

# HP Configuration Management

## Service Desk Adapter

for the Windows® operating system

Software Version: 5.10

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### Integration Guide

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i n v e n t

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## Documentation Updates

This guide's title page contains the following identifying information:

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Table 1 indicates changes made to this document since the last released edition.

**Table 1 Document Changes**

Chapter	Version	Changes
2	5.10	Page 20, <a href="#">Configuration Management Version 5.x Environment</a> , added this line to topic end: For Policy Administration, refer to the <i>HP CM Enterprise Manager User Guide</i> .
2	5.10	Page 24, <a href="#">Admin Workstation - Installation of CM Service Desk Adapter</a> . Modified install procedures. When prompted, select <b>5.x or greater</b> to support Service Desk 5.0 or 5.1.
3	5.10	Page 28, <a href="#">Import Custom Fields using ACES</a> , added two procedures to this task: <ul style="list-style-type: none"><li>• To modify the SysVersion in the custom fields xml file.</li><li>• To activate custom fields (SD 4.5 with Service Pack 18 or greater).</li></ul>
3	5.10	Page 35, <a href="#">Import the Configuration Data using ACES</a> , prior to importing, the SysVersion value in the config data xml file must be updated to reflect the OVSD Service Pack. Refer to the new procedure: <ul style="list-style-type: none"><li>• To modify the SysVersion in the config data xml file</li></ul>
4	5.10	Page 47, <a href="#">Troubleshooting the display of CM service type values</a> . Added steps to purge the server cache and restart the

		OpenView console. This workaround may be needed to view the <b>CM service type values</b> after importing custom fields into Service Desk 5.1 with service packs applied.
5	5.10	Page 71, <a href="#">Configuring for Policy Resolution</a> , revised the list of CM manuals that contain more information on CM Policy Administration and CM Administrator topics.

Table 2 indicates changes made to this document in previous released editions.

**Table 2 Document Changes in Previous Releases**

Chapter	Release	Revision
Global	5.00	Changed all Radia names to new Configuration Management (CM) Software brand names
Global	5.00	The HP OVCM Service Desk Adapter now runs under the service name: httpd-servicedeskadapter.
2	5.00	New default installation paths for the Service Desk Adapter components:  The Admin component installs to: C:\Program Files\Hewlett-Packard\CM\CMSD\Admin  The Server component installs to: C:\Program Files\Hewlett-Packard\CM\CMSD\Server
2	5.00	Page 22, <a href="#">Admin Workstation - Installation of CM Service Desk Adapter</a> , added caution to modify the CM Smart Action Tool definition if the Admin component is not installed into the default path.
4	5.00	Page 57, <a href="#">Application – CM Smart Action Tool</a> , You must change the Start In value for the hide.exe command to reflect the path where the CM-SDA Admin component was installed.
4	5.00	Page 64, <a href="#">Smart Action — CM Install Software</a> , the definition of this Smart Action has changed. See the Parameters row in <a href="#">Table 13</a> .
5	5.00	Page 70, <a href="#">To create a Methods instance for RMP_RESOLVE</a> , updated the <b>ZMTHPRMS</b> parameter value to indicate the new default port of the CM Portal: 3471.

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# 1 Introduction

## Integration Overview

The HP Service Desk and HP Configuration Management integration brings together the automated, desired-state and policy-based software management capabilities of OVCN and the Service Desk ITIL-based processes for tracking incident, change and work orders on the hardware Configuration Items in your environment.

### Software Management Actions from the Service Desk Console

The current implementation enables a Service Desk Administrator to select a single device and initiate an immediate OVCN job to deploy or otherwise manage software services on it.

- Create and execute a Work order to install, verify, update, repair or uninstall a CM-managed software service on a single device.
- Create and execute a Work order to synchronize all software that a device is entitled to given its existing policy; this action runs a Full CM-Notify job to bring the managed-software on the device to its desired-state.
- Monitor and receive the job status of the software installation or other software activity being performed by CM (closed loop).
- Access the CM Reporting Server interface and view a Device report.

### CM Software Lists Added to Service Desk Database

This integration adds the Configuration Item (CI) Category of Software to the Service Desk CMDB. The integration obtains and loads the list of managed-software services from those available in the OVCN Configuration Server Database to the Service Desk CMDB. The software list is updated regularly. Administrators also have the ability to manually execute the action: CM Get Software List.

Software lists can be imported by type: ALL, PATCH, OS, and SOFTWARE.

## Creation of CM-Managed Devices

This integration allows you to create a managed device in OVCM for a Hardware CI already in your Service Desk CMDB.

## CM Software Actions - Jobs Status Updates

This integration automatically sends status updates to the Service Desk Console as any of the software jobs (install, uninstall, update, verify or repair) are processed by the Configuration Manager. Any change is automatically reflected in the corresponding Service Desk Work order.

## CM Reporting Server

This integration provides a Device-level report that can be accessed directly from the Service Desk console using the action CM Reporting Server.

# The Configuration Management and Service Desk Integrated Environment

The Configuration Management environment includes the following required and optional products and components at CM Version 5.0 or above:

- CM Agents for Application Manager or Application Self-service Manager with the CM Portal Agent installed on them.
- CM Configuration Server with a co-located CM Messaging Server
- CM Portal, enabled with Web Services
- CM Reporting Server (optional for Reporting Server)

The Service Desk environment includes the following required and optional components:

- Service Desk 4.5, or Server Desk 5.0 or above, Server and Database (CMDB)
- HP OVCM Service Desk Adapter (**httpd-servicedeskadapter**) running on the Server and Admin
- Service Desk 4.5 Client (Admin) Workstations, also running the CM Service Desk Adapter (**httpd-servicedeskadapter**)

# Terminology

Become familiar with the following terms used throughout this guide.

## Admin

The term Admin is used in this guide to refer to the HP Service Desk Client Console, also called the Admin Workstation. The term Admin has been adopted to distinguish it from the CM agents installed on target devices in your infrastructure.

## agent

An agent refers to the Configuration Manager agent applications installed on target devices. Agents include CM Application Manager, CM Application Self-service Manager, CM Patch Manager, CM Inventory Manager, as well as others.

## CI

CI is used to refer to a Configuration Item (CI) in the HP Service Desk CMDB.

## CM-SDA

CM-SDA refers to the Configuration Management Service Desk Adapter (CM-SDA) components that are key components for the integration between the two products. There are CM-SDA components for the Service Desk Servers and Service Desk Admin Workstations in an integrated environment.

## OVCN (now CM)

OVCN refers to HP Configuration Management Software, previously named HP *OpenView* Configuration Management Software.

# Audience

This guide is intended for administrators who will be installing, configuring, and using the Configuration Management actions available with the CM integration with HP Service Desk.

## Chapter 1, Introduction

This chapter gives an overview of the integration environment and features available when using the HP Service Desk with the HP Configuration Manager with the Service Desk Adapter.

## Chapter 2, Installation

This chapter provides instructions on how to install the Service Desk Adapter components in your Service Desk 4.5 or 5.x environment.

## Chapter 3, Service Desk 4.5 Configuration

This chapter provides instructions on how to configure the Service Desk 4.5 environment for the integration with OVCN.

## Chapter 4, Service Desk 5.x Configuration

This chapter provides instructions on how to configure the Service Desk 5.0 or greater environment for the integration with OVCN.

## Chapter 5, CM Software Environment Configuration

This chapter explains how to configure policy for specific actions that are available with this integration with Service Desk.

## Chapter 6, Using the CM Smart Actions

This chapter describes how to use the CM Smart Actions from the Service Desk console. The software management actions are launched from a Work order for a single hardware CI device.

## Appendix A, Service Desk Object Updates and Command Line Utility

This chapter contains reference information on the Service Desk Object Updates and the Command Line Utility.

## Appendix B, Product Name Changes

If you have used Radia in the past, and are not yet familiar with the newly rebranded HP terms and product names, this appendix contains a list of old and new names.

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## 2 Installation

This chapter reviews the contents of the integration solution, the required pre-installation states of your Service Desk and Configuration Management software environments, and how to install the CMSD Integration software.

# Contents of the Integration Solution

The Integration pack consists of a directory that contains the following files:

- CM Service Desk Adapter – Server Install
- CM Service Desk Adapter – Admin Install
- Java program and batch file needed for Service Desk 4.5 and 5.x Admin Consoles (version-specific)
- Import Data Customization files for Service Desk 4.5 and Service Desk 5.0 (version-specific). Use the Service Desk 5.0 customization files for Service Desk 5.0 or 5.1 implementations.
  - `CM_config_data_custom_fields_SDnn.xml`
  - `CM_config_data_SDnn.xml`

## Pre-Installation Assumptions

### OV Service Desk 4.5 or 5.x Environment

- Before proceeding with the integration, you should have an HP Service Desk for Windows version 4.5 or 5.x environment installed, configured and operational. Refer to the *Service Desk Installation Guide* for the appropriate version of your Service Desk environment.
- Use the *classic* method to install the Service Desk clients (also known as Service Desk Admin Workstations) that are to be configured for Configuration Management (CM) actions. The integration with CM does not currently support Service Desk Admin Workstations that were installed using Java WebStart.

### Service Desk 4.5 Installation Prerequisites

- Windows must be installed with the latest patches and must be running.
- **Server Desk Application Server for the CMSD Integration**  
Both Service Desk and the Service Event program must be installed and running on *one* Application Server that will run the CMSD integration



software. In addition, the HTTP protocol must be enabled in Server Settings.

- For details on installing Service Desk on an Application Server, refer to Chapters 2 and 3 of the *HP OpenView Service Desk (Service Desk) 4.5 Installation Guide*.
- For details on installing the Service Event program, refer to the Installation Integrations chapter in the *Service Desk 4.5 Installation Guide*. On a Windows platform, Service Event is installed using the setup program on the HP Service Desk CD-ROM and making the following selections:

**Install service desk → Integrations Menu → Service Event**

- **Service Desk Clients**

All Service Desk Clients (Admin Workstations) that need to be capable of running the CMSD integration actions must have the Service Desk Client and the Service Event programs installed and running on them.

- For details on installing Service Desk Client, refer to Chapters 2 and 6 of the *Service Desk 4.5 Installation Guide*.
- For details on installing the Service Event program, refer to the Installation Integrations chapter in the *Service Desk 4.5 Installation Guide*. On a Windows platform, Service Event is installed using the setup program on the HP Service Desk CD-ROM by making the following sequential selections:

**Install service desk → Integrations Menu → Service Event**

## Service Desk 5.x Installation Prerequisites

- Windows must be installed with the latest patches and must be running.
- Server Desk Management Server for the CMDB Integration  
Both Service Desk and the Object Loader program must be installed and running on *one* Management Server that will run the CMSD integration software. In addition, the HTTP protocol must be enabled in Server Settings.
  - For details on installing Service Desk on a Management Server, refer to Chapters 2 and 3 of the appropriate *Service Desk 5.x Installation Guide*.
  - For details on installing the Service Desk Object Loader, refer to Chapter 9 of the appropriate *Service Desk 5.x Installation Guide*.



Prior to Service Desk 5.x, the Object Loader was called the Service Event program.

- **Service Desk Clients**  
All Service Desk Clients, also known as Admin Workstations, that need to be capable of running the CMSD integration actions must have the Service Desk Client and Object Loader programs installed and running on them.



These GUI clients must be installed using the classic install, and cannot be installed using Java Web Start.

- For details on installing Service Desk Client, refer to Chapters 2 and 4 of the *Service Desk 5.x Installation Guide*.
- For details on installing the Service Desk Object Loader, refer to Chapter 9 of the *Service Desk 5.x Installation Guide*.

## Configuration Management Version 5.x Environment

Before proceeding with the integration, you should have a Configuration Management Software environment, version 5.0 or above, fully installed, configured, and operational. The expected starting point of your Configuration Management environment is discussed below.

- **Infrastructure Components:** The required components that are needed to support the integrated environment with Service Desk include the following:
  - Configuration Server and database delivered with v 5.0 or above
  - Messaging Server v 5.0 or above
  - CM Portal v 5.0 or above
  - Reporting Server v 5.0 or above (Optional)  
Supports access to The Device Details Reports from the Service Desk console.
- **CM agent:** CM Application Manager, CM Application Self-service Manager and CM Inventory Manager agents delivered with CM v 5.0 or above are supported with this integration.



This version of the integration does not support an OV Client Configuration Manager (CCM) environment.

- **CM Infrastructure and Agent Configuration:**

- Messaging Server must be configured to post CM agent events to the CM Portal. Optionally, if you are using CM Inventory Manager agents or the CM Reporting Server, ensure the CM Messaging Server is configured for those components as well.
- You have packaged and published software to be managed through Service Desk to your Configuration Server.



When you integrate Service Desk with a Configuration Management environment, the managed software (known as Software Services) in the Configuration Server database becomes the source for your Definitive Software Library (DSL) in the Service Desk CMDB.

- You have installed CM agents and CM Portal Agents on the hardware devices in your network that are hardware device nodes in Service Desk. CM Agent devices can successfully connect to the Configuration Server.
- The CM Portal Agent on the CM agent devices have reported the MAC address back to the CM Portal: this can be viewed from the Device's Properties page in the CM Portal.



To install managed-software from Service Desk, the CM Portal must be able to contact the hardware device using the same MS API used to map a shared drive to a remote device.

- Optionally, you have entitled CM agent devices to the appropriate software services through an external Policy store (such as an AD directory), or the Policy domain in the Configuration Server database.



You have several choices as to how you want the software policy for a device to be resolved when a CM smart action is issued from Service Desk. For more information, see [Configuring for Policy Resolution](#) on page 70.

- If you are using an existing external LDAP directory, such as AD, for your Policy store, you have configured the Configuration Server appropriately. For details, refer to the *HP CM Policy Server Installation and Configuration Guide*. For Policy Administration, refer to the *HP CM Enterprise Manager User Guide*.

This completes the discussion on the required starting environment of the OV Configuration Management v5 Environment.

## Install the CM Service Desk Adapter Integration Software

This topic discusses how to install the integration software on one Service Desk Management or Application Server and on every Service Desk Admin Console that is to support the CM integration actions.



Before you start the install procedure, ensure you have the appropriate permissions. You need Administrator privileges to install the integration software

### Service Desk Server – Installation of CM Service Desk Adapter

Use the **Configuration Management Service Desk Adapter (Server)** Install program to install the **HP OVCM Service Desk Adapter (httpd-servicedeskadapter)** service on your Service Desk Server.

- 1 Run **setup.exe** from the `\Infrastructure\management_extensions\service_desk_adapter\server` folder of the extracted CM installation media.
- 2 Accept the License Agreement.
- 3 Enter or accept the location to which the CM Service Desk Adapter (CM-SDA) Service will be installed.

Default path is: `C:\Program Files\Hewlett-Packard\CM\CMSD\Server`

- 4 Select the Service Desk Server Version: 5.0 or 4.5. Select 5.0 to support Service Desk 5.0 or 5.1.
- 5 Enter the path to your Service Desk Server.
- 6 Enter or accept the listening port for the CM-SDA Service (default is 3467).

## Starting and stopping the CM Service Desk Adapter service

To start the CM Service Desk Adapter Service (`httpd-servicedeskadapter`)

- 1 If necessary, go to the Windows Services. For example, in Windows 2000 Server, right-click the **My Computer** icon on your desktop. Then, go to **Manage** → **Expand Services and Applications** → **Services**.
- 2 Right-click the **HP OVCM Service Desk Adapter** (`httpd-servicedeskadapter`) and select **Start**.

To stop the CM Service Desk Adapter Service (`httpd-servicedeskadapter`)

- 1 If necessary, go to the Windows Services. For example, in Windows 2000 Server, right-click the **My Computer** icon on your desktop. Then, go to **Manage** → **Expand Services and Applications** → **Services**.
- 2 Right-click the **HP OVCM Service Desk Adapter** (`httpd-servicedeskadapter`) and select **Stop**.

## Post-Install Configuration on Server

Following installation, use a text editor to modify the configuration file `cmsd.cfg`, located in the `\etc` directory of where the CM-SDA was installed on the Service Desk Server. By default, this location is

`C:\Program Files\Hewlett-Packard\CM\CMSD\Server\etc`.

- **CM Portal Account Credentials**

The `wsUID` and `wsPID` parameters in `cmsd.cfg` specify the User name and password, respectively, for accessing the CM Portal. By default, the values are set to the encrypted values for User **Admin** and the password **secret**, which are the default credentials for the CM Portal System Administrator. To change the credential values, edit the file and specify the user name or password. The credential values will be encrypted during transmission.

- **Automatic refresh period of the CM Software List**

The CM Get Software action is run every 10 minutes (600 seconds), by default, to update the CI software list on the Service Desk database with any new software items available as managed services through the CM Portal. To change the automatic refresh period, change the `PERIODIC_INTERVAL 600` parameter value in `cmsd.cfg`. The value is specified in seconds.



The CM Get Software action for this EA release only adds software items to the CI Software list; it does not remove a CI software entry that was removed from the CM managed-software list. To fully synchronize the lists of available software, first select and delete all existing CI software entries manually, then run CM Get Software. If there are CI relations attached to the entries, you will be prompted to remove them also.

Make sure to keep the CI for CMGETSOFTWARESERVICES, which is the required Search Code needed to run the action CM Get Software.

## Admin Workstation - Installation of CM Service Desk Adapter

Run this install program on *each* Service Desk Admin Workstation that is to support the CM integration actions.

- 1 Run **setup.exe** from the  
    \Infrastructure\management\_infrastructure\service\_desk\_adapter\admin folder of the expanded CM installation media.
- 2 Accept the license agreement.
- 3 Enter or accept the location to which the HP OVCM Service Desk Adapter Service will be installed.



Default path is:

C:\Program Files\Hewlett-Packard\CM\CMSD\admin

If you do not choose the default location, you must also modify the **Start in** path value for the CM Smart Action Tool after installation. For details, refer to [CM Configuration Data Details](#) on page 57.

- 4 Click the radio button for the Service Desk version you are using: Version 5.x or greater, or Version 4.5.  
    Select 5.x or greater to support Service Desk 5.0 or 5.1.
- 5 Specify the Host name or IP Address of your Server Desk Management or Application Server that has the CMSD Adapter Service installed on it.
- 6 Define the listening port of the CMSD Adapter service. The default port is 3467.

## Post-Install Steps on the Admin Workstation

Following installation, use a text editor to modify the configuration file `cmsd.cfg` located in the `\etc` directory of where the CMSD adapter service was installed on the Admin workstation.

- **CM Portal Account Credentials**

A value in `cmsd.cfg` specifies the User ID and password credentials needed to access the CM Portal. By default, the credentials are set to the User **Admin** and the password **secret**, which are the default credentials for the CM Portal System Administrator.

## Admin Workstation – Install Java Program

Service Desk Admin Workstations also require a Java program and related batch file to be installed on them. The Java program and related batch files are provided on the Integration pack; copy the appropriate ones for your Service Desk version level using the procedures that follow.

### To install the Java program on Service Desk Admin 4.5 Admin Workstations

Use these procedures to install the Java program and batch file onto a Service Desk 4.5 Workstation.

- 1 Navigate to the `\media\javaprograms` directory of where the CMSD Adapter was installed. The default location is `C:\Program Files\Hewlett-Packard\CM\CMSD\admin\media\javaprograms`.
- 2 Copy `sdgetworkorderci.jar` from the `javaprograms` directory to the `\lib` directory of where the Service Desk Admin (client) is installed. By default, this target location is:

```
C:\Program Files\Hewlett Packard\OpenView\service desk 4.5\
client\lib
```

- 3 Copy the `sd_getworkorderci.bat` file from the `\javaprograms` directory to the `\bin` directory of where the Admin (client) is installed. By default, this target location is:

```
C:\Program Files\Hewlett Packard\OpenView\service desk 4.5\
client\bin
```

Repeat the above steps on each Admin Workstation that will be used for CM actions.

## To install the Java program on Service Desk Admin 5.x Admin Workstations

Use these procedures to install the required Java program and batch file onto each Service Desk 5.x Admin Workstation that is to be used for CM actions.

- 1 Navigate to the `\media\javaprograms` directory of where the CMSD Adapter was installed. The default location is below.

```
C:\Program Files\Hewlett-Packard\CMSD\
admin\media\javaprograms
```

- 2 Copy the file named below:

```
\javaprograms\sd-getworkorderci.jar
```

to the `HP OpenView\java` directory on the Admin (client) machine. By default, this target location is:

```
C:\Program Files\HP OpenView\java
```

- 3 For Service Desk 5.0 only, copy the batch file named below

```
\javaprograms\OvSdgetworkorderci.bat
```

to the `HP OpenView\bin` directory on the Admin (client) machine. By default, this target location is:

```
C:\Program Files\HP OpenView\bin
```

- 4 For SD 5.1 only, navigate to the `\sd5.1` subdirectory and copy the batch file named below:

```
\javaprograms\sd5.1\OvSdgetworkorderci.bat
```

to the `HP OpenView\bin` directory on the Admin (client) machine. By default, this target location is:

```
C:\Program Files\HP OpenView\bin
```

This completes the installation chapter topics.



---

## 3 Service Desk 4.5 Configuration

If you are using Service Desk version 4.5, this chapter describes how to configure it to support the integration with CM.

# Configuring Service Desk 4.5

## Overview of Tasks

- 1 Create and modify the Service Event program configuration file.
  - Perform this task on the Service Desk Application Server.
  - Perform this task on every Service Desk Admin Workstation requiring access to the CM integration actions.
- 2 Create or Import custom fields
  - Create or Import Custom fields.
    - Use ACES to import custom fields if you have a clean, non-customized database. Prior to importing custom fields using ACES, you must update the SysVersion value in the xml file to match your specific OVSD Service Pack level.
    - Import the custom fields manually if you already have custom fields in your database.
  - Create values for "CM service type."
  - Place the custom fields on the forms.
- 3 Import the configuration data using ACES.
  - Modify the SysVersion information in the import xml file to match your specific OVSD Service Pack level.
  - Import the configuration data for the CM integration.
- 4 HP Service Desk manual configuration
  - Create the special CI with the Search Code CMGETSOFTWARESERVICES.
  - Assign Roles to Accounts

### **Task 1** Create and modify the Service Event Configuration File

Perform this task on the Service Desk Application Server and on every Service Desk Admin Workstation (Service Desk Client) requiring access to the CM integration actions.



The password specified in the Account parameter of the Service Event configuration file must match the password of the Account named "cm" that is specifically created for this integration.

### To create and modify the Service Event configuration file for a CM Integration

- 1 Create a Service Event configuration file named `cmsd_event_.ini` from a copy of the default Service Desk Event configuration file, `sd_event.ini`. Place the new `cmsd_event.ini` file in the target location named below.

Copy this source file:

```
C:\Program Files\Hewlett-Packard\OpenView\
service desk 4.5\event\bin\sd_event.ini
```

To this target location and name:

```
C:\Program Files\Hewlett-Packard\OpenView\
service desk 4.5\event\conf\cmsd_event.ini
```

- 2 After creating the `cmsd_event.ini` file in the `\conf` directory, open it using a text editor. The unmodified contents of `cmsd_event.ini` is shown below:

```
[SD_EVENT]
LOGFILE=C:\Program Files\Hewlett-Packard\OpenView\service desk 4.5\event\log\sd_event.log
ERROR_LOGFILE=C:\Program Files\Hewlett-Packard\OpenView\service desk 4.5\event\log
\sd_event_error.log
ACCOUNT=myusername/mypassword
SERVER=localhost
PORT=30980
MAPPING=external_event
CLASSNAME=incident
MODUS=insert
```

- 3 Rename the section heading to `[CMSD_EVENT]`.
- 4 Rename the prefixes for the `LOGFILE` and `ERROR LOGFILE` names from `sd_event` to `cmsd_event`.
- 5 Modify the values for `ACCOUNT`, `SERVER` and `PORT` to reflect your Service Desk application server environment:
  - a For the `ACCOUNT` value, type the name of the account created for this service event integration and password. Use the format `account_name/password`. By default, the installation integration

program creates the account **cm** with the password **openview**, which would be specified as:

**ACCOUNT=cm/openview**

- b For the `SERVER` value, replace `localhost` with the name of your Server Desk application server. Use the fully-qualified domain name format of `hostname.domain.com`. For example:

**SERVER=mysdserver.mydomain.com**

- c For the `PORT` value, specify the port number used by the Service Desk Service Event program to communicate with the Object Server. The default value is 30980.



The entries for `MAPPING`, `CLASSNAME`, and `MODUS` are irrelevant because they are overruled by the Service Event program command line.

- 6 Close the file and save the changes.

## Task 2 Create or Import the Custom Fields

Perform this task on the Application Server to create the custom fields needed for the CM integration and place them on the forms.

### How to create the custom fields

- If you have a clean database, you can import the custom data using ACES and the Configuration Exchange data file `CM_config_data_custom_fields_SD45.xml`. For details, see [Import Custom Fields using ACES](#) below.
- If you have custom fields in your database, you must manually create the custom fields. For details, see [To activate custom fields \(SD 4.5 with Service Pack 18 or greater\)](#) on page 30.

### How to place the custom fields on the form

After the custom fields exist, place them on the forms. For details, see [Placing the Custom Fields on the Forms](#) on page 32.

## Import Custom Fields using ACES

You can import custom fields using ACES if you have a clean database. A clean database is one which does not already contain any custom fields.



For details on using ACES, refer to Chapter 12, Administrator Console Export Settings, in the *Service Desk 4.5 Administrator's Guide*.

### SysVersion Requirement

Prior to using the provided xml file for importing custom fields, use a text editor to modify the SysVersion value in the xml file to reflect your OVSD SysVersion. For example, with OVSD SP23, manually set this value to `SysVersion="4.5.0588.2305 (SP23)"`. Detailed instructions are given below.

#### To modify the SysVersion in the custom fields xml file

- 1 Use a text editor, such as notepad, to open the `CM_config_data_custom_fields_SD45.xml` file.  
The xml file will be located in the `\ImportData` directory of where the CMSD Adapter was installed. The default location is `C:\Program Files\Hewlett-Packard\CM\CMSD\admin\importdata`.
- 2 Locate the ACES edition information below the Copyright line in the header area. Notice the edition information includes a specific SysVersion identifier, as shown in the sample lines below:

```
<!--Copyright (c) 2004 Hewlett-Packard Development Company, L.P. All Rights Reserved.-->  
<ACES Count="4" GenerationDate="March 16, 2006 22:32" SysVersion="4.5.0588.1605 (SP16)">
```

- 3 Modify the SysVersion value so that the last four digits and the SP identifier match the SysVersion of your OVSD. For example, if you are running OVSD SP23, change the SysVersion from:

```
SysVersion="4.5.0588.1605 (SP16) "
```



to

```
SysVersion="4.5.0588.2305 (SP23) "
```

- 4 Save your changes to the file.

#### To import custom fields using ACES

- 1 On the **Tools** menu, click **System** to open the Administrator Console.
- 2 From the Administrator Console, click **File** → **Aces** → **Aces Import Wizard**.
- 3 On the first page of the Import Wizard, click **Next**.

- 4 Use the Import File Selection page to select the required XML file for import: CM\_config\_data\_custom\_fields\_SD45.xml.
  - a Click **Add**.
  - b Browse to the \ImportData directory of where the CMSD Adapter was installed. The default location is C:\Program Files\Hewlett-Packard\CM\CMSD\admin\importdata.
  - c Select the file CM\_config\_data\_custom\_fields\_SD45.xml.
  - d Confirm or specify the name of the log file, and its location by means of the browse button.
  - e Ensure Overwrite existing items is unchecked.
  - f Click **Next**.
- 5 Click **Start Import**.
  -  Progress indicator bars may not appear immediately; they may take a minute or more after **Start Import** is clicked to appear.
- 6 When the import is complete, you have the option to view the log file, restart the wizard, or close the wizard. You can close the wizard.
  -  After an import is complete, click **F5** (Refresh) to make the newly imported settings visible.

#### To activate custom fields (SD 4.5 with Service Pack 18 or greater)

If you are running Service Desk 4.5 with sp 18 or greater, after importing custom fields using ACES you also need to activate them. Use the steps below to activate the imported fields.

- 1 On the **Tools** menu, click **System** to open the Administrator Console.
- 2 From the left tree panel of the Administrator Console, click **Data** → **Custom Fields**.
- 3 From the right panel, click **Configuration Item**.
- 4 Activate **CM service type** using the steps below.
  - a Select **Entity Reference** and expand it to locate CM service type.
  - b Double-click **CM service type**.
  - c From the popup window, check **Activate**.

- d From Enable for the following categories area, check **Management**.
  - e Click **OK**.
- 5 Activate **CMDN** using the steps below.
- a Select **String 255 (Description)** and expand it to locate CMDN.
  - b Double-click **CMDN**.
  - c From the popup window, check **Activate**.
  - d Select the **All categories** radio button.
  - e Click **OK**.
- 6 Activate **MAC address** using the steps below.
- b Select **String 40 (Short text)** and expand it to locate MAC address.
  - b Double-click **MAC address**.
  - c From the popup window, check **Activate**.
  - d From Enable for the following categories area, check: **Business PC, Laptop, workstation** and **server**.
  - e Click **OK**.
- 7 In the right panel, now change to **Work Order**.
- 8 Activate **CM job status** using the steps below.
- a Select **String 40 (Short text)** and expand it to locate CM job status.
  - b Double-click **CM job status**.
  - c From the popup window, check **Activate**.
  - d From Enable for the following categories area, select **All categories**.
  - e Click **OK**.

## Manual Creation of Custom Fields

If your Service Desk database has custom fields in it, perform this task to manually create the custom fields needed for the CM integration.

[Table 3](#) summarizes the custom fields that need to be defined and configured. Details on how to configure each field follow.

**Table 3 Custom Fields for the CMSD Integration**

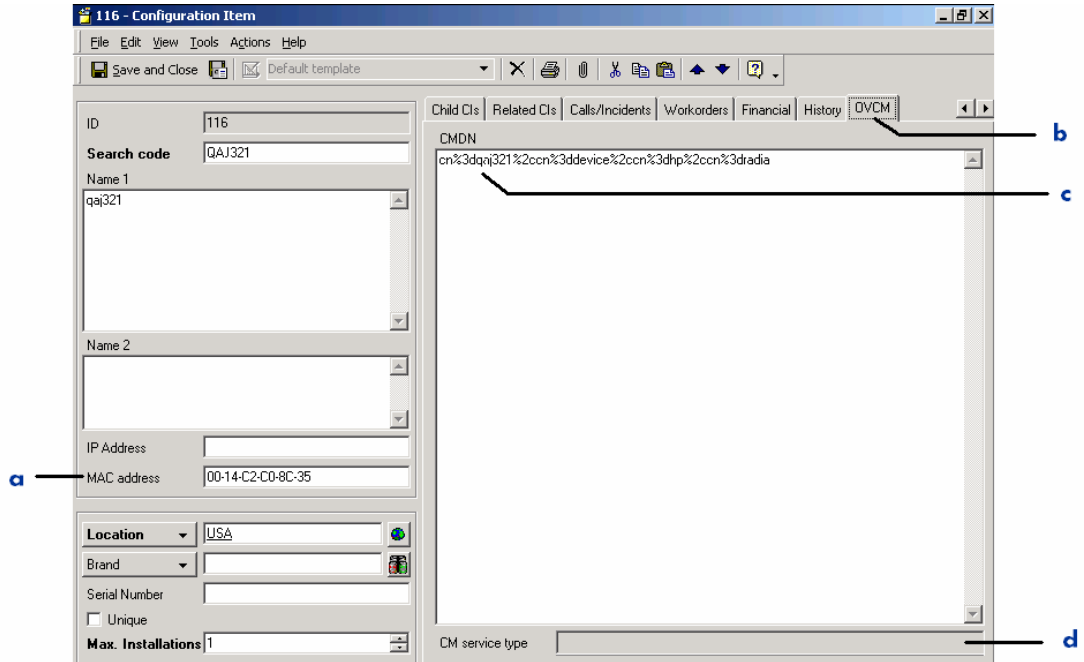
Category	Configuration Path	Define Custom Field
Configuration Item Custom Fields	OV Configuration → Data → Custom Fields → Configuration Item	MAC address (Text 40) CMDN (Text 255) CM service type (Code) See <a href="#">Table 6</a> on page 48.
Work order Custom Fields	OV Configuration → Data → Custom Fields → Work order	CM job status (Text 40) See <a href="#">Table 7</a> on page 49.
Code table CM Service Type	OV Configuration → Data → Codes → Configuration Item → CM service type	Add codes for: ALL SOFTWARE OS PATCH

### Placing the Custom Fields on the Forms

Put the custom fields for **MAC address**, **CMDN** and **CM service type** on the Configuration Item form. The choice of where to put the custom fields is up to you; [Figure 1](#) on page 33 gives sample locations for adding the fields to the Configuration Item form.




**Figure 1 CI Form with Custom Fields added**



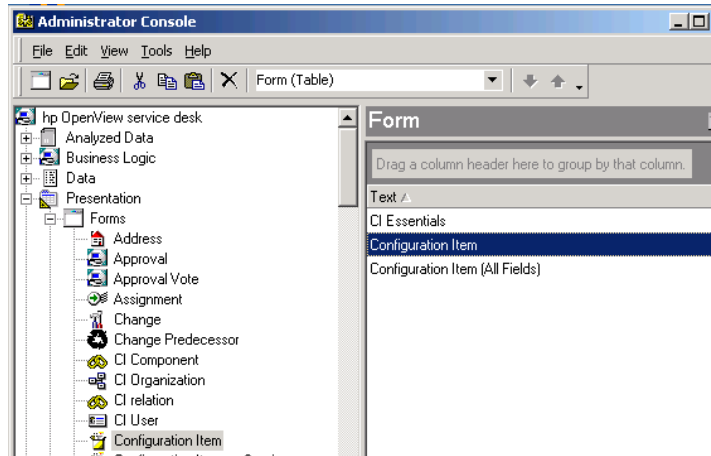
**Legend**

- a** Sample MAC address field added below IP Address
- b** Sample OVCM page added (use Page → Add Page)
- c** Sample CMDN field located on OVCM page
- d** Sample CM service type located on OVCM page

 To obtain more information on using the forms designer tools, view the Forms Designer topics in the Administrator Console online help.

To add the custom fields to the Configuration Item form

- 1 On the **Tools** menu, click **System** to open the Administrator Console.
- 2 On the left pane, navigate to **Presentation** → **Forms** → **Configuration Item**.
- 3 On the right pane, double-click **Configuration Item**, as indicated in the following figure.



This opens the Configuration Item forms designer.

- 4 Select the custom field for **MAC Address** and drag it to a desired location on the Configuration Item form. As you drag a field onto the form, red arrows indicate a target location. Our sample form puts the MAC Address field below the IP Address field.
- 5 Add a tabbed page named **OVCM** to the form, and place **CMDN**, and **CM Service Type** from the Attributes box on this page.
  - a To add a tabbed page, select the **Page** menu in the Forms Designer dialog box, and select **Add Page**.
  - b Give the page the name **OVCM**.
  - c Place the fields for **CMDN** and **CM Service Type** on this page of the form.
- 6 **Save and close** the Forms Designer for Configuration Item with the added fields.

To add the custom field to the Work order form

- 1 On the **Tools** menu, click **System** to open the Administrator Console.
- 2 On the left pane, navigate to **Presentation** → **Forms** → **Work order**.
- 3 On the right pane, double-click **Work order**.

This opens the Work order Forms Designer.


- 4 From the Attributes box on the left, click **CM job status** and drag it to the desired location on the Work order form. For example, you can place it directly below the Status field.

- 5 **Save and Close** the Work order form with the new CM job status field. This completes the addition of the custom fields to the forms.

### Task 3 Import the Configuration Data using ACES

Perform this task on the Application Server after the import or manual creation of the custom fields, as discussed in Task 2.

Use ACES to import the configuration data from the provided Configuration Exchange data file, `CM_config_data_SD45.xml`, into Service Desk. Table 4 on page 37 lists the objects imported from this file.

 For details on using ACES, refer to Chapter 12, Administrator Console Export Settings, in the *Service Desk 4.5 Administrator's Guide*.

#### SysVersion Requirement

Prior to using the provided xml file for importing configuration data, use a text editor to modify the SysVersion value in the xml file to reflect your OVSD SysVersion. For example, with OVSD SP23, manually set this value to `SysVersion="4.5.0588.2305 (SP23)"`. Detailed instructions are given below.

#### To modify the SysVersion in the config data xml file

- 1 Use a text editor, such as notepad, to open the `CM_config_data_SD45.xml` file.

The xml file will be located in the `\ImportData` directory of where the CMSD Adapter was installed. The default location is `C:\Program Files\Hewlett-Packard\CM\CMSD\admin\importdata`.

- 2 Locate the ACES edition information below the Copyright line in the header area. Notice the edition information includes a specific SysVersion identifier, as shown in the sample lines below:

```
<!--Copyright (c) 2004 Hewlett-Packard Development Company, L.P. All Rights Reserved.-->  
<ACES Count="4" GenerationDate="March 16, 2006 22:32" SysVersion="4.5.0588.1605 (SP16)">
```

- 3 Modify the SysVersion value so that the last four digits and the SP identifier match the SysVersion of your OVSD. For example, if you are running OVSD SP23, change the SysVersion from:

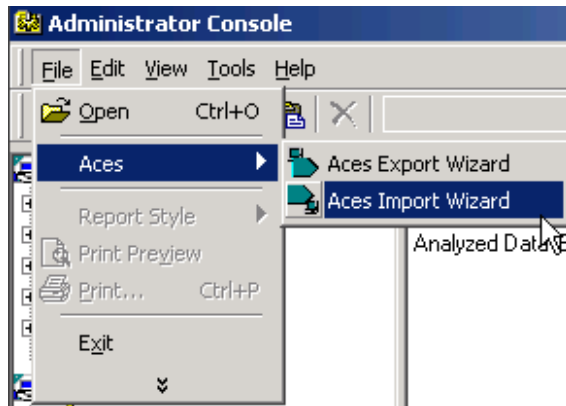
```
SysVersion="4.5.0588.1605 (SP16) "  
to
```

```
SysVersion="4.5.0588.2305 (SP23)"
```

- 4 Save your changes to the file.

To import configuration data using ACES

- 1 On the **Tools** menu, click **System** to open the Administrator Console.
- 2 From the Administrator Console, click **File** → **Aces** → **Aces Import Wizard**.



- 3 On the first page of the Import Wizard, click **Next**.
- 4 Use the Import File Selection page to select the required XML file for import: `CM_config_data_SD45.xml`.
  - a Click **Add**.
  - b Browse to the `\ImportData` directory of where the CMSD Adapter was installed. The default location is `C:\Program Files\Hewlett-Packard\CM\CMSD\Admin\ImportData`.
  - c Select the file `CM_config_data_SD45.xml`.
  - d Confirm or specify the name of the log file, and its location by means of the browse button.
  - e Ensure **Overwrite existing items** is unchecked.
  - f Click **Next**.
- 5 Click **Start Import**.



Progress indicator bars may not appear immediately; they may take a minute or so after **Start Import** is clicked to appear.

- 6 When the import is complete, you have the option to view the log file, restart the wizard, or close the wizard. Close the wizard.



After an import is complete, click **F5** (Refresh) to make the newly imported settings visible.

## Configuration Data Imported for the CMSD Integration

Table 4 identifies the configuration data imported for the CMSD integration. Use the page references in the Objects column to locate additional information on that object.

**Table 4 SD 4.5 Configuration Data Imported for the CMSD Integration**

Category	Administrator Console Configuration Path	Objects
Applications	Business Logic → Application	CM Smart Action Tool, see page 37
Smart Actions	Business Logic → Actions → Smart Action → Configuration Item	CM get software list, see page 58 CM create device, see page 62 CM reporting server
Smart Actions	Business Logic → Actions → Smart Action → Work order	CM synchronize software CM repair software CM verify software CM update software
Smart Actions (Requires a Separate Role)	Business Logic → Actions → Smart Action → Work order	CM install software, on page 64 CM uninstall software
Templates	Data → Templates	For Configuration Item, "CM Hardware and Software" For Work order, "Cm job" For CI relation, "Cm relation"
Users & Security	Security → Access	Application Account for "CM Configuration Manager" with credentials set to cm/openview Role for "CM Configuration Manager" Role for "CM Configuration Manager – install/uninstall"

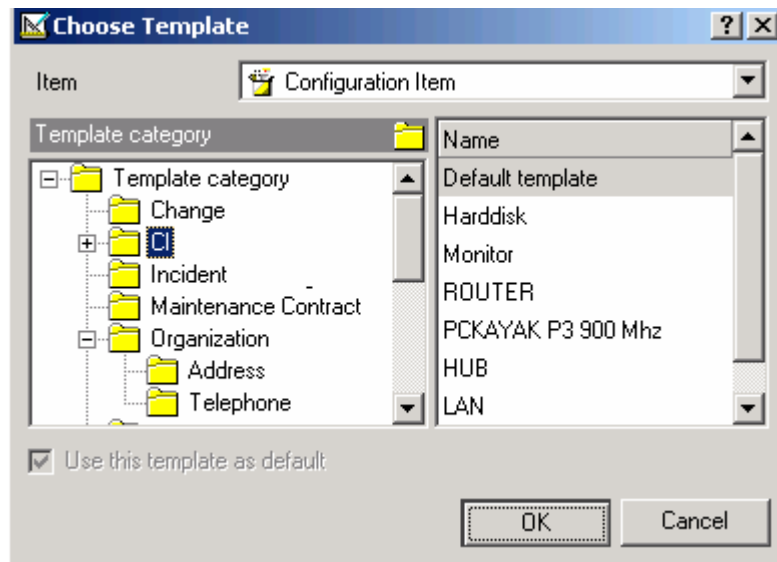
#### Task 4 Create a CI with the Search Code CMGETSOFTWARESERVICES

This task creates a Configuration Item with the Search Code CMGETSOFTWARESERVICES to support the action CM Get software.

To create the CI named CMGETSOFTWARESERVICES

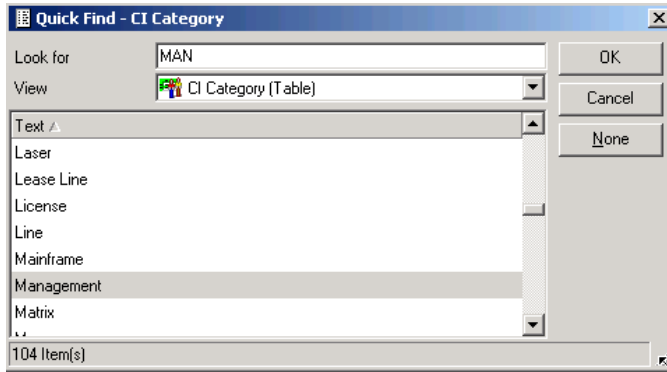
- 1 From the HP Service Desk Console menus, select **File → New → Configuration Item**.

The Choose Template dialog box opens.



- 2 Choose the default template for the category CI and click **OK**.
- 3 Specify the fields listed below on the New – Configuration Item form.
  - a In the **Search Code field**, type **CMGETSOFTWARESERVICES**.
  - b In the **Name 1 field**, type **CM Get Software Services**.
  - c In the **Status field**, select **Production** or **Test**, as appropriate.
  - d Set the **Category field** to **Software / System / Management** using the Quick Find dialog box.

- ▶ To easily select the Management category, first click the icon to open the Quick Find – CI Category dialog box, switch the view to **CI Category (Table)** and type **MAN** in the Look for field. Select the Management category and click **OK**.



- e Save and close the new Configuration Item.
- 4 From the Service Desk Console, select the CMDB group item and click the Configuration Item icon to display the list of Configuration Items.
- 5 Press **F5** to refresh the list. CMGETSOFTWARESERVICES should be listed alphabetically.

Service Desk	Configuration Item
Organization	Drag a column header here to group by that column.
CMDB	Search code ▲ Name 1 Location
Configuration Item	CMGETSOFTWARESERVICES CM Get Software Services
	DB001 Database I
	DB002 Database II
	DBORA734NT4 Oracle 7.3.4 for Window...
	DBORA805HP10 Oracle 8.0.5 for HP-UX1...
	DRORA805NT4 Oracle 8.0.5 for Window...

This Search code needs to be selected in order to run the action CM get software.

## Task 5 Assign Roles to Accounts

Two roles are provided with the CM integration. You must associate Accounts with one or both of the roles to enable the CM smart actions for a user.

- The main role, CM Configuration Manager, enables nearly all of the CM smart actions. Smart actions for this role are all *operational* in that they do not affect changes to existing software entitlements (policy) for the devices in your CM environment.

- The second role, CM Configuration Manager – install/uninstall, enables smart actions that *do* change the software entitlements on a targeted device. These include CM install software and CM uninstall software. If you enable this role, you also need to configure policy methods in your CM environment appropriately, as discussed in Configuring for Policy Resolution on page 70.

Assign one or both roles to a person's account to enable or disable the related CM smart actions for that person.

- ▶ The 'cm' account created with this integration is assigned both roles, by default. If you do not want to use the install and uninstall actions in your environment, remove the assignment of the "CM Configuration Manager – install/uninstall" role from the "cm" account.

Table 5 below identifies the roles and the related smart actions associated with each role.

**Table 5 Roles to Assign for CM Smart Actions**

Role	Related Smart Actions
CM Configuration Manager – install/uninstall	Work order: CM install software CM uninstall software
CM Configuration Manager	Work Order: CM synchronize software CM repair software CM reporting server CM update software CM verify software Configuration Item: CM get device CM get software list

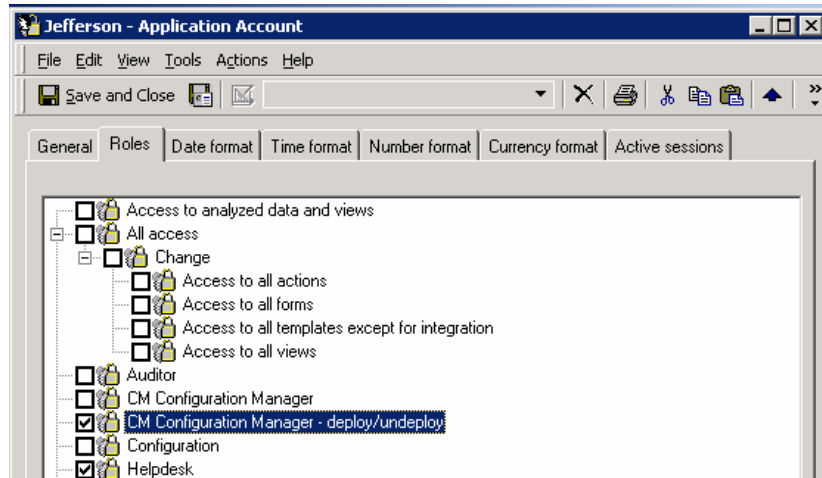
To assign or modify CM-related role assignments for an account

- 1 First open the account for which you want to assign or change CM roles.
  - On the **Tools** menu, click **System** to open the Administrator Console.
  - From the Administrator Console, navigate to **Security** → **Access** → **Account**, and choose the account that needs access to CM smart actions.




- 2 Click the tab for **Roles**.
- 3 Check or uncheck the appropriate CM-related role(s) to enable or disable the associated smart actions for the account.

The following figure shows an example of enabling an account for the role that permits the use of "CM install software" and "CM uninstall software".



- 4 Click **Save and Close** to save the changes to the account.

This ends the configuration topics for integrating the CM Adapter for Service Desk 5.x.

 Before using the integration smart actions, ensure you configure the appropriate policy resolution within your CM environment. See [Configuring for Policy Resolution](#) on page 70.



---

## 4 Service Desk 5.x Configuration

If you are using Service Desk version 5.0 or 5.1, this chapter describes how to configure it to support the integration with OVCM.

# Configuring Service Desk 5.x

## Overview of Tasks

- ▶ Configuring the CMSD integration on Service Desk 5.x is almost the same as configuring it on Service Desk 4.0. The main differences are the use of the Object Loader instead of the ACES import/export tool, and the addition of Filters and Filter Groups in Service Desk 5.x, which are not available in Service Desk 4.0.
- 1 Create and modify the Object Loader configuration file.
  - Perform this task on the Service Desk Management Server.
  - Perform this task on every Service Desk Admin Workstation requiring access to the CM integration actions.
- 2 Create the custom fields and place them on the forms.
  - Create or Import Custom fields
    - Use the Object Loader import custom fields if you have a clean, non-customized database
    - Import the custom fields manually if you already have custom fields in your database.
  - ▶ With some Service Desk 5.1 service pack levels, it may be necessary to manually purge the server cache and restart the console in order to see the custom field: CM service type. Procedures start on page [47](#) .
  - Create values for "CM service type"
  - Place the custom fields on the forms.
- 3 Import the Customization Data using Configuration Exchange.
  - Perform this task on the Service Desk Management Server only.
  - Customization data for Service Desk 5.x includes Filters and Filter Groups, which are not available for Service Desk 4.5. Filters are not required, however, they support the easy transfer of the configuration data between test and production systems.
- 4 OV Console manual configuration.
  - Create the CI to support the action "CM Get Software List"

## 5 Assign Roles to Accounts

- There are two roles for the CM smart tasks. Assign one or both roles to accounts based on which smart actions are to be enabled.

### Task 1 Create and modify the Object Loader Configuration File

Perform this task on the Service Desk Management Server and on every Service Desk Admin Workstation (Service Desk Client) requiring access to the CM integration actions.



The password specified in the Account parameter of the Object Loader configuration file must match the password of the Account named "cm" that is specifically created for this integration. If you change the default password on the Account, also change its entry in the configuration file.

To create and modify the Object Loader configuration file for an OVCM Integration

- 1 Create an Object Loader configuration file named `cmLoadObject.conf` from a copy of the default Object Loader configuration file, `OvObsLoadObject.conf`. Place the new `cmLoadObject.conf` file in the target location named below.

Copy this source file:


```
C:\Program Files\Hewlett-Packard\OpenView\
service desk 4.5\event\bin\sd_event.ini
```

To this target location and name:

```
C:\Program Files\HP OpenView\data\conf\obs\loadobject\
cmLoadObject.conf
```

- 2 Open the Object Loader configuration file from Step 1 using a text editor. The unmodified contents is shown below:

```
[OVBSLOADOBJECT]
LOGFILE=C:\Program Files\HP OpenView\data\log\OvObsLoadObject.lo
ERROR_LOGFILE=C:\Program Files\HP OpenView\data\log\OvObsLoadObject_error.log
ACCOUNT=myusername/mypassword
SERVER=mysdserver.mydomain.com
PORT=30980
MAPPING=mymapping
CLASSNAME=myclassname
MODUS=insert
```

- 3 Rename the section heading to [CMLOADOBJECT].
  - 4 Rename the LOGFILE and ERROR LOGFILE filename prefixes from OvObsLoadObject to cmLoadObject.
  - 5 Modify the values for ACCOUNT, SERVER and PORT to reflect your Service Desk management server environment:
    - a For the ACCOUNT value, type the name of the account created for this service event integration and password. Use the format *account\_name/password*. By default, the installation integration program creates the account cm with the password openview, which would be specified as:  
**ACCOUNT=cm/openview**
    - b For the SERVER value, replace localhost with the name of your Server Desk management server. Use the format *hostname.mydomain.com*. For example:  
**SERVER=mysdserver.mydomain.com**
    - c For the PORT value, specify the port number used by the Service Desk Object Loader program to communicate with the Object Server. The default value is 30980.
-  The entries for MAPPING, CLASSNAME, and MODUS are irrelevant because they are overruled by the Object Loader program command line.
- 6 Close the file and save the changes.

## Task 2 Create or Import the Custom Fields

Perform the task on the Management Server to create the custom fields needed for the CM integration and place them on the forms.

### How to create the custom fields

- If you have a clean database, you can import the custom data using the Object Loader and the Configuration Exchange data file *CM\_config\_data\_custom\_fields\_SD50.xml*. For details, see [Import Custom Fields using Configuration Exchange](#) on page 47.
- If you have custom fields in your database, you must manually create the custom fields. For details, see [Manual Creation of Custom Fields](#) on page 48.

## How to place the custom fields on the form

After the custom fields exist, place them on the forms. For details, see [Placing the Custom Fields on the Forms](#) on page 32.

## Import Custom Fields using Configuration Exchange

You can import the custom fields using Configuration Exchange if you have a clean database. A clean database is one which does not already contain any custom fields.

► For details on using Configuration Exchange, refer to the *Service Desk 5.0 Administrator's Guide* or online help.

### To import custom fields using Configuration Exchange

- 1 From the OpenView Console, select **File** → **Configuration Exchange** → **Import**.

The Configuration Exchange Import Wizard opens.

- 2 Follow the onscreen instructions and import the file `CM_config_data_custom_fields_SD50.xml`.

— This file is found in the `\ImportData` directory of where the CMSD Adapter was installed. The default location is:

```
C:\Program Files\Hewlett-Packard\CMSD
\CMSD\Admin\ImportData
```

— Ensure **Overwrite existing items** is unchecked.

► After an import is complete, click **F5** (Refresh) to make the newly imported settings visible.

### Troubleshooting the display of CM service type values

For Service Desk 5.1 with service packs applied, if the CM service type values are not visible after import, use the following steps to correct the CM service type display issue. The steps manually purge the server cache (not the client cache) and restart the OpenView console.

### To purge the server cache and restart the console

- 1 From a Windows Services window, stop the service **HP OpenView Ctrl service**.

- 2 Using Windows explorer, delete the folders named `obs` under the following two directories:
 

```
C:\[Program_Files_path]\HP OpenView\data\datafiles
```

```
C:\Documents and Settings\Administrator\Application Data\HP OpenView\data
```
- 3 From a Windows Services window, restart the service **HP OpenView Ctrl service**.
- 4 Run the OpenView Console.

The imported CM service type values should now be visible in the console.

## Manual Creation of Custom Fields

If your Service Desk database has custom fields in it, perform this task to manually create the custom fields needed for the CM integration.

### Create Configuration Item Custom Fields

Three custom fields are imported for Configuration Item. Manually add and configure these custom fields if your database has existing custom fields.

Access Path: **OV Configuration** → **Data** → **Custom Fields** → **Configuration Item**

**Table 6 Configuration Item Custom Fields**

Custom Field	Type	Category to Enable
MAC address	Text 40	Categories related to Hardware
CMDN	Text 255	Categories related to Hardware
CM service type	Code See page 48 for codes to define.	Software/Application/Management Software

### Add Codes for the CI CM service type

After defining the custom field for CM service type, you must also manually define the codes for it.

Access Path: **OV Configuration** → **Data** → **Codes** → **Configuration Item** → **CM service type**.

Add code values for **ALL**, **SOFTWARE**, **OS** and **PATCH**.



## Create Work order custom field

For Work order, one custom field is imported or must be added and configured.

Access Path: **OV Configuration** → **Data** → **Custom Fields** → **Work order**

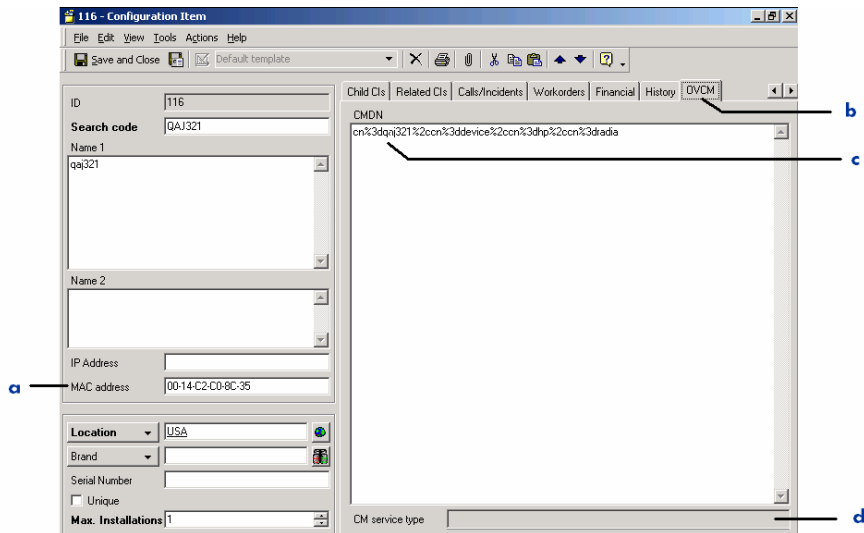
**Table 7 Work Order Custom Field**

Custom Field	Type	Category to Enable
CM job status	Text 40	All categories

## Placing the Custom Fields on the Forms

Put the custom fields for **MAC address**, **CMDN** and **CM service type** on the Configuration Item form. The choice of where to put the custom fields is up to you; [Figure 2](#) below gives sample locations for adding the fields to the Configuration Item form.

**Figure 2 CI Form with Custom Fields Added**



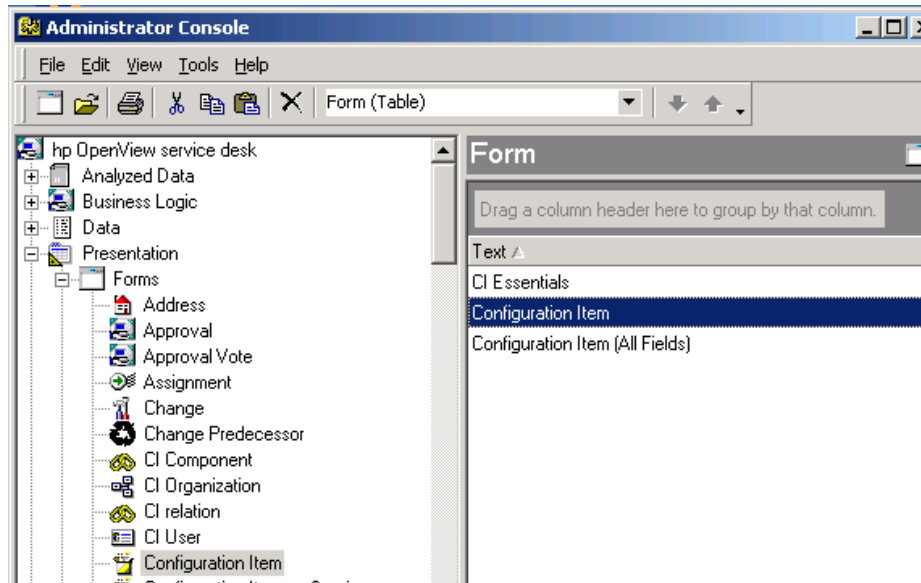
## Legend

- a** Sample MAC address field added below IP Address
- b** Sample OVCN page added (use Page → Add Page)
- c** Sample CMDN field located on OVCN page
- d** Sample CM service type located on OVCN page

- To obtain more information on using the forms designer tools, view the Forms Designer topics in the Administrator Console online help.

To add the custom fields to the Configuration Item form

- 1 On the **Tools** menu, click **System** to open the Administrator Console.
- 2 On the left pane, navigate to **Presentation** → **Forms** → **Configuration Item**.
- 3 On the right pane, double-click **Configuration Item**, as indicated in the following figure.



This opens the Configuration Item forms designer.

- 4 Select the custom field for **MAC Address** and drag it to a desired location on the Configuration Item form. As you drag a field onto the form, red arrows indicate a target location. Our sample form puts the MAC Address field below the IP Address field.
- 5 Add a tabbed page named **OVCN** to the form, and place **CMDN**, and **CM Service Type** from the Attributes box on this page.
  - a To add a tabbed page, select the **Page** menu in the Forms Designer dialog box, and select **Add Page**.
  - b Give the page the name **OVCN**.

- c Place the fields for **CMDN** and **CM Service Type** on this page of the form.
- 6 **Save and close** the Forms Designer for Configuration Item with the added fields.

To add the custom field to the Work order form


- 1 From the OpenView Console, on the **Tools** menu, click **System** to open the Administrator Console.
- 2 On the left pane, navigate to **Presentation** → **Forms** → **Work order**.
- 3 On the right pane, double-click **Work order**.  
This opens the Work order Forms Designer.
- 4 From the Attributes box on the left, click **CM job status** and drag it to the desired location on the Work order form. For example, you can place it directly below the Status field.
- 5 **Save and Close** the Work order form with the new CM job status field.

This completes the addition of the custom fields to the forms.

### **Task 3** Import the Configuration Data using Configuration Exchange

Perform this task on the Management Server after the import or manual creation of the custom fields, as discussed in Task 2.

Use Configuration Exchange to import the configuration data from the provided Configuration Exchange data file, `CM_config_data_SD50.xml`, into Service Desk. Table 8 on page 52 lists the objects imported from this file.

 For details on using Configuration Exchange, refer to the *Service Desk 5.0 Administrator's Guide* or online help.

To import configuration data using Configuration Exchange

- 1 From the OpenView Console, select **File** → **Configuration Exchange** → **Import**.  
The Configuration Exchange Import Wizard opens.
- 2 Follow the onscreen instructions and import the file `CM_config_data_SD50.xml`.
  - This file is in the `\ImportData` directory of where the CMSD Adapter was installed. The default location is:

C:\Program Files\Hewlett-Packard\  
CM\CMSD\Admin\ImportData

- Ensure Overwrite existing items is unchecked.



After an import is complete, click **F5** (Refresh) to make the newly imported settings visible.

**Table 8 Service Desk 5.x Configuration Data for the CMSD Integration**

Category	Configuration Path	Objects
Applications	OV Configuration → Action & Rules → Applications	CM Smart Action Tool See page 57.
Smart Action	OV Configuration → Action & Rules → Actions → Smart Action → Configuration Item	CM get software list See page 58. CM create device See page 62.
Smart Action	OV Configuration → Action & Rules → Actions → Smart Action → Work order	CM repair software CM synchronize software CM update software CM verify software
Smart Action (Separate Role assignment)	OV Configuration → Action & Rules → Actions → Smart Action → Work order	CM install software See page on page 64. CM uninstall software
Templates	OV Configuration → Data → Templates	For Configuration Item, "CM Hardware and Software" For Work order, "Cm job" For CI relation, "Cm relation"
Users & Security	OV Configuration → Security → Access	Application Account for "CM Configuration Manager" with credentials set to cm/openview Role for "CM Configuration Manager" Role for "CM Configuration Manager – install/uninstall"

Category	Configuration Path	Objects
Filters	OV Configuration → Data → Configuration Exchange → Filters	For "CM get software list", see page 60. For "CM create device", see page 63. For "CM install software, see page 66.
Filter Groups	OV Configuration → Data → Configuration Exchange → Filter Groups	CM_config_data_custom_fields CM_config_data See page 67.

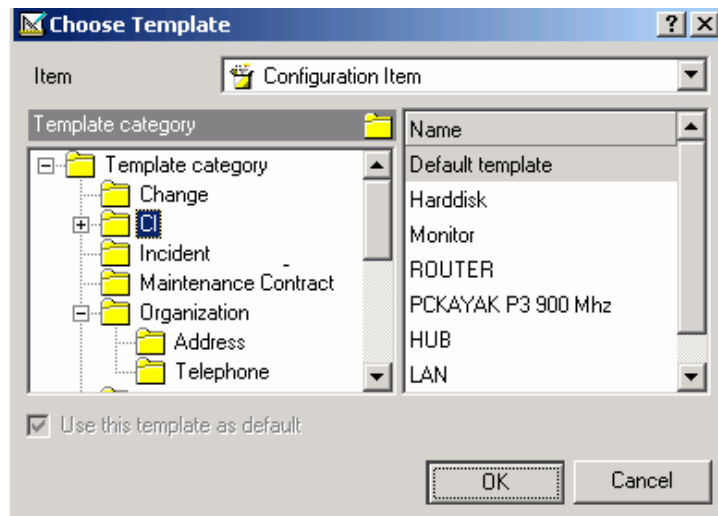
#### Task 4 Create a CI with the Search Code CMGETSOFTWARESERVICES

This task creates a Configuration Item with the Search Code CMGETSOFTWARESERVICES to support the action CM Get software.

To create the CI named CMGETSOFTWARESERVICES

- 1 From the OpenView Console, select **File → New → Configuration Item**.

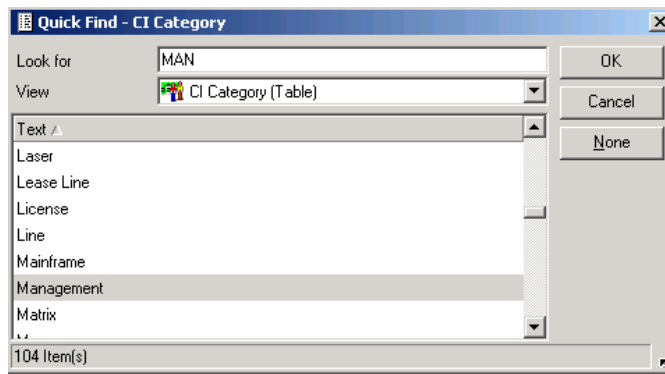
The Choose Template dialog opens.



- 2 Choose the default template for the category CI and click **OK**.
- 3 Specify the fields listed below on the New – Configuration Item form.
  - a In the Search Code field, type **CMGETSOFTWARESERVICES**.

- b In the Name 1 field, type **CM Get Software Services**.
- c In the Status field, select **Production** or **Test**, as appropriate.
- d Set the Category field to **Software / System / Management** using the Quick Find dialog box.

▶ To easily select the Management category, first click the icon to open the Quick Find – CI Category dialog box, switch the view to **CI Category (Table)** and type **MAN** in the Look for field. Select the Management category and click **OK**.



- e Save and close the new Configuration Item.
- 4 From the Service Desk Console, select the CMDB group item and click the Configuration Item icon to display the list of Configuration Items.
  - 5 Press **F5** to refresh the list. CMGETSOFTWARESERVICES should be listed alphabetically.

Service Desk	Configuration Item	
Organization	Drag a column header here to group by that column.	
CMDB	Search code ▲	Name 1
Configuration Item	CMGETSOFTWARESERVICES	CM Get Software S
	DB001	Database I
	DB002	Database II
	DBORA734NT4	Oracle 7.3.4 for Wi
	DBORA805HP10	Oracle 8.0.5 for HF
DBORA805NT4	Oracle 8.0.5 for Wi	

This Search code needs to be selected in order to run the action CM get software.

## Task 5 Assign Roles to Accounts

Two roles are provided with the CM integration. You must associate Accounts with one or both of the roles to enable the CM smart actions for a user.

- The main role, CM Configuration Manager, enables nearly all of the CM smart actions. Smart actions for this role are all *operational* in that they do not affect changes to existing software entitlements on the devices.
- The second role, CM Configuration Manager – install/uninstall, enables smart actions that *do* change the software entitlements on a targeted device. These include CM install software and CM uninstall software. If you enable this role, you also need to configure policy methods on the CM Configuration Server to support the smart actions, as discussed in [Configuring for Policy Resolution](#) on page 70.

Assign one or both roles to a person's account to enable or disable the related CM smart actions for that person.

► The 'cm' account created with this integration is assigned both roles, by default. If you do not want to use the install and uninstall actions in your environment, remove the assignment of the "CM Configuration Manager – install/uninstall" role from the "cm" account.

[Table 9](#) below identifies the roles and the related smart actions associated with each role.

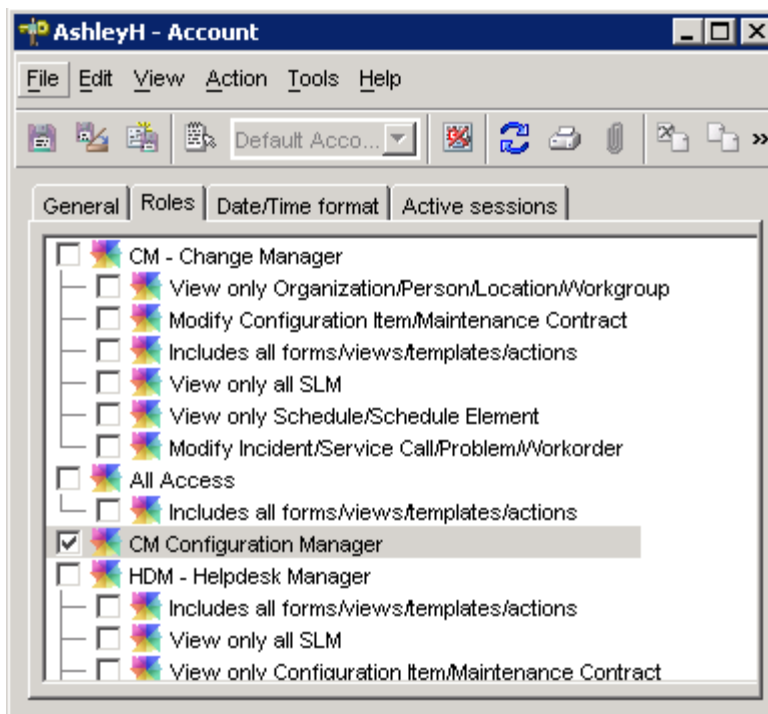
**Table 9 Roles to Assign for CM Smart Actions**

Role	Related Smart Actions
CM Configuration Manager – install/uninstall	Work order: CM install software CM uninstall software
CM Configuration Manager	Work Order: CM synchronize software CM repair software CM reporting server CM update software CM verify software Configuration Item: CM get device CM get software list

## To assign or modify CM-related role assignments for an account


- 1 First open the account for which you want to assign or change CM roles. From the OpenView console, go to **Users and Security** → **Access** → **Application Account**, and choose the account that needs access to one or both roles for CM smart actions.
- 2 Click the tab for **Roles**.
- 3 Check or uncheck the appropriate CM-related role to enable or disable the associated smart actions for the account.

The following figure shows an example of enabling an account for the role that permits the use of "CM install software" and "CM uninstall software".



- 4 Click **Save and Close** to save the changes to the account.

This ends the configuration topics for integrating the CM Adapter for Service Desk 5.x.

 Before using the integration smart actions, ensure you configure the appropriate policy resolution within your CM environment. See [Configuring for Policy Resolution](#) on page on page 70.



# CM Configuration Data Details

This topic summarizes most of the data objects and how they are configured for use by the CM integration smart actions.



You must change the **Start In** path of the **CM Smart Action Tool** application, discussed below, to identify the exact path where the CM-SDA Admin component is installed.

## Application – CM Smart Action Tool

The Application "CM Smart Action Tool" is used by all Smart Actions of the CMSD integration. It calls `nvdkit.exe` as a parameter.

Set the Start In value to match the exact path of where the CM-SDA Admin component was installed.

Access Path: **OV Configuration** → **Action & Rules** → **Applications**

The screenshot shows a configuration window titled "CM SmartAction Tool - Application". It contains the following fields:

- Name \***: CM SmartAction Tool
- Command li... \***: hide.exe
- Start in \***: C:\Program Files\Hewlett-Packard\CM\CMSD\Admin
- Description**: Invokes a CM Smart Action script.

**Table 10 Configuration for the Application: CM Smart Action Tool**

Field	Value
Name	CM SmartAction Tool
Command line	hide.exe

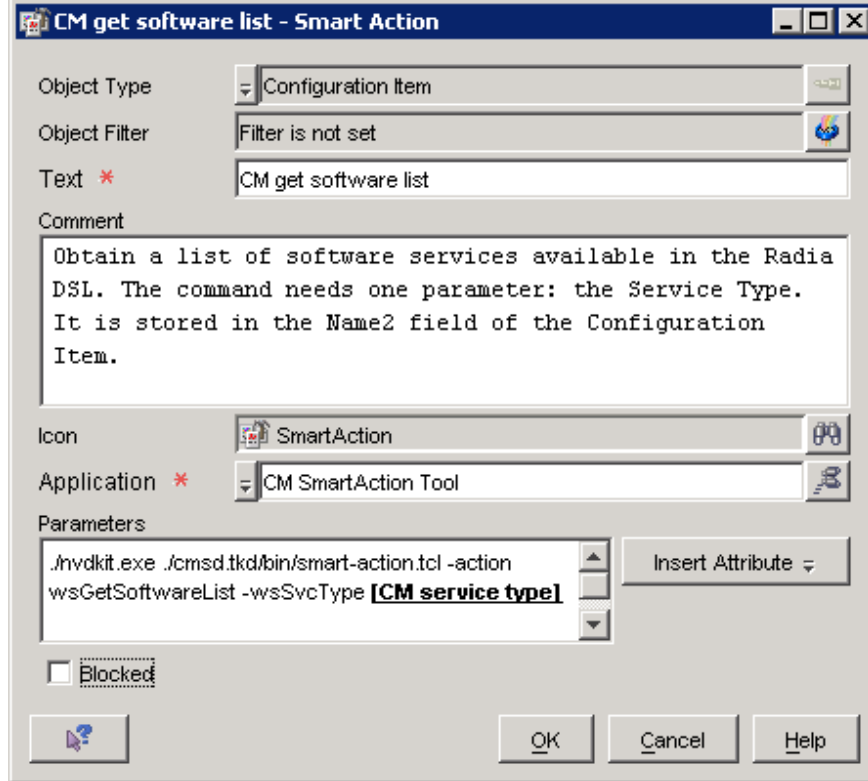
Field	Value
Start in	<p>Default: C:\Program Files\Hewlett-Packard\CM\CMSD\Admin</p> <p>Change this value to reflect the exact path where the CM-SDA Admin component was installed.</p>
Description	Invoke a CM Smart Action

## Smart Action – CM Get Software List

The Smart Action "CM Get Software List" obtains a list of software services available in the Configuration Management DSL. The command needs one parameter: the Service Type, whose default values are ALL, SOFTWARE, OS or PATCH. The Service Type is stored in the field "CM service type" of the Configuration Item.

Access Path: **OV Configuration → Action & Rules → Actions → Smart Action → Configuration Item**

**Figure 3 CM get software list – Smart Action**



**Table 11 Configuration for Smart Action: CM get software list**

Field	Value
Object Type	Configuration Item
Object Filter	Filter is set
Text	CM get software list
Comment	Obtain a list of software services available in the Radia (Configuration Management) DSL. The command needs one parameter: the Service Type. It is stored in the "CM service type" of the Configuration Item.
Icon	SmartAction
Application	CM Smart Action Tool

Field	Value
Parameters	<code>./nvdkit.exe ./cmsd.tkd/bin/smart-action.tcl -action wsGetSoftwareList -wsSvcType [CM service type]</code>
Blocked	No

### Required Parameter

The [CM service type] parameter is a custom field of a Configuration Item. It is defined with the Type of Code and contains the predefined values of **ALL**, **SOFTWARE**, **OS** or **PATCH**.

### Object Filter for CM Get Software List

The object filter is set using the advanced filter criteria **Search code is (exactly) CMGETSOFTWARESERVICES**, as shown in [Figure 4](#) on page 61.

Using this object filter the Smart Action “CM get software list” is only available for the Configuration Item with the Search code CMGETSOFTWARESERVICES.

**Figure 4 Filter Criteria Set for CM Get Software List — Smart Action**

The screenshot shows a 'Filter' dialog box with the following configuration:

- Entity: Configuration Item
- View: SD Configuration Item (Table)
- Named Filter: (empty)
- Buttons: Search Now, Stop, OK
- Tabs: Simple, More Choices, Advanced
- Specify filter criteria:
  - Attribute: Search code
  - Operator: is (exactly)
  - Value: CMGETSOFTWARESERVICES
- Add to Criteria button
- Summary of filter criteria:
  - And
    - Search code is (exactly) CMGETSOFTWARESERVICES
- Remove button

Below the dialog, a table displays the search results:

Search code	Name	Category
CMGETSOFTWARESERVICES	CM Get Software Services	Software / Application / Custom App.

## Smart Action — CM Create Device

The Smart Action "CM create device" finds or creates a device node in the CM Portal directory, Devices container. The action is available only when the MAC address of the Configuration Item is filled.

Access Path: **OV Configuration** → **Action & Rules** → **Actions** → **Smart Action** → **Configuration Item**

**Figure 5** Configuration for CM Create Device — Smart Action

The screenshot shows a configuration window for a Smart Action. The title bar reads "CM create device - Smart Action". The window contains the following fields and values:

- Object Type: Configuration Item
- Object Filter: Filter is set
- Text: CM create device
- Comment: Find or create device node in RMP directory.
- Icon: SmartAction
- Application: CM SmartAction Tool
- Parameters: `.\nvdkit.exe .\cmsd.tkd\bin\smart-action.tcl -action wsCreateDevice -sdcid [ID] -wsDevAttr "dnshostname [Name] nvdhdwlana [MAC address]"`
- Blocked:

Buttons at the bottom include a question mark icon, OK, Cancel, and Help.

**Table 12** Configuration values for Smart Action: CM create device

Field	Value
Object Type	Configuration Item
Object Filter	Filter is set

Field	Value
Text	CM create device
Comment	Find or create device node in RMP (CM Portal) directory.
Icon	SmartAction
Application	CM Smart Action Tool
Parameters	<code>./nvdkit.exe ./cmsd.tkd/bin/smart-action.tcl -action wsCreateDevice -sdciID [ID] -wsDevAttr "dnshostname [Name] nvdhawlana [MAC address]"</code>
Blocked	No

### Parameters

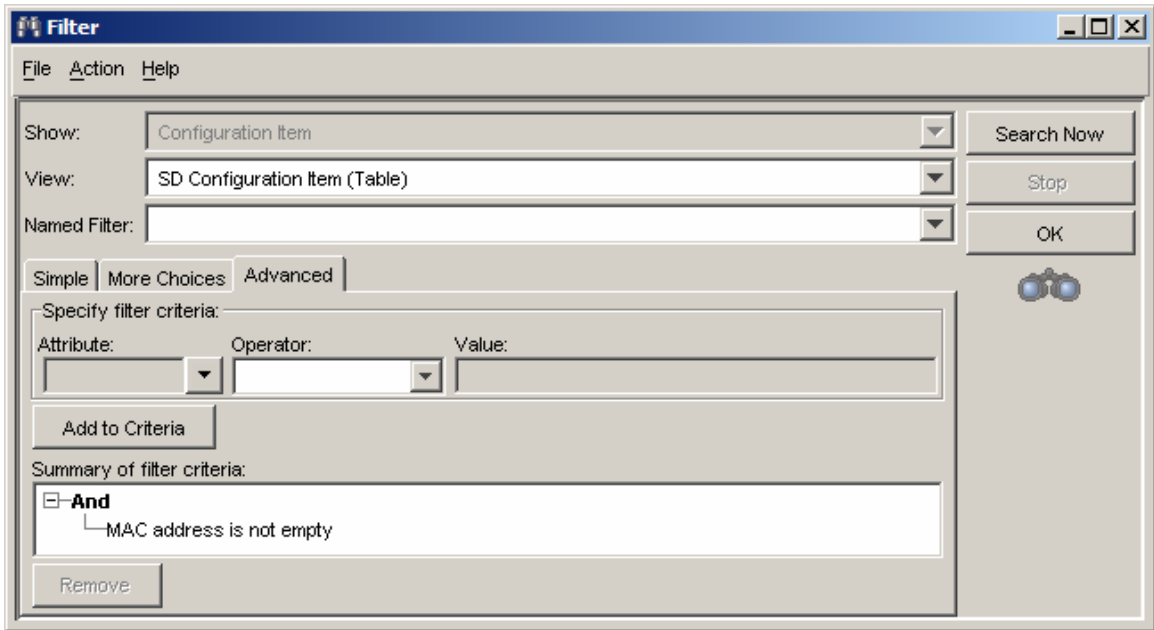
- [ID] is the Configuration Item ID that is needed by Load Object to report back the results of this action.
- The device is identified by the attributes dnshostname and MAC address that are stored in the parameters [Name] and [MAC address], respectively.

### Object Filter for CM create device

The object filter is set with the condition MAC address is not empty, as shown in [Figure 6](#) on page 64 . There is no need to set a condition for dnshostname because [Name] is a mandatory field.

Using this filter the Smart Action “CM create device” is only available when the MAC address of the Configuration Item is filled. The MAC address is needed to identify the device; without the MAC address, the Smart Action cannot be started.

**Figure 6 Filter criteria for CM Create Device — Smart Action**



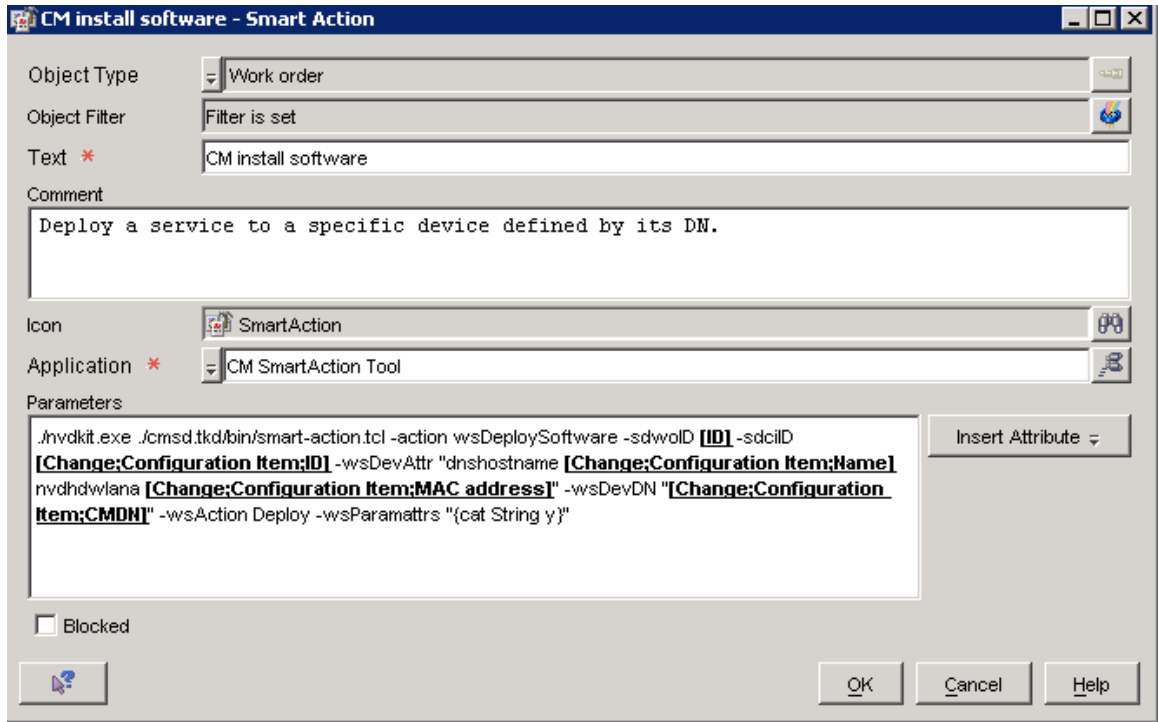
## Smart Action — CM Install Software

The “CM install software” smart action installs a software service to a specific device, as defined by its Distinguished Name (DN).

Access Path: **OV Configuration** → **Action & Rules** → **Actions** → **Smart Action** → **Work order**



**Figure 7 CM install software — Smart Action**



**Table 13 Configuration for the Smart Action: CM install software**

Field	Value
Object Type	Work order
Object Filter	Filter is set
Text	CM install software
Comment	Install a service to a specific device defined by its DN.
Icon	SmartAction
Application	CM Smart Action Tool

Field	Value
Parameters	<pre>./nvdkit.exe ./cmsd.tkd/bin/smart-action.tcl -action wsDeploySoftware -sdwoID [ID] -sdciID [Change;Configuration Item;ID] -wsDevAttr "dnshostname [Change;Configuration Item;Name] nvdhdwlana [Change;Configuration Item;MAC address]" -wsDevDN [Change;Configuration Item;CMDN] -wsAction Deploy -wsParamattrs "{cat String y}"</pre>
Blocked	No

### Parameters for CM install software

The CM install software script requires the parameters defined in Table 14 below to identify the device that will receive the software.

**Table 14 Parameters required by CM install software**

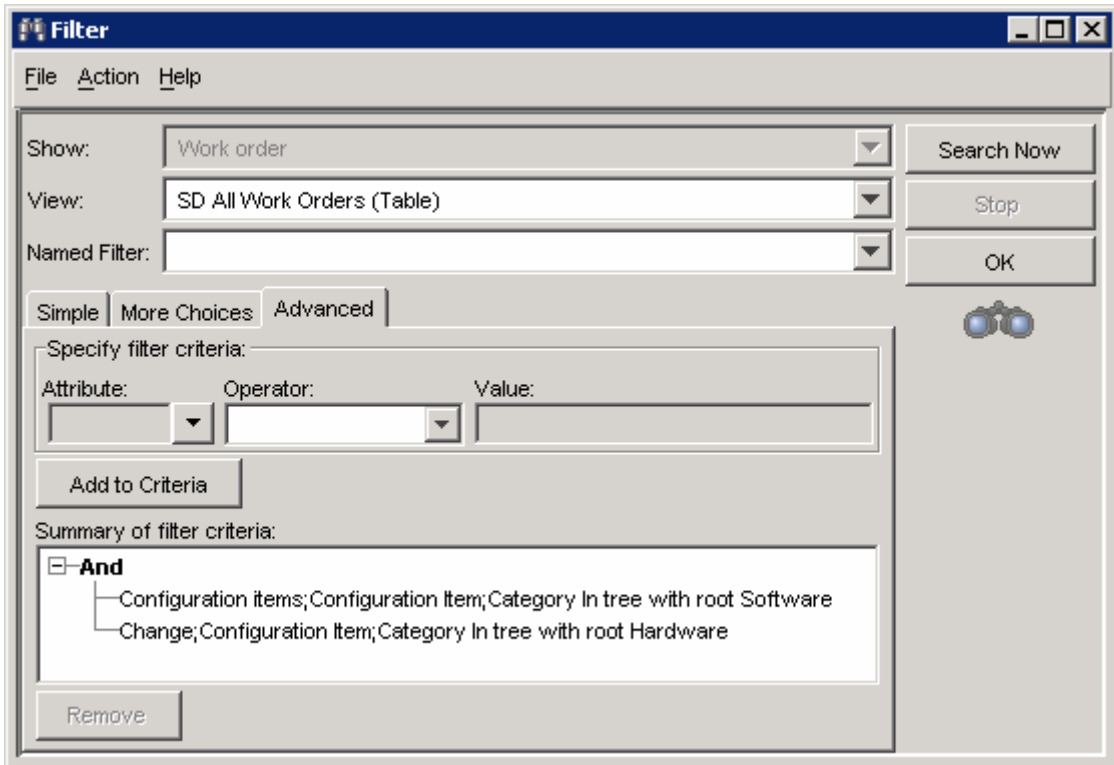
Parameter	Definition
[ID]	The Work order ID that is needed by Load Object to report back the results of this action
[Change;Configuration Item;ID]	The ID of the Configuration Item that will receive the software. This parameter is needed by Load Object to identify the Configuration Item for updating the CMDB after a successful installation of the software.
[Change;Configuration Item;Name]	Contains the dnshostname of the device that will receive the software.
[Change;Configuration Item;MAC address]	Contains the MAC address of the device that will receive the software.
[Change;Configuration Item;CMDN]	Contains the Distinguished Name of the device that will receive the software.

### Object Filter for CM Install Software

The object filter criterion specifies that the Configuration Item of the related Change must belong to the category Hardware, and the related Configuration

Items of the Work order must belong to the category Software. [Figure 8](#) below shows this filter criterion.

**Figure 8** Filter criteria for CM install software



## Filters and Filter Groups

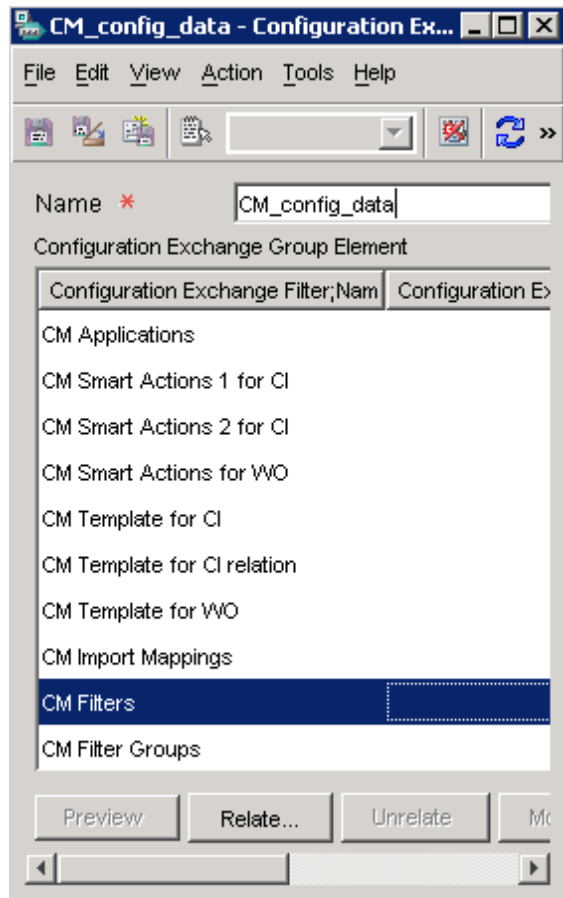
The filters are discussed with the smart actions to which they apply.

- ▶ Filters and filter groups are not required to run the CMSD integration. However, they allow you to easily export and import the configuration data for the CMSD integration from one Service Desk system to another Service Desk system, such as from a test system to a production system.

The filter group **CM\_config\_data\_custom\_fields** imports the filters CM CI codes and CM Custom Fields. These filter groups must exist prior to importing the second filter group: **CM\_config\_data**.

All other filters are imported using the filter group, **CM\_config\_data**. [Figure 9](#) below lists the contents of the filter group.

**Figure 9 Filter Group for CM\_config\_data**



This completes the summary of how to configure the data objects for use by the CM integration smart actions.

---


# 5 CM Software Environment Configuration

This chapter describes how to configure components in your Configuration Management environment to support the integration with Service Desk.

# Configuring for Policy Resolution

A new policy method named RMP\_RESOLVE must be defined in the Configuration Server Database to allow for the policy resolution of devices based on their Device DN (Distinguished Name) in the CM Portal.

Basically, the RMP\_RESOLVE method allows the Configuration Server to accept the Device DN received from Service Desk through the CM Portal in lieu of the typical POLICY.USER names of subscribers.

 For more information on CM Policy Administration, refer to the guides for the following CM products:

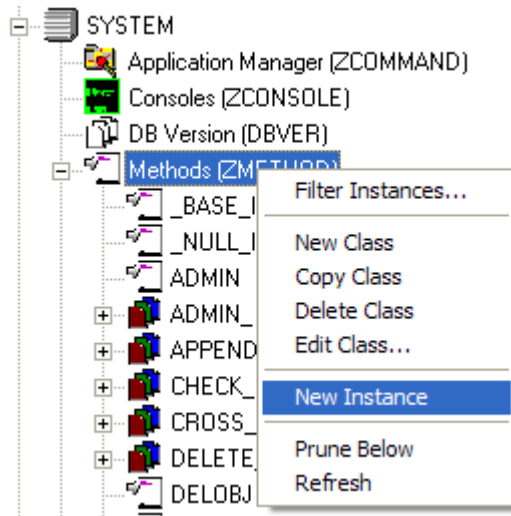
- CM Enterprise Manager
- CM Policy Server
- CM Application Manager and Application Self-service Manager

For more information on using the CM Admin CSDB Editor, refer to the *CM Administrator User Guide*.

Use the steps below to define an RMP\_RESOLVE instance in the PRIMARY.SYSTEM.Methods class of the Configuration Database, and then connect the method to the \_NULL\_INSTANCE of the PRIMARY.POLICY.USERS class.

To create a Methods instance for RMP\_RESOLVE

- 1 Using the CM Admin CSDB Editor, navigate to the PRIMARY.SYSTEM.ZMETHOD class of the Configuration Server Database.
- 2 Right-click on the Methods class listing to open the menu, and click **New Instance** to create a new instance.



- 3 In the Create Instance dialog box, type the name **RMP\_RESOLVE** and press **Enter**.

The RMP\_RESOLVE instance is added to the methods class.

- 4 Edit the **RMP\_RESOLVE** instance and set the following values:
  - a For **ZMTHPRMS**, type the value below, substituting *rmp\_host* with your CM Portal's host name or IP address and 3471 for its actual port number:

`http://rmp_host:3471/policy/device?dn=<<PREFACE.RMADEVDN>>`

- b For **ZMTHTYPE**, set the value to **REXX**.
- c For **ZMTHNAME**, set the value to **radish**.
- d Optionally, enter descriptions in **ZMTHDSC1** and **ZMTHDSC2**.

The figure below shows an RMP\_RESOLVE method edited to resolve policy for device DNs from a CM Portal running on svr25 using port 3471. Note the method type is set to REXX.

Methods class RMP_RESOLVE Instance Attributes:		
Name	Attribute Description	Value
V ZMTHPRMS	Parameters Passed to Method	http://svr25:3471/policy/device?dn=<<PREFACE.RMADEVDN>>
V ZMTHTYPE	Method Type [REXX/ASM/EXE]	REXX
V ZMTHNAME	Member Name of Method	radish
V DESCRIPT	Method Description	Manager Method &ZMTHNAME
V ZMTHMODE	Mode [INTERNAL] or [EXTERNAL]	EXTERNAL
V ZMTHSYNC	Synchronization Flag [Y] [N]	Y
V ZMTHDSC1	Method Description 1	Resolve policy using device DN from CM Portal as Policy.User
V ZMTHDSC2	Method Description 2	Supports Integration with Service Desk
V ZMUSTRUN	Return Code critical to Resolution?	Y

To connect the RMP\_RESOLVE method to the \_NULL\_ instance of Policy.Users

- 1 Using CM Admin CSDB Editor, navigate to the PRIMARY.POLICY.USERS class of the Configuration Server database.
- 2 Display the \_NULL\_INSTANCE and then edit the following values:
  - a Set the first **\_ALWAYS\_** connection for the **Utility Method** to specify the new RMP\_RESOLVE method. Type its value as:  
**SYSTEM.ZMETHOD.RMP\_RESOLVE**
  - b Edit the first **\_ALWAYS\_** connection for **Member of** and replace any existing entry with the following value:  
**\_NULL\_**
  - c Save the changes.



The figure that follows shows the `_NULL_INSTANCE` of the `POLICY.USERS` class with these required modifications for the `RMP_RESOLVE` policy resolution.

Users class <code>_NULL_INSTANCE</code> Instance Attributes:		
Name	Attribute Description	Value
<input checked="" type="checkbox"/> UNAME	Name	
<input checked="" type="checkbox"/> ZCONFIG	Collect Hardware Info [Y/N]	Y
<input checked="" type="checkbox"/> ZSETMSGA	Send Message to Audit Resource	DAILY
<input checked="" type="checkbox"/> ZDLIMIT	Maximum Disk Space	0
<input checked="" type="checkbox"/> USERID	Enterprise User Id	
<input checked="" type="checkbox"/> ZTIMED	Client Timeout (Seconds)	240
<input checked="" type="checkbox"/> ZTRACEL	Trace Log Level [0-999]	040
<input checked="" type="checkbox"/> ZTRACE	Trace On or Off [Y/N]	N
<input checked="" type="checkbox"/> ZPRIORIT	Exec. Priority	000
<input checked="" type="checkbox"/> ZSHOW	Display Status Indicator [Y/N]	N
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Utility Method	<code>SYSTEM.ZMETHOD.RMP_RESOLVE</code>
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	<code>_NULL_</code>
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	
<input checked="" type="checkbox"/> <code>_ALWAYS_</code>	Member of	<code>PRDMAINT.ZSERVICE.MAINT_40</code>
<input checked="" type="checkbox"/> NAME	Friendly name	

This completes the configuration of policy resolution using the method `RMP_RESOLVE` for Service Desk integration.



# 6 Using the CM Smart Actions

## Overview

The CM integration with Service Desk allows a service desk administrator to seamlessly manage requests for software service changes to a single hardware device in the CMDB.

The requests are made using CM Smart Actions from the Service Desk Console. The smart actions must be enabled for accounts by assigning one or both CM Configuration Management Roles to the accounts.

The CM Smart Actions include the two smart actions used to establish the needed database exchanges and linkages between Service Desk CMDB and the Definitive Software Library (DSL). The DSL is the OVCM database on the Configuration Server. These actions are **CM get software list** and **CM create device**. CM get software list brings the managed-software services from OVCM into the CMDB as Software Configuration Items (CIs), and CM create device creates a Device DN entry in the CM Portal for a Hardware CI in the CMDB.

After software lists are available in the CMDB and Device DNs are created, you can initiate the following actions from the Service Desk console for a single device:

- Create a Work order to define and execute a verify, repair, or update of a single software service on a device.
- Create a Work order to define and execute the install or uninstall of a software service on a device.
- Create a Work order to define and synchronize a software service on a device; this triggers a CM-Notify job for a Full CM Agent Connect; this brings the managed-software on the device to its desired-state according to the policy settings established in the OVCM environment.

In this integrated environment, OVCM owns and maintains the DSL; there is no change to the existing publishing interfaces to maintain the DSL.

OVCM is solely responsible for the continuous enforcement of the assigned software services to a hardware Configuration Item (CI). This continuous enforcement is known as desired-state maintenance.

# Using the CM Smart Actions

## Prerequisites

### Servers

All CM smart actions require the following servers to be running:

- Service Desk Management Server (5.x) or Application Server (4.5)
- Service Desk Admin (client)
- HP OVCM Service Desk Adapter (httpd-servicedeskadapter) – This must be running on both the Server Desk Server and Admin (client).
- HP OVCM Portal (httpd-managementportal) – This is the service for the CM Portal. The Configuration Server Primary file must be mapped to the CM Portal using a directory service connection.
- HP OVCM Configuration Server and HP OVCM Messaging Server
- HP OVCM Reporting Server (to enable Device reports using the action CM reporting server)

### Targeted Devices

The CM Smart Actions that target a Hardware CI device also require the target device to have a CM Portal Management Agent and a CM Agent installed and running on the target device.

### Service Desk Account and Roles

Your Account must be enabled for the Roles associated with the desired CM Smart Actions. There are two roles.

- Most actions are associated with the CM Configuration Management Role.
- The ability to install and uninstall devices is associated with the CM Configuration Management – install/uninstall role.

For details on assigning roles, see Task 5 Assigning Roles to Accounts, in the appropriate configuration chapter for your Service Desk version.

## Get Software List

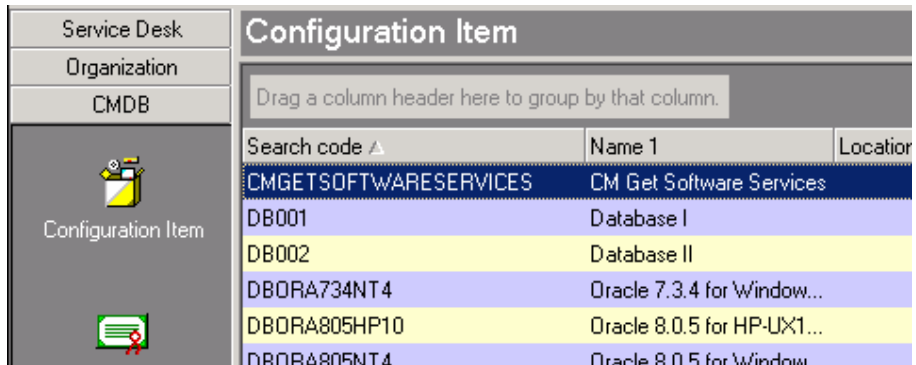
Run this action to request an immediate import or refresh of the software CIs available for CM actions into the CMDB. This list is retrieved from the managed-software cache in the CM Portal, which is kept in sync with the services published in the Configuration Manager.

Prior to running the action, you can specify whether to retrieve the software for a single domain (either SOFTWARE, PATCH, or OS) or ALL domains.

▶ The get software list is refreshed automatically at regular intervals, as defined by the PERIODIC\_INTERVAL parameter in the cmsd.cfg file. The default value is 10 minutes. To set a different period, refer to the appropriate Configuration chapter in this guide.

### How to run CM Get Software List

- 1 Display the list of Configuration Items for the CMDB.
- 2 Locate and select the Search code **CMGETSOFTWARESERVICES**.



Search code ▲	Name 1	Location
CMGETSOFTWARESERVICES	CM Get Software Services	
DB001	Database I	
DB002	Database II	
DBORA734NT4	Oracle 7.3.4 for Window...	
DBORA805HP10	Oracle 8.0.5 for HP-UX1...	
DBORA805NT4	Oracle 8.0.5 for Window...	

- 3 Optionally, if you want to get a list for just a single domain;
  - a Double-click **CMGETSOFTWARESERVICES** to open the Configuration Item page.
  - b Locate the **CM Service Type** field, and select a type of service to retrieve a list for: ALL, SOFTWARE, PATCH, or OS.
  - c Click **Save and Close** to save the selected service type.
- 4 From the **Action** menu, select **CM Get Software List**.

Configuration Item				
Drag a column header here to group by that column.				
Search code	Name 1	Location	Category ▲	Unique
SRVHP003	HP 9000 server III		Server	<input checked="" type="checkbox"/>
AUDIT.WIN32-SERVICE-AUDIT	AUDIT.ZSERVICE.WIN32_SERVIC...		Software	<input type="checkbox"/>
AUDIT.CE-PDA-XML-SVC	AUDIT.ZSERVICE.CE_PDA_XML_S...		Software	<input type="checkbox"/>
AUDIT.AUDIT-SYSTEM-DLL	AUDIT.ZSERVICE.AUDIT_SYSTEM...		Software	<input type="checkbox"/>
AUDIT.DELETE-SAMPLE-COMP...	AUDIT.ZSERVICE.DELETE_SAMPL...		Software	<input type="checkbox"/>
POLICY.SERVER	POLICY.ROLE.SERVER		Software	<input type="checkbox"/>
POLICY.WORKSTATION	POLICY.ROLE.WORKSTATION		Software	<input type="checkbox"/>
PRDMAINT.MAINT-40	PRDMAINT.ZSERVICE.MAINT_40		Software	<input type="checkbox"/>
SOFTWARE.REMOTE-CONTROL	SOFTWARE.ZSERVICE.REMOTE_...		Software	<input type="checkbox"/>
SOFTWARE.REDBOX	SOFTWARE.ZSERVICE.REDBOX		Software	<input type="checkbox"/>
SOFTWARE.STRATUS-PAD	SOFTWARE.ZSERVICE.STRATUS_...		Software	<input type="checkbox"/>
SOFTWARE.SALES	SOFTWARE.ZSERVICE.SALES		Software	<input type="checkbox"/>
SOFTWARE.AMORTIZE	SOFTWARE.ZSERVICE.AMORTIZE		Software	<input type="checkbox"/>
AUDIT.AUDIT-MULTI-FILES	AUDIT.ZSERVICE.AUDIT_MULTI_F...		Software	<input type="checkbox"/>
SOFTWARE.GS-CALC	SOFTWARE.ZSERVICE.GS-CALC		Software	<input type="checkbox"/>
SOFTWARE.DRAGVIEW	SOFTWARE.ZSERVICE.DRAGVIEW		Software	<input type="checkbox"/>
AUDIT.INDIVIDUAL-FILE-AUDIT	AUDIT.ZSERVICE.INDIVIDUAL_FIL...		Software	<input type="checkbox"/>
AUDIT.UNIX-USER-AND-GROU...	AUDIT.ZSERVICE.UNIX_USER_AN...		Software	<input type="checkbox"/>
AUDIT.UNIX-SOFTWARE-INVE...	AUDIT.ZSERVICE.UNIX_SOFTWA...		Software	<input type="checkbox"/>
AUDIT.UNIX-WBEM-OPERATIN...	AUDIT.ZSERVICE.UNIX_WBEM_D...		Software	<input type="checkbox"/>
AUDIT.IUNIX-WRFM-COMPLITE	AUDIT.ZSERVICE.IUNIX_WRFM_C...		Software	<input type="checkbox"/>

5 Press F5 to refresh the display.

The software list is obtained and added to the CMDB Configuration Items under the Category of Software.

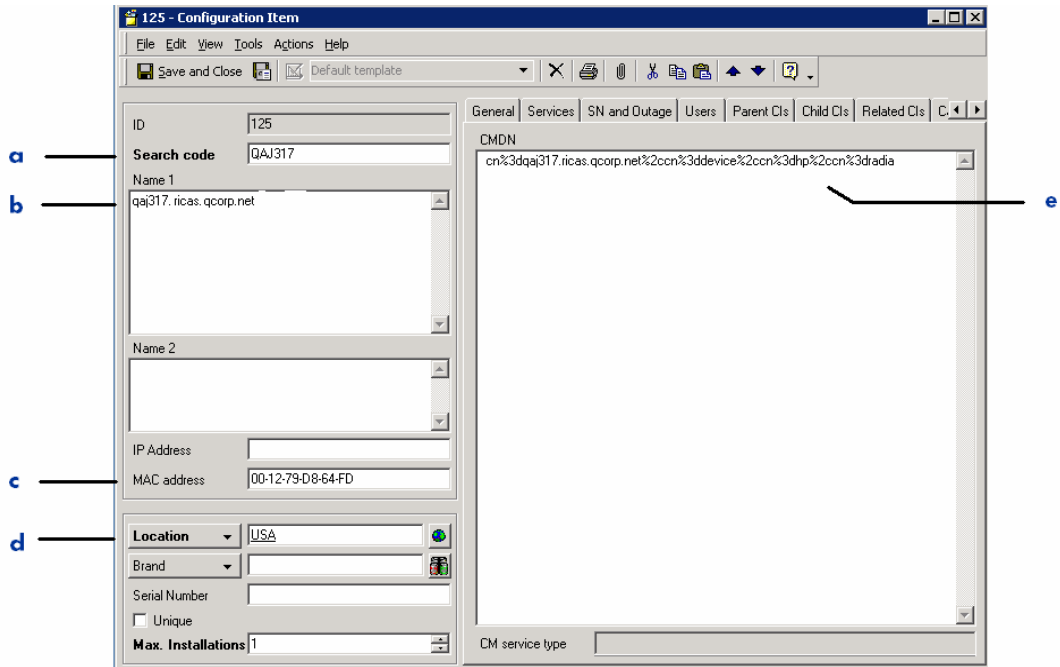
## Create Device

The CM Create Device action creates or obtains the Distinguished Name of the Device entry from the CM Portal and relates it to the Hardware CI entry in the CMDB. If the Hardware CI does not have an existing entry in the Portal, a new one is created and its DN is then associated with the Hardware CI in the CMDB.

### Hardware CI Prerequisites

To run CM Create Device, the Hardware CI in the CMDB must include entries for Search code, Name 1, and MAC Address. In the Name 1 field, place the server name. These entries are illustrated in [Figure 10](#) on page 79.

**Figure 10** Creating a Device CI and Device DN



### Legend

- a** In the **Search code** field, enter a CMDB-unique value for the device.
- b** In the **Name 1** field, specify the DN for the device
- c** In the **MAC address** field, type the MAC address value. This can be obtained from a command line by typing **ipconfig /all**. The MAC address is the Physical Address for the IP assigned to the device DN.
- d** In the **LOCATION** field, select a Location.
- e** After running the Action CM Create Device, the CMDN field on the OVCM tab contains the Device DN from the CM Portal.

### How to Run CM Create Device

- 1 Open Service Desk and display the list of Configuration Items in the CMDB.
- 2 Select the Hardware CI for which you want to get a device DN from the CM Portal.
- 3 From the **Action** menu, select **CM Create Device**.

The Device is created in the CM Portal, and its DN is placed in the CMDN field on the OVCM tab.

If a Device with the specified MAC address already exists in the CM Portal, its DN is retrieved from the CM Portal and linked to this Hardware CI.

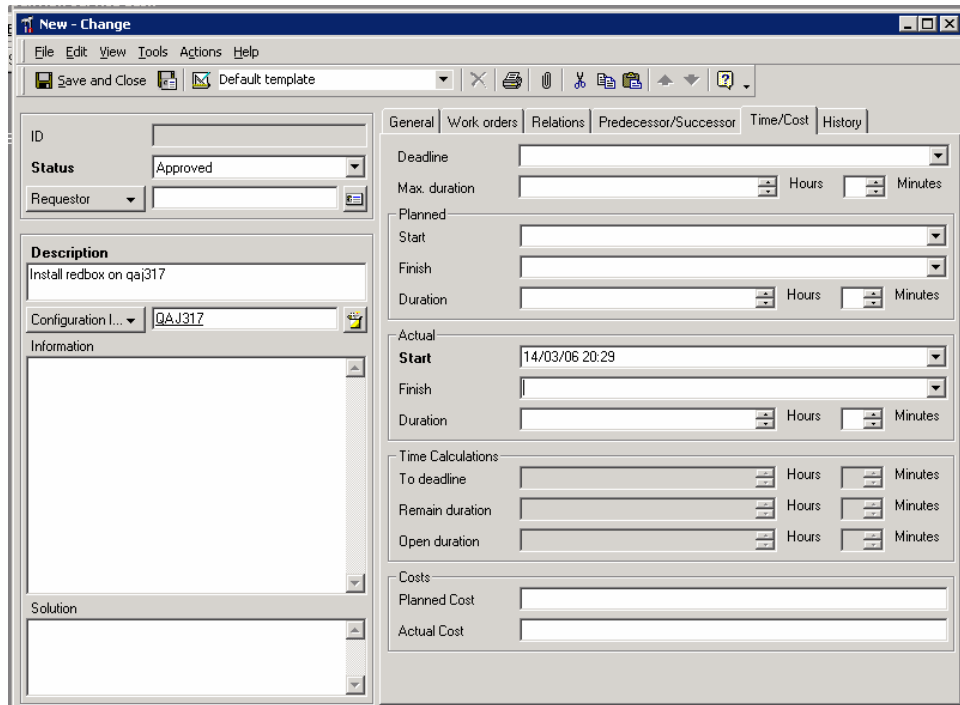
## Installing Software

- This action is enabled by assigning the Role of "CM Configuration Manager – install/uninstall" to a person's Account. For details, see *Assigning Roles for CM actions to Accounts*.
- This action requires an OVCM policy configuration that uses the RMP\_RESOLVE method, as discussed in the previous chapter.
- Use CM install software to entitle and install software to a single device. Software entitlement (policy) is added to the Device properties in the CM Portal.

### How to Install software using a Work order

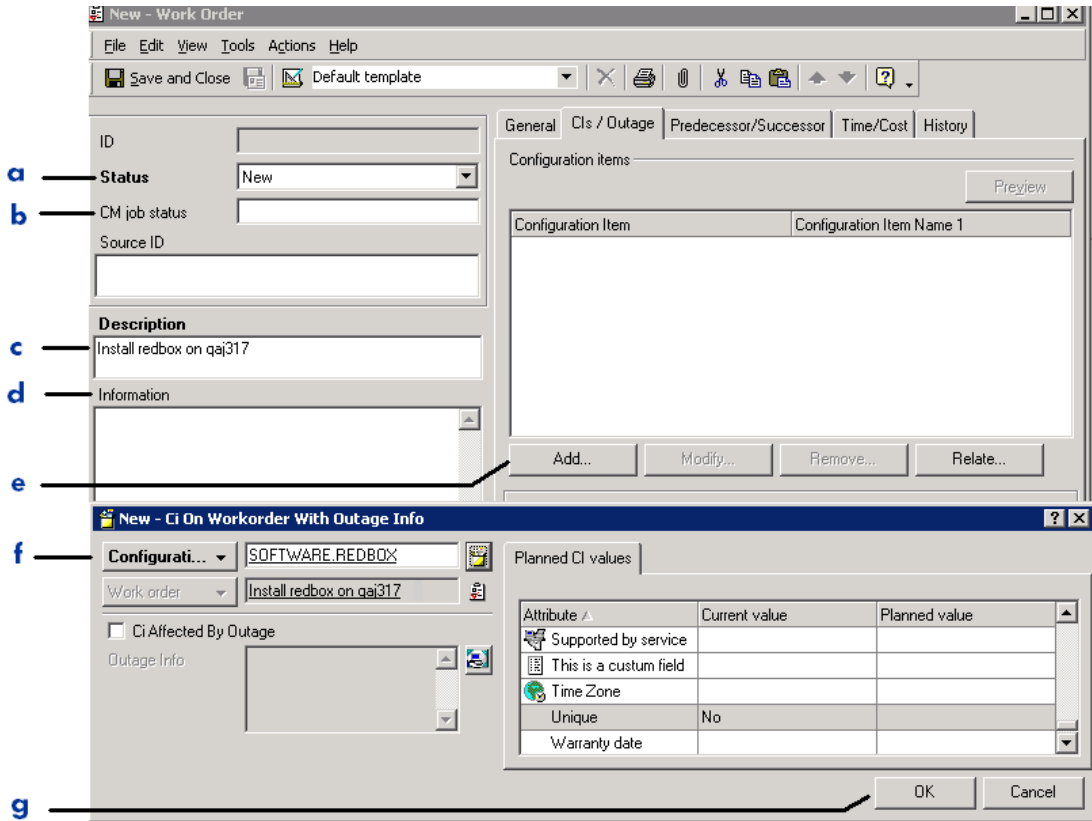
- 1 Create a Service Desk Change Request, and select the device's Hardware CI as the Configuration item. In Service Desk 4.5, also set a Start Time. Set the Status to Approved, when appropriate, so that you can create a Work order to initiate the installation. These entries are illustrated in the following figure.





- 2 Open a new Work order for the Change Request. The Work order will associate one software service to the selected hardware device.
  - Set the **Status** to **New**.
  - Type a **Description** that identifies the device and software activity, such as "Install redbox on qaj317".
  - On the **CI/Outage** tab, click **Add** and then select the desired software to deploy from the Configuration drop-down list.

**Figure 11 Add Software CI to new Work order to install software**



**Legend**

- a** Status is New.
- b** When the job runs, CM job status shows the job status from the CM Portal.
- c** Description includes software to be deployed.
- d** When the job runs, the **Information** field records the job messages from the CM Portal.
- e** On CIs/Outage tab, click **Add**
- f** Select the software to be installed from the Configuration drop-down list.
- g** Click OK to Add the Configuration Items.

3 Save and Close the Work order.

4 Select the Work order, and use the **Action** menu to select **CM Install software**.

A successful installation creates an entry in the Related CIs area of the Hardware Configuration Item window.

## Installing Multiple Software Services on a Device

A Work order relates one hardware CI with only one software CI. However, you can associate a Change order with multiple Work orders for a device.

### To install multiple services on a device

- 1 Create a Change order for the device.
- 2 Create multiple Work orders for the device, one for each software CI that needs to be installed on the device. Associate each Work order with the same Change order from Step 1.
- 3 Select all of the Work orders for the device and then run the smart action: CM install software.

## Uninstalling Software

- This action is enabled by assigning the Role of "CM Configuration Manager – install/uninstall" to a person's Account. For details, see Assigning Roles for CM actions to Accounts.
- This action requires an OVCM policy configuration that uses the RMP\_RESOLVE method, as discussed in the previous chapter.
- Use CM uninstall software to entitle and uninstall software from a single device. Software entitlement (policy) is added to the Device properties in the CM Portal to allow this action.

### How to Run CM Uninstall software

- Running CM uninstall software follows exactly the same steps as CM install software with the exception of choosing a different Action. Choose **CM uninstall software** instead of CM install software.

## Synchronizing All Software on a Device

- Run CM synchronize software to have all managed-software on a device brought to its desired-state, according to current policy settings for the device. This actions runs a job to perform a full CM-connect. This means the device will connect to the CM Configuration Server, and complete a full desired-state resolution of the software to which it is entitled.

- Entitlements are resolved according to existing policy in the CM environment.
- Follow the same steps as those for CM Install software, with the exception of choosing the Action **CM synchronize software** instead of CM install software.

## Verifying Software

Run CM verify software to initiate a CM job to verify an existing software application is installed on the device and is operational.

- Entitlements are resolved according to existing policy in the CM environment.
- Follow the same steps as those for CM install software, with the exception of choosing the Action **CM verify software** instead of CM install software.

## Repairing Software

Run CM repair software to initiate a CM job to fix an existing software application on the device that is known to be damaged. This action triggers the target device to connect to the OVCM Configuration Manager to obtain the repair for that software.

- Entitlements are resolved according to existing policy in the CM environment.
- Follow the same steps as those for CM Install software, with the exception of choosing the Action **CM repair software** instead of CM install software.

## Updating Software

Run CM update software to initiate a CM job to apply updates to a software application that already exists on the device. For example, if there was a recent, known update to a software package, run this action to have it applied immediately to that software on the target device.

- Entitlements are resolved according to existing policy in the CM environment.

- Follow the same steps as those for CM install software, with the exception of choosing the Action **CM update software** instead of CM install software.

## Obtaining Device Reports

If you have the Reporting Server installed in your environment, use the CM Reporting Server action to obtain a Device-level report for a specific device in your CMDB.

Select the device listing, and then select the Action menu and choose CM Reporting server.

Refer to the *HP CM Reporting Server Guide* for more information.



---

# A Service Desk Object Updates and Command Line Utility

[This appendix defines the LoadObject calls that update the Service Desk objects for each CM smart action, as well as the Command Line Utility `ovsdgetowrkorderci`, which is used to retrieve software CIs from the Service Desk database for a work order.

# Load Object Calls to Service Desk

In the calls to Service Desk Object Loader that follow, the **class** parameter specifies which Service Desk object to update, and the object key is identified by the **keyval** parameter displayed in bold.

Get Software List (Smart Action)

```
call "C:\Program Files\HP OpenView\lbin\obs\loadobject\OvObsLoadObject"  
--configfile "C:\Program Files\HP OpenView\data\conf\obs\loadobject\cmLoadObject.conf"  
--mapping ovcm  
--class softwareci  
--keyval SoftwareServiceName=%SoftwareServiceName%  
--keyval SoftwareServiceSearchCode=%SoftwareServiceSearchCode%  
--keyval SoftwareServiceDescription=%SoftwareServiceDescription%  
--keyval SoftwareServiceCategory=%SoftwareServiceCategory%
```

Create Device (Smart Action)

```
call "C:\Program Files\HP OpenView\lbin\obs\loadobject\OvObsLoadObject"  
--configfile "C:\Program Files\HP OpenView\data\conf\obs\loadobject\cmLoadObject.conf"  
--modus=update  
--mapping ovcm  
--class computerci  
--modus=update  
--keyval MACAddress=%MACAddress%  
--keyval DN=%DN%
```

Install Software (Smart Action)

```
call "C:\Program Files\HP OpenView\lbin\obs\loadobject\OvObsLoadObject"  
--configfile "C:\Program Files\HP OpenView\data\conf\obs\loadobject\cmLoadObject.conf"  
--modus=update  
--mapping ovcm  
--class cmjobid  
--keyval workorderid=%1%  
--keyval cmjobid=CM999111
```

To report the Job Status on the work order

```
call "C:\Program Files\HP OpenView\lbin\obs\loadobject\OvObsLoadObject"  
--configfile "C:\Program Files\HP OpenView\data\conf\obs\loadobject\cmLoadObject.conf"  
--modus=update  
--mapping ovcm  
--class cmjobstatus  
--keyval workorderid=%workorderid%  
--keyval cmjobstatus="Currently active"
```

To update the CMDB after a job has finished successfully

```
call "C:\Program Files\HP OpenView\lbin\obs\loadobject\OvObsLoadObject"
```



```

--configfile "C:\Program Files\HP OpenView\data\conf\obs\loadobject\cmLoadObject.conf"
--modus=insert
--mapping ovcm
--class relation
--keyval cci=%ci_name%
--keyval sci=%name%

*To report a job failure*
*Not currently implemented*
*call "C:\Program Files\HP OpenView\lbin\obs\loadobject\OvObsLoadObject"
*--configfile "C:\Program Files\HP OpenView\data\conf\obs\loadobject\cmLoadObject.conf"
*--modus=update
*--mapping ovcm
*--class cmjobfailurere
*--keyval workorderid=%workorderid%
*--keyval jobinfo="CM job failed: wrong username or password"

```

## Command Line Utility – ovsdgetworkorderci

The Command Line Utility `ovsdgetworkorderci` connects to a Service Desk Management Server (server) and retrieves information from the Service Desk database about Configuration Item(s) that are related to a Work order. The utility connects to the server using the credentials that are stored in the `user_settings` file of the user that is running the OpenView Console.

### Syntax

```

ovsdgetworkorderci -w <work order ID> -a <attribute name>
[ -a <attribute name> ...] [-o <output file name>] [-l <logfile
name>]

```

#### Syntax definitions

*<work order ID>* is the ID of the Work order for which the related CIs are being requested

*<attribute name>* is the name of the attribute of the CI related to the Work order. The utility can print more than one attribute per CI by specifying additional `-a` flags with attribute names.

*<output file name>* is optional; the name of the file that will contain the results. If this flag is omitted results are written to standard output.

`<logfile name>` optional the name of the log file that contains error messages. If this flag is omitted the default log file, `ovsdgetworkorderci.log`, will be used.

- On Windows this file is located in `C:\Program Files\HP OpenView\data\log`.
- On UNIX this file is located in `/var/opt/OV/log`.

## Output Format and Examples

The format of the output of the utility is `attribute name=attribute value`. In case of more than one attribute the attributes are separated by spaces. Each line contains the attributes of a CI.

### Example 1:

```
ovsdgetworkorderci -w 21 -a name -o C:\Temp\out.txt
```

Output:

```
NAME=software.zservice.dragview
```

### Example 2:

```
ovsdgetworkorderci -w 21 -a name -a description -o C:\Temp\out.txt
```

Output:

```
NAME= software.zservice.dragview DESCRIPTION="Drag & View"
```

## Exit Codes

The utility returns with an exit code unequal to 0 upon a failure. Table 15 below defines additional exit codes.

**Table 15 Exit Codes for Command Line Utility `ovsdgetworkorderci`**

Code	Condition	Explanation
0	Utility failure.	
1	Wrong syntax	The syntax of the command line parameters is incorrect.

<b>Code</b>	<b>Condition</b>	<b>Explanation</b>
2	Wrong username or password	User does not exist or wrong password.
3	Insufficient privileges	User is not allowed to view Work orders or CIs.
4	Work order does not exist	A Work order with the given ID does not exist.
5	CIs do not exist	The given Work order does not have relations to CIs.
6	Attribute does not exist	The CI does not have the given attribute(s).
7	Cannot open or write logfile	The logfile cannot be opened (can be a non-existent directory) or cannot be written to (possibly due to insufficient privileges).
8	Unsupported attribute.	Some attributes are references to entities that cannot be shown, for example, Schedules of a CI.



## B Product Name Changes

If you have used Radia in the past, and are not yet familiar with the newly rebranded HP terms and product names, Table 16 below will help you identify naming changes that have been applied to the Radia brand.

**Table 16 Product Name and Term Changes**

<b>New Name/Term</b>	<b>Old Name/Term</b>
CM agents	Radia clients
HP Configuration Management Administrator	Radia Administrator Workstation
HP Configuration Management	Radia
HP Configuration Management Admin CSDB Editor	Radia System Explorer
HP Configuration Management Application Manager	Radia Application Manager
HP Configuration Management Application Self-service Manager	Radia Software Manager
HP Configuration Management Configuration Server	Radia Configuration Server
HP Configuration Management Configuration Server Database	Configuration Server Database, Radia Database
HP Configuration Management Inventory Manager	Radia Inventory Manager
HP Configuration Management Portal	Radia Management Portal
HP Configuration Management Patch Manager	Radia Patch Manager
HP Configuration Management Policy Manager	Radia Policy Manager
HP Configuration Management Reporting Server	Radia Reporting Server

<b>New Name/Term</b>	<b>Old Name/Term</b>
HP Configuration Management Service Desk Adapter	Radia Service Desk Adapter

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