

HP Client Asset and Configuration Management Suite

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Suite Integration Guide

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Introduction

What does the HP AssetCenter - HP Configuration Management integration do?

- 1 HP AssetCenter is used to *pilot* HP Configuration Management by creating deployment work orders.

 Note:

A deployment work order:

- Adds or removes software to/from a selection of target computers
- Assigns or removes rights to use software to/from computers, computer groups, domains or user accounts

- 2 HP Configuration Management is used to *execute* the deployment work orders created in HP AssetCenter.

An optional module can be used to check if sufficient rights are available in the HP AssetCenter database before proceeding with the installation.

Who is the HP Client Asset and Configuration Management Suite aimed at?

The HP Client Asset and Configuration Management Suite is used by IT team members in charge of:

- Software Asset Management (software license compliance, user rights entitlement)
- Software distribution
- Managing the Definitive Software Library (DSL)
- Managing the catalog of services (creating and updating reference information)
- Updating, migrating or removing software assets (target)

What's included in the HP Client Asset and Configuration Management Suite

The following components make up the HP Client Asset and Configuration Management Suite:

- HP Configuration Management 5.0 with the following modules:
 - Application Manager
 - Application Self-Service Manager
 - Patch Manager
 - Application Usage
 - OS Manager
 - HP Discovery and Dependency Mapping Inventory (previously called HP Enterprise Discovery Automated Inventory)
 - Settings Migration Manager
- HP AssetCenter 5.0 with the following modules:
 - Core
 - Portfolio
 - Financials
 - Chargeback
 - Contracts
 - Software assets



Note:

HP AssetCenter is supplied with HP Connect-It, which is also part of the HP Client Asset and Configuration Management Suite, and is used to manage the HP AssetCenter and HP Configuration Management integration.

HP Client Asset and Configuration Management Suite documentation

Each HP Client Asset and Configuration Management Suite component is provided with its own documentation:

- **HP AssetCenter:** This list of guides provided with HP AssetCenter is listed in the *Related documentation and compatibility matrix* chapter of the *HP AssetCenter - Release Notes* guide.

A PDF file of all available guides is located in the `ac\Program Files\HP OpenView\AssetCenter 5.01 xx\doc\pdf` folder of the HP AssetCenter installation CD-ROM, where `xx` is replaced by the two letter language code of your HP AssetCenter installation.

- **HP Configuration Management:** Guides provided with HP Configuration Management are listed in the *HP Configuration Management - Getting Started Guide* supplied with the Configuration Server module, *Installation Media* chapter, *Configuration Management Documentation Media* section.

A PDF file of all available guides is located in the `Documentation` folder of the HP Configuration Management installation CD-ROM.

- **HP Connect-It:** Guides provided with HP Connect-It are located:
 - On the HP Connect-It installation CD-ROM, in the `program files\HP\Connect-It XXX\doc` folder, where `XXX` corresponds to the HP Connect-It language and version.
 - In the `doc` sub-folder of the HP Connect-It installation folder

Contents of this guide

Chapter Why integrate HP AssetCenter and HP Configuration Management?

This chapter explains how the HP AssetCenter and HP Configuration Management integration can help you reduce costs and the risks of poor software asset management.

Chapter How are HP AssetCenter and HP Configuration Management integrated?

This chapter provides an overview of the HP AssetCenter and HP Configuration Management integration: Description of the software add/remove process, how user rights to software are granted or removed, license rights check, list of the main tables used during these processes.

Chapter Installing and configuring components

This chapter explains how to implement the components required to integrate HP AssetCenter with HP Configuration Management:

- Components required for the HP AssetCenter and HP Configuration Management integration

Important:

New components have been developed specifically for the HP AssetCenter and HP Configuration Management integration.

These components are provided in a .zip file.

To find out how to obtain this file: ► [Components required for the HP AssetCenter and HP Configuration Management integration](#) [page 33].

- HP AssetCenter
- HP Configuration Management (which includes the HP Discovery and Dependency Mapping Inventory tool - previously called HP Enterprise Discovery Automated Inventory)
- HP Connect-It

Important:

This guide makes several references to HP Connect-It scenarios that are used to transfer information between HP AssetCenter and HP Configuration Management.

These scenarios are not part of the standard scenarios supplied with HP Connect-It.

To find out how to obtain these scenarios: ► [Components required for the HP AssetCenter and HP Configuration Management integration](#) [page 33].

- HP AssetCenter Web
- Java J2SDK
- Apache AXIS
- Apache ANT
- HP AssetCenter Server
- License rights compliance module

Chapter Creating and updating reference information

This chapter explains how to create and update reference information: Computers, user accounts, computer groups, domains, software packages and media.

Chapter Add or remove software, grant or remove the right to use a software application

This chapter explains how to add or remove software, grant or remove the right to use a software application: Creating, transmitting, executing and checking deployment work orders.

Appendix Glossary

The glossary provides a definition of key terms used in the integration of HP AssetCenter with the software distribution tools.

How to read this guide

The following are different ways of using this guide, depending on your profile:

Person responsible for implementing the HP AssetCenter - HP Configuration Management integration

- 1 Chapter Why integrate HP AssetCenter and HP Configuration Management? [page 19]
- 2 Chapter How are HP AssetCenter and HP Configuration Management integrated? [page 23]
- 3 Chapter Installing and configuring components [page 33]

Person responsible for updating reference information

- 1 Chapter How are HP AssetCenter and HP Configuration Management integrated? [page 23]
- 2 Chapter Creating and updating reference information [page 51]

Person responsible for creating deployment work orders

- 1 Chapter How are HP AssetCenter and HP Configuration Management integrated? [page 23]

- 2 Chapter Add or remove software, grant or remove the right to use a software application [page 59]

Person responsible for customizing the HP AssetCenter - HP Configuration Management integration

- 1 Chapter How are HP AssetCenter and HP Configuration Management integrated? [page 23]
- 2 Chapter Installing and configuring components [page 33]
- 3 Chapter Creating and updating reference information [page 51]
- 4 Chapter Add or remove software, grant or remove the right to use a software application [page 59]
- 5 Appendix Glossary [page 67]

Conventions used in this guide

The following is a list of conventions that are used in this guide:

Convention	Description
Java Script Code	Example of the code or command
Fixed width characters	DOS command, function parameter or data format
...	Portion of omitted code or command
Note: Extra information	Informative note
Important: Be careful...	Important information for the user
Tip: User tip	Tip to help you use the application
Warning: Exercise caution	Extremely important information for the user
Object	HP AssetCenter interface object: menu, menu entry, tab or button.

The following conventions are also used:

- The steps that we ask you to follow are listed in a defined ordered (in a numbered list). For example:

- 1 First step
 - 2 Second step
 - 3 Third and last step
- All figures and tables are numbered according to the chapter in which they are found, and the order in which they appear in the chapter. For example, the title of the fourth table of chapter two will be prefixed by **Table 2-4**.

1 Why integrate HP AssetCenter and HP Configuration Management?

Controlling software assets

Software is the most under-managed IT asset in today's enterprise.

Industry experts report that the total cost of software is rising 5 to 15 percent annually.

Rogue installations are a significant source of software license non-compliance.

The Business Software Alliance (BSA) reports that 23% of installed business software is pirated. Configuration Management eliminates rogue software problems by continually comparing actual state to desired state. It quickly identifies and eliminates software that's been installed on a machine without entitlement.

Analysts anticipate that in the next few years, a staggering 40 percent of midsize and large enterprises will face a software-licensing audit. When corporations are not following sound software asset management practices, responding to an audit is generally a manual, time-consuming, and costly procedure.

With the HP Client Asset and Configuration Management Suite, not only does the right software get deployed to the right systems for the right users, automatically, it eliminates the fear of audits because the solution ensures up-to-date compliance with your software license agreements.

Piloting and performing controlled software distribution

HP Configuration Management can be viewed as an extremely smart delivery vehicle that literally moves software and patches out to PCs and servers, based on an established set of policies or rules. It continually checks the status of the software and makes actual changes to ensure it remains in compliance with the policies.

HP AssetCenter acts as the "auditor" in this process. It holds all software license agreements and contracts, and checks each software deployment to make sure it is covered by a license agreement. It also "audits" the asset inventory, maintaining records for each asset including physical location, who is using it, and for what purpose. HP AssetCenter provides oversight of the delivery to maintain operations within the bounds of contractual agreements and to track physical software costs so they can be optimized or reduced.

Usage tracking

In addition to discovering the number of licenses, deployments and entitlements, HP Configuration Management also discovers actual software usage.

The centralized asset tracking capability combined with software management provides additional savings when hardware is retired or reallocated. When hardware assets such as PCs or laptops are updated, refreshed, or retired, critical software assets are often forgotten.

Benefits of the HP Client Asset and Configuration Management Suite

The integration between HP Configuration Management and HP AssetCenter creates an extremely powerful combination. In summary, this integration will deliver the following benefits to you, our customers:

- It will allow you to optimize licenses and save money.
 - Ensure that licenses are available before distribution.
 - Distribute software based on purchased licenses. Drive distribution by entitlements to users/groups.
 - Identify over-licensed software and remove it.
- It will allow you to use vital Asset Management data to correctly target distribution scenarios.
- It will help you to secure your environment by "knowing and controlling."
 - What software do you have?

- Where is the software?
- Who is using the software?

2 How are HP AssetCenter and HP Configuration Management integrated?

Overview

This section details the different integration levels between HP Configuration Management and HP AssetCenter.

Reference data synchronization between HP Configuration Management and HP AssetCenter

This part of the integration *synchronizes* reference data between HP Configuration Management and HP AssetCenter.

Data must be synchronized on a regular basis to ensure that HP AssetCenter and HP Configuration Management have the same data.

The following table presents the reference data:

Reference data in HP Configuration Management	Equivalent in HP AssetCenter
<i>Devices: Computers</i>	Records in the Portfolio items table (amPortfolio) linked to a nature whose Also create field (OverflowTbl) is set to <i>Computers (amComputer)</i> .
<i>Persons: users</i>	Records in the Portfolio items (amPortfolio) table linked to a model whose Name (Name) field equals <i>LDAP Account</i> and to a nature whose Name (Name) field equals <i>Account</i>

Reference data in HP Configuration Management	Equivalent in HP AssetCenter
<i>Groups of devices:</i> Sets made up of devices and groups	Records in the Portfolio items (amPortfolio) table linked to a model whose Name (Name) field equals <i>Directory Group</i> (if it is from an LDAP directory) or <i>OVCN Group</i> (if it is from the internal HP Configuration Management database) and to a nature whose Name (Name) field equals <i>Group</i>
<i>Domains:</i> Devices, user accounts and groups of devices are organized hierarchically as a tree structure whose branches represent <i>domains</i>	Records in the Portfolio items (amPortfolio) table linked to a model whose Name (Name) field equals <i>Domain</i> and to a nature whose Name (Name) field equals <i>Domain</i>
<i>Services :</i> The services define the media that are used to manipulate the different software. HP Configuration Management uses services to add or remove software to/from devices or groups of devices.	Records in the Portfolio items (amPortfolio) table linked to a model whose Name (Name) field equals <i>Media</i> and to a nature whose Name (Name) field equals <i>Media</i> . Media are grouped as <i>software packages</i> .
<i>Policies:</i> Policies are used to grant (positive priority) or refuse (negative priority) access to software by devices, user accounts, groups of devices and domains.	Records in the Named entitlements (amEntitlement) table whose Automated Entitlement (bAutomated) field equals <i>Yes</i>
<i>Jobs:</i> Jobs describe software installation or removal work orders	Records in the Work orders (amWorkOrder) table linked to a model whose Name (Name) field equals <i>OVCN policy creation</i> or <i>OVCN policy removal</i> and to a nature whose Name (Name) field equals <i>Software entitlement workorder</i> or to a model whose Name (Name) field equals <i>OVCN software installation</i> or <i>OVCN software removal</i> and to a nature whose Name (Name) field equals <i>Software installation workorder</i> . Each work order is associated with a record in the OVCN Target Task (amCMTargetTask) table.

Creating deployment work orders

This part of the integration creates deployment work orders that describe an operation whose execution will be handled by HP Configuration Management:

- Installing software
- Removing software
- Assigning rights to use software
- Removing rights to use software

Wizards in HP AssetCenter are used to pilot these operations:

- 1 These wizards create *requests*.
- 2 Once validated and executed, these requests create *deployment work orders* and, for an installation or removal, *deployment tasks*.
- 3 The deployment work orders are sent to HP Configuration Management as jobs.
- 4 HP Configuration Management executes the jobs.
- 5 The status of these jobs is propagated to the corresponding work orders in HP AssetCenter.

Checking license rights

This optional part of the integration implements *license right checks* between HP Configuration Management and HP AssetCenter.

Before performing an installation, HP Configuration Management queries the HP AssetCenter database to determine the status of a license linked with a media related to the service that is used.

If the associated media in HP AssetCenter has sufficient rights, the installation proceeds normally. Otherwise the installation is denied.

Terminology

In the following sections, HP Configuration Management or HP AssetCenter terminology will be used depending on the context.

The following table shows how the two terminologies match:

HP Configuration Management element	HP AssetCenter element
Device	Computer
User account	User account
Group of devices	Computer group
Domain	Domain
Service	Media
Policy	Named entitlement
Job	Work order or deployment task

Deployment process

The process is presented below:

- 2 Import inventoried data into the HP AssetCenter production database using the HP Connect-It scenarios.

 **Note:**

HP Connect-It is the tool used to transfer data intelligently from one database to another (from HP AssetCenter to HP Configuration Management in this case).

HP Connect-It scenarios describe how data is exchanged.

Scenarios used by the HP Client Asset and Configuration Management Suite are not part of the standard scenarios supplied with HP Connect-It.

To find out how to obtain these scenarios: ► [Components required for the HP AssetCenter and HP Configuration Management integration](#) [page 33].

Replicating reference data

- Steps 5, 6, 7 and 8 of figure [Steps of the deployment process](#) [page 26].

In this phase, data required for the deployment process is prepared.

This phase is mandatory but can be done in any order with the optional inventory phase.

Its goal is to synchronize data between HP Configuration Management and/or an LDAP directory and HP AssetCenter so that they have the same references.

To carry out this phase, reference information must be collected from the HP Configuration Management database and imported into the HP AssetCenter production database using HP Connect-It scenarios.

The reference data is the data that is present in section [Overview](#) [page 23]:

- Devices
- User accounts
- Groups of devices
- Domains
- Services
- Policies

HP Configuration Management can access the data through different means:

- *Internal database:* HP Configuration Management has its own database containing the reference data.

Managed entities (devices, user accounts, groups of devices and domains) are organized in the same way as for an LDAP directory.

Data imported into the HP AssetCenter database represents devices, groups of devices, domains, users accounts and services.

The import is done using HP Connect-It scenarios which connect to HP Configuration Management via Web services.

The Web services query the internal database and return data requested by HP Connect-It. HP Connect-It then transmits the information to the HP AssetCenter database.

- *External LDAP directory:* HP Configuration Management can connect to an LDAP directory to manage the configurations of clients listed in the directory. The reference data mentioned above is stored in the directory except for services which can only be accessed via the internal database.

When an LDAP directory is used, data stored in it is retrieved via a HP Connect-It scenario. The scenario connects directly to the directory's source and propagates relevant information in the HP AssetCenter production database.

In both cases, this phase is primarily based on the replication of reference data which allows the HP AssetCenter and HP Configuration Management systems to communicate on the same basis:

Data	HP Configuration Management identifier	Table of the HP AssetCenter identifier	HP AssetCenter identifier
Computer	DistinguishName (DN)	Computers (amComputer)	Software distribution identifier (SWDID)
User account	DistinguishName (DN)	Portfolio items (amPortfolio)	Code (Code)
Computer group	DistinguishName (DN)	Portfolio items (amPortfolio)	Code (Code)
Domain	DN of each synchronized entry	Portfolio items (amPortfolio)	Code (Code)
	For example, for a computer whose DN is <i>cn=client1,cn=demo,cn=hp,cn=com</i> , the <i>demo</i> , <i>hp</i> and <i>com</i> domains will be created in the HP AssetCenter database with <i>cn=demo,cn=hp,cn=com</i> , <i>cn=hp,cn=com</i> and <i>cn=com</i> identifiers, respectively.		
Service	Path composed of its domain, class and instance (DCI)	Portfolio items (amPortfolio)	Code (Code)

Software installation/removal, assignment/removal of software user rights

Steps 9, 10, 11, 12 and 13 of figure [Steps of the deployment process](#) [page 26].

When the reference data is synchronized between HP AssetCenter and HP Configuration Management you can perform two types of operations from HP AssetCenter:

- Request that software be added to or removed from one or more computers.
- Assign or remove the right to use software to/from computers, user accounts, computer groups and domains.

Both of these operations are carried out via wizards.

Adding and removing software

- 1 The wizards let you identify the software to install by selecting a media.
- 2 The wizards let you identify the target computers.
- 3 The wizards create a request.
- 4 The request must be validated (manually or following a workflow scheme).
- 5 The request must be executed manually (**Execute** button).
The execution creates a deployment work order and deployment tasks.
- 6 A HP Connect-It scenario transmits the deployment work orders to HP Configuration Management.
- 7 HP Configuration Management adds or removes the software.
- 8 A HP Connect-It scenario updates the status of the deployment work orders and deployment tasks in the HP AssetCenter database.

Note:

The wizards do not create new software installations in the HP AssetCenter database nor do they mark the software installations as having been removed from the computers.

This task is executed by HP Connect-It scenarios which import inventory information gathered by external tools.

Granting or removing the right to use software

- 1 The wizards let you identify the software to authorize or refuse by selecting a media.
- 2 The wizards are used to identify computers, user accounts, computer groups and domains for which rights to use software are granted or removed.
- 3 The wizards create or delete the named entitlement.
- 4 The wizards create a request.
- 5 The request must be validated (manually or following a workflow scheme).
- 6 The request must be executed manually (**Execute** button).
Execution creates a deployment work order (but not a deployment task).
- 7 A HP Connect-It scenario transmits the deployment work orders to HP Configuration Management.
- 8 HP Configuration Management assigns or removes rights (policies).
- 9 A HP Connect-It scenario updates the status of the deployment work orders and deployment tasks in the HP AssetCenter database.

Verifying licenses

An optional module is available to check license rights of software that will be installed on clients.

If this module is deployed on the HP Configuration Management system before software is physically installed on a client, the system calls the HP AssetCenter Web services to check if a sufficient number of license rights is available.

Several cases are possible:

- If the number of license rights is sufficient, the installation proceeds and the deployment process is carried out.
- If the number is insufficient, the installation is halted and the task fails.
- If the call fails for any reason, license compliance is not checked and the installation continues.

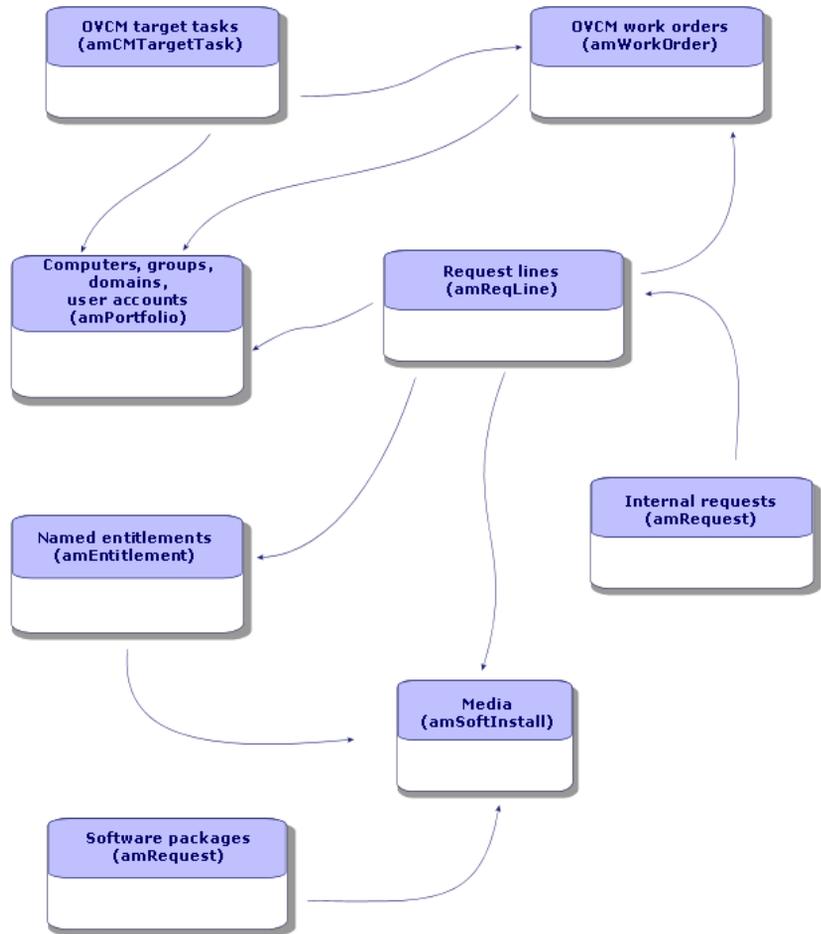
Interactions between objects

The following diagram presents the different data interactions that occur during the deployment process and that were introduced in the previous sections.

 Note:

This graphic does not exactly reflect the structure of the HP AssetCenter database

Figure 2.2. Data interactions during the deployment process



3 Installing and configuring components

As was presented in the [How are HP AssetCenter and HP Configuration Management integrated?](#) [page 23] chapter, certain phases of the task deployment process are mandatory, whereas others are optional.

The same is true for the components that need to be installed and configured.

Required components

Components required for the HP AssetCenter and HP Configuration Management integration

Please do the following to obtain the components required for the HP AssetCenter and HP Configuration Management integration:

- 1 Start Microsoft Internet Explorer.
- 2 Go to the following URL:
<http://support.openview.hp.com/support.jsp>
- 3 Click the *Downloads* link on the navigation bar on the left.
- 4 Click the *Other downloads* link.
- 5 Click the *Connect-It integration* link (**Integration software** section).
- 6 Identify yourself.
- 7 Click the *AC 5.0 - CM 5.0 (.zip)* link.
- 8 Save the file to any folder.

- 9 Extract the contents of the `ovconnit_ac50_cm5.0_integration` file to `c:\temp\OV_AC_CM_Integration`, where `xxx` corresponds to the HP Configuration Management version number.

The procedure to integrate the components is described in the following sections.

HP AssetCenter

Installing HP AssetCenter

The following applications from the HP AssetCenter suite must be installed:

Which application?	Which machine?	Purpose?
HP AssetCenter Database Administrator	1 Administrator workstation	Creating and customizing the production database
Windows or Web client	1 or more user stations	Create software packages and deployment work orders, approve requests.

To learn how to install these components: ► *HP AssetCenter Installation and upgrade* guide.

Create the HP AssetCenter production database

The HP AssetCenter production database must have already been created.

To learn how to create your production database: ► *HP AssetCenter Administration* guide, chapter *Creating, modifying and deleting an HP AssetCenter database*.

Activate the required license

Your HP AssetCenter user license must give you access to the following modules:

Table 3.1. Integration with HP Configuration Management - required user license

Module to license	To access what objects?
CM integration	Add or remove software, grant or remove the right to use a software application
Portfolio	Internal requests
Administration	Workflow schemes
Software assets	<i>Manage software...</i> (sysSamLauncher) wizard (Portfolio management/ IT/ Licenses/ Manage software... link on the navigation bar).

To find out how to activate a user's license: ► *HP AssetCenter Administration* guide, chapter *Creating, modifying and deleting an HP AssetCenter database*, section *Obtaining a license file*, and section *Modifying the license*.

Activate required modules if you are accessing the database with a Windows client

You must activate the following modules (**File/ Activate modules** menu):

- OVCM integration
- Portfolio
- Administration
- Software assets

Note:

Each of these modules is activated by default for Web clients.

Modify the structure of the HP AssetCenter production database

The structure of your HP AssetCenter production database must be modified to support the software distribution module.

The changes pertain to tables, fields, links, screens and pages.

To integrate the modifications required by your production database:

- 1 Make a backup copy of your HP AssetCenter production database using the appropriate tool.
- 2 Start HP AssetCenter Database Administrator.
- 3 Connect to the production database to modify.
- 4 Export the current structure of your production database (**File/ Export database structure...** menu) to C:\temp\integration\current.

Name export file.

For example: currentdb.xml

This name will be used throughout this guide.

Warning:

Do not include the _ character in the name of the exported file. This character is not supported during the integration phase.

- 5 Extract the contents of the OV_AC_CMxxx_Integration.zip file supplied with the HP AssetCenter - HP Configuration Management solution to c:\temp\OV_AC_CM_Integration, where xxx corresponds to the HP Configuration Management version number.

Copy the contents of the

C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcmmp\ac\db_structure folder to C:\temp\integration\cmac.

- 6 Open the C:\Temp\integration\cmac\package.cfg file in a text editor.
- 7 Replace the following line:

```
MAJOR=225
```

With:

```
MAJOR=226
```

- 8 Save the package.cfg file.
- 9 Create a new folder: C:\temp\integration\new.
- 10 Prepare the files of the structure:
 - a At the command line, change to the C:\temp\integration folder and enter the following command:

```
java -jar "C:\temp\OV_AC_CM_Integration\AC\tools\dbbdiff.jar" patch
current\currentdb.xml cmac\cmacdbcustom.xml new\acdbmerge.xml -cross
custom > merge.log
```

- b You will need to do the same for each of the languages that are present in your database (original installation language + languages added via the **Action/ Insert a language in the database...** HP AssetCenter Database Administrator menu item):

```
java -jar "C:\temp\OV_AC_CM_Integration\AC\tools\dbbdiff.jar" patch
current\currentdb_xx.xml cmac\cmacdbcustom_xx.xml new\acdbmerge_xx.x
ml -crosscustom > merge_xx.log
```

where *xx* corresponds to the languages that are present in your production database.

- c Correct any conflicts which may arise in C:\temp\integration\new\acdbmerge.xml and the corresponding language files (C:\temp\integration\new\acdbmerge_xx.xml, where *xx* corresponds to the language code of any additional languages that are present in your production database).

To learn how to correct conflicts: ► *HP AssetCenter Migration guide*.

- 1 Open each of the C:\temp\integration\merge*.log files that was produced by the command and inspect each line.
- 2 For each conflict, decide if the change needs to be kept or not. This depends on the context, how the database is used and whether or not any errors will occur.

However, if an element from the integration is not inserted into the new database, its use from HP AssetCenter may be altered.

- 11 Prepare the description files for screens and pages.

Enter the following command in the same command line window:

```
cmac\integpackl.exe -base:current -patch:cmac -dest:new
```

The tool uses the following parameters:

- *-base*: Path to the folder containing the file of the exported structure from the production database to modify
- *-patch*: Path to the
C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcmmmp\ac\db_structure folder extracted from the OV_AC_CM_Integration.zip file
- *-dest*: Path to the folder where the modified structure file will be produced
- To view the other available options, execute this command:

```
integpackl.exe -[?|h|H]
```

12 Integrate these two parts in the production database:

a Copy the following files to C:\temp\integration\new:

- current\currentdb.bin
- current\currentdb.wiz
- current\currentdb_xx.str
- current\lstdet_xx.cfg
- current\lstpage_xx.cfg

where *xx* corresponds to the languages that are present in your production database.

- current\tips.str

b Rename the files as follows:

- new\currentdb.bin --> new\acdbmerge.bin
- new\currentdb.wiz --> new\acdbmerge.wiz
- new\currentdb_xx.str --> new\acdbmerge_xx.str

where *xx* corresponds to the languages that are present in your production database.

c Go back to HP AssetCenter Database Administrator.

d Connect to the production database to modify.

e Integrate the customization (**Action/ Integrate a customization...** menu).

Populate the wizard, and in particular pay close attention to the following instructions:

Select the **source type** page

Select the **Development database description files** option

- 13 Once the integration is complete, make sure there are no errors in the wizard's report (summary).
- 14 Open a Windows client to determine the **screen set**.
Screens for the software distribution and entitlement module have an *OVCM* screen set that must be made available to users who will use this module.
 - a Start the HP AssetCenter Windows client.
 - b Connect to the modified database with an administrator account.
 - c Display the policies (**Administration/ Rights/ User profiles** link on the navigation bar).
 - d Choose the user profiles to which you want to add rights to display the module's screens.
 - e On the **General** tab, select the **Screen sets** (ScreenSets) field:
 - f Add *OVCM* to the beginning of the current value.
For example, if the value was *Simple,Full*, it should be changed to *OVCM,Simple,Full*.

Insert external data into the HP AssetCenter database

Once the structure of your HP AssetCenter production database has been modified, you must insert predefined data that is required for the proper operation of this module.

Several data types must be imported into the HP AssetCenter production database:

- 1 Predefined data such as models, natures, functional domains, wizards, etc.

This data is found in the

C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcmmmp\ac\external_data\data folder.

To import them into the production database (with the database structure modified beforehand) perform the following steps:

- a Start a Windows client and connect to the database with an administrator account.
- b Click the **File/ Import** menu.
- c Click **Execute a script**.
- d Select the
C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcmmmp\ac\external_data\data\macdata.lst script and click **Import**.



Tip:

If you use the dialog box to select the file, use the "All files (*.*)" filter to display files ending in .lst.

All predefined data is imported into the HP AssetCenter production database.

2 Workflow schemes to automate certain processes.

The workflow schemes are located in

C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovmmp\ac\external_data\workflows.

They must all be imported into the HP AssetCenter production database to guarantee proper operation of the software distribution module.

To import them:

- a Start a Windows client and connect to the database with an administrator account.
- b Display the workflow schemes (**Administration/ Workflow/ Workflow schemes** link on the navigation bar).
- c For each workflow scheme to import:
 - 1 Click **Import...**
 - 2 Populate the **Select the .lst file created by the workflow import wizard** field: select the **.lst** file which corresponds to the workflow scheme.
 - 3 Note: The password is empty.
 - 4 Click **Finish**.
- d Once all workflows have been imported, refresh the connection to the database.

Configuring the approval workflow scheme.

The *DSL request validation* (DSL_REQ_APPR) workflow scheme defines an approval process for requests to install or remove software.

By default it is configured to automatically validate each request.

Depending on your needs and request approval policy, it can be configured to use a more comprehensive process.

In this case, the **Start** activity and its event must not be modified but everything else can be reconfigured.

To learn how to configure the workflow schema: ► *HP AssetCenter Advanced Use* guide, chapter *Workflow*.

HP Configuration Management

Install HP Configuration Management

In order to benefit from the software distribution and entitlement module, the following HP Configuration Management components must be installed and configured in your environment:

- Configuration Server
- Portal and Portal Web-Services
- Messaging Server

Guides provided with HP Configuration Management are listed in the *HP Configuration Management - Getting Started Guide*. This guide is supplied with certain HP Configuration Management components (for example, Configuration Server), *Installation Media* chapter, section *Configuration Management Documentation Media* section. The guides describing the installation of HP Configuration Management components are listed in this section.

HP Connect-It

Install HP Connect-It

- ▶ HP Connect-It *User's guide*, chapter *Installation*.

Configure HP Connect-It scenarios

Copy the contents of the `C:\temp\OV_AC_CM_Integration\C-It\scenario` folder to the `scenario` folder in your HP Connect-It installation folder. You will need to configure the following HP Connect-It scenarios that are located in `<Full path to the HP Connect-It installation folder>\scenario\hpovcmrmp\cmac50\`:

- `ws_groups_devices.scn`: Imports identification information for devices, groups of devices and their domains from the HP Configuration Management internal database to computers, computer groups and portfolio items that correspond to the domains in the HP AssetCenter production database.
- `ws_services.scn`: Imports services from the HP Configuration Management internal database to media in the HP AssetCenter production database.
- `ws_jobs.scn`: Transmits software installation or removal work orders from the HP AssetCenter production database to the jobs in the HP Configuration Management internal database.
- `ws_policies.scn`: Transmits software installation or removal work orders from the HP AssetCenter production database to the jobs in the HP Configuration Management internal database.

- `ws_status.scn`: Propagates the status of the HP Configuration Management jobs to the corresponding work orders and deployment tasks in the HP AssetCenter production database.
- `ldap_directory_service_all.scn`: Imports identification information for devices, groups of devices and their domains, persons as well as policies that exist for these entities from an external LDAP directory such as Novell Directory Service used by HP Configuration Management to computers, groups of computers and portfolio items corresponding to domains, portfolio items corresponding to persons and named entitlements in the HP AssetCenter production database.
- `ldap_active_directory_all.scn`: Imports identification information for devices, groups of devices and their domains, persons as well as policies that exist for these entities from an external LDAP directory such as Microsoft Active Directory used by HP Configuration Management to computers, groups of computers and portfolio items corresponding to domains, portfolio items corresponding to persons and named entitlements in the HP AssetCenter production database.

Several configuration types must or can be used *for each* of the scenarios:

- Connector configuration
- Schedule configuration
- Mapping configuration

Four connectors are used by each of the scenarios:

- AssetCenter
- OVCM RMP
- LDAP
- Data generator

For information on how to configure connectors, refer to the HP Connect-It *Connectors* guide.

Execution of each scenario can be scheduled in one of two ways:

- By defining a scheduler in HP Connect-It
- By defining a scheduled module in HP AssetCenter Server.

If a scheduler is used in HP Connect-It, you can refer to the ► HP Connect-It *User's guide*, chapter *Implementing an integration scenario*.

For a scheduled module in HP AssetCenter Server, follow the instructions below for each of the scenarios to schedule:

- 1 Start HP AssetCenter Server and connect to the production database.
- 2 Select the **Tools/ Configure modules** menu.
- 3 Click **New**.
- 4 Enter a name, description and the following command:

```
"$connectit_exedir$/conitsvc.exe" -once -wpplog '$connectit_exedir$/../scenario/hpovcmrmp/cmac50/xxx.scn' -dc:AssetCenter.SERVER=$cnx$ -dc:AssetCenter.LOGIN=$login$ -dc:AssetCenter.TEXTPASSWORD=$pwd$
```

where *xxx* represents the name of scenario to schedule.

- 5 Schedule execution as needed.
- 6 Click *Create*.

Some scenarios may need to have their mappings tailored to the operating system on which they are run:

- 1 *ws_jobs.scn*: A mapping in this scenario uses a counter defined in an external file.

This file must be read-writable and the mapping must have the correct path to access it.

To do this, open the *Create_Temporary_Group* mapping and on the **Additional script** tab check that the *path_counter_file* variable contains the full path to the *cmac_counter.txt* file (<Full path to the HP Connect-It installation folder>\scenario\hpovcm\cmac50\cpt\).

- 2 *ldap_directory_service_all.scn* and *ldap_active_directory_all.scn*: These scenarios are based on standard LDAP directories.

If some classes of the objects that were retrieved by the scenarios have been customized, their mapping may need to be modified so that the correct information is replicated in HP AssetCenter.

Optional components

HP Discovery and Dependency Mapping Inventory (previously called HP Enterprise Discovery Automated Inventory)

HP Discovery and Dependency Mapping Inventory can be installed in the production environment to inventory network elements and retrieve information used to populate the HP AssetCenter database.

To learn how to install and configure HP Discovery and Dependency Mapping Inventory please refer to the HP Discovery and Dependency Mapping Inventory *Installation and Initial Setup* guide.

HP AssetCenter Server

Configure and activate HP AssetCenter Server modules

If HP AssetCenter Server is used to manage scenario schedules, new modules will need to be created and configured.

► To do this, please refer to section [Configure HP Connect-It scenarios](#) [page 40]

HP AssetCenter Web Service

Installing HP AssetCenter Web Service

You need this module in several cases, most notably:

- If you want to let HP AssetCenter users access the production database via a Web client.
- If you want to implement a compliance module on the HP Configuration Management server enabling it to query the HP AssetCenter production database via the Web services in order to check license rights.

To learn how to install and configure HP AssetCenter Web Service: ►

HP AssetCenter *Installation and upgrade* guide, chapter *Installing, configuring and uninstalling HP AssetCenter Web*.

Java J2SDK 1.4.2

Install Java J2SDK 1.4.2

If you want to implement a compliance module on the HP Configuration Management server, Java J2SDK 1.4.2 must be installed in order to handle calls to the HP AssetCenter Web services.

To learn how to install Java J2SDK 1.4.2: ► [Sun Microsystems web page](http://java.sun.com/j2se/1.4.2/download.html) <http://java.sun.com/j2se/1.4.2/download.html> about Java J2SDK 1.4.2



The path to the Java J2SDK 1.4.2 installation folder must not contain any spaces.

Apache AXIS 1.2

Install Apache AXIS 1.2

If you want to implement a compliance module on the HP Configuration Management server, Apache AXIS 1.2 must be installed in order to handle calls to the HP AssetCenter Web services.

To learn how to install these AXIS 1.2: ► [Apache web page http://ws.apache.org/axis/java/install.html](http://ws.apache.org/axis/java/install.html) about AXIS.



Warning:

The path to the Apache AXIS 1.2 installation folder must not contain any spaces.

Apache ANT 1.6.5

Install Apache ANT 1.6.5

If you want to change the license rights compliance module, Apache ANT 1.6.5 must be installed in order to handle the project and its source code.

To learn how to install Apache ANT 1.6.5: ► [Apache web page http://ant.apache.org/manual/index.html](http://ant.apache.org/manual/index.html) about ANT.



Warning:

The Apache ANT 1.6.5 installation folder must not contain any spaces.

License rights compliance module

Implementation

The license rights compliance module enables HP Configuration Management to query the HP AssetCenter database via the HP AssetCenter Web services in order to check software license rights before installing software on clients.

This module is optional in the software distribution and entitlement process.

To implement it, do the following:

1 Copy the

`C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcmmp\cm\licence_check\ac_verify.tcl` file in the following folder:

`<Full path to the HP Configuration Management RCS installation folder>\lib.`



Note:

This file is used to call HP AssetCenter Web services which verify if the number of rights is sufficient for a given application, and then retrieves the return code.

Edit the file and specify:

- The **LOGIN** variable using the HP AssetCenter user name.

- The **PASSWORD** variable using the password corresponding to the HP AssetCenter user.

 **Warning:**

To implement HP Configuration Management, a password must be assigned to the user. The password must not be empty.

- The **HOST** variable using the name of the host on which the HP AssetCenter Web services are installed
- The **PORT** variable using the host port that the HP AssetCenter Web services use to communicate
- The **WSTAG** variable using the tag number of the HP AssetCenter Web service to query

 **Note:**

By default, WSTAG equals *Head*.

 **Note:**

The syntax of the Web service URL used to check licenses is as follows:

```
http://<HOST>:<PORT>/AssetCenterWebService/services/<WSTAG>/Portfolio
```

- The **path_axis** variable with the path to the AXIS 1.2 library (normally this is <Full path to the AXIS installation folder>\\lib) (see section [Apache AXIS 1.2 \[page 43\]](#)).
- 2 Extract the contents of
C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcmmp\cm\licence_check\ac_verify.zip
to the following folder:
<Full path to the HP Configuration Management RCS
installation folder>\bin.
 - 3 Run the setup.tcl file located in the folder using the following command
lines:

```
cd <Full path to the HP Configuration Management RCS installation folder>\bin
```

```
nvdkit setup.tcl -host <host> -user <user> -pass <password>
```

Where:

- *host*: HP Configuration Management host
- *user*: Login to use to connect to HP Configuration Management

- *password*: Password to use with the login used to connect to HP Configuration Management



Note:

This file configures HP Configuration Management to run the `ac_verify.tcl` file.

- 4 Restart the services for the CM Messaging Server, CM Configuration Server and CM Portal components.

Prerequisite conditions

In order for the license rights check to operate correctly for a given media, the following conditions must be met:

- The media is part of a software package
- The software package has at least one request line linked to a software installation model
- The software installation model is included by at least one software counter (**Scope of the installations or utilizations to be counted** (SoftInstQuery) link)

Tailoring



Note:

The operations described in this section are optional.

Prerequisites to customize the license rights compliance module

Apache ANT must be installed (► [HP AssetCenter Web Service](#) [page 43]).

Customizing the license rights compliance module

This section explains how to adapt the license rights compliance module to your environment.

This adaptation consists in editing source files and rebuilding the components used by HP Configuration Management to query the HP AssetCenter database via HP AssetCenter Web Service.

To edit and compile the source files:

- 1 Extract the contents of
C:\temp\OV_AC_CM_Integration\C-It\datakit\hpovcomp\cm\licence_check\ac_verify_source.zip to a work folder such as C:\Work.
- 2 Edit the `setPath.bat` file and modify the following parameters:
 - *JAVA_HOME*: Full path to the Java J2SDK 1.4.2 installation folder (see section [Java J2SDK 1.4.2](#) [page 43])

- **ANT_HOME**: Full path to the Apache ANT installation folder (see section [HP AssetCenter Web Service](#) [page 43])
 - **STUB_HOME**: Full path to the work folder that you just created.
 - **AXIS_HOME**: Full path to the AXIS installation folder (see section [Apache AXIS 1.2](#) [page 43])
- 3 Edit the `ant.properties` file and modify the following parameters:
- **ws.host**: HP AssetCenter Web Service host
 - **ws.port**: Port to access HP AssetCenter Web Service
 - **ws.user**: Login that HP AssetCenter Web Service uses to connect to the HP AssetCenter database
 - **ws.password**: Password associated with the login that HP AssetCenter Web Service uses to connect to the HP AssetCenter database
- 4 Edit the `build.xml` file and specify the `lib` variable (AXIS lib folder), for example:

```
<property name="lib" value="C:\<Full path to the AXIS installation folder>\lib"/>
```

- 5 Open a DOS command prompt.
- 6 Change to the work folder (for example, `C:\Work`).
- 7 Execute `SetPath.bat`.
- 8 Execute `runAnt.cmd`.

This:

- Empties the contents of the `classes` and `stubSrc` folders when these folders exist and contain files.
- Generates classes corresponding to HP AssetCenter Web Service and classes corresponding to the source code in the `src` folder.

 **Note:**

This operation may take some time to complete (more than 30 minutes).

- 9 Execute `createJar.bat`.
- This generates a `ac_verify_RunTime.jar` file that contains all the classes in the `classes` folder.
- The `ac_verify_RunTime.jar` file contains the `ac_verify.class` class that is used by HP Configuration Management to check if there are sufficient license rights.
- 10 Copy the `ac_verify_RunTime.jar` file into `<HP Configuration Management installation folder>\ConfigurationServer\bin`.

Operation of the license rights compliance module

Before installing software, HP Configuration Management uses the `ac_verify.java` file, which is located in the `src\portfolio` folder, to query HP AssetCenter via HP AssetCenter Web Service in order to check if there are sufficient license rights.

Below is the list of arguments used:

```
<code> -u <login> -w <password> -h <host> -p <port> -t <tag>
```

with:

- *code*: **Code** (Code) field of the portfolio item that describes the software license to install
- *login*: Login that HP AssetCenter Web Service uses to connect to the HP AssetCenter database
- *password*: Password associated with the login that HP AssetCenter Web Service uses to connect to the HP AssetCenter database
- *host*: HP AssetCenter Web Service host
- *port*: Port to access HP AssetCenter Web Service
- *tag*: HP AssetCenter Web Service tag number to use

If an error occurs during the query (for example, no portfolio item found, incorrect login or password), the value `4` is returned with an error message.

If no error occurs during the query, the value `0` is returned. Also, if there are insufficient license rights, the *No available license for: <Portfolio item code>* is also returned.

To find out if there are sufficient rights, the Web service searches for the portfolio item that corresponds to the media and tests the value of the *OVCMS service has enough license* (OVCMSServiceHasEnoughLicense) calculated field.

The calculated field is evaluated by HP AssetCenter. Its value is *Yes* if the following conditions are met:

- The media is part of a software package
- The software package has request lines linked to a software installation model
- One of these software installation models is included by software counters (**Scope of the installations or utilizations to be counted** (SoftInstQuery) link)
- The **Rights count** (dLicUseRights) field for one of these counters has a value that is greater than the value in the **Installations/Utilizations count** (dSoftInstallCount) field.

Known issues in this version

- When you assign the right to use software to an element, if this element is a person, the HP AssetCenter wizard displays an empty list of users.
- The module that checks license availability in HP AssetCenter before deploying software saves the information to a HP Configuration Management log file (radish.log).

4 Creating and updating reference information

The following reference information must be present in the HP AssetCenter production database before a deployment work order can be created and executed:

- [Computers](#) [page 51]
- [User accounts](#) [page 53]
- [Computer groups](#) [page 54]
- [Domains](#) [page 55]
- [Media](#) [page 56]
- [Software packages](#) [page 57]

This chapter explains how to enter the reference information.

Computers

Why and where do the computers need to be referenced?

To ensure that software is distributed to a target computer properly, the computer must be identified in the same manner in:

- The *HP AssetCenter database*. This enables the computer to be referenced by deployment tasks created in HP AssetCenter
- The *HP Configuration Management database*. This enables the computer to be referenced by work orders exported to HP Configuration Management

- The *computer itself*. This enables the computer to be found when the job is executed by HP Configuration Management

How are computers imported?

Two possibilities exist:

- The HP AssetCenter database has already been populated via an integration with an inventory tool.

In this case, network computers are already known and a large amount of data has already been entered.

- The computers have not been inventoried and the database does not have this information.

Computers are imported (creation or update) via HP Connect-It scenarios (`ws_groups_devices.scn`, `ldap_active_directory_all.scn` and `ldap_directory_service_all.scn`). What follows is the reconciliation method that reflects the two types of use cases:

- 1 First reconciliation: Done use the computer's MAC address.

If the computer already exists in the database and its MAC address has been populated (via an inventory), the scenario completes the information and adds the computer's DN.

- 2 Second reconciliation: If the MAC address is unknown, the scenario tries using the full name of the computers.

If a computer is found using this key, the DN is added to its list of information.

- 3 Third reconciliation: If the two first reconciliations failed, the scenario tries using the computer's DN. This may mean that the computer was entered into the production database without a MAC address.

If all reconciliation attempts fail, the computer is created with the required information, including the DN which is replicated (see the reference data chapter, section [Replicating reference data](#) [page 27]).

How are computers identified in the HP AssetCenter database?

A computer is a record in the **Portfolio items** table (`amPortfolio`) linked to a nature whose **Also create** field (`OverflowTbl`) is set to *Computers (amComputer)*.

User accounts

Why and where do user accounts need to be referenced?

An LDAP directory defines the user account entity.

HP Configuration Management can then define policies for these user accounts in order to authorize or refuse access to software.

In order for a user account to be managed in the software distribution and entitlement process, it must be identified in the same manner in:

- The *HP AssetCenter database*. This enables the user account to be referenced by scheduled tasks created in HP AssetCenter
- The *HP Configuration Management database*. This enables the user account to be referenced by the work orders exported to HP Configuration Management
- The *user account itself*. This enables the user account to be found when the job is executed by HP Configuration Management

How are user accounts imported?

User accounts are imported by HP Connect-It scenarios

(`ldap_active_directory_all.scn` and

`ldap_directory_service_all.scn`) which use a DN based reconciliation method. If the object does not already exist, they create two types of information:

- 1 A portfolio item corresponding to the user account, linked to a model whose **Name** (Name) field equals *LDAP Account* and to a nature whose **Name** (Name) field equals *Account*
- 2 An associated user

These two objects have the DN in their identifier field (see the [Replicating reference data](#) [page 27] section of the reference data chapter).

How can a user account be identified in the HP AssetCenter database?

A user account is a record in the **Portfolio items** (amPortfolio) table linked to a model whose **Name** (Name) field equals *LDAP Account* and to a nature whose **Name** (Name) field equals *Account*.

Computer groups

Why and where do the computer groups need to be referenced?

Computer groups define sets of entities which can be computers or computer groups.

Entities can be grouped by common characteristics. Doing this will optimize software distribution and entitlement.

In order for a computer group to be managed in the deployment process, it must be identified in the same manner in:

- The *HP AssetCenter database*. This enables the computer group to be referenced by the tasks created in HP AssetCenter
- The *HP Configuration Management database*. This enables the computer group to be referenced by the work orders exported to HP Configuration Management

How are computer groups imported?

Computer groups are imported by HP Connect-It scenarios (`ws_groups_devices.scn`, `ldap_active_directory_all.scn` and `ldap_directory_service_all.scn`) which use a DN based reconciliation method, and create a computer linked to a model whose **Name** (Name) field equals *Directory Group* (if it is from an LDAP directory) or *OVCN Group* (if it is from an internal HP Configuration Management database) and to a nature whose **Name** (Name) field equals *Group*.

Its members are added to it when they are replicated and establish a client-resource relationship whose **Dependency type** (CRType) link equals **Belongs to group**.

▶ [Replicating reference data](#) [page 27].

How is a computer group identified in the HP AssetCenter database?

A computer group is a record in the **Portfolio items** (`amPortfolio`) table linked to a model whose **Name** (Name) field equals *Directory Group* (if it is from an LDAP directory) or *OVCN Group* (if it is from the internal HP Configuration Management database) and to a nature whose **Name** (Name) field equals *Group*.

Domains

Why and where do the domains need to be referenced?

Domains group sets of entities (also called entries) which can be computers, user accounts and computer groups that share a common name space.

Domains define a hierarchy.

They are present in an LDAP directory and in the HP Configuration Management internal database which enables policies to be assigned to them.

They must be referenced in the same manner in:

- The *HP AssetCenter database*. This enables the computer to be referenced by scheduled tasks created in HP AssetCenter
- The *HP Configuration Management database*. This enables the computer to be referenced by work orders exported to HP Configuration Management

How are domains imported?

Domains are imported via HP Connect-It scenarios (`ws_groups_devices.scn`, `ldap_active_directory_all.scn` and `ldap_directory_service_all.scn`) when each entry is replicated.

A domain is represented by a portfolio item linked to a model whose **Name** (Name) field equals *Domain* and to a nature whose **Name** (Name) field equals *Domain*.

The identifiers of these two associated objects are reconstructed from the DN of its entry via the following method:

If a computer whose DN is `cn=client1,cn=demo,cn=hp,cn=com` is replicated, the *demo*, *hp* and *com* domains will be created with the `cn=demo,cn=hp,cn=com`, `cn=hp,cn=com` and `cn=com` values for the **External identifier** (ExtPfiId) field.

► [Replicating reference data \[page 27\]](#).

How is a domain identified in the HP AssetCenter database?

A domain is a record in the **Portfolio items** (`amPortfolio`) table linked to a model whose **Name** (Name) field equals *Domain* and to a nature whose **Name** (Name) field equals *Domain*.

Media

Why and where do media need to be referenced?

Before a job can be created and executed, a service must be able to be assigned to it.

Services are defined in their entirety in HP Configuration Management.

As these jobs are created in HP AssetCenter as work order deployments and services as media, media must be able to be selected in the HP AssetCenter database.

Also, part of the information concerning the services must be exported from the HP Configuration Management database to the media in the HP AssetCenter database.

How are services imported?

Services are imported via a HP Connect-It scenario (`ws_services.scn`) whose reconciliation method is based on the DCI.

Services are imported as a software installation linked to a nature whose **Name** (Name) field equals *Media*.

Since the information is not available in HP Configuration Management, the description of the software applications that can be installed by the media must be added in order to enable the licenses associated with them to be managed.

Each media can be linked to a software package (see below in this chapter).

► [Replicating reference data \[page 27\]](#).

How is a configuration management media identified in the HP AssetCenter database?

A configuration management media is a portfolio item linked to a model whose **Name** (Name) field equals *Media* and to a nature whose **Name** (Name) field equals *Media*.

Software packages

Why and where do the software packages need to be created?

Software packages are created in their entirety in HP AssetCenter.

They enable media which reference the same software entity to be grouped.

For example, the *MS Office* software package includes the *MS Word* and *MS Excel* media, etc.

How are software packages created?

A software package can be created in several ways: with or without a wizard

- *With wizard:*
 - 1 Start the HP AssetCenter Windows or Web client.
 - 2 Connect to your production database.
 - 3 Start the *Create a standard request...* wizard (sysStdRequestAddModelnc) (**Portfolio management/ Extended portfolio/ Create a standard request...** link on the navigation bar).
 - 4 Provide the information on each of the pages of the wizard and then click finish.
- *Without wizard:*
 - 1 Start the HP AssetCenter Windows or Web client.
 - 2 Connect to your production database.
 - 3 Display the catalog of services (**Portfolio management/ IT/ CMDB/ Software Packages** link on the navigation bar).
 - 4 Create a new software package (**New** button).



Note:

This adds a record to the **Requests** (amRequest) table.

The **Req. status** field (seStatus) is set to *Standard request*.

On the **Standard** tab, the **Software package** (bSoftPackage) option is selected. This determines that the standard request corresponds to a software package.

- 5 If the software package is part of the DSL, select **DSL** in the **Certification** field.

This criterion is taken into account by the wizards that create the deployment tasks: It is used to distinguish *Software packages* from *Authorized software packages*.

- 6 On the **Composition** tab, add the request lines that will be taken into account in the procurement cycle.
- 7 Populate all required fields and save the software package.

 **Tip:**

Do not populate the **Media** tab at this stage.

▶ [How to link media that have not yet been linked to a software package \[page 58\]](#)

How to link media that have not yet been linked to a software package

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Start the *Reconciling DSL reference with media* wizard (sysOVCMReconcilingDSLReferenceMedia) (**Portfolio management/ IT/ OVCN Software Distribution/ Reconciling DSL reference with media** on the navigation bar).
- 4 Provide the information on each of the pages of the wizard and then click finish.

 **Note:**

The list of media is taken into account by the wizards that create deployment tasks: This lets you find the software package to which a given media belongs.

5 Add or remove software, grant or remove the right to use a software application

HP AssetCenter is used to pilot the addition or removal of software as well as the assignment or removal of the right to use software.

This is done by creating requests via HP AssetCenter wizards.

Once validated and executed, these requests create deployment work orders and, for assignment or removal of rights to use software, deployment tasks.

These deployment work orders and tasks are transmitted to HP Configuration Management as jobs via HP Connect-It scenarios.

HP Configuration Management executes the jobs.

The job transmission and execution results are automatically sent to HP AssetCenter via HP Connect-It scenarios. This updates the deployment work orders and tasks.

Add or remove software

There are several ways to add or remove software.

This section presents the different ways.

Add or remove software to/from locations

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.

- 3 Start the *Assign and distribute software* wizard (sysOVCMSoftware_Deployment) (**Portfolio management/ IT/ OVCM Software distribution/ Assign and distribute software** link on the navigation bar).
- 4 On the first page, click **Distribute software to locations**.
This starts the *Distribute software to locations* wizard.
- 5 Provide the information on each of the pages of the wizard and then click finish.
- 6 Exit the wizard (**OK** button).
- 7 The wizard creates an internal request with the information that was provided.

The deployment work order is only created in HP AssetCenter if the request is validated (if the **Req. status** (seStatus) field is set to *Validated*).

► **Configuring the approval workflow scheme.** [page 39].

- 1 Display the request's detail (**Portfolio management/ Extended portfolio/ Internal requests** link on the navigation bar).
- 2 Click **Execute**.
- 3 Select the line to execute, then exit the wizard.
- 4 The wizard creates the corresponding deployment work order and the associated deployment tasks.
- 5 Close the wizard (**OK** button).

Once the request is validated, the lines of the request must be executed:

The deployment work orders can be accessed via the **Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link on the navigation bar.

Add or remove software for users

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Start the *Assign and distribute software* wizard (sysOVCMSoftware_Deployment) (**Portfolio management/ IT/ OVCM Software distribution/ Assign and distribute software** link on the navigation bar).
- 4 On the first page, click **Distribute software to users**.
This starts the *Distribute software to users* wizard.
- 5 Provide the information on each of the pages of the wizard and then click finish.

- 6 Exit the wizard (**OK** button).
- 7 The wizard creates an internal request with the information that was provided.

The deployment work order is only created in HP AssetCenter if the request is validated (if the **Req. status** (seStatus) field is set to *Validated*).

► [Configuring the approval workflow scheme.](#) [page 39].

Once the request is validated, the lines of the request must be executed:

- 1 Display the request's detail (**Portfolio management/ Extended portfolio/ Internal requests** link on the navigation bar).
- 2 Click **Execute**.
- 3 Select the line to execute, then exit the wizard.
- 4 The wizard creates the corresponding deployment work order and the associated deployment tasks.
- 5 Close the wizard (**OK** button).

The deployment work orders can be accessed via the **Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link on the navigation bar.

Add or remove software to/from computers

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Start the *Assign and distribute software* wizard (sysOVCMSoftware_Deployment) (**Portfolio management/ IT/ OVCM Software distribution/ Assign and distribute software** link on the navigation bar).
- 4 On the first page, click **Distribute software to computers**.
This starts the *Distribute software to computers* wizard.
- 5 Provide the information on each of the pages of the wizard and then click finish.
- 6 Exit the wizard (**OK** button).
- 7 The wizard creates an internal request with the information that was provided.

The deployment work order is only created in HP AssetCenter if the request is validated (if the **Req. status** (seStatus) field is set to *Validated*).

► [Configuring the approval workflow scheme.](#) [page 39].

Once the request is validated, the lines of the request must be executed:

- 1 Display the request's detail (**Portfolio management/ Extended portfolio/ Internal requests** link on the navigation bar).
- 2 Windows client: Click **Execute**.
Web client: Select *Execute* from the **Contextual actions** drop-down list.
- 3 Select the line to execute, then exit the wizard.
- 4 The wizard creates the corresponding deployment work order and the associated deployment tasks.
- 5 Close the wizard (**OK** button).

The deployment work orders can be accessed via the **Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link on the navigation bar.

Grant or remove the rights to use a software application

Grant or remove the rights to use a software application

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Start the *Assign and distribute software* wizard (sysOVCMSoftware_Deployment) (**Portfolio management/ IT/ OVCM Software distribution/ Assign and distribute software** link on the navigation bar).
- 4 On the first page, click **Assign software (entitlements)**.
This starts the *Assign software* wizard.
- 5 Provide the information on each of the pages of the wizard and then click finish.
- 6 Exit the wizard (**OK** button).
- 7 Using the information which was provided, the wizard creates an internal request and a named entitlement for each target entity.

The **Object** (ReqPurpose) field of each request has the value *Software Entitlement Creation: Media.Name* .

The **Name** field of each named entitlement that is created has the value *Software: Portfolio.Code* .

Once the request is validated (the **Req. status** (seStatus) field is set to *Validated*) the lines of the request must be executed in order to create the deployment work order and submit it to HP Configuration Management:

- 1 Display the request's detail (**Portfolio management/ Extended portfolio/ Internal requests** link on the navigation bar).
- 2 Click **Execute**.
- 3 Select the line to execute, then exit the wizard.
- 4 The wizard creates the corresponding work order.
- 5 Close the wizard (**OK** button).

 **Tip:**

To increase user friendliness in the Windows client, customize the automated named entitlements screen by creating a virtual hierarchy.

For example, you can group the entitlements by media:

- 1 Open the screen and right click the **Media** field.
- 2 Select **Group by this field** from the shortcut menu.

The list is sorted by media, each media defines a level in the hierarchy.

Named entitlements can be accessed via the **Portfolio management/ IT/ OVCM Software distribution/ Automated named entitlements** link and the associated work orders via the **Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link

 **Note:**

When rights are assigned to use a software application, you can force the deployment of media to the selected target computers and groups.

To do this check *Create deployment / removal request* on the last page of the wizard.

In this case, the action creates a deployment task that follows the same process as the one described in this chapter.

Transmitting a software installation or removal work order to HP Configuration Management

A software installation or removal work order is only transmitted to HP Configuration Management by the `ws_jobs.scn` HP Connect-It scenario if, in the work order's detail, the value of the **Automation status** (JobStatusState) field on the **Automation** tab is *To transmit*.

Deployment work orders are transmitted to HP Configuration Management by the `ws_jobs.scn` HP Connect-It scenario.

To automate execution of the scenario: ► [Configure HP Connect-It scenarios](#) [page 40].

To check this, make sure that one of the deployment work orders created in HP AssetCenter is present as a job in the HP Configuration Management database.

Check the transmission of a software installation or removal work order to HP Configuration Management

The transmission status of software installation or removal work orders transmitted to HP Configuration Management is updated by HP Connect-It scenario `ws_jobs.scn`.

Update the transmission status automatically

To automate execution of the scenario: ► [Configure HP Connect-It scenarios](#) [page 40].

Check the transmission status

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Display the deployment work orders (**Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link on the navigation bar).
- 4 Select the deployment work order to check.
- 5 Select the **Automation** tab.
- 6 Examine the **Automation status** (seAutomationStatus) field.
Its value must be *Transmitted*.

Check the execution of a job by HP Configuration Management

Update the execution status of the jobs

The execution status of jobs executed by HP Configuration Management is updated by HP Connect-It scenario `ws_status.scn`.

To automate execution of the scenario: ► [Configure HP Connect-It scenarios \[page 40\]](#).

Check the execution status of a deployment work order

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Display the deployment work orders (**Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link on the navigation bar).
- 4 Select the deployment work order to check.
- 5 Select the **Automation** tab.
- 6 Look at the **Job status state** (JobStatusState) field.
- 7 Display the deployment tasks (**Portfolio management/ IT/ Configuration management/ Deployment tasks** link on the navigation bar).
- 8 Select the deployment task to check.
- 9 Look at the **Job status code** (JobStatusCode) and **Job status state** (JobStatusState) fields.

Transmitting and executing a work order to grant or remove rights to use software to HP Configuration Management

A work order to grant or remove rights to use software is only transmitted to HP Configuration Management by the `ws_policies.scn` HP Connect-It scenario if, in the work order's detail, the value of the **Automation status** (JobStatusState) field is *To transmit*.

Deployment work orders are transmitted to HP Configuration Management by the `ws_policies.scn` HP Connect-It scenario.

To automate execution of the scenario: ► [Configure HP Connect-It scenarios \[page 40\]](#).

To check this, make sure that one of the transmitted deployment work orders triggered the creation of the policy in the HP Configuration Management database.

Check the transmission and execution of a work order to grant or remove rights to use software to HP Configuration Management

The transmission and execution status of work orders to grant or remove rights to use software transmitted to HP Configuration Management is updated by HP Connect-It scenario `ws_policies.scn`.

Update the transmission status automatically

To automate execution of the scenario: ► [Configure HP Connect-It scenarios](#) [page 40].

Check the transmission status

- 1 Start the HP AssetCenter Windows or Web client.
- 2 Connect to your production database.
- 3 Display the deployment work orders (**Portfolio management/ IT/ OVCM Software distribution/ OVCM work orders** link on the navigation bar).
- 4 Select the deployment work order to check.
- 5 Select the **Automation** tab.
- 6 Look at the **Job status state** (JobStatusState) field.

A Glossary

This glossary provides definitions of the key terms used in the HP AssetCenter - HP Configuration Management integration.

Deployment work order (Job)

A deployment work order describes an operation whose execution will be handled by HP Configuration Management.

- Installing software
- Removing software
- Assigning rights to use software
- Removing rights to use software

Deployment work orders are created via wizards in the HP AssetCenter database, transmitted to HP Configuration Management via a HP Connect-It scenario, and updated in the HP AssetCenter database via a HP Connect-It scenario.

Table in the HP AssetCenter database that describes these objects

Work orders (amWorkOrder)

Deployment task (Job)

For software installation or removal, a deployment task completes the description of the deployment work orders by specifying the deployment target. Deployment tasks are created via wizards in the HP AssetCenter database and updated in the HP AssetCenter database via a HP Connect-It scenario.

Table in the HP AssetCenter database that describes these objects

OVCN Target Task (amCMTargetTask)

User account (User account)

User accounts are defined in HP Configuration Management or the LDAP tree used by HP Configuration Management and are imported into the HP AssetCenter database using a HP Connect-It scenario.

LDAP accounts can be granted rights to use software via a named entitlement.

Table in the HP AssetCenter database that describes these objects

Portfolio items (amPortfolio)

Characteristics of these objects in the HP AssetCenter database

Records in the **Portfolio items** (amPortfolio) table linked to a model whose **Name** (Name) field equals *LDAP Account* and to a nature whose **Name** (Name) field equals *Account*.

Domain (Domain)

LDAP DNS domain.

Computers, user accounts and computer groups are organized hierarchically as a tree structure whose branches represent domains.

They can only belong to a single domain and are identified uniquely by their name and the list of parent domains (the domain hierarchy to which it is assigned).

Domains are defined in HP Configuration Management and are imported into the HP AssetCenter database using a HP Connect-It script.

Table in the HP AssetCenter database that describes these objects

Computers (amComputer) and **Portfolio items** (amPortfolio)

Characteristics of these objects in the HP AssetCenter database

Records in the **Portfolio items** (amPortfolio) table linked to a model whose **Name** (Name) field equals *Domain* and to a nature whose **Name** (Name) field equals *Domain*.

Computer group (Group of devices)

Set of computers or groups.

Groups are defined in HP Configuration Management and are imported into the HP AssetCenter database using a HP Connect-It script.

Groups are used to filter computers when you create a deployment work order.

Computer groups can be granted rights to use software via a named entitlement.

Table in the HP AssetCenter database that describes these objects

Computers (amComputer) and **Portfolio items** (amPortfolio)

Characteristics of these objects in the HP AssetCenter database

Records in the **Portfolio items** (amPortfolio) table linked to a model whose **Name** (Name) field equals *Directory Group* (if it is from an LDAP directory) or *OVCN Group* (if it is from the internal HP Configuration Management database) and to a nature whose **Name** (Name) field equals *Group*.

Media (Service)

Parameters and files required to install software.

Media correspond to services defined in HP Configuration Management.

They are imported into the HP AssetCenter database via a HP Connect-It scenario.

Media are grouped as *software packages*.

Table in the HP AssetCenter database that describes these objects in the HP AssetCenter database

Software installations or utilizations (amSoftInstall) and **Portfolio items** (amPortfolio)

Object characteristics

Records in the **Portfolio items** (amPortfolio) table linked to a model whose **Name** (Name) field equals *Media* and to a nature whose **Name** (Name) field equals *Media*.

Software package

Set of media.

A software package is used to group a set of media that references the same software entity.

Software packages are used to filter media when you create a deployment work order.

For example, the *MS Office* software package includes the *MS Word* and *MS Excel* components, etc.

Software packages are defined in HP AssetCenter.

Table in the HP AssetCenter database that describes these objects

Requests (amRequest)

Characteristics of these objects in the HP AssetCenter database

To be considered a software package, the record in the request table must be populated as follows:

- **Req. status** (seStatus): *Standard request*
- **Software package** (bSoftPackage) option selected

Named entitlement (Policy)

Named entitlements let you assign media user rights to user accounts, computers, computer groups and domains.

These named entitlements are created via wizards that can also create deployment work orders in the HP AssetCenter database.

Deployment work orders are transmitted to HP Configuration Management and updated in the HP AssetCenter database via HP Connect-It scenarios.

Table in the HP AssetCenter database that describes these objects in the HP AssetCenter database

Named entitlements (amEntitlement)

Object characteristics

Records in the **Named entitlements** (amEntitlement) table whose **Automated Entitlement** (bAutomated) field equals *Yes*.

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