HP Select Identity Software

Connector for eTrust CA- TopSecret (Bidirectional LDAP Based)

Software Version: 2.22

Installation and Configuration Guide

Document Release Date: September 2007
Software Release Date: September 2007

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

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Contents

1 Documentation Map

This chapter describes the organization of HP 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 Select Identity connector. For a list of available product documentation, refer to the Table 1.

Figure 1 Documentation Map

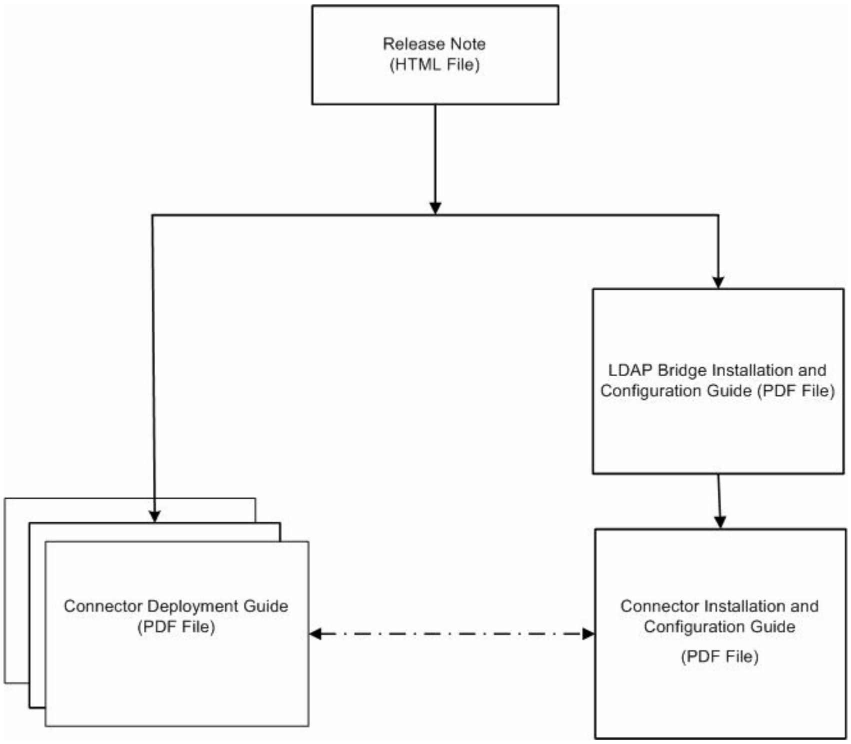

Release Note
(HTML File)
LDAP Bridge Installation and Configuration Guide (PDF File)
Connector Deployment Guide
(PDF File)
Connector Installation and Configuration Guide
(PDF File)

Table 1 Connector Documentation

Document Title and Filename	Contents	Location
Release Note `TopSecret Connector v2.22 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 4.20) `connector_deploy_SI4.20.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/` root directory on the product's CD media.
Connector Deployment Guide (for Select Identity 4.10-4.13) `connector_deploy_SI4.13.pdf`		
Connector Deployment Guide (for Select Identity 4.0-4.01) `connector_deploy_SI4.pdf`		
Connector Deployment Guide (for Select Identity 3.3.1) `connector_deploy_SI3.3.1.pdf`		
LDAP Bridge Installation and Configuration Guide `LDAP_Bridge_guide.pdf`	LDAP Bridge installation and configuration guide provides installation instructions for the LDAP Bridge for the TopSecret connector.	`/LDAP_Bridge/Docs/` subdirectory under the connector directory.
Connector Installation and Configuration Guide `TopSecret_guide.pdf`	Connector installation and configuration guide provides installation instructions for the TopSecret connector. It contains resource specific configuration details.	`/Docs/` subdirectory under the connector directory.

2 Introduction

This chapter gives an overview of the HP Select Identity connector for eTrust CA- TopSecret.

An HP Select Identity connector for eTrust CA- TopSecret enables you to provision users and manage identities on TopSecret server. At the end of this chapter, you will be able to know about:

- The benefits of HP Select Identity.
- The role of a connector.
- The connector for eTrust CA- TopSecret.

About HP Select Identity

HP Select Identity provides a new approach to identity management. 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. 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 TopSecret Connector

The bidirectional LDAP based connector for eTrust CA- TopSecret— hereafter referred to as TopSecret connector — enables Select Identity to perform the following tasks on TopSecret server:

- 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
- Validate passwords
- Retrieve all entitlements
- Retrieve a list of supported user attributes
- Grant and revoke entitlements to and from users

TopSecret is a bidirectional Lightweight Directory Access Protocol Version 3 (LDAPv3) compliant connector that pushes changes made to user data in Select Identity database to a target TopSecret server. The connector uses the Java LDAP Application Program Interfaces (APIs) to provision users and their entitlements in the LDAP server, which in turn pushes the data to the TopSecret server.

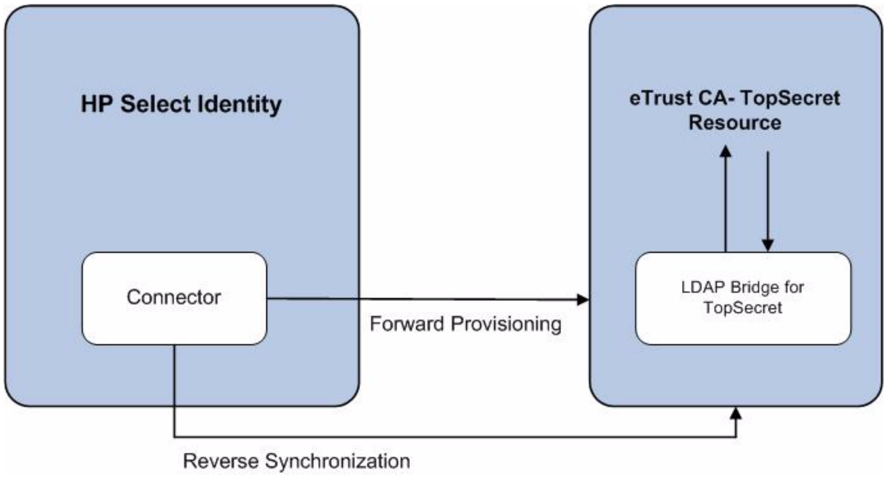
The reverse synchronization feature reconciles user account changes made on the TopSecret resource with Select Identity. Select Identity periodically polls the TopSecret resource to retrieve changes through the connector.

➤ This connector can be used with Select Identity 3.3.1-4.20.

High-Level Architecture

Figure 2 illustrates a high-level architecture of TopSecret connector. You must install the connector on Select Identity server and the agent on resource system. The LDAP Bridge helps synchronizing the changes made on TopSecret server with Select Identity.

Figure 2 High-Level Architecture of the Connector



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 13
	— Meet the system requirements.	See System Requirements on page 14.
	— Install the LDAP Bridge.	Refer to the *HP Select Identity CA TopSecret LDAP Bridge Installation and Configuration Guide*.
	— Extract 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 14.
	— Verify the configurable parameters in the `LDAPBridgeConfig.properties` file.	See Verifying Configurable Parameters on page 14.
	— Install the Resource Adapter Archive (RAR) of the connector on an application server.	See Installing the Connector RAR on page 18.

Table 2 Organization of Tasks (cont'd)

Task Number	Task Name	Reference
2	Configure the connector with the Select Identity server.	See Configuring the Connector with Select Identity on page 19.
	— Add a new connector to Select Identity.	See Add a New Connector on page 19
	— Add a new resource to Select Identity.	See Add a New Resource on page 19.
	— Map the resource attributes to Select Identity attributes.	See Map Attributes on page 23.
	— Configure Workflow External Call.	See Configure Workflow External Call on Select Identity on page 25.
	— Configure Select Identity to support polling based reverse synchronization.	See Configure Select Identity Polling for Reverse Provisioning on page 26.

3 Installing the Connector

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

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

TopSecret Connector Files

The TopSecret connector is packaged in the following files in the `Bidirectional LDAP Connector - TopSecret` directory on the Select Identity Connector CD:

Table 3 TopSecret Connector Files

Serial Number	File Name	Description
1	• `TopSecretLDAPConnector_420.rar` for WebShpere • `TopSecretLDAPConnector_420WL9.rar` for WebLogic	The Resource Adapter Archive (RAR) file contains the connector binaries.
2	`TopSecret.jar`	The Schema file contains the mapping files that contain attribute information of eTrust CA- TopSecret.
3	`hpv33t.pax.Z`	This file contains the LDAP Bridge, which has to be installed in resource TopSecret server. Refer to the *HP Select Identity CA TopSecret LDAP Bridge Installation and Configuration Guide* for more information on this.

System Requirements

The TopSecret connector is supported in the following environment:

Table 4 Platform Matrix for TopSecret connector

Select Identity Version	Application Server	Database
3.3.1	WebLogic 8.1.5 on RedHat Enterprise Linux AS Release 3.0	Oracle 10g
	WebLogic 8.1.5 on Windows 2003 Server.	Microsoft SQL Server 2000
4.0-4.20	The TopSecret connector is supported on all the platform configurations of Select Identity 4.0-4.20.	

Installing the LDAP Bridge

Before installing the connector on Select Identity system, you must install LDAP bridge on TopSecret resource. Refer to the *HP Select Identity CA TopSecret LDAP Bridge Installation and Configuration Guide* for more information on installing LDAP bridge on TopSecret server.

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 `TopSecret.jar` file to a directory that is in the application server `CLASSPATH`. Refer to the *HP Select Identity Connector Deployment Guide* for detailed instruction to extract contents of the Schema file.

Verifying Configurable Parameters

Before you start installing the TopSecret connector, you must verify some configurable properties in the `LDAPBridgeConfig.properties` file, which is present in the `TopSecret.jar` file. Verify the parameters and change the values if they do not match with the values as mentioned below.

- `entitlement-delimiter=|`

  It contains the string delimiter that is displayed between an entitlement type and its name.

- `modify_replace=false`

This parameter that can be set to true or false. When it is set to false, the TopSecret Connector uses modify/add and modify/delete operations to support multi-value attribute. When it is set to true, the connector uses modify/replace operation to support multi-value attribute.

- `attributeValue-delimiter=|`

  It contains the string delimiter that is used to separate attribute values for multi valued attribute. By default, `attributeValue-delimiter` is set to `|`. You can change this parameter value to any other value such as `,` or `:`.

- `attribute-begins=[[`

  `attribute-ends=]]`

  These parameters wrap the special base64 encoded attribute values while sending to connector from Select Identity.

- `checkModValues=true`

  If this is set to true, the TopSecret connector compares each attribute values with the values in the resource during user modify operation. If user modifies an attribute that does not support modify operation, then the connector can detect it and throws an exception to the user. If the `checkModValues` parameter is set to false, attribute values are not compared. If you modify an attribute that does not support modify operation, the change will still be sent to TopSecret. You must not change an attribute value that does not support modify operation, when `checkModValues` is set to false.

- `dualLink-support=1`

  This parameter specifies whether a Link is a User Link or a Group Link. If it is 1, then it is a User Link. For TopSecret, you must set this parameter to 1.

- `multivalue-support=false`

  This parameter specifies whether Select Identity supports multi-value attributes or not. This property is used in the reverse provisioning. When a multi-value attribute is detected in the `replog` during polling, all the values of the multi-value attribute are combined as single-value string.

  If true - Select Identity supports multi-value attributes.
  If false - Select Identity does not support multi-value attributes.

- `mergeChangeLog=true`

  If this is set to true, multiple add/modify change-log entries for a user in the `replog` file are merged into a single change-log entry.

- `unlink-before-terminate=true`

  If you do not want to unlink an entitlements while performing a `terminate user` operation, set this flag to true.

- `ignore-non-updateable-attr-values=true`

  If it is set to true, and from Select Identity if you change the value an attribute that cannot be updated (attribute that does not support `UPDATE` operation), the connector logs a warning message in a log file, but does not throw any exception. If it is set to true, then connector logs warning message as well as throws an exception, when a non-updatable attribute value is changed from Select Identity.

- `ignore-deleteable-attr-values=true`

If true and the attribute supports UPDATE operation and the value of an attribute is sent as empty from Select Identity to connector but its value on TopSecret is not empty, then the connector will not delete the attribute.

If false and the attribute supports UPDATE operation and the value of an attribute is sent as empty from Select Identity to connector but its value on TopSecret is not empty, then the connector will delete the attribute.

- `send_entitlements_as_attrs_in_reverse=true`

  If it is set to true and `multivalue-support` is set to false, then connector sends the entitlement attribute change as the latest value from the resource as a single-valued string separated by a delimiter.

  If it is set to true and `multivalue-support` is set to true, then connector sends the entitlement attribute change as the only add/delete sub value.

  If it is set to false, then connector sends the entitlement attribute change as regular entitlements with add/delete entitlements.

Install TopSecret Certificate on Select Identity 4.20

Perform the following steps to install the TopSecret certificate:

1. Create and configure Select Identity trust store and properties, if not already created.

   a. Create the trust store;

   b. Generate a properties file that is corresponding to the trust store file.

   Refer to *Creating the Trust Store* section of *HP Select Identity Installation Guide* for detailed instructions on creating keystore, trust store, and properties.

2. Import certificate representing TopSecret resource or issuer of TopSecret resource to Select Identity trust store:

   a. Get TopSecret certificate;

   b. Import the certificate into the trust store file you created in the previous step.

   Refer to *Creating the Trust Store* section of *HP Select Identity Installation Guide* for detailed instructions on creating keystore, trust store, and properties.

3. If a resource requires a specific client certificate, you must either generate the client certificate or import the client certificate into the key store:

   a. Create the key store file;

   b. Generate the certificate that represents Select Identity server if no certificate available. Or, import the certificate that represents Select Identity server if a certificate already exists.

   c. Generate the properties file that is corresponding to the keystore.

   For more information, refer to *Creating the Key Store and Key Pairs for Mutual Authentication and/or Secure Object Migration* section of *HP Select Identity Installation Guide*.

4. Register the key store and trust store and select the Select Identity client certificate, if not already done.

   a. Open the security setup tool in Select Identity;

b Register the keystore properties to Select Identity;

c Register the trust store properties to Select Identity;

d Select certificate represent Select Identity server if needed.

For detailed instructions, refer to *Configure System Security* topic in *HP Select Identity Administration Online Help*.

Rotate Keys

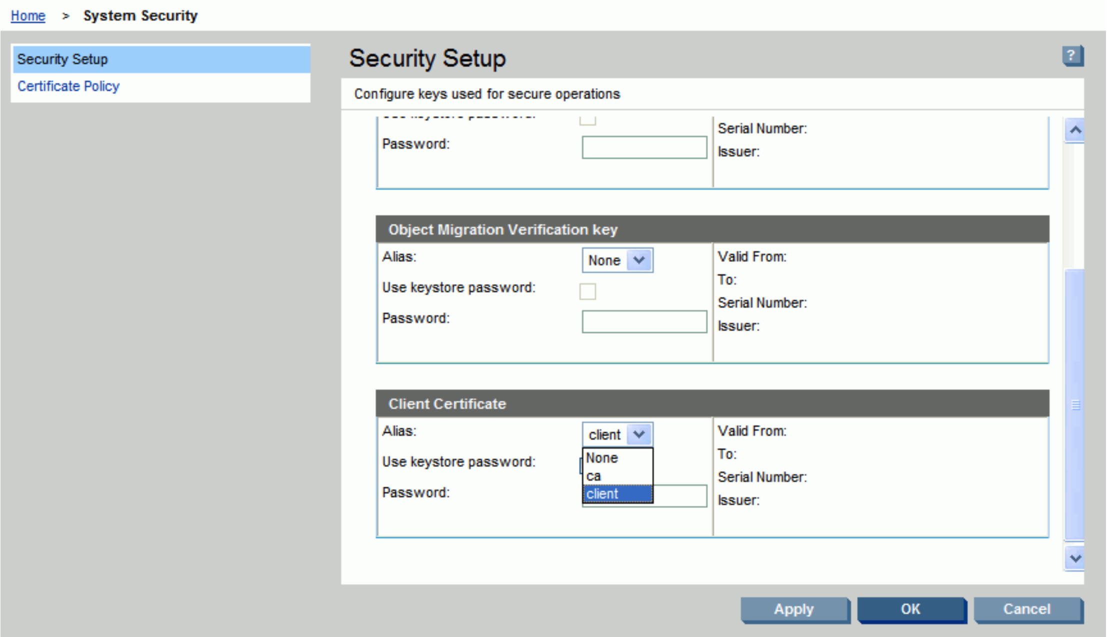
Key rotation is a process that Select Identity can use different keys to connect to a resource. The process is:

1 Generate new key pair in keystore.

For detailed instructions, refer to *Creating the Mutual Authentication Key store* section of *HP Select Identity Installation Guide*.

2 Change key alias in system security setup:

a From the Tools menu, select **System Security** → **Security Setup**. The Security Setup page displays.



Home > System Security

Security Setup
Certificate Policy

Security Setup

Configure keys used for secure operations

Password: | Serial Number: | Issuer:

Object Migration Verification key

Alias: None | Valid From:
Use keystore password: □ | To:
Password: | Serial Number: | Issuer:

Client Certificate

Alias: client (None, ca, client) | Valid From:
Use keystore password: | To:
Password: | Serial Number: | Issuer:

b Under Client Certificate section, select the newly generated certificate.

For WebSphere, make sure that `sunjce_provider.jar` file is in <*appserver_home*>`/java/jre/lib/ext` directory, and add the following line into `java.securtity` file which is present in <*appserver_home*>`/java/jre/lib/securtiy` directory:

```
security.provider.8=com.sun.security.sasl.Provider.
```

Installing the Connector RAR

To install the RAR file of the connector (such as `TopSecretLDAPConnector_420.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 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/TopSecretConnector`**.

After deploying the connector RAR on application server and installing the scripts, you must configure TopSecret connector with Select Identity. Refer to Configuring the Connector with Select Identity on page 19 for configuration steps.

4 Configuring the Connector with Select Identity

This chapter describes the procedure to configure the TopSecret connector with Select Identity and the connector specific parameters that you must provide while configuring the 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 TopSecret connector with Select Identity.

1. Add a New Connector
2. Add a New Resource
3. Map Attributes
4. Configure Workflow External Call on Select Identity
5. Configure Select Identity Polling for Reverse Provisioning

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/TopSecretConnector`**.
- Select **`Yes`** for the Mapper Available section.

Refer to the *HP 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 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	TopSecret	Name given to the resource.	
Connector Name	TopSecretResource	The newly created connector.	Known as Resource Type in 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 for Select Identity 3.3.1.
Access URL	ldap://tz13.datadist.com:2389	URL for connecting to the resource (the format is IP:port).	
Suffix	o=rocketsoftware.com	Default root suffix.	
Login Name	uid=ROC0U03, ou=people, o=rocketsoftware.com	Login name of the administrative user.	*For Non-SSL and one-way SSL connection, this attribute is mandatory for resource creation*; If Authentication Mechanism is `external`, set this attribute null.
Password	ROCPWD	Password of the specified user.	*For Non-SSL and one-way SSL connection, this attribute is mandatory for resource creation*; If Authentication Mechanism is `external`, set this attribute null.

Table 5 Resource Configuration Parameters (cont'd)

Field Name	Sample Values	Description	Comment
Default User Suffix	ou=people	Suffix where all users exist.	
passPluginSuffix	ou=no plugin sufffix	Password Plug-in Suffix, not applicable to TopSecret.	
Default Group Suffix	ou=people	Suffix where all groups exist.	
Mapping File	`TopSecret.xml`	Name of the file that specifies the attribute mappings. This file should exist in the classpath of the application server. Click **View** to open the file in a browser. If this file cannot be viewed, Select Identity could not locate it.	
Select Identity Locale	en_US	Locale-specific information. If Country = US and Language = English, current locale string is en_US.	

Table 5 Resource Configuration Parameters (cont'd)

Field Name	Sample Values	Description	Comment
CRL Flag	false	Indicates if the resource performs CRL check. This flag works with CRL check flag in **Tools** → **System Security** → **Security Setup** → **Certificate Policy** page. If these two flags are both true, the connector will perform CRL check.	
Usage Flag	false	Indicates if the connector performs usage check. This flag works with usage check flag in **Tools** → **System Security** → **Security Setup** → **Certificate Policy** page. If these two flags are both true, the connector will perform Usage check.	
Authentication Mechanism	simple/external	This is for SSL connections only. If you are connecting to non-SSL connection, leave it blank. `Simple` indicates that the connector uses `username/password` as authentication credential. `External` is only effective when connect to two-way-SSL. External indicates that the connector uses External SASL merchanism to authenticate user credential, which means LDAP bridge will check certification provided by the connector to determine which user is connecting in ldap bridge	

After entering the resource access information, User Reconciliation Policy page appears. On the User Reconciliation Policy page, perform the following:

1. Select the Polling Enable checkbox.
2. Set the polling interval as one day.

3 Under Add and Modify section, set Reconciliation Workflow as Select Identity Recon User Enable Disable Workflow from the drop-down box.

Map Attributes

After successfully adding a resource for the TopSecret connector, you must map the resource attributes to Select Identity attributes. Refer to the *HP 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 TopSecret Mapping Information

Select Identity Resource Attribute	Connector Attribute	Attribute on TopSecret LDAP Server	Attribute in TopSecret	Description
tssTsoUnit	tssTsoUnit	tssTsoUnit	TSOUNIT	TSO default unit.
tssTsoLAcct	tssTsoLAcct	tssTsoLAcct	TSOACCT	TSO default account number.
tssTsoLProc	tssTsoLProc	tssTsoLProc	TSOLPROC	TSO default logon procedure.
tssXauth	tssXauth	tssXauth	A class from the RDT, or "ACID"	Permitted resource for this user.
tssOwn	tssOwn	tssOwn	A resource class from the RDT	Owned resource.
tssDeptAcid	tssDeptAcid	tssDeptAcid	DEPART-MENT	Department ACID. *This attribute is mandatory for user creation.*
tssTsoLSize	tssTsoLSize	tssTsoLSize	TSOLSIZE	TSO default region size, in KB.
tssInstdata	tssInstdata	tssInstdata	INSTDATA	Site-defined, ACID-specific data.
tssAttribute	tssAttribute	tssAttribute	Various	Various TSS attributes, like DUFXTR, DUFUPD, and so on.
tssAcidType	tssAcidType	tssAcidType	TYPE	Valid values include USER. *This attribute is mandatory for user creation.*

Table 6 TopSecret Mapping Information (cont'd)

Select Identity Resource Attribute	Connector Attribute	Attribute on TopSecret LDAP Server	Attribute in TopSecret	Description
UserName	uid	uid	ACID	The ACID, which must be less than or equal to seven characters. *This attribute is mandatory for user creation.*
Password	Password	tssPassword	PASSWORD	*This attribute is mandatory for user creation.* Password for this ACID, which must be less than or equal to eight characters. For ldap bridge v3.5 or above, the mapping field on LDAP Bridge is `tssPassword` for password sync instead of `userPassword`
cn	cn	cn	NAME	Username in Top Secret; all TSS ACIDs require a name. *This attribute is mandatory for user creation.*
DN	DN	DN		
objectclass	objectclass	objectclass		LDAP object classes used for user creation.
tssGroup	tssGroup	tssGroup	GROUP	A group added to this ACID.
tssProfile	tssProfile	tssProfile	PROFILE	A profile added to this ACID.

Table 6 TopSecret Mapping Information (cont'd)

Select Identity Resource Attribute	Connector Attribute	Attribute on TopSecret LDAP Server	Attribute in TopSecret	Description
		tssSuspend		Boolean that indicates whether user is suspended.
Title	Title	title		
Email	Email	mail		
Street	Street	street		
FirstName	FirstName	givenName		
LastName	LastName	sn		
Mobile	Mobile	mobile		
PostalCode	PostalCode	postalCode		
Description	Description	description		
DisplayName	DisplayName	displayName		
Telephone-Number	Telephone-Number	telephone-Number		
PostalAddress	PostalAddress	postalAddress		

Configure Workflow External Call on Select Identity

To enable reverse synchronization, you must configure the workflow external call for user enable/ disable operation on Select Identity for TopSecret connector. Refer to *HP Select Identity Deployment Guide* for information on configuring user enable/disable workflow external call. While configuring, enter the parameters as given in the table below.

Table 7 User Enable/Disable Parameters for TopSecret Connector

Serial Number	Parameter Name	Parameter Value
1	AttributeName	tssSuspend
2	EnableValue	FALSE
3	DisableValue	TRUE

Table 7 User Enable/Disable Parameters for TopSecret Connector (cont'd)

Serial Number	Parameter Name	Parameter Value
4	UserName	Select Identity admin user name. For example, sisa.
5	Password	Select Identity admin password. For example, abc123.
6	Url	http://localhost:7001/lmz/webservice

Configure Select Identity Polling for Reverse Provisioning

Reverse synchronization in TopSecret connector is achieved by polling.

Each time the polling is invoked, the following sequences take place in the background:

1. The polling batch task is invoked
2. The polling batch gets the resource name from the `TruAccess.properties` property file and get the ChangeLogs made from the last polling via the connector.
3. The polling batch task converts all the ChangeLogs into an SPML files, and the SPML file will be converted to a Request using the SPML parser and submitted to the Select Identity Reconciliation engine. Then ReconcilationHelper is called to execute all the Modify Requests.
4. In the provisioning stage of request execution, Select Identity will be updated with the changes in the resource.

To configure polling, you must perform the following additional configuration on Select Identity (on Select Identity 3.3.1 or Select Identity 4.0-4.20).

Select Identity 3.3.1

Perform the following procedures to enable polling mechanism on Select Identity 3.3.1 for the TopSecret connector.

Modify the Truaccess.properties File

You need to add the following properties in the `TruAccess.properties` file to enable polling from Select Identity:

- A new entry "si.reconciliation.resync.polling" is used to point out the resource name for RESYNC or for reconciliation. The resource must be non-authoritative, otherwise no action will be taken for resync. For a regular reconciliation, the resource may be authoritative.

  ```
  si.reconciliation.resync.polling= <Resource Name on SI>
  ```

- To enable the RESYNC for reconciliation, following entries are also necessary.

  # The recon provisioning back feature is enabled for the specified resource.
  ```
  si.reconciliation.resync.<Resource Name on SI>=true
  ```

  # Workflow used for recon provisioning back feature of specified resource.
  ```
  truaccess.fixedtemplate.recon.resync.<Resource Name on SI>=SI\ Recon\
  User\ Enable\ Disable\ Workflow
  ```

```
# Default Workflow used for recon provisioning back feature.
truaccess.fixedtemplate.recon.resync= SI\ Recon\ User\ Enable\
Disable\ Workflow
```

```
# Another property is required to specify the keyfield name in the operational attributes
of the spml request.
si.reconciliation.polling.keyfield.<Resource Name on SI>= uid
```

```
# Modify the following already existing entries as below
# Initially their values will be ReconciliationDefaultProcess, change it to
# Select Identity Recon User Enable Disable Workflow
```

```
truaccess.fixedtemplate.recon_enable=SI\ Recon\ User\ Enable\
Disable\ Workflow truaccess.fixedtemplate.recon_disable=SI\ Recon\
User\ Enable\ Disable\ Workflow
```

A sample of modified `TruAccess.properties` file:

```
truaccess.fixedtemplate.recon_enable=SI\ Recon\ User\ Enable\ Disable\
Workflow truaccess.fixedtemplate.recon_disable=SI\ Recon\ User\ Enable\
Disable\ Workflow

si.reconciliation.resync.polling=TopSecret

si.reconciliation.resync.TopSecret=true

truaccess.fixedtemplate.recon.resync.TopSecret=SI\ Recon\ User\ Enable\
Disable\ Workflow

truaccess.fixedtemplate.recon.resync=SI\ Recon\ User\ Enable\ Disable\
Workflow

si.reconciliation.polling.keyfield.TopSecret=uid
```

Modify the Select Identity database

You must add a row for a periodic polling task to the Batch table manually.

The xml text of the batch is:

```
<?xml version="1.0" encoding="UTF-8"?><Batch at="00:00:00" enabled="true"
handlerClass="
com.trulogica.truaccess.reconciliation.util.ReconPollingTaskHandler"
name="ReconPollingTask"
taskid="0"><RecurringSchedule><BySecond><RepeatInterval value="300"></
RepeatInterval></BySecond></RecurringSchedule></Batch>
```

You must run the following SQL command on the Select Identity database to add the batch task:

```
INSERT INTO BATCH (ID, ENABLED, STATE, REPEATCOUNT, NEXTSCHEDULED,
LASTSCHEDULED, JOBID, XMLTEXT, OWNER, STATECHANGETIME)
VALUES (-105, 1, 2, 1, '1/1/1975', null, null, '<?xml version="1.0"
encoding="UTF-8"?><Batch at="00:00:00" enabled="true"
handlerClass="com.trulogica.truaccess.reconciliation.util.ReconPollingTa
skHandler" name="ReconPollingTask"
taskid="0"><RecurringSchedule><BySecond><RepeatInterval value="300"></
RepeatInterval></BySecond></RecurringSchedule></Batch>', 0, null);
```

You have to add a new table(PollingJob), RESOURCECHANGELOG, to Select Identity database to store the lastChangeNumber as the parameter for calling the method `getChangeLog`.

To give the initial value of `lastChangeNumber` of the RESYNC resource, this PollingJob should be added before the first execution of polling batch with correct value of lastChangeNumber to prevent retrieve all users from the resource.

The SQL command that has to be run on Select Identity database to create & initialize this table is:

```
CREATE TABLE RESOURCECHANGELOG
(
ResourceId int PRIMARY KEY NOT NULL,
lastChangeNumber int,
maxChangeLogCount int);
```

```
INSERT INTO RESOURCECHANGELOG  VALUES(<resourceId>, <lastChangeNumber>,
<maxChangeLogCount>);
```

Where **`<resourceId>`** is the primary key (ID column) of the Top Secret Resource from the APPLICATION table (There will be an entry for each Select Identity resource in APPLICATION table.)

`<lastChangeNumber>` is generated based on current date and time to a number. All changelogs generated on the resource after this time should be considered for Reconciliation. If **`<lastChangeNumber>`** is set to zero, then it indicates all changelogs are to be considered. After each polling execution, the lastChangeNumber will be updated.

`<maxChangeLogCount>` indicates the maximum number of changelogs that will be retrieved in one polling action from one resource.

Once these changes are done in database, Select Identity will start polling for the change logs every 5 mins. If you want to change the next poll time, you can modify the NEXTSCHEDULED column of the row with ID=-105 under BATCH table. Then next poll will be done when you have specified in this column.

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You must add the a new property to `TruAccess.properties` file to enable polling. To the existing file, add c`om.hp.ovsi.connector.changeLog.maxCount=`*`<maxChangeLogCount>`*

where <*maxChangeLogCount*> is a positive number.

For example, you can set c`om.hp.ovsi.connector.changeLog.maxCount=500`

This property indicates the maximum number of changelogs that will be retrieved in one polling action from one resource.

After configuring the connector with Select Identity, 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 Select Identity Administration Online Help* for information on Select Identity services.

➤ On Select Identity, if Top Secret service view has some attributes as mandatory, all of them should exist on Top Secret LDAP server and they should be sent when reverse add request comes from connector. That is, the only attributes that are coming in reverse add request can be mandatory in Select Identity Service view, if it is mandatory in view and it does not come in reverse add request, request will be rejected by Select Identity.

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.

See *HP Select Identity Deployment Guide* to for information on deleting a connector from Select Identity and application server.

A Customizing User Modification

The TopSecret connector enables you to customize user modification operation. The connector enables you to perform user modification in the following way:

1. During user modification operation, the connector checks if certain attributes (attributes that are preset in the `LDAPBridgeConfig.properties` file) are changed.
2. If the preset attributes are changed, the connector deletes the user from TopSecret resource and re-creates the user with new attribute values.

   If the preset attributes are not changed, the user modification operation is performed in the usual way.

This functionality is not enabled by default. To enable this functionality, you must add the following property to the `LDAPBridgeConfig.properties` file:

```
addAndDeleteAttribute=
```

You can set this parameter to a TopSecret user attribute, which can be modified through Select Identity. When Select Identity performs a modify user operation, and if the `addAndDeleteAttribute` parameter is set to any user attribute, the TopSecret connector performs this modify operation on TopSecret resource in the following way:

- The connector deletes the user from TopSecret resource.
- The connector recreates the user on TopSecret with modified user attribute values.

You can set this parameter to more than one user attributes (attributes that can be modified from Select Identity) separated by delimiter.

> You must use the value of the `attributeValue-delimiter` property (in the `LDAPBridgeConfig.properties` file) as delimiter.

Example scenario:

The following user is created on TopSecret:

UserId: USER1

GEID: GEID1

PROFILES: PROF1, PROF2, PROF3, PROF4

ELABEL: ELAB1

INSTDATA: ‘ INSTDATA STRING NUMBER ONE’

and `addAndDeleteAttribute` is set to `ELABEL | PROFILES | INSTDATA`.

The following is the change requests on USER1:

PROFILES to PROF1, PROF2

ELABEL to ELAB2

INSTDATA to ‘DEFAULT INSTDATA STRING’

When the TopSecret connector performs modify operation on this user, the following TopSecret commands are executed on TopSecret resource:

— `TSS DELETE(USER1)`

  The existing user (USER1) is deleted from TopSecret resource.

—
```
TSS CREATE(USER1) PROFILE(PROF1 PROF2) TYPE(USER) DEPARTMENT(BJX1TEST)
PASSWORD(DEFPASSWD,30,exp)   NAME('Lastname802,Firstname802 ') DUFXTR
INSTDATA('   DEFAULT INSTDATA STRING ')     FACILITY(CICSTEST)
```

```
TSS PERMIT(USER1) $GEID(GEID1)      ELABEL(ELAB2)
```

```
TSS REPLACE(USER1) PASSWORD(DEFPASSWD,30,exp)
```

  The user (USER1) is recreated with modified attribute values on TopSecret resource.

B Troubleshooting

- While creating and trying to save a resource, you get an error saying

  `Unable to find valid certification path to requested target.`

  Solution:

  Verify if the certificate of Sun ONE resource or issuer of Sun ONE resource has been imported into the truststore of Select Identity.

- While creating and trying to save a resource, you get an error saying

  `No trusted certificate found`

  Solution:

  Check the truststore managed by Select Identity, it seems that there is no trust key entry in the truststrore.

- While creating and trying to save a resource, you get an error saying

  `Bad certificate`

  Solution:

  Check the keystore managed by Select Identity to see if the certificate representing Select Identity is correct and trusted by the server.

- While creating and trying to save a resource, you get an error saying `error.securityfw.provider.cert.cn.not.found{16.157.133.80}`

  Cause:

  The cn field of server certificate does not equal to ldap URL in access information. For example, cn of certificate is machine name but using IP address in access information.

- While creating and trying to save a resource, you get an error saying

  `Cannot access key :null, maybe the password is incorrect or there is no private key.`

  Cause:

  The keystore managed by Select Identity is corrupt, or no key in it, or the password is incorrect.

- While creating and trying to save a resource, you get an error saying `error.securityfw.provider.certificate.revoked{CN=sicf-dev-2.asiapacific.hpqcorp.net, OU=TISU, O=CarlTao.HP.com, ST=Shanghai, C=CN}`

  Cause:

  The certificate from Sun ONE server can not pass CRL (certificate revoke list) check.