

# HP OpenView Select Identity

Connector for TFS BoKS Manager

Connector Version: 1.0

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## Installation and Configuration Guide

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# 1 Introduction

This chapter gives an overview of the HP OpenView Select Identity connector for TFS Boks Manager. An HP OpenView Select Identity connector allows you to provision users and manage identities on TFS BoKS Manager. 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 TFS Boks Manager

## About HP OpenView Select Identity

HP OpenView Select Identity (OVSI) provides a new approach to identity management. It helps you manage the entire identity lifecycle of an enterprise application. By using OVSI, you can automate the process of provisioning and managing user accounts and access privileges across platforms, applications, and corporate boundaries. OVSI 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 OVSI by using a connector. A connector is resource specific. It is installed on the system where OVSI is installed. The combination of OVSI 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 OVSI, but if any change takes place in resource, it cannot communicate that back to OVSI. On the other hand, a bidirectional connector can reflect the changes made on resource back to OVSI. This property of bidirectional connectors is known as **reverse synchronization**.

## About BoKS Connector

The connector for TFS Boks Manager — hereafter referred to as BoKS connector — enables HP OpenView Select Identity to perform the following tasks on BoKS servers running Secure Shell (SSH) scripts.

- Add, update, and remove users

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

The BoKS connector is a unidirectional connector and pushes changes made to user data in the Select Identity database to a target server. The mapping file controls how Select Identity fields are mapped to BoKS fields.



This connector can be used with OVSI version 4.0.



## 2 Installing the Connector

The BoKS connector is packaged with the following files.

**Table 1 Domino Connector Files**

Serial Number	File Name	Description
1.0	BoksConnector.rar	It is the Resource Adapter Archive (RAR) file of the connector. It contains the binaries for the connector
2.0	BoksConnectorSchema.jar	It contains the mapping file for the connector.
3.0	BoksScripts.tar.gz	It contains a set of scripts that perform user provisioning operations for the connector on UNIX.
4.0	BoksScripts.zip	It contains a set of scripts that perform user provisioning operations for the connector on Windows.

## System Requirements

The BoKS connector is supported in the following environment:

**Table 2 Platform Matrix for BoKS connector**

Select Identity Version	Operating System, Database, and Application Server Platforms
4.0	The BoKS connector is supported on all the platform configurations of Select Identity 4.0.

This connector is supported with BoKS 4.5 and 6.0.

You must ensure that SSH daemon runs on the systems on which you provision users using the connector. The SSH client must be installed on the Select Identity server.

# Installation Procedure

Perform the following tasks to install the BoKS connector.

- 1 Extract the Contents of Schema File
- 2 Deploy the Connector on Application Server
- 3 Install SSH and BeanShell (BSH) Scripts
- 4 Configure the Connector with OVSI

## Extract the Contents of Schema File

Create a subdirectory in the OVSI home directory on OVSI system. Extract the contents of `BoksConnectorSchema.jar` file to this subdirectory. Ensure that the `CLASSPATH` environment variable in the application server startup script references this Schema subdirectory.

## Deploy the Connector on Application Server

You must deploy the RAR file (`BoksConnector.rar`) of the connector on an application server. Before deploying the RAR file, you must copy it to a local directory from the connector CD. Refer to *HP OpenView Select Identity Connector Deployment Guide* for more information on deploying a connector on an application server.

## Install SSH and BeanShell (BSH) Scripts

The BoKS connector performs operations over SSH using BSH scripts, which must be installed on the application server running Select Identity. Perform the following steps install SSH and the scripts:

- 1 Install SSH, if it is not already installed:

*On UNIX*

Install the SSH client from the operating system's installation CD.

*On Windows*

Download the SSH setup program from <http://www.openssh.com> and install it on the Windows server.

- 2 Install the BSH scripts on the application server:

*On UNIX*

Create a subdirectory called `boks` in the Select Identity home directory and extract the `BoksScripts.tar.gz` file using the following commands:

```
gzip -d BoksScripts.tar.gz
```

```
tar -xvf BoksScripts.tar
```

When deploying a resource for the BoKS connector, provide the location of this directory.

*On Windows*

Extract the `BoksScripts.zip` file to a local directory on the application server, such as `C:\Select_Identity\boks`. When deploying a resource for the BoKS connector, provide the location of this directory.

## Create Known Hosts File

While entering the resource access parameters, you must provide the name of the file that contains the names and public keys of all the trusted BoKS machines to which you can provision users. You can store this information (names and public keys of trusted BoKS machines) in a text file, for example, `known_hosts.txt`, and enter this filename in the Ssh Known Hosts field while entering resource access information on OVSI. It is not mandatory to create a Known Hosts in order to configure BoKS Connector. Providing Known Hosts parameter is optional while creating a OVSI Resource for BoKS Connector.

One way of obtaining this information is to use PuTTY (`putty.exe`) to connect to the machine and a pop up appears when you connect for the first time. This pop up displays the host key of the machine. You can connect to trusted BoKS machines individually from a Windows system by using PuTTY, capture this information, and put it in a text file, which can be used as known hosts file. PuTTY can be downloaded from [www.putty.nl/download](http://www.putty.nl/download).



Sample contents of `known_hosts.txt` file:

```
16.73.17.88 ssh-rsa 1024 57993be4462bc4a536e8e58cad40f5ae
16.73.17.91 ssh-rsa 1024 664c2580121e2e06f702c195ae4e8885
```

## Configure the Connector with OVSI

After deploying the connector on an application server, you must configure it with OVSI. To configure the connector with OVSI, perform the following steps.

- 1 Add a new connector – Add a new connector on OVSI. Refer to *HP OpenView Select Identity Connector Deployment Guide* for information on adding a new connector. While adding the connector, under Current Resource Connectors section in Manage Connectors page, do the following:
  - In the Connector Name text box, specify a name for the connector.
  - In the Pool Name text box, enter **eis/BoksConnector**.
  - Under Mapper Available section, select **No**.
- 2 Add a new resource – You must add a new resource to OVSI that uses the newly added connector. Refer to *HP OpenView Select Identity Connector Deployment Guide* for the instruction to add a new resource to OVSI. While entering the resource parameters for BoKS connector, refer to the table below.

**Table 3 Resource Configuration Parameters**

Field Name	Sample Values	Description
Resource Name	<i>BoKS_Server</i>	Name given to the resource.
Resource Type	<i>BoKSConnector</i>	The connector that was deployed in <a href="#">step 1</a> on page 11.
Authoritative Source	<i>No</i>	Whether this resource is a system that is considered to be the authoritative source for user data in your environment. You must specify <b>No</b> because the connector cannot synchronize account data with the Select Identity server.
BOKS Master	<i>15.61.115.25</i>	The IP address or host name of the BoKS system.
Port	<i>22</i>	The Port on the BoKS system.
User Name	<i>accountadmin</i>	Login account on the BoKS machine.
User Password	<i>Password123</i>	Password for the User Name account.
Admin Password	<i>rootPassword</i>	The password to gain administrator privileges.
Ssh known hosts	<i>C:/Documents and Settings/.ssh/known_hosts</i>	The SSH Known hosts file that contains the IP address and private key of the target resource; it is located in the user home directory. This is an optional field.
Script Location	<i>On UNIX: /connectorScripts/ bsh/ On Windows: D:/boks/scripts/v60/</i>	Location of the scripts that are used by the connector. Note that on Windows, you should include a trailing slash in the path.
Mapping File	<i>BoksConnectorMapping.xml</i>	Location of the connector mapping file used to map resource attributes to Select Identity attributes.

- 3 Map the attributes – You must map the OVSI attributes to the attributes of the resource. Refer to *HP OpenView Select Identity Connector Deployment Guide* for information on mapping attributes. While mapping the attributes, refer to the following table for resource specific mapping information.

**Table 4 BoKS Mapping Information**

Select Identity Resource Attribute	Attribute on Connector	Attribute on BoKS Resource	Description
User Name	username	-l option	The user name (mandatory field)
Password	password	-p option	The user's password (mandatory field)
Comment	comment	-r option	Comment for the user
Host Group	phgroup		The host group to which the user belongs. (mandatory field)
Home Directory	homedir	-h option	The user's home directory
Primary Group	pgid	-g option	The primary group of the user; can be specified as a string or as a number (mandatory field)
Primary User Class	puclass	-P option	The primary user class to which the user is attached
Shell	shell	-s option	The user's login shell

- 4 Associate the newly added resource to a service. Refer to *Service Studio* chapter of *HP OpenView Select Identity Administrator Guide* for more information on service.



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## 3 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 OVSI.
- Delete the connector from application server.

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





# A Understanding the Scripts

The BoKS connector performs operations using BSH Java API. This API is packaged with the connector that resides on the application server running Select Identity.

Special variables and classes are available to the scripts when they are executed by the BoKS connector. Each is described in this chapter. The following scripts are provided by the connector:

- `adduser.bsh`  
Adds a new user on the BoKS system.
- `modifyuser.bsh`  
Modifies an existing user's details on the BoKS system.
- `resetpasswd.bsh`  
Resets an existing user's password on the BoKS system.
- `changestatus.bsh`  
Enables or disables an existing user on the BoKS system.
- `linkunlink.bsh`  
Grants or revokes a group (UserClass, AdminGroup) from an existing user on the BoKS system.
- `listents.bsh`  
Lists all of the groups (UserClass, AdminGroup) on the BoKS system.
- `finduser.bsh`  
Tests whether a user exists on the BoKS system.
- `dotest.bsh`  
Tests the connection parameters to the BoKS system.
- `deleteuser.bsh`  
Deletes the user from the BoKS system.
- `common.inc`  
Provides common functions such as login, logout, and so on.



## B Troubleshooting

The following information is provided to help you diagnose connectivity and configuration problems that you may encounter when using the connector to provision users on the resource. You may need to consult your system or web application administrator for detailed help.

- If an error indicating that `org.apache.log4j.Logger` could not be found is displayed while deploying the connector, be sure to exclude `log4.jar` from the Java classpath.
- Verify that the path to SSH is configured properly on the BoKS system. Use the **which ssh** command to find the path of SSH.
- Ensure that the SSH daemons is configured and running on the target BoKS system. Use **ps -ef | grep sshd** to determine if the daemon is running.
- Verify that SSH allows for enough connections to handle provisioning requests. The number of connections depends on the number of connections allowed by the application server for the connector. To view the connection configuration and connections on the application server, perform one of the following procedures:

To view the connection configuration:

- a Log on to the WebLogic Server Console.
- b Navigate to *My\_domain* → **Deployments** → **Connector Modules** → *connector*.
- c Click the **Monitoring** tab to view connections.

Consult with your system or application server administrator for further help diagnosing problems related to connections that do not close, connections that time out, connections that cannot be opened, and so on.

