Days field is numeric.</p>
<p>Process definition: TELNET User</p> <p>Process task: User Login Updated</p> <p>Returned Error Message:</p> <p>Oracle Identity Manager is not able to connect successfully to the target system</p> <p>Returned Error Code:</p> <p>TELNET_UPDATELOGINCLASS_NOTCONNECTED_FAIL</p>	<p>Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.</p>

Problem Description	Solution
Process definition: TELNET User Process task: User Login Updated Returned Error Message: Oracle Identity Manager administrator does not have update rights in target system Returned Error Code: TELNET_UPDATELOGINCLASS_NORIGHTS_FAIL	Check the secondary group names that you have specified.
Process definition: TELNET User Process task: User Login Updated Returned Error Message: User does not exist on the target system Returned Error Code: TELNET_UPDATELOGINCLASS_NOUSER_FAIL	Check if the user exists on the UNIX server.
Process definition: TELNET User Process task: Disable User Returned Error Message: Oracle Identity Manager is not able to connect successfully to the target system Returned Error Code: TELNET_DISABLEUSER_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Disable User Returned Error Message: Oracle Identity Manager administrator does not have update rights on the target system Returned Error Code: TELNET_DISABLEUSER_NORIGHTS_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Disable User Returned Error Message: User does not exist on the target system Returned Error Code: TELNET_DISABLEUSER_NOUSER_FAIL	Check if the user exists on the UNIX server.
Process definition: TELNET User Process task: Enable User Returned Error Message: Oracle Identity Manager is not able to connect successfully to the target system Returned Error Code: TELNET_ENABLEUSER_NOTCONNECTED_FAIL	Check if the UNIX server is running and accessible. In addition, check the admin credentials specified in the IT resource.

Problem Description	Solution
Process definition: TELNET User Process task Enable User Returned Error Message: Oracle Identity Manager is not able to connect successfully to the target system Returned Error Code: TELNET_ ENABLEUSER_NOTCONNECTED_FAIL	Check the admin credentials specified in the IT resource.
Process definition: TELNET User Process task: Enable User Returned Error Message: User does not exist on the target system Returned Error Code: TELNET_ENABLEUSER_NOUSER_FAIL	Check if the user exists on the UNIX server.

Note:

The following run-time exception message is displayed when:

- The credentials in the IT resource are incorrect.
- The number of concurrent connections to the target system exceeds the permitted value. For example, if a target system accepts only two concurrent connections, then the third connection is not allowed and the error message is displayed.

Run-time exception message:

```
Java.lang.RuntimeException:Exceeded
timeout of 120000ms while waiting..
at com.jscape.inet.telnet.TelnetTask$TelnetTaskMonitor.run (Unknown
Source)
```

Known Issues

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

- This connector does not support logins that differ by case only. It also requires all logins to be distinct considering that their values are automatically converted to uppercase by Oracle Identity Manager.

For example, the user logins `jdoe` and `JDOE` would be considered different in a UNIX server. However, from Oracle Identity Manager, the input would always be passed as `JDOE`, because user ID values are stored only in uppercase in Oracle Identity Manager.
- During provisioning, the data in the User Defined form fields must not contain the shell prompt character. Because there is a variation in shell prompt character depending on the target UNIX server, it should be checked in the target system.
- During provisioning, the maximum permitted date value for account expiry is `31/12/2099`.
- Suppose that a user on the UNIX server is disabled. If the Set Password function is run on this user account, then the account is automatically reenabled.
- During reconciliation, the Group Name field is reconciled as a number and not as the exact name because it is stored directly as the group ID in the target system.
- During reconciliation, the user login field is successfully reconciled only if the user ID does not exceed 32 characters.
- During reconciliation with the trusted option set to YES in the IT resource, the value for the `Shadow Mirror File` attribute must not be NULL or blank.
- While creating an IT resource, the user name provided for `Admin UserId` must be that of an active user in the target system. This means that the user must not be locked or disabled.
- When you configure an IT resource for a Telnet user account and then directly provision it to a user, the Create User Task function is rejected. The user account is not created on the target system. The following message is displayed:

`"TELNET_USERCREATION_NOTCONNECTED_FAIL not able to connect successfully to the Target System Server"`.
- On AIX 5.2, while providing data in the GECOS field, ensure that there are no spaces. If there are spaces in this field, then the Update User Login function would not work.
- The Update Secondary Group Name and Update User Login functions do not work simultaneously.
- The Update Inactive Days function does not work on AIX 5.2.

-
- Oracle Identity Manager does not support special characters in the User ID field on HP-UX, Solaris, and Linux target systems. If a user were created with special characters in the User Login field, then reconciliation would not work.
 - The Enable User function is not supported by the HP-UX (trusted) target system.
 - 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 locale 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.

- Entry of multibyte characters in the GECOS field is not supported in non-English locales.

Index

A

Adapter Factory form, 2-11
Adapter Manager form, 2-11
adapters, compiling, 2-10
additional files, 2-1
Administrative and User Console, 2-5

C

changing input locale, 2-4
clearing server cache, 2-4
compiling adapters, 2-10
configuring
 connector for multiple installations of the target
 system, 2-12
 Oracle Identity Manager server, 2-4
 reconciliation, 2-7
connector files and directories
 copying, 2-3
 description, 1-4
 destination directories, 2-3
 installation media file, 1-4, 2-3
connector testing, 3-1
connector version number, determining, 1-5
creating scheduled tasks, 2-7

D

defining scheduled tasks, 2-7
deployment
 requirements, 2-1
Design Console, 2-7, 2-8
determining version number of connector, 1-5

E

errors, 3-2
external code files, 2-1

F

files
 additional, 2-1
 external code, 2-1
 See also XML files
 See XML files

functionality supported, 1-1
functions available, 1-1

G

globalization features, 1-3

I

importing connector XML files, 2-5
input locale, changing, 2-4
issues, 4-1

L

limitations, 4-1

M

connector XML files
 See XML files
files and directories of the connector
 See connector files and directories
multilanguage support, 1-3

O

Oracle Identity Manager Administrative and User
 Console, 2-5
Oracle Identity Manager Design Console, 2-7, 2-8
Oracle Identity Manager Release 9.0.1, 2-10
Oracle Identity Manager server, configuring, 2-4

P

problems, 3-2
process tasks, 1-1
provisioning
 functions, 1-1

R

reconciliation
 adding prerequisites for, 2-7
 configuring, 2-7
 enabling in Oracle Identity Manager Release
 9.0.1, 2-10

- functions, 1-1
- module, 1-3
- scheduled tasks, 2-8

requirements for deploying, 2-1

S

- scheduled tasks, 2-8
 - defining, 2-7
- server cache, clearing, 2-4
- supported
 - languages, 1-3
 - releases of Oracle Identity Manager, 2-1
 - target systems, 2-1

T

- target system, multiple installations, 2-12
- target systems supported, 2-1
- testing the connector, 3-1
- troubleshooting, 3-2

V

- version number of connector, determining, 1-5

X

- XML files, importing, 2-5