HP OpenView Select Identity

Connector for Tandem Himalaya with Safeguard

Connector Version: 1.4

Installation and Configuration Guide

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Software Release Date: July 2006

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- Commons-collections
- Commons-logging
- Commons-digester
- Commons-httpclient
- Element Construction Set (ecs)
- Jakarta-poi
- Jakarta-regexp
- Logging Services (log4j)

Additional third party software used by Select Identity includes:

- JasperReports developed by SourceForge
- iText (for JasperReports) developed by SourceForge
- BeanShell
- Xalan from the Apache XML Project
- Xerces from the Apache XML Project
- Java API for XML Processing from the Apache XML Project
- SOAP developed by the Apache Software Foundation
- JavaMail from SUN Reference Implementation
- Java Secure Socket Extension (JSSE) from SUN Reference Implementation
- Java Cryptography Extension (JCE) from SUN Reference Implementation
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- OpenSPML Toolkit from OpenSPML.org
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Contents

1 Documentation Map

This chapter describes the organization of HP OpenView Select Identity connector documentation and provides necessary information on how to use the documentation set to install and configure the connectors.

Figure 1 illustrates the documentation map for HP OpenView Select Identity connector. For a list of available product documentation, refer to the Table 1.

Figure 1 Documentation Map

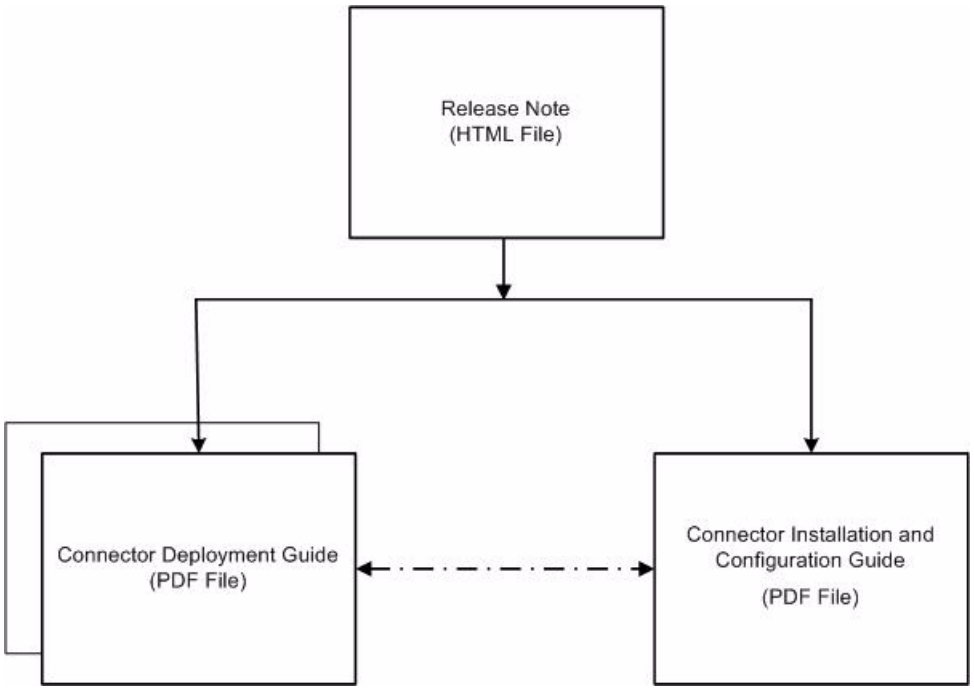

Table 1 Connector Documentation

Document Title and Filename	Contents	Location
Release Note `Tandem Connector v1.4 Release Note.htm`	This file contains necessary information on new features of the connector, enhancements, known problems or limitations, and support information.	`/Docs/` subdirectory under the connector directory.
Connector Deployment Guide (for Select Identity 4.0/4.01.000) `connector_deploy_SI4.pdf`	Connector deployment guides provide detailed information on: • Deploying a connector on an application server. • Configuring a connector with Select Identity. Refer to these guides when you need generic information on connector installation.	`/Docs/` subdirectory under the connector directory.
Connector Deployment Guide (for Select Identity 3.3.1) `connector_deploy_SI3.3.1.pdf`		
Connector Installation and Configuration Guide `Tandem_install.pdf`	Connector installation and configuration guide provides installation instructions for a specific connector. It contains resource specific configuration details.	`/Docs/` subdirectory under the connector directory.

2 Introduction

This chapter gives an overview of the HP OpenView Select Identity connector for Tandem Himalaya with Safeguard. An HP OpenView Select Identity connector enables you to provision users and manage identities on Tandem Himalaya server. At the end of this chapter, you will be able to know about:

- The benefits of HP OpenView Select Identity.
- The role of a connector.
- The connector for Tandem Himalaya with Safeguard.

About HP OpenView Select Identity

HP OpenView Select Identity provides a new approach to identity management. It helps you manage the entire identity lifecycle of an enterprise application. Select Identity helps you automate the process of provisioning and managing user accounts and access privileges across platforms, applications, and corporate boundaries. Select Identity communicates with the enterprise information system through connectors, and automates the tasks of identity management. The enterprise information system, which is also referred to as **resource**, can be a database, a directory service, or an ERP package, among many others.

About Connectors

You can establish a connection between a resource and Select Identity by using a connector. A connector is resource specific. It is installed on the system where Select Identity is installed. The combination of Select Identity and connector helps you perform a set of tasks on the resource to manage identity. A connector can be **unidirectional** or **bidirectional**. A unidirectional connector helps you manage identities from Select Identity, but if any change takes place in resource, it cannot communicate that back to Select Identity. On the other hand, a bidirectional connector can reflect the changes made on resource back to Select Identity. This property of bidirectional connectors is known as **reverse synchronization**.

About the Tandem Connector

The connector for Tandem Himalaya server — hereafter referred to as Tandem connector — enables HP OpenView Select Identity to perform the following tasks on Tandem Himalaya servers:

- Add, update, and remove users

- Retrieve user attributes
- Enable and disable users
- Verify a user's existence
- Change user passwords
- Reset user passwords
- Expire passwords
- Retrieve all entitlements
- Retrieve a list of supported user attributes
- Grant and revoke entitlements to and from users

It is a one-way connector and pushes changes made to user data in the Select Identity database to a target Tandem Himalaya server.

The Tandem connector can be used with Select Identity 4.0 and 3.3.1.

Overview of Installation Tasks

Before you start installing the connector, you must ensure that system requirements and all the installation prerequisites are met. Refer to the Table 2 for an overview of installation tasks.

Table 2 Organization of Tasks

Task Number	Task Name	Reference
1	Install the connector on the Select Identity server.	See Installing the Connector on page 11.
	— Meet the system requirements.	See System Requirements on page 12.
	— Extract the contents of the Schema file (file that contains the mapping files for the connector) to location on the Select Identity server.	See Extracting Contents of the Schema File on page 12.
	— Install the Resource Adapter Archive (RAR) of the connector on an application server.	See Installing the Connector RAR on page 12.
2	Configure the connector with the Select Identity server.	See Configuring the Connector with Select Identity on page 15.

3 Installing the Connector

This chapter elaborates the procedure to install Tandem on Select Identity server. At the end of this chapter, you will know about

- Software requirements to install the Tandem connector.
- Prerequisite conditions to install Tandem connector.
- Procedure to install Tandem connector.

Tandem Connector Files

The Tandem connector is packaged in the following files in the `Tandem` directory on the Select Identity Connector CD:

Table 3 Tandem Connector Files

Serial Number	File Name	Description
1	`TandemConnector.rar`	The Resource Adapter Archive (RAR) file contains the connector binaries.
2	`tandemschema.jar`	The Schema file contains the mapping files that contain attribute information of Tandem Himalaya with Safeguard.
3	`tandem-expect-scripts.zip`	It contains a set of scripts that perform user provisioning operations for the connector on Windows.
4	`tandem-expect-scripts.tar.gz`	It ontains the scripts that perform user provisioning operations on UNIX

System Requirements

The Tandem connector is supported in the following environment:

Table 4 Platform Matrix for Tandem connector

Select Identity Version	Application Server	Database
3.0.2	WebLogic 8.1.2 on Windows 2003	Microsoft SQL Server 2000
3.3	WebLogic 8.1.4 on Windows 2003	Microsoft SQL Server 2000
3.3.1	WebLogic 8.1.4 on Windows 2003	Microsoft SQL Server 2000
4.0	The Tandem connector is supported on all the platform configurations of Select Identity 4.0.	

This connector is supported on Tandem Himalaya servers, versions G6.18 and G6.22.

Extracting Contents of the Schema File

The Schema file of the connector contains necessary mapping information to map resource attributes to Select Identity. Extract contents of the `tandemschema.jar` file to a directory that is in the application server `CLASSPATH`. Refer to the *HP OpenView Select Identity Connector Deployment Guide* for detailed instruction to extract contents of the Schema file.

Installing the Connector RAR

To install the RAR file of the connector (`TandemConnector.rar`) on the Select Identity server, you must copy the file to a local subdirectory on the Select Identity server, and then deploy on the application server. Refer to the *HP OpenView Select Identity Connector Deployment Guide* for detailed information on deploying a RAR file on an application server.

While deploying the RAR on WebSphere, enter the JNDI Pool Name as **`eis/TandemConnector`**.

Installing Expect and the Connector Scripts

The Tandem connector provides a set of scripts that perform user provisioning operations for the connector. They are run using a tool called Expect. Install Expect and the scripts on the system where the application server and Select Identity server are installed by completing the following steps:

1 If necessary, download Expect and install it, as follows:

On UNIX
If necessary, download Expect from **http://sunfreeware.com/** and install it on the UNIX server. (Note that GCC and TCL/TK are prerequisites of Expect on Solaris.) When creating the Tandem resource (using the Select Identity client), you will provide the location of the Expect executable on the Access Info page.

On Windows
Download Expect from **http://expect.nist.gov/** and install it on the local disk. When creating the Tandem resource (using the Select Identity client), you will provide the location of the Expect executable on the Access Info page.

2 Install the scripts, as follows:

On UNIX
Create a directory called `tandem` in the Select Identity home directory and extract the `tandem-expect-scripts.tar.gz` file using the following commands:

```
gzip -d tandem-expect-scripts.tar.gz
```

```
tar xvf tandem-expect-scripts.tar
```

When deploying the Tandem resource, you will provide the location of this directory.

On Windows
Extract the `tandem-expect-scripts.zip` file from the Select Identity Connector CD to a local directory on the application server, such as `C:\Select_Identity\tandem`. When deploying the Tandem resource, you will provide the location of this directory.

After deploying the connector RAR on application server and installing the scripts, you must configure Tandem connector with Select Identity. Refer to Configuring the Connector with Select Identity on page 15 for configuration steps.

4 Configuring the Connector with Select Identity

This chapter describes the procedure to configure the Tandem connector with Select Identity. At the end of this chapter, you will know the procedure to configure the Tandem connector with Select Identity.

Configuration Procedure

After you deploy the connector RAR on application server, you must configure the connector with Select Identity. Perform the following steps to configure the Tandem connector with Select Identity.

1 Add a New Connector

2 Add a New Resource

3 Map Attributes

Add a New Connector

Add a new connector in Select Identity by using the user interface. While adding the connector, do the following:

- In the Connector Name text box, specify a name for the connector.
- In the Pool Name text box, enter **`eis/TandemConnector`**.
- Select No for the Mapper Available section.

Refer to the *HP OpenView Select Identity Connector Deployment Guide* for detailed information on adding a new connector in Select Identity.

Add a New Resource

Add a new resource in Select Identity that uses the newly added connector. Refer to the *HP OpenView Select Identity Connector Deployment Guide* for detailed instructions on adding a resource in Select Identity.

Refer to the following table while entering the parameters in the Basic Information and the Access Information pages:

Table 5 Resource Configuration Parameters

Field Name	Sample Values	Description	Comment
Resource Name	SNVT-tandem	Name given to the resource.	
Connector Name	Tandem	The newly deployed connector.	Known as Resource Type on Select Identity 3.3.1.
Authoritative Source	No	Whether this resource is a system that is considered to be the authoritative source for user data in your environment. You must specify **No** because the connector cannot synchronize account data with the Select Identity server.	
Associate to Group	Selected	Whether the system uses the concept of groups. For this connector, select this option.	Applicable only on Select Identity 3.3.1.
Host Name	server.company.com	IP address or hostname of the Tandem server.	
Super User Group	trulogica	The group to which the Super User belongs.	
Super User Name	user	User name of the user who has Administrative privileges on the Tandem machine. Specify only the user name (without the group name).	
Super User Password	Password123	Password for the Super User account.	
Expect Executable	/Expect/bin/expect.exe	Path to the Expect executable, which is required to run scripts.	
Script Location	/Select_Identity/TandemConnector/scripts	Location of the Expect scripts that were extracted from the `Tandem-expect-scripts.zip` file during installation.	
Safecom Path	$SYSTEM.ASUTILS.SAFECOM	The path to the Safecom executable on the Tandem server.	
Mapping File	TandemSchema-Mapping.xml	Location of the connector mapping file used to map Select Identity attributes to attributes on the logical resource.	
Resource Name	SNVT-tandem	Name given to the resource.	

*Instead of creating an authoritative resource, you can create authoritative attributes (in the next step) for the attributes that will be synchronized. Entitlements are authoritative by default in a non-authoritative resource but other attributes are not.

Map Attributes

After successfully adding a resource for the Tandem connector, you must map the resource attributes to Select Identity attributes. Refer to the *HP OpenView Select Identity Connector Deployment Guide* for information on mapping and creating attributes. While mapping attributes, refer to the following table for resource specific mapping information.

Table 6 Tandem Mapping Information

Select Identity Resource Attribute	Attribute on Connector	Attribute on Physical Resource	Description
User Name	username	(this is a user attribute)	The user name. Specify a value from 1-8 alphanumeric characters in length.
Password	password	(this is a user attribute)	The user's password. Specify 1-8 alphanumeric characters. This value is encrypted.
Primary Group	groupname	(this is a user attribute)	The connector can dynamically retrieve primary groups from the Tandem server when a user is added. To enable this feature, see the *HP OpenView Select Identity Administrator Guide* for details about creating this attribute.
User ID	uid	(this is a user attribute)	The Tandem user ID of this user. Specify a value 1-3 alphanumeric characters in length.
Group ID	gid	(this is a user attribute)	The ID of the group to which this user belongs. Specify a value 1-3 alphanumeric characters in length.
[Primary Group].[User Name]	fullusername	(this is a user attribute)	The full user name. This attribute is created internally in Select Identity.

Table 6 Tandem Mapping Information

Select Identity Resource Attribute	Attribute on Connector	Attribute on Physical Resource	Description
[Group ID],[User ID]	fulluserid	(this is a user attribute)	The full user ID. This attribute is created internally in Select Identity.
Owner	owner	OWNER	The owner of the user record. The value must be 1-17 alphanumeric characters in length.
Password Expires	passwordExpires	PASSWORD-EXPIRES	The user expiration date. The format is: {month-name day} year [, hour: min].
Password Change	passwordchange	PASSWORD-MUST-CHANGE	The maximum number of days after which the user must change the password. Specify an integer in the range of 1-32,767.
Password Grace	passwordgrace	PASSWORD-EXPIRY-GRACE	Number of days after the password expires in which the users can change the password. Specify an integer in the range of 0-32,767.
Default Protection	defaultprotection	DEFAULT-PROTECTION	Default protection attributes for the user. Specify a valid Tandem protection string.
Initial File	initialfile	INITIAL-PROGRAM	The initial program for the user. Specify the file name, up to 256 alphanumeric characters in length.
Initial Directory	initialdir	INITIAL-DIRECTORY	Initial working directory for the user. Specify a valid Tandem pathname (up to 255 characters).
Initial Program Type	initialprogtype	INITIAL-PROGTYPE	Initial program type for the user in the OSS environment. Valid entries are PROGRAM, SERVICE, and WINDOW.

For Tandem attributes that cannot be mapped to existing Select Identity attributes, you must create new attributes in Select Identity and map them to the corresponding Tandem attributes.

The Tandem connector can dynamically retrieve the list of primary groups from the Tandem resource. To enable this, create a Primary Group attribute with the following settings:

Attribute Name	**Primary Group**
Resource Name	SNVT-tandem
Identity Object Type	User
Primitive Type	String
Attribute Type	Normal
Storage Type	Normal
Multi Value	No
Min Length	1
Max Length	50
Required	Yes
Default Display Name	Primary Group
Default Display Mask	0
Default Display Length	0
Value Constraint Type	Dynamic
Value Constraint Function	Search Connector
Value Generation Function	
Value Validation Function	

After mapping the attributes, you can use the connector to create a service, or you can associate the connector with an existing service. Refer to the *Service Studio* chapter of the *HP OpenView Select Identity Administrator Guide* for information on Select Identity services.

The following attributes need special consideration when creating Services that rely on a Tandem resource:

- Service View Creation
  When creating a Service that relies on a Tandem resource, the Group ID attribute should not be included in the Service view. This attribute is internally updated by the Tandem connector.
- Add User to Service
  When adding a user to a Service that relies on a Tandem resource, the following attributes are mandatory and must be selected as Required:
  - UserName
  - Password
  - Primary Group

The UserID attribute is optional, and if empty, the connector creates a new user ID for that user from the Tandem server. All other attributes are optional, and if empty, they will not be set on the Tandem server.

- Modify User of a Service
  When modifying a user associated with a Service that relies on Tandem, the following attributes should not be made available for update. These attributes are fixed for a user once created:
  - UserName
  - Password
  - UserID
  - Primary Group

5 Uninstalling the Connector

If you want to uninstall a connector from Select Identity, perform the following steps:

- Remove all resource dependencies.
- Delete the connector from Select Identity.
- Delete the connector from application server.

After deleting the connector, you can remove the Expect scripts as well. Remove the scripts from the directory on the Select Identity server where they were extracted.

See *HP OpenView Select Identity Connector Deployment Guide* for more information on deleting the connector from application server and Select Identity.

A Overview of the Installed Scripts

The Tandem connector performs operations using a tool called Expect. This tool must be installed on the application server running Select Identity.

The following scripts are provided during the connector installation. The syntax for each script is provided to enable you to run the scripts manually if need be.

- `compositeAddUser.exp`

  Adds a user on the Tandem Himalaya system.

  Syntax:

  ```
  compositeAddUser.exp safecom=<safecomepath>
  fullusername=<fullusername> suuser=<suusername> sugroup=<sugroup>
  supasswd=<supasswd> [ owner=<ownerID> | expires=<expiresDate> |
  passwordChange=<numberOfDays> | passwordGrace=<numberOfDays> |
  paswordExpires=<passwordExpiryDate> | primaryGroup=<primaryGroup> |
  remotePassword=<remotePassword> |
  defaultProtection=<defaultProtection> | initialFile=<initialFile> |
  initialDir=<initialDir> | initialProgType=<PROGRAM | SERVICE |
  WINDOW> ]
  ```

- `modifyUser.exp`

  Modifies a user on the Tandem Himalaya system.

  Syntax:

  ```
  modifyUser.exp safecom=<safecomepath> fullusername=<fullusername>
  suuser=<suusername> sugroup=<sugroup> supasswd=<supasswd> [
  owner=<ownerID> | expires=<expiresDate> |
  passwordChange=<numberOfDays> | passwordGrace=<numberOfDays> |
  paswordExpires=<passwordExpiryDate> | primaryGroup=<primaryGroup> |
  remotePassword=<remotePassword> |
  defaultProtection=<defaultProtection> | initialFile=<initialFile> |
  initialDir=<initialDir> | initialProgType=<PROGRAM | SERVICE |
  WINDOW> ]
  ```

- `resetPassword.exp`

  Resets an existing user's password on the Tandem Himalaya system.

  Syntax:

  ```
  resetPassword.exp safecom=<safecomepath> fullusername=<fullusername>
  password=<password> suuser=<suusername> sugroup=<sugroup>
  supasswd=<supasswd>
  ```

- `enableUser.exp`

  Enables (THAW) an existing, disabled user on the Tandem system.

  Syntax:

  ```
  enableUser.exp safecom=<safecomepath> fullusername=<fullusername>
  suuser=<suusername> sugroup=<sugroup> supasswd=<supasswd>
  ```

- `disableUser.exp`

  Disables (FREEZE) an existing, disabled user on the Tandem system.

  Syntax:
  `disableUser.exp safecom=<safecomepath> fullusername=<fullusername> suuser=<suusername> sugroup=<sugroup> supasswd=<supasswd>`

- `deleteUser.exp`

  Deletes a user from the Tandem system.

  Syntax:
  `deleteUser.exp safecom=<safecomepath> fullusername=<fullusername> suuser=<suusername> sugroup=<sugroup> supasswd=<supasswd> server=<server>`

- `doTest.exp`

  Tests the connection parameters to the Tandem system.

  Syntax:
  `doTest.exp safecom=<safecomepath> server=<server IP> suuser=<suusername> sugroup=<sugroup> supasswd=<supasswd>`

- `genericCommand.exp`

  Executes any Tandem command on the system.

  Syntax:
  `genericCommand.exp safecom=<safecomepath> server=<server IP> command=<"Command"> suuser=<suusername> sugroup=<sugroup> supasswd=<supasswd>`