

HP OpenView Connect-It

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Implementing Active CMDB

Build number: 65



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1 Implementing Active CMDB

Using Connect-It Scenarios to Implement an Active CMDB Solution

Introduction

Compliance is becoming an increasingly important driver for companies that require strong repeatable business practices. Having a complete Configuration Management Database (CMDB) to track hardware and software assets is an important part of the compliance process. Meeting Sarbanes-Oxley (SOX) standards is not an easy task. Some estimates put compliance work at large corporations in the tens-of-thousands of hours. It requires a complete understanding of the impact of your business processes in addition to the ability of your Information Technology to enable the processes in an accurate manner that allows for strict compliance. Understanding not only what you have but how those assets or configuration items are related to the business is essential.

Implementing an Active CMDB solution allows a company to improve its customer service levels while increasing efficiencies and meeting compliance requirements. Perhaps one of the most beneficial aspects of Active CMDB is the integration of core processes between ServiceCenter and AssetCenter. Hewlett-Packard recognizes the need for a completely integrated Active CMDB solution, and as a result is moving toward a single platform implementation where data is centralized in an Active Configuration Management Database (Active CMDB).

Description of the problem

Information in a database helps support the day-to-day running of an organization; but more important is the ability to make educated decisions based on this information. The abundance of applications and unique data stores in the corporate environment makes having a common framework vital.

First phase of the Hewlett-Packard Active CMDB solution

This solution is the first phase in implementing a common database repository between ServiceCenter and AssetCenter. Once implemented this solution will:

- Update ServiceCenter with data retrieved via the AssetCenter data discovery process
- Initiate reconciliation for data discrepancies between the discovered state and the actual state of a device
- Populate AssetCenter with data initiated in ServiceCenter change or configuration management

Anyone following ITIL practices using ServiceCenter and AssetCenter will benefit from this solution. If it is to be integrated with a tailored system, Hewlett-Packard recommends reviewing the low level details of the package and modifying them as necessary. For example, AssetCenter to ServiceCenter mappings may need to be adjusted if fields in either system have been renamed or deleted.

Overview of the Active CMDB solution

This solution depends on five Connect-It scenarios.

- Two scenarios that synchronize data transfers between ServiceCenter and AssetCenter:
 - `acsc-ci.scn`
 - `scac-ci.scn`
- 3 scenarios that execute the Active CMDB processes:
 - `edac-reconc.scn` or `pdiac.scn`
 - `acsc-incident.scn`
 - `scac-wo.scn`

Inventory scenario

A choice between OpenView Desktop Inventory and Enterprise Discovery has to be made.

- The `edac-reconc.scn` scenario integrates data from an Enterprise Discovery database into AssetCenter. It also creates reconciliation proposals in AssetCenter when memory listed in the inventory for a computer varies from the memory listed in AssetCenter. This scenario will likely be tailored by an organization to reflect its company-specific business rules.
- The `pdiac.scn` scenario integrates data from Pergrine Desktop Inventory files into AssetCenter. It also creates reconciliation proposals in AssetCenter when memory listed in the inventory for a computer varies from the memory listed in AssetCenter. This scenario may be tailored by an organization to reflect its company-specific business rules.

Although it is preferable to use Enterprise Discovery to integrate data in AssetCenter, the following sections of this document will focus on OpenView Desktop Inventory integration as it is part of the Connect-It data kit.

AssetCenter-to-ServiceCenter scenarios

- `acsc-ci.scn` scenario: This scenario integrates Configuration Items from AssetCenter to ServiceCenter.
- `acsc-incident.scn` scenario: This scenario will create an incident in ServiceCenter when a reconciliation proposal is opened in AssetCenter.

ServiceCenter-to-AssetCenter scenarios

- `scac-ci.scn`: This scenario integrates Configuration Items from ServiceCenter to AssetCenter.
- `scac-wo.scn`: This scenario creates Work Orders in AssetCenter that correspond to changes and tasks in ServiceCenter.

This scenario moves data from ServiceCenter to AssetCenter. It creates work orders in AssetCenter that correspond to changes and tasks in ServiceCenter. AssetCenter computer, asset, monitor, employee records and reconciliation proposals are updated when an incident with a problem type of AssetCenter Reconciliation Proposal is closed in ServiceCenter.

Active CMDB data flows

The Active CMDB Solution contains the following Connect-It data flow mappings.

 **Note:**

Modification of these mappings may be required for tailored systems

Table 1.1. OpenView Enterprise Discovery to AssetCenter mappings

Mapping	Description
DeviceSrc-amComputerDst	Mapping of inventory data collected by Enterprise Discovery. The mapping creates a reconciliation proposal in AssetCenter if the memory listed in the inventory of a computer varies from the memory listed in AssetCenter.
NetworkDevices-amComputerDst	Mapping of data related to network equipment.
Non-Scanned-Computers-amComputerDst2	Mapping of data related to computers that have not been scanned.
Network-Devices Structure-amPortfolioDst	Mapping of network equipment components as Portfolio Items in AssetCenter.

Table 1.2. AssetCenter-to-ServiceCenter mappings

Mapping	Description
amCompanySrc	Mapping of companies. An AssetCenter company is considered as a ServiceCenter company thanks to its qualification.
amLocationSrc	Mapping of locations.
amEmplDeptCrc-Employees	Mapping of AssetCenter employees to the Contact table in ServiceCenter.
amEmplDeptCrc-Departments	Mapping of departments.
amModelSrc-citModelDst	Mapping of AssetCenter models to ServiceCenter; events.
amComputerSrc-ICMcomputerDst	Mapping of computers.
amComputerSrc-pcsoft-uninstDst	Mapping of AssetCenter software. All PC software is flagged as Removed to handle software uninstallations.
amSoftInstallSrc-pcsoftwareDst	Mapping of software installation.
amAssetSrc-citDeviceDst	Mapping of other devices to ServiceCenter events.
amMonitorSrc-ICMdisplaydeviceDst	Mapping of monitors in AssetCenter to ICMdisplaydevice in ServiceCenter.
amMonitor-citDeviceParentDst	Mapping of device relationships (upstream asset).
amStockSrc-citStockroomDst	Mapping of stock rooms to ServiceCenter events.

Table 1.3. ServiceCenter-to-AssetCenter mappings

Locations	Mapping of locations.
Departments	Mapping of departments.
Contacts	Mapping of contacts.
operatorSrc-amEmplDest3	Mapping of operator and import of the hourly rate.

Locations	Mapping of locations.
Vendors	Mapping of ServiceCenter vendors as AssetCenter companies.
Vendors locations	Mapping of ServiceCenter vendors locations as AssetCenter companies.
stockroomSrc-amStockDst	Mapping of stock rooms.
Companies	Mapping of companies.
Company locations	Mapping of company locations.
Company departments	Mapping of company departments as root locations.
Models	Mapping of models.
Computers	Mapping of 'computer' type devices.
Devices	Mapping of devices which are not computer or application devices.
Software	Mapping of software installed on computers.
Handhelds	Mapping of 'handhelds' devices as computers.
Mainframes	Mapping of 'mainframes' devices as computers.
joindisplaydeviceSrc-amMonitorDst	Mapping of monitors.

Implementing the Active CMDB solution

This Active CMDB solution, like other Connect-It scenarios delivered with the Connect-It product, is provided as a sample solution. HP OpenView recommends that you review the code and scenarios provided to determine how they will best fit into your tailored solution. The code and scenarios provided are intended to be used with default (demonstration) databases and implementations. Any tailoring or data changes you have implemented may effect or be effected by using this code and these scenarios as-is. You may need to modify this solution to work in your tailored environment.

This solution is designed to work with specific combinations of HP OpenView products. Please ensure that you are using one of the following combinations:

- AssetCenter 4.4.x, ServiceCenter 6.1
- AssetCenter 5.0.x, ServiceCenter 6.1

The instructions in this document assume that AssetCenter, Connect-It and ServiceCenter have been installed in their default installation directories and are connecting to demonstration databases. Wherever possible, notations have been made to indicate where installation in another directory might affect the directions.

The default installation directory for each of the applications is as follows:

- AssetCenter 4.4.0, 4.4.1 or 5.0:

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

- Connect-It 3.6.0:

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

- ServiceCenter 6.1:

```
C:\Program Files\Hewlett-Packard\ServiceCenter Client\
```

Configuring ServiceCenter

Additional event records that are not out-of-box need to be added to ServiceCenter in order to implement the Active CMDB solution. This data is imported into ServiceCenter via the unload function.

Note:

Before beginning setup, Hewlett-Packard recommends that you back up your existing ServiceCenter database. This will ensure that you can return it to its previous state during integration.

Importing Active CMDB events into ServiceCenter

- 1 Log in to ServiceCenter as a system administrator.
- 2 Select **Database Manager** from the Toolkit section of the main window.
- 3 Right click or click the arrow in the upper right corner. Then click **Import/Load** on the drop down menu.

Importing AssetCenter events into ServiceCenter

- 1 Select the Connect-It out of box unload:
Connect-It:

```
[Connect-It Installation Directory]\datakit\sc\cmdb.unl
```

- 2 Click **Load FG** in the upper toolbar.

Importing computer and software events into ServiceCenter

- 1 Right click or click the arrow in the upper right corner. Then click **Import/Load** from the drop down menu.
- 2 Select the Connect-It out of box unload:

```
[Connect-It Installation Directory]\datakit\sc\pcsoft-uninstal.unl
```

- 3 Click **Load FG** in the upper toolbar.
- 4 Right-click or click the arrow in the upper right corner. Then click **Import/Load** from the drop down menu.
- 5 Select the Connect-It out of box unload:

```
[Connect-It Installation Directory]\datakit\sc\pcsoftware.unl
```

- 6 Click **Load FG** in the upper toolbar.

Configuring AssetCenter

Setting up AssetCenter involves altering the default database structure to add a RelNN link from the amWorkOrder table to the amAsset table.

Note:

Before beginning setup, HP OpenView recommends that you back up your existing AssetCenter database. This will ensure that you can return to the previous state should you need to during integration.

Enabling the Reconciliation Module

To enable the reconciliation module in AssetCenter, which is not enabled out of box, first log into AssetCenter. Click **File/ Activate Modules** and then click **Reconciliation**.

AssetCenter 4.4 : Adding a RelNN link from the amWorkOrder table to the amPortfolio table

For an AssetCenter 4.4. database, a link in the amWorkOrder table has to be created in order to have the reconciliation work properly.

Note:

The AssetCenter 5.0 database already has this link.

- 1 To open the AssetCenter Database Administrator click Start -> Programs -> HP OpenView -> AssetCenter 4.4.x -> AssetCenter Database Administrator.
- 2 Click **File/ Open** and then click **Open existing database**.
- 3 Enter the appropriate AssetCenter Database Server, your login name and your password and click **OK**.
- 4 Select the amWorkOrder table, click **Database/ Add a link**.
- 5 In the **New link** window, complete the fields with the following information:
 - Link type: RelNN
 - Source Table: amWorkOrder
 - Source SQL Name: Items
 - Source Label: Items
 - Description: Items
 - Destination Table: Portfolio items (amPortfolio)
 - Destination SQL Name: WorkOrders

- Destination Label: WorkOrders
 - Destination Description: WorkOrders
- 6 Click **Create**.
 - 7 Add a page in order to display the newly created link: Click **Database/Add a page**.

Configuring Connect-It

Synchronizing data from AssetCenter to ServiceCenter

To synchronize data between AssetCenter and ServiceCenter, execute the Connect-It out of box scenarios as described in the following steps:

Configuring the Scenario

Open the Connect-It Scenario Builder tool.

Click **File -> Open** and browse to the Connect-It out of box AssetCenter-to-ServiceCenter scenario file, `acsc-ci.scn`. By default, the file location is:

ServiceCenter 6.1:

```
[Connect-It Installation Directory]\scenario\scac\sc61ac44\
```

Click **Open** to open the scenario.

Configure the Asset Management connector. For detailed instructions on how to configure the connector to communicate with your system, see *Appendix A*.

Configure the ServiceCenter connector. For detailed instructions on how to configure the connector to communicate with your system, see *Appendix A*.

Note:

You may receive errors in both the Connect-It log and the Document Log of the destination connector when you run this scenario. Such errors would likely be related to missing default event maps in ServiceCenter (see Appendix B), or related to discrepancies in the data between AssetCenter and ServiceCenter. For more information about correcting the event maps, consult the ServiceCenter documentation. These errors should not impact the functionality of the Active CMDB Solution and can be ignored for the purposes of testing this solution with default systems.

Synchronizing data from ServiceCenter to AssetCenter

To synchronize data from ServiceCenter to AssetCenter, execute the Connect-It out of box scenarios as described in the following steps:



Note:

The following paths and folders are given for a ServiceCenter 6.1 and AssetCenter 4.4 version. Please use the scenarios that correspond to your ServiceCenter and AssetCenter version.

Configuring the Scenario

Click **File/ Open** menu and browse to the Connect-It out of box ServiceCenter-to-AssetCenter scenario file, `scac-ci.scn`. By default, it is located in:

```
[Connect-It Installation Directory]\scenario\scac\sc61ac44\
```

Click **Open** to open the scenario.

Once the scenario is opened, configure the ServiceCenter connector. For detailed instructions on how to configure the connector to communicate with your system, see *Appendix A*.

Configure the Asset Management connector. For detailed instructions for configuring the connector to communicate with your system, see *Appendix A*.

Click to select the ServiceCenter connector. Click the **Produce Now** icon in the Connect-It toolbar to run the scenario. Click **Yes** when asked to save changes to the scenario.



Note:

You may receive errors in both the Connect-It log and the Document Log of the destination connector when you run this scenario. Such errors would likely be related to missing default event maps in ServiceCenter (see Appendix B), or related to discrepancies in the data between AssetCenter and ServiceCenter. For more information about correcting the event maps, consult the ServiceCenter documentation. These errors should not impact the functionality of the Active CMDB Solution and can be ignored for the purposes of testing this solution with default systems.

Adjusting the Active CMDB scenarios

Each of the Active CMDB scenarios must be configured to account for your company's specific ServiceCenter, AssetCenter, and ED/ PDI settings.

ServiceCenter-to-AssetCenter scenario (`scac_wo.scn`)

- 1 Open the Connect-It Scenario Builder Tool, click **File/ Open** and browse to the Connect-It out-of-the-box ServiceCenter to AssetCenter scenario file `scac-wo.scn`.

By default, the scenario is located in:

```
[Connect-It Installation Directory]\scenario\scac\sc61ac44\
```

- 2 Configure the ServiceCenter connector. For detailed instructions about configuring the connector to communicate with your system, see *Appendix A*.
- 3 Configure the Asset Management connector. For detailed instructions about configuring the connector to communicate with your system, see *Appendix A*.
- 4 Save the scenario.

Enterprise Discovery to AssetCenter scenario

- 1 Open the Connect-It Scenario Builder Tool, click **File/ Open** and browse to the Connect-It out-of-the-box Enterprise Discovery to AssetCenter scenario file `edac-reconc.scn`.

By default, the scenario is located in:

```
[Connect-It Installation Directory]\scenario\edc\ed2ac44\
```

or

```
[Connect-It Installation Directory]\scenario\edc\ed2ac50\
```

- 2 Configure the Enterprise Discovery connector:
 - 1 Right click the Enterprise Discovery connector and click to select **Configure connector**.
 - 2 The **Configure the connector** wizard opens. Click **Next** to open the **Select connection type** dialog box.
 - 3 Click to select the **MySQL (native)** connection and click **Next**.
 - 4 Complete the fields as follows:
 - Server: Specify the port used to connect to the server.
 - User: Specify the login. You are advised to use the admin login, which has all authorizations. The login used must have the read and write authorizations required; the login profile is defined in the Enterprise Discovery Web user interface.
 - Password: Specify the password for this login.
 - Database: Specify the name of the database used. The default name is Aggregate.
 - 5 Click **Finish**.
- 3 Configure the Asset Management connector. For detailed instructions about configuring the connector to communicate with your system, see *Appendix A*.
- 4 Save the scenario.

OpenView Desktop Inventory to AssetCenter scenario

- 1 Open the Connect-It Scenario Builder Tool. Click **File/ Open** and browse to the Connect-It out-of-the-box OpenView Desktop Inventory to AssetCenter scenario file.

By default, the scenario is located in:

```
[Connect-It Installation Directory]\scenario\pdi\pdi8ac44\
```

- 2 Configure the Asset Management connector. For detailed instructions about configuring the connector to communicate with your system, see *Appendix A*.
- 3 Configure the OpenView Desktop Inventory connector.
 - Right click the OpenView Desktop Inventory connector and click to select **Configure connector**.
 - The **Configure the connector** wizard opens. Click **Next** to open the **Select a connection protocol** dialog box.
 - Click to select the **Local/network files()** option and click **Next**.
 - In the **Select files or folders** panel, click to select the **Read folders** and **Read Sub-folders** options.

Set the default folder for the PDI connector to:

```
[Connect-It Installation Directory]\datakit\pdi\pdi8\
```

- If the default folder is not correct, modify it by clicking on the existing folder and then browsing to the appropriate location. Click **Finish** to close the wizard.
- 4 Save the scenario.

AssetCenter to ServiceCenter Scenario

- 1 Open the Connect-It Scenario Builder Tool. Click **File/ Open** and browse to the Connect-It out-of-the-box ServiceCenter to AssetCenter scenario file `acsc-incident.scn`.

By default, the scenario is located in:

```
[Connect-It Installation Directory]\scenario\scac\sc61ac44\
```

- 2 Configure the ServiceCenter connector. For detailed instructions on how to configure the connector to communicate with your system, see *Appendix A*.
- 3 Configure the Asset Management connector. For detailed instructions on how to configure the connector to communicate with your system, see *Appendix A*.
- 4 Save the scenario.

Testing the Active CMDB Packaged Solution

After you complete the steps to implement the Active CMDB Solution, verify the changes by executing a test. Use the following test case to check the new functionality.

 **Note:**

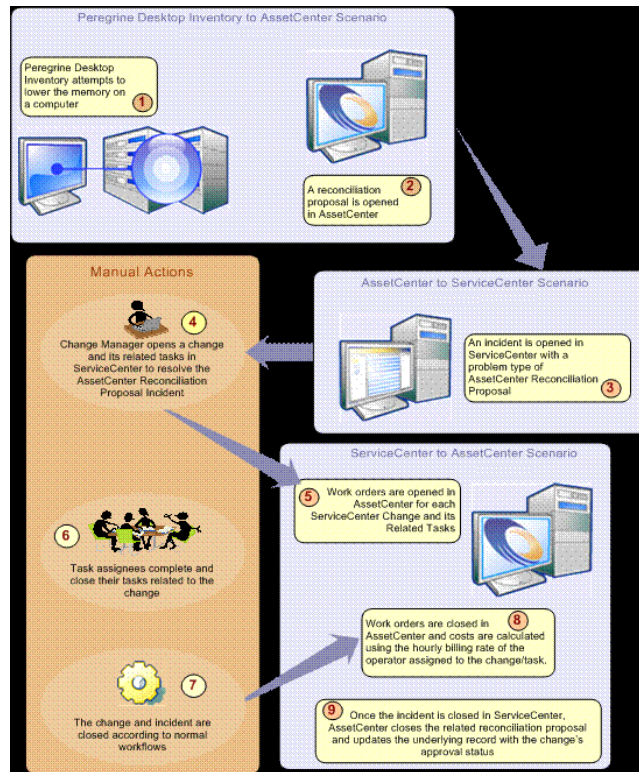
Although this solution test is based on a OpenView Desktop Inventory scenario, it is advised to use the Enterprise Discovery scenario for an integration with AssetCenter and ServiceCenter.

Solution Overview

The workflow depicted in Figure 1 below begins when a reconciliation proposal is created in AssetCenter. The scenario follows the entire process from opening of a reconciliation proposal to closing it after it is resolved in ServiceCenter. The following actions are tested.

- Create a reconciliation proposal in AssetCenter.
- Create an incident in ServiceCenter that is related to the reconciliation proposal.
- Create work orders in AssetCenter from a change and its tasks in ServiceCenter.
- Close the reconciliation proposal and updating of the underlying record in AssetCenter.

Figure 1.1. Solution Workflow



 **Note:**

The steps below will guide you through the test case described in the overview. Follow the directions as closely as possible so that you can thoroughly evaluate the configuration changes you have made to implement the Active CMDB solution.

Solution Test Case

Creating a Reconciliation Proposal in AssetCenter

- 1 Open the Connect-It Scenario Builder tool.
- 2 Click **File/ Open** and browse to the `pdiac.scn` scenario file located in:

`[Connect-It Installation Directory]\datakit\pdi\pdi8\`



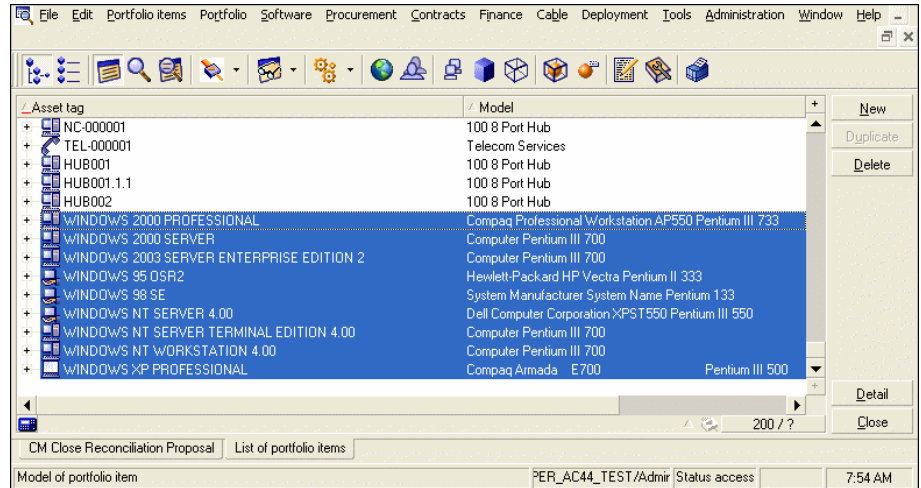
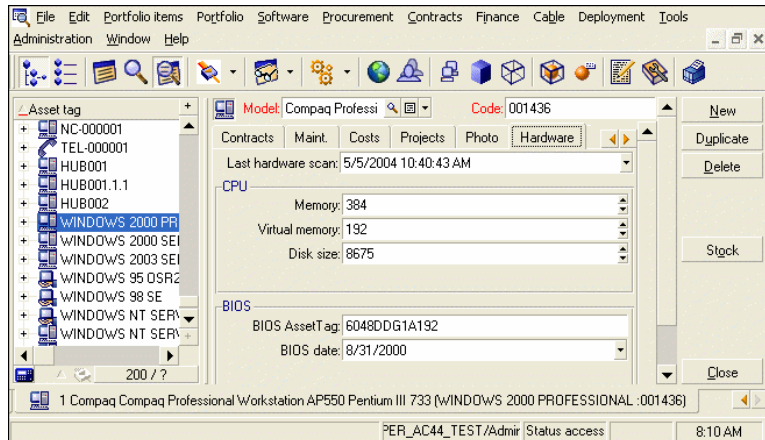
- 3 Run the scenario by clicking the **Produce Now**  icon in the Connect-It toolbar.
- 4 This scenario creates several new portfolio items in AssetCenter. To view these items, open AssetCenter. Click Start -> Programs -> HP OpenView -> AssetCenter 4.4.x -> OpenView AssetCenter.
- 5 Enter your AssetCenter database information and click **Open**.
- 6 Open the **Portfolio** table by clicking the icon  in the toolbar and clicking **OK** in the Portfolio Search window.
- 7 This table contains a list of the newly created portfolio items. Search or filter the Portfolio table for records with the asset tags.

Table 1.4. Portfolio Items Added to AssetCenter

<u>Asset Tag</u>	<u>Model</u>
WINDOWS 2000 PROFESSIONAL	Compaq Professional Workstation AP550 Pentium III 733
WINDOWS 2000 SERVER	Computer Pentium III 700
WINDOWS 2003 SERVER ENTERPRISE EDITION 2	Computer Pentium III 700
WINDOWS 95 OSA2	Hewlett Packard HP Vectra Pentium III 333
WINDOWS 98 SE	System Manufacturer System Name Pentium 133
WINDOWS NT SERVER 4.0	Dell Computer Corporation XPST550 Pentium III 550
WINDOWS NT SERVER TERMINAL EDITION 4.0	Computer Pentium III 700
WINDOWS NT WORKSTATION 4.0	Computer Pentium III 700



- Select the portfolio item with the Asset Tag of WINDOWS 2000 PROFESSIONAL. To increase its memory, click the Hardware tab and change the Memory field from 384 to 512 as shown below. Click **Modify** to save the value.

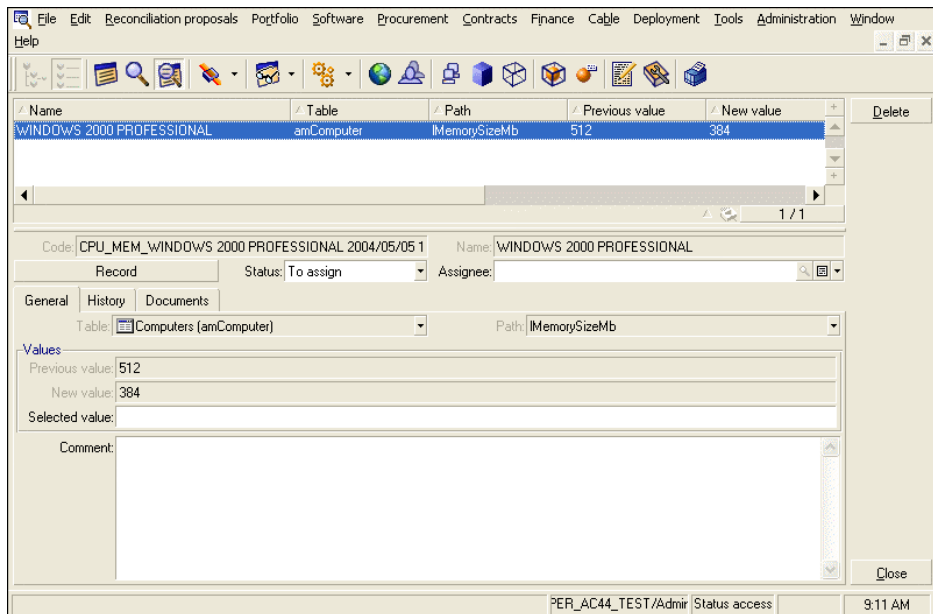




Note:

The next time the OpenView Desktop Inventory-to-AssetCenter scenario (pdiaac_cmdb.scn) runs, it generates a reconciliation proposal for this asset due to the different memory values. This change effectively simulates a hardware failure or removal.

- 9 Return to the Connect-It Scenario Builder Tool and open the OpenView Desktop Inventory-to-AssetCenter scenario file (pdiaac.scn).
- 10 To run the scenario, click the **Produce Now** icon in the Connect-It toolbar.
- 11 After the scenario runs, return to AssetCenter. Click *Portfolio -> Reconciliation Proposals* to open the list of reconciliation proposals (shown in the next step).
- 12 Verify that a new reconciliation proposal for the WINDOWS 2000 PROFESSIONAL asset has been added to this list.



Creating an Incident in ServiceCenter

- 1 Open the Connect-It Scenario Builder tool.
- 2 Click **File/ Open** and browse to the acsc-incident.scn scenario file located by default:

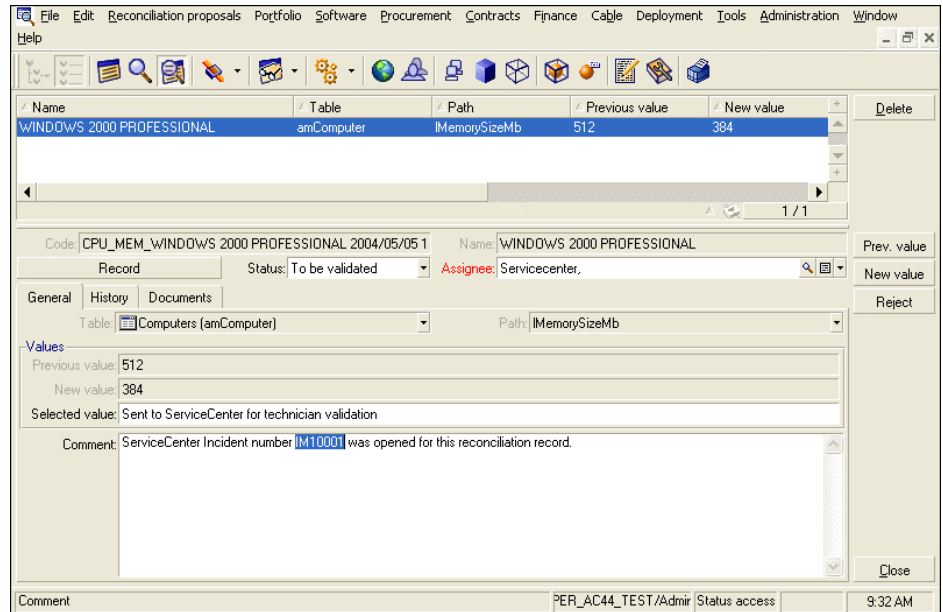
[Connect-It Installation Directory]\scenario\scac\sc61ac44\

- 3 Click the **Start All Schedulers** icon in the Connect-It toolbar to run the scenario. When the scenario has finished running, click the **Start All Schedulers** icon again to retrieve the incident number from ServiceCenter.

 **Note:**

The scenario must run at least twice to retrieve an incident number from ServiceCenter. Production may be slower when running the scenario for the first time.

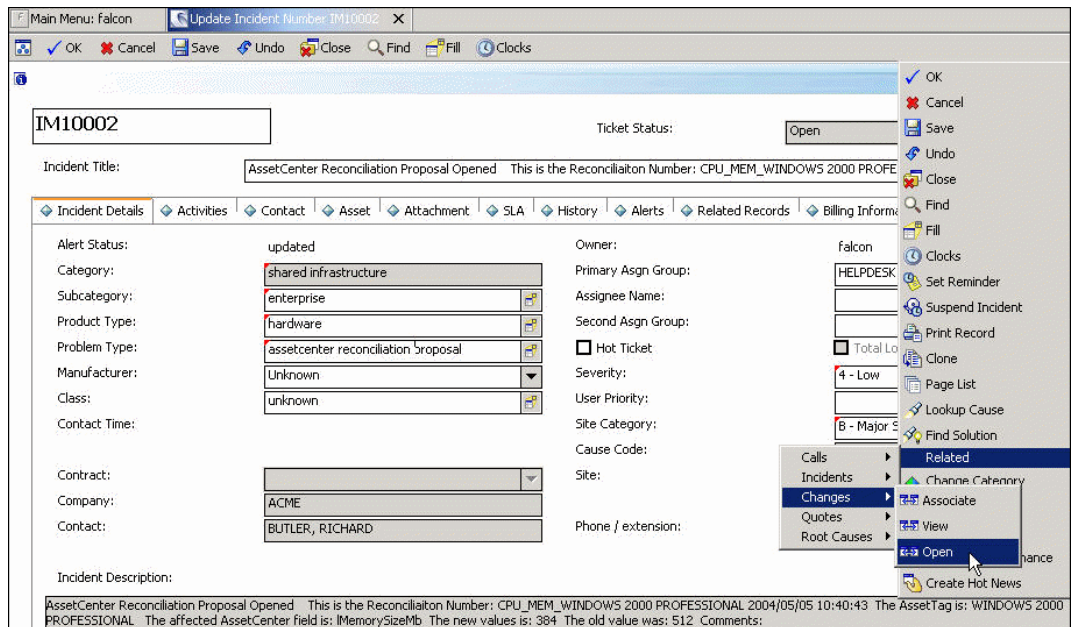
- 4 Return to AssetCenter and view the existing reconciliation proposals for the WINDOWS 2000 PROFESSIONAL asset shown below. If necessary, press F5 to refresh the table.
- 5 Verify that its status has changed to "To be validated" and that the Assignee field has been set to "ServiceCenter". The Selected Value should be "Sent to ServiceCenter for technician validation" and the comment field should read "ServiceCenter Incident number xxxxx was opened for this reconciliation record," where xxxxx is the id number of the ServiceCenter incident.
- 6 Record the incident number for use in step 8 (in this case IM10001).



- 7 Log in to ServiceCenter as a System Administrator. Click *Services -> Incident Management*. Click *Search IM Tickets* to open the Incident Management search screen as shown above.
- 8 Enter the incident number you recorded in step 6 into the Number field of the Incident Management Search screen. Click the **Search** option located in the toolbar to retrieve the incident.
- 9 Review the incident and verify that it was created correctly. Ensure that the Severity, Site Category, Contact, Activity Type, and Activity Description information is complete. Click **Save**.

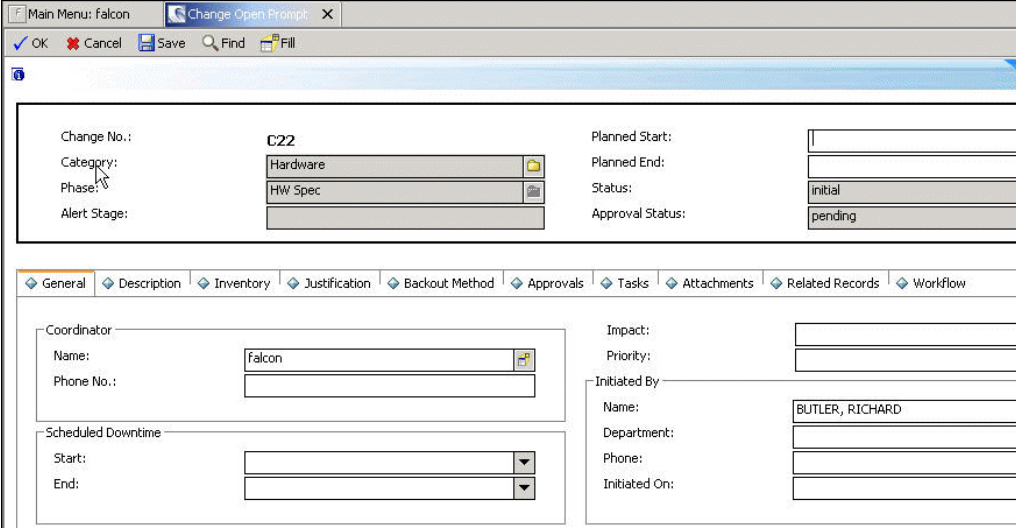
Opening a Change Request from the new Incident

- 1 While reviewing the incident, right click the screen to open the context menu and click *Related -> Changes -> Open* to open a new change request for this incident.



- 2 You are prompted to select a change category. Double-click *Hardware* to open a new Hardware Change Request form as depicted below.
- 3 Add information to the Coordinator and Initiated By fields.
- 4 Click the **Description** tab and add information for the Description of Change field.

- 5 Click on the **Associated CI** tab and verify that the Asset Information section contains the WINDOWS 2000 PROFESSIONAL asset data.
- 6 Click **Save** and record the change number for later use. Click **OK**.



The screenshot shows a 'Change Open Prompt' dialog box with the following fields and values:

- Change No.: C22
- Category: Hardware
- Phase: HW Spec
- Alert Stage: (empty)
- Planned Start: (empty)
- Planned End: (empty)
- Status: initial
- Approval Status: pending

The 'General' tab is selected, showing:

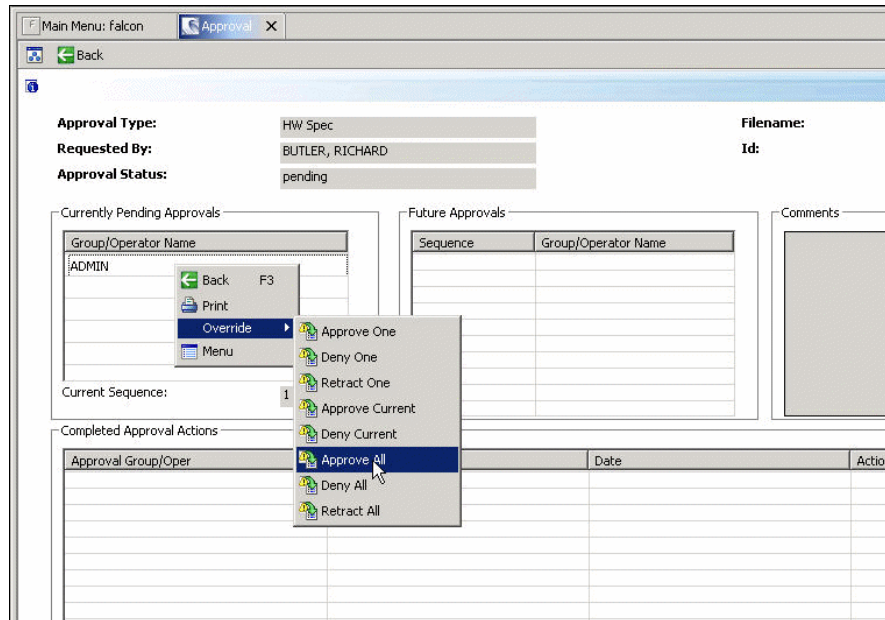
- Coordinator Name: Falcon
- Phone No.: (empty)
- Scheduled Downtime: Start (empty), End (empty)
- Impact: (empty)
- Priority: (empty)
- Initiated By: BUTLER, RICHARD
- Department: (empty)
- Phone: (empty)
- Initiated On: (empty)

- 7 After closing the change, you should now be back in the Update Incident form. Click the **Related Records** tab and click the **Changes** tab to ensure that the change you just created is now listed. Double-click the **Change Request** to reopen it.

Approving the Change Request

- 1 With the Change Request open, click the **Approvals** tab. There should be one approval action listed. It should have a type of HW Spec with a status of pending.
- 2 Double click the *HW Spec* entry to open the Approval Record as shown below.

- 3 Right-click inside the approval record and click *Override -> Approval All*. You are returned to the Change Request. Click **Save**.



Opening a Task to implement the Change Request

- 1 Click the **Tasks** tab. Right click and click Open New Task. Double-click the **HW Maintain** category.
- 2 The new task form opens. In the name field of the Assigned To group enter *BOB.HELPDESK*.



Note:

BOB.HELPDESK has a billing rate defined in his out-of-box operator record. If you choose a different operator to whom to assign this task, ensure that the operator has a defined billing rate so that the cost can be calculated for the corresponding work order in AssetCenter.

- 3 Enter a start and end value to complete the Scheduled Downtime section.
- 4 Record the task number for future validation.
- 5 Click **Save**.

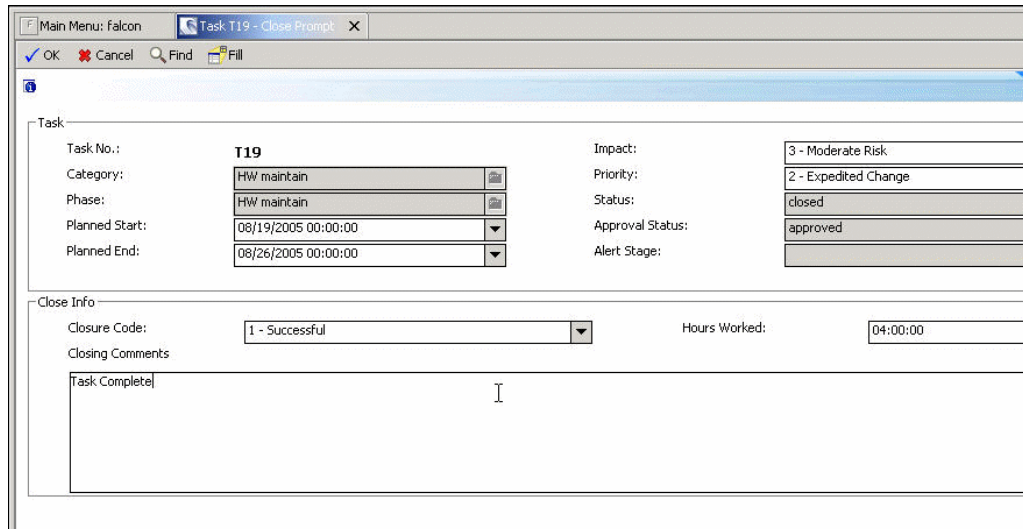
The task has now been created. At this point the operator performs the work involved to resolve the task, and then returns to the task screen to close the task.

Closing the Task, Change Request, and Incident in ServiceCenter

- 1 With the task opened in ServiceCenter, click **Close** from the toolbar.
- 2 Enter the closing information as shown below:

Note:

Be sure to enter the Hours Worked information in the hh:mm:ss format. This ensures that AssetCenter will be updated with the proper cost information.



Task No.:	T19	Impact:	3 - Moderate Risk
Category:	HW maintain	Priority:	2 - Expedited Change
Phase:	HW maintain	Status:	closed
Planned Start:	08/19/2005 00:00:00	Approval Status:	approved
Planned End:	08/26/2005 00:00:00	Alert Stage:	
Closure Code:	1 - Successful	Hours Worked:	04:00:00
Closing Comments:	Task Complete		

- 3 Click **OK** to return to the Change record.
- 4 Click the **Tasks** tab and verify that the task is no longer in the list.
- 5 Click **Save** and then **Close** from the toolbar of your Change record.
- 6 Enter the closing information. (Make sure to use the hh:mm:ss format for the Hours Worked field).
- 7 Click **OK** to close the Change.
- 8 You are automatically returned to the related incident. Click the **Activities** tab, click to select value for the Corrective Action Type, and enter a description for Corrective Action.
- 9 Click the **Close** icon located in the toolbar.

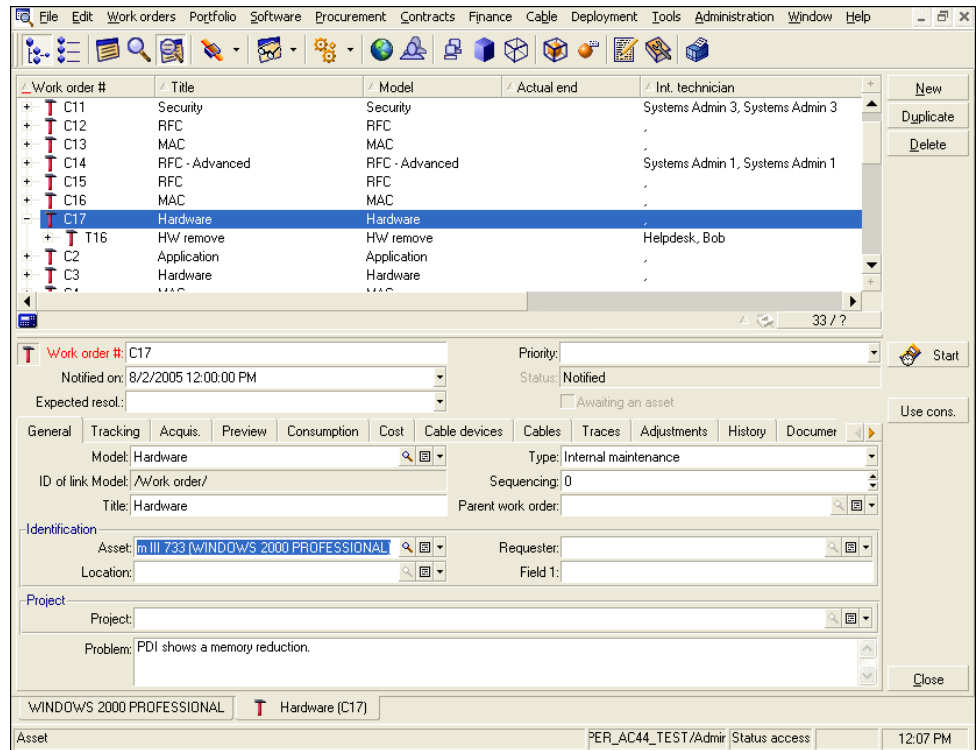
- 10 You are sent to the **Resolution** tab (shown below). Click to select **Permanent** in the Fix Type field.
- 11 Click to select **Fault** in the Closure Code drop-down.
- 12 Type *Removed bad memory stick* in the Solution field.
- 13 Click **Save**. An "Outage Confirmation" screen will appear. After entering an Outage Start Time and an Outage End Time, click **OK**.

The screenshot shows the AssetCenter Resolution tab interface. The window title is "Update Incident Number: IM10002". The Ticket Status is "Resolved". The Incident Title is "AssetCenter Reconciliation Proposal Opened This is the Reconciliation Number: CPU_MEM_WINDOWS 2000 PROFES". The Fix Type is set to "Permanent". The Solution field contains "Removed bad memory stick". The Closure Code is set to "Fault".

Creating the work orders in AssetCenter

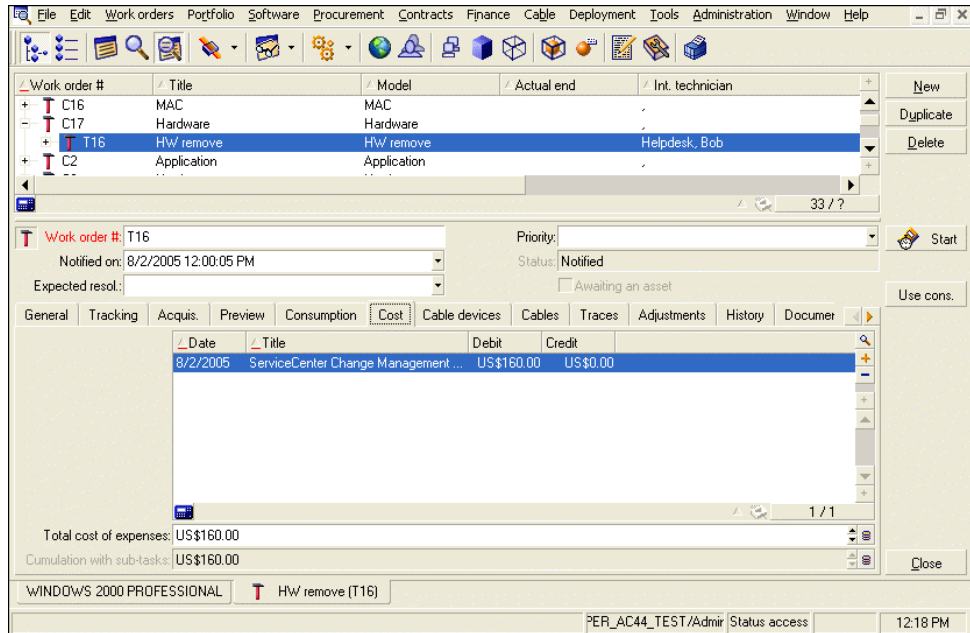
- 1 Return to the Connect-It Scenario Builder Tool and open the ServiceCenter-to-AssetCenter scenario file (*scac-wo.scn*).
- 2 Click the ServiceCenter connector and run the scenario by clicking the **Produce Now** icon in the Connect-It toolbar.
- 3 After the scenario has completed, return to AssetCenter. Click the icon in the AssetCenter toolbar to open the Work Orders table. Click Finish in the Filter Work Orders wizard.
- 4 Switch to tree-view by clicking the icon from the toolbar.
- 5 Verify that the scenario ran correctly by locating the work order for the change you previously opened and closed in ServiceCenter. It should be located as a child object to the change work order. The figure below shows an example for change C17 with a related task of T17.

- 6 Verify that the Asset field contains the WINDOWS 2000 PROFESSIONAL information that was entered as part of the original incident.




- 7 Locate the work order for the closed task by expanding the change work order item. Click to select the task work order to open its related information.

- Click the **Cost** tab to view the expense line (Figure 21). Verify that the Total Cost of Expenses was calculated correctly based on the information entered in ServiceCenter.



Closing the reconciliation proposal and updating the underlying record

- Click *Portfolio -> Reconciliation Proposals* to open the reconciliation proposal list.
- Locate the reconciliation proposal in the list that is related to the ServiceCenter incident you just closed.
- Verify that the status of the reconciliation proposal is set to "Validated" and the memory value in "Selected Value" is set correctly (384), and that the buttons on the right for Use New Value, etc. have been removed. Important: AssetCenter sets the Selected Value to the new memory setting if the change in ServiceCenter was approved. If the change was denied, it sets the Selected Value to Reject the Reconciliation Proposal. If the incident was closed in ServiceCenter without ever opening a change record, the Selected Value is set to the old memory value.
- Click Record and then click the **Hardware** tab. Verify that the memory has not been changed in the underlying record. This value is not updated until the next run of the OpenView Desktop Inventory-to-AssetCenter

- scenario (pdiaac.scn). Click Close to return to the Reconciliation Proposal table.
- 5 Return to the Connect-It Scenario Builder Tool and open the OpenView Desktop Inventory-to-AssetCenter scenario file (pdiaac.scn).
 - 6 To run the scenario, click the **Produce Now**  icon in the Connect-It toolbar. Re-running this scenario updates the underlying record associated with the validated Reconciliation Proposal.
 - 7 Return to AssetCenter, locate the Reconciliation Proposal record, click *Record*, and check the **Hardware** tab again to verify that the memory has been changed to 384.
 - 8 You have now completed the test case of the Active CMDB Packaged Solution. Before implementing this package in production, conduct additional testing that is appropriate for your company and its requirements.

Scheduling the scenarios

After you have thoroughly tested the packaged scenarios in your development environment, you schedule them for periodic execution on your production system. Hewlett-Packard recommends that you schedule them as frequently as necessary to maintain timely updates to your data without adversely affecting system performance.

Performance Considerations when Scheduling Updates

The OpenView Desktop Inventory (pdiaac.scn) scenario moves data contained in newly discovered inventory files from OpenView Desktop Inventory to AssetCenter. Importing a large number of new inventory files during normal business hours could significantly slow down AssetCenter's performance. Taking this into consideration, Hewlett-Packard recommends that all scenarios be scheduled to run 4 to 5 times a day to ensure timely updates to your AssetCenter and ServiceCenter systems.

Conclusion

Information in a database helps support the day-to-day running of the organization. Accurate and reliable information is the key to operational success. Information lets you monitor and control individual processes that deliver services and manage assets. You use an Active CMDB to:

Reduce the amount of time spent opening, updating and closing incidents, problems and changes by providing a holistic, up-to-date view of the infrastructure. This avoids the need to investigate the assets involved in service delivery, and the relationships between them, for each and every issue or change.

Standardize processes and the data recorded throughout the organization to improve the accuracy of the information in the CMDB. This ensures that management and process decisions are based on accurate, consistent quality information.

Adhere to the ITIL concept of continuous improvement, which ensures efficiency, optimizes value, and aligns costs with benefits delivered to customers. This can be accomplished only by defining the key performance indicators that are important to the individual process, and by measuring those KPIs with accurate data from our CMDB.

Hewlett-Packard customers have been most successful when taking a phased approach to rolling out ITIL processes and services, and by populating the CMDB only with the data required to support those processes. This is a more pragmatic approach than building a CMDB for everything and then rolling out processes.

The Hewlett-Packard Active CMDB solution makes the ITIL concept of a Configuration Management Database practical by delivering the basic ITIL requirements for maintaining Configuration Items and their relationships.

Appendix A - Configuring Asset Management and ServiceCenter connectors

Asset Management and ServiceCenter connectors must be configured to communicate with the systems in your environment. The following instructions explain how to configure each connector.

Configuring the Asset Management Connector

- 1 Right click the Asset Management connector and click **Configure connector**.
- 2 The Configure the connector wizard opens. Click **Next** to go to the **Define connection parameters** panel.
- 3 Enter the appropriate AssetCenter Database Server, your login name and your password.
- 4 Click **Test** to verify your settings. After a successful test, click **Close**. Wait several seconds for AssetCenter to close the connection to the database.
- 5 On the next page of the wizard, select the **Expose the foreign keys of the tables** option.
- 6 Then click **Finish** to close the wizard.

Configuring the ServiceCenter Connector

- 1 Right click on the ServiceCenter connector and select **Configure connector**.
- 2 The Configure the connector wizard will open. Click **Next** to go to the **Define connection parameters** panel.
- 3 Enter the appropriate ServiceCenter server, your login name, and your password.
- 4 Click the **Test** button to verify your settings. After a successful test, click **Close** and then click **Finish** to close the wizard.

Appendix B - Connect-It log messages

When running the Connect-It scenarios, you may be alerted to errors as the scenarios run. These errors will vary depending on the tailoring that has been done on your ServiceCenter system. For this reason, corrections were not included with the package. The messages have however, been included in this Appendix so that you can determine whether or not they can be ignored.

- Processing event 'CTSRQOPN'...
Description: There is already an event with the same name 'CTSRQOPN' but a different sequence number. This event will be ignored because it cannot be processed.
Explanation: The event has more than one sequence associated to it in ServiceCenter. This is just an informational message and has no effect on the processing of the CMDB scenarios.
- Processing event 'ICMExample'...
Description: The table or linked table 'joinexample' associated with structure-collection type element 'scans' of the event 'ICMexample' not found.
Explanation: The ServiceCenter out of box example event map for ICM device types is missing the referenced join table. There is no effect on processing of CMDB scenarios.
- Processing event 'SALESQUOTE'...
Description: No record in the 'event.map' table associated with event 'SALESQUOTE'.
Explanation: There is an event registration with no associated map records. There is no effect on processing of CMDB scenarios.
- Processing event 'approval'
Description: Event 'approval' has a name identical to that of a table. This event will be ignored because it cannot be processed.

Explanation There is an event registration that has the same name as a DBDICT. There is no effect on processing of CMDB scenarios.

- Processing event 'nmpmc'...

Description: Invalid event map 'nm problem close' for event 'nmpmc'. No records in ServiceCenter match the filter condition 'evmap=\"nm problem close\" and evtype=\"output\"'

Explanation: No event map or improper filter condition based upon event registration properties. There is no effect on processing of CMDB scenarios.