HP OpenView Select Identity

Connector for Microsoft® Windows® NT Local Systems

Connector Version: 3.5

Installation and Configuration Guide

Document Release Date: November 2006
Software Release Date: November 2006

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- Commons-logging
- Commons-digester
- Commons-httpclient
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- 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
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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

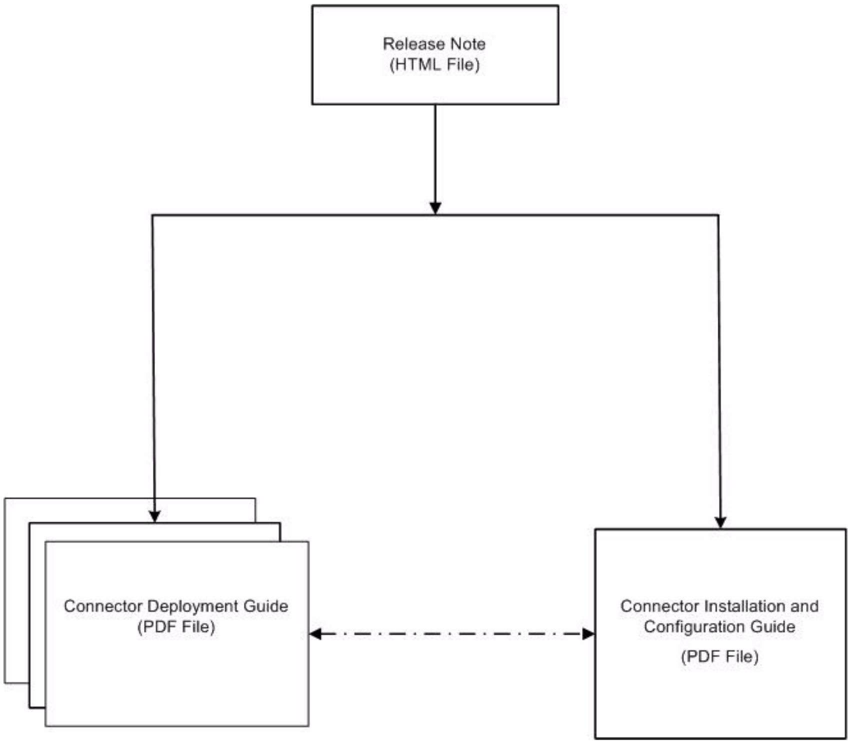


Table 1 Connector Documentation

Document Title and Filename	Contents	Location
Release Note `Windows NT Local Connector v3.5 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 4.10) `connector_deploy_SI4.1.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 4.0/4.01.00) `connector_deploy_SI4.pdf`		
Connector Deployment Guide (for Select Identity 3.3.1) `connector_deploy_SI3.3.1.pdf`		
Connector Installation and Configuration Guide `Windows NT Local_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 Windows.

An HP OpenView Select Identity connector for Windows enables you to provision users and manage identities on Windows NT Local systems. At the end of this chapter, you will be able to know about:

- The benefits of the HP OpenView Select Identity.
- The role of a connector.
- The connector for Windows.

About HP OpenView Select Identity

HP OpenView 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 Windows NT Local Connector

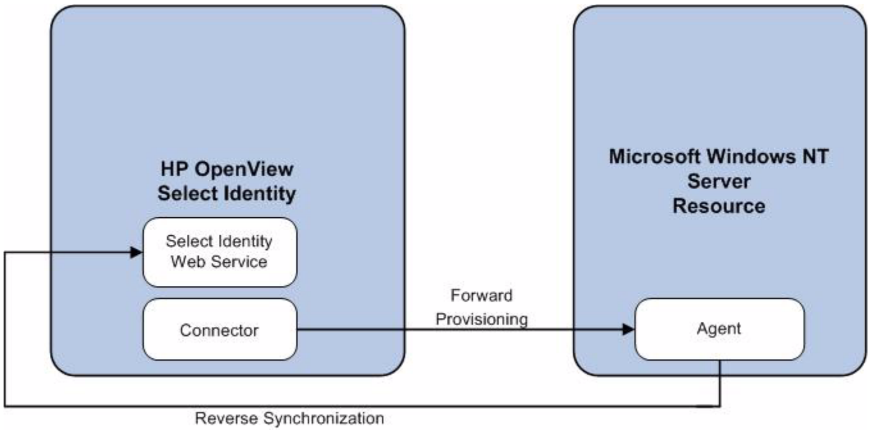
The connector for Microsoft Windows NT Local systems — hereafter referred to as Windows NT Local connector — enables HP OpenView Select Identity to provision in the local domain on Windows NT, XP, and 2000 systems. This connector is a two-way connector and can send data back to Select Identity based on changes made in the local domain. The Windows NT Local connector enables Select Identity to perform the following operations on Windows:

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

High-Level Architecture

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

Figure 2 High-Level Architecture of the Windows NT Local Connector


HP OpenView Select Identity
Select Identity Web Service
Connector
Microsoft Windows NT Server Resource
Agent
Forward Provisioning
Reverse Synchronization

To perform forward provisioning operation on Windows NT Local systems, the connector communicates with the agent. The agent executes the provisioning task on resource system.

The agent detects the changes on the host (Windows) resource and sends SPML notifications to Select Identity to synchronize the changes. The updates made to Select Identity data depend on whether the Windows system is an authoritative or non-authoritative resource. The table below compares the reconciliation mechanism of an authoritative resource and a non-authoritative resource.

➤ This connector can be used with Select Identity 4.10, 4.01.000, 4.0, and 3.3.1.

Operation	Authoritative Resource	Non-Authoritative Resource
User addition on the resource.	The user is added to the respective Service.	User is not added. However, if the user exists, the entitlements are modified (not the user attributes).
User attributes modification on the resource.	Attributes are updated in Select Identity.	Attributes are not updated in Select Identity.
User entitlements modification on the resource.	Entitlements are modified in Select Identity.	Entitlements are modified in Select Identity.
User deletion on the resource.	The user's Service membership is deleted in Select Identity.	The user is not deleted in Select Identity, though the entitlements for the resource are deleted.
Password change on the resource.	The user's password is reset in all Services for which the user is registered.	The user's password is reset in all Services for which the user is registered.

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 13.
	— 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 14.
	— Install the Resource Adapter Archive (RAR) of the connector on an application server.	See Installing the Connector RAR on page 15.
2	Configure the connector with the Select Identity server.	See Configuring the Connector with Select Identity on page 17.
3	Installing the agent for Windows NT Local connector.	See Installing the Agent on page 21.

3 Installing the Connector

This chapter elaborates the procedure to install Windows NT Local connector on Select Identity server and agent on Windows NT Local systems. At the end of this chapter, you will know about

- Software requirements to install the Windows NT Local connector.
- Prerequisite conditions to install Windows NT Local connector.
- Procedure to install Windows NT Local connector.

Windows NT Local Connector Files

The Windows NT Local connector is packaged in the following files in the `NTLocal` directory on the Select Identity Connector CD:

Table 3 Windows NT Local Connector Files

Serial Number	File Name	Description
1	`NTLConnector.rar`	The Resource Adapter Archive (RAR) file contains the connector binaries.
2	`NTLschema.jar`	The Schema file contains the mapping files that contain attribute information of Windows.
3	`NTLSetup.zip`	The zip file contains the executable to install the agent.

System Requirements

The Windows NT Local connector is supported in the following environment:

Table 4 Platform Matrix for Windows NT Local connector

Select Identity Version	Application Server	Database
3.3.1	WebLogic 8.1.4 on Windows 2003	SQL Server 2000
	WebSphere 5.1.1 on HP-UX 11i	Oracle 9i
4.10/4.0/4.01.000	The Windows NT Local connector is supported on all the platform configurations of Select Identity 4.0, 4.01.000, and 4.10.	

The Windows NT Local connector is supported with Windows NT 4.0, Windows 2000, Windows 2003, and Windows XP.

The agent is supported on the following platform:

Table 4A Platform Matrix for the Agent

Operating system	Browser Version	Winsock Version
• Microsoft Windows NT Server/ Workstation, Service Pack 6 or later • Windows XP Professional, Service Pack 1 • Windows 2000 Professional, Service Pack 4 • Windows 2000 Server.	Internet Explorer 5.5 or later (supporting MSXML 2.0 or later)	Version 2.0 or later.

You require the administrative user name and password for the machine during the installation.

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 `NTLschema.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 (`NTLConnector.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/NTL`**.

After deploying the connector RAR on application server, you must configure Windows NT Local connector with Select Identity. Refer to Configuring the Connector with Select Identity on page 17 for configuration steps.

4 Configuring the Connector with Select Identity

This chapter describes the procedure to configure the Windows NT Local 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 Windows NT Local 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/NTL`**.
- 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	local_server	Name given to the resource. If you enabled reverse synchronization, this must be the same as the value provided for the urn:trulogica:concero:2.0#resourceId attribute on the agent console.	
Connector Name	NT	The newly deployed connector.	On Select Identity 3.3.1, this field is known as Resource Type.
Authoritative Source*	No	Whether this resource is a system that is considered to be the authoritative source for user data in your environment. Specify **No** if the connector is not enabled for reverse synchronization. Specify **Yes** if you want to add users through reverse synchronization. If the resource is not authoritative, the resource can only modify user entitlements during reverse synchronization.	
Associate to Group	Selected	Whether the system uses the concept of groups. For this connector, select this option.	This is applicable only for Select Identity 3.3.1.
UserName	Administrator	Administrative account on the target resource.	
Password	Password123	Password corresponding to the administrative account.	
Server	server.company.com	Target resource NETBIOS name or IP address.	
ServerPort	5001	Forward connector server port, as configured on the resource agent.	

*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 Windows NT Local 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 Windows NT Local Mapping Information

Select Identity Attribute	NT Attribute	Label on NT UI	Description
User Name	UserId	User Logon Name	Primary Key for NT Domain and NT Local User; *this attribute is mandatory and must be mapped.*
Password	Password	Password	User's password; *this attribute is mandatory and must be mapped.*
First Name + Last Name	FullName	Full Name	Full name; *this attribute is mandatory and must be mapped.*
Description	Comment	Description	Description.
UserComment	User Comment	User Comment	A user comment.
ProfilePath	`Profile Path` (not available for NT Workstation)	User Profile Path	A path to the user's profile. This value can be a null string, a local absolute path, or a UNC path.
ScriptPath	ScriptPath	Logon Script Name	The path for the user's logon script file. The script file can be a .CMD file, an .EXE file, or a .BAT file.
HomeDirectory Drive	`Home Directory Drive`	Home Directory: Connect	The local directory path. Not available for NT Workstation.
GroupId	GroupId	Group Name	Primary Key for the NT Local Group

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.

If you enable reverse synchronization, configure the service as follows:

- When selecting the Business Relationship, choose the ReconciliationDefaultProcess workflow for the RECONCILIATION:Add Service and RECONCILIATION:Delete Service Membership request events. For RECONCILIATION:Add Service, use the user addition view.
- In the user addition view, specify mandatory attributes that are guaranteed to be passed by the reverse synchronization request when adding a user. If you specify a mandatory attribute that is not passed by the resource, the user can be created in Select Identity but reverse synchronization will not succeed.
- When specifying the context, obtain the value from the add request issued by the resource. For example, if the context is Country and the value is US, the `<addRequest>` element in the reverse synchronization request should have an attribute called country and a value of US. If the context attribute is not present in the add user request, the user can be created in Select Identity but will not be assigned to a Service.

5 Installing the Agent

This chapter gives an overview of the agent for Windows NT Local connector and the procedure to install the agent on an Windows NT Local systems. At the end of the chapter, you will be able to know about:

- The role of an agent.
- The procedure to install the agent.

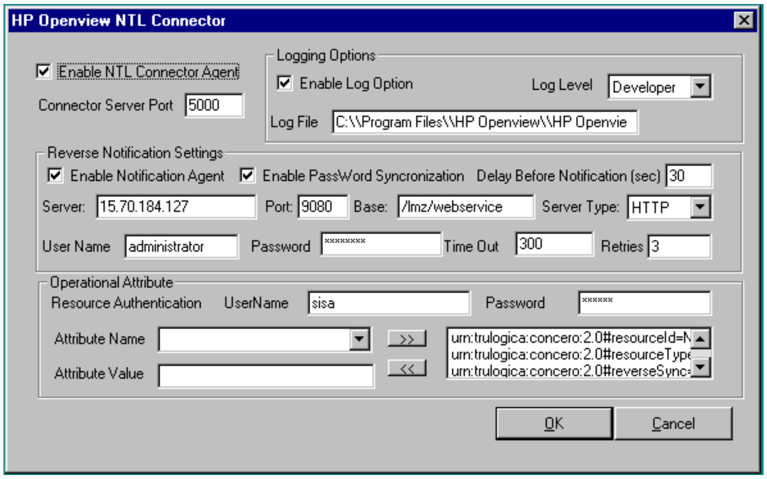
About the Agent

The Windows NT Local connector communicates to the resource Windows with the help of the agent. For forward (Select Identity to Windows NT Local) operations, the connector communicates with the agent and agent performs the provisioning on the resource. Agent sends back any changes made on Windows NT Local to Select Identity web service in the form of SPML requests. The agent is packaged with the file `NTLSetup.zip`.

Installing the Agent on Windows Server

After you install the Windows NT Local connector on the Select Identity server, you can install the agent on the Windows server. The agent is a suite of Services and support DLLs deployed on the resource. Perform the following steps to install the agent:

1. Copy the `NTLSetup.zip` file from the Select Identity Connector CD to a directory on the NT Local server.
2. Extract the ZIP file.
3. Double-click **SETUP.exe** to start the installation program.
4. Click **Next** to proceed through the installation.
5. If needed, provide administrative logon information when prompted. Configuration is defined on the NTL Connector page.


HP Openview NTL Connector

☑ Enable NTL Connector Agent

Connector Server Port: 5000

Logging Options

☑ Enable Log Option

Log Level: Developer

Log File: C:\\Program Files\\HP Openview\\HP Openvie

Reverse Notification Settings

☑ Enable Notification Agent ☑ Enable PassWord Syncronization Delay Before Notification (sec): 30

Server: 15.70.184.127 Port: 9080 Base: /lmz/webservice Server Type: HTTP

User Name: administrator Password: ********* Time Out: 300 Retries: 3

Operational Attribute

Resource Authentication UserName: sisa Password: ******

Attribute Name:

Attribute Value:

urn:trulogica:concero:2.0#resourceId=N
urn:trulogica:concero:2.0#resourceType
urn:trulogica:concero:2.0#reverseSync=

6. Configure the Enable NTL Connector Agent options, as follows:

    a. Select the **Enable NTL Connector Agent** check box. This enables the agent to receive and send data to the connector.

    b. Select the **Enable Log Options** check box, which enables the agent to log events.

    c. Enter the port for the agent in the Connector Server Port field. The default is 5000. The agent uses this port to listen for provisioning requests from Select Identity.

7. Configure the following settings for reverse synchronization. Perform these steps if you want to synchronize changes made to users on the Windows server with Select Identify.

    a. Select the **Enable Notification Agent** option.

    b. If you want to synchronize the Windows server password with Select Identity, select **Enable Password Synchronization**. This is used by the agent to synchronize user account password changes with Select Identity. The information is sent back to Select Identity in the form of an SPML extendedRequest over SOAP/HTTP or HTTPS.

    c. In the Delay Before Notification field, enter the number of seconds between requests sent to Select Identity.

    d. In the Server field, enter the IP address or fully-qualified name of the server running Select Identity.

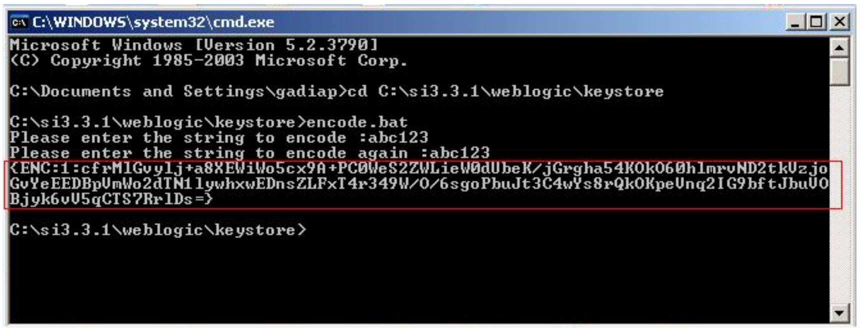
    e. In the Port field, enter the port on which Select Identity listens for reverse synchronization requests. For example, on WebLogic, the default is 7001.

    f. Enter the base URL for the Select Identity Web Service in the Base field. The default value is /lmz/webservice/.

    g. Select **HTTP** or **HTTPS** from the Server Type drop-down list. This defines the protocol for transfer of data back to Select Identity.

    h. Enter the name of a user that has administrative privileges on the Windows server in the User Name field.

    i. Enter the password in the Password field. To encrypt the password, run `encode.bat` (on Windows) or `encode.sh` (on UNIX), which is provided in the `weblogic/keystore` subdirectory in the Select Identity home directory. This utility prompts you for the password to encrypt and will generate the encrypted password. Be sure to copy the entire encrypted password in the field, as shown here:



```
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\gadiap>cd C:\si3.3.1\weblogic\keystore

C:\si3.3.1\weblogic\keystore>encode.bat
Please enter the string to encode :abc123
Please enter the string to encode again :abc123
{ENC:1:cfrMlGvylj+a8XEWiWo5cx9A+PC0WeS2ZWLieW0dUbeK/jGrgha54KOkO60hlmrvND2tkVzjo
GvYeEEDBpVmWo2dTN1lywhxwEDnsZLFxT4r349W/O/6sgoPbuJt3C4wYs8rQkOKpeVnq2IG9bftJbuVO
Bjyk6vV5qCTS7RrlDs=}

C:\si3.3.1\weblogic\keystore>
```

j Keep the **TimeOut** and **Retries** settings.

k In the UserName field (in the Operational Attribute section), enter the administrator account name in Select Identity. The default is sisa.

l Enter the password of the administrative account in Select Identity in the Password field.

m Add the following operational attributes. This builds the operational attributes that are sent in SPML requests back to Select Identity for synchronization. Click the **>>** button after each addition.

— Attribute Name: **`urn:trulogica:concero:2.0#resourceId`**

Attribute Value: ***`resource_name`***

This is the name of the resource that you add in Select Identity for this NT server. For example, if you specify **`NT_LocalMachine`** here, then specify **`NT_LocalMachine`** as the resource name in Select Identity.

— Attribute Name: **`urn:trulogica:concero:2.0#reverseSync`**

Attribute Value: **`true`**

— Attribute Name: **`urn:trulogica:concero:2.0#resourceType`**

Attribute Value: **`ntlocal`**

This is the name of the XSL file (without the .xsl extension), which provides reverse mappings for the agent to send data to Select Identity.

8 After defining all of your settings, click **OK**.

9 After the installation is complete, click **Finish**.

10 Restart the server.

The install process performs the following:

- Creates the target directory with the binaries and support files in the appropriate folders. Places `TLPassfilt.dll` and `TLUtils.dll` in the Windows System directory, $WinSysPath$. (`c:\winnt\system32`). The following is the folder structure created:

  — `<TARGETDIR>`
  The parent folder

  — `<TARGETDIR>\Bin`
  Program binaries

- `<TARGETDIR>\Lib`
  Connector library folder
- `<TARGETDIR>\Logs`
  Connector log folder
- `<TARGETDIR>\Map`
  Mapping of operational attributes
- `<TARGETDIR>\Servers`
  Server binaries

- Creates and configures corresponding services.
- Creates a Program group and shortcuts for the connector configuration console and the uninstall script.
- Sets up the registry for program parameters.

6 Uninstalling the Connector

If you want to uninstall Windows NT Local connector from Select Identity, perform the following steps:

1. Remove all the resource dependency.
2. Delete the connector from Select Identity homepage.
3. Uninstall the connector from application server. For more information on this, refer to Connector Integration Guide.
4. Uninstall the agent

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

Uninstalling the Agent

Perform the following steps to delete the agent on the Windows server:

1. From the Start menu, select **Programs** → **HP OpenView NTLocalConnector** → **Uninstall Agent**.
2. Complete the uninstallation as prompted by the wizard.