

HP Client Automation

Starter and Standard Editions

for Windows® operating systems

Software Version: 7.90

Migration Guide

Document Release Date: May 2010

Software Release Date: May 2010



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notices

© Copyright 1993-2010 Hewlett-Packard Development Company, L.P.

Trademark Notices

Linux is a registered trademark of Linus Torvalds.

Microsoft®, Windows®, and Windows® XP are U.S. registered trademarks of Microsoft Corporation.

OpenLDAP is a registered trademark of the OpenLDAP Foundation.

Acknowledgements

PREBOOT EXECUTION ENVIRONMENT (PXE) SERVER
Copyright © 1996-1999 Intel Corporation.

TFTP SERVER
Copyright © 1983, 1993
The Regents of the University of California.

OpenLDAP
Copyright 1999-2001 The OpenLDAP Foundation, Redwood City, California, USA.
Portions Copyright © 1992-1996 Regents of the University of Michigan.

OpenSSL License
Copyright © 1998-2001 The OpenSSLProject.

Original SSLeay License
Copyright © 1995-1998 Eric Young (eay@cryptsoft.com)

DHTML Calendar
Copyright Mihai Bazon, 2002, 2003

Documentation Updates

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

- Software Version number, which indicates the software version
- Document release date, which changes each time the document is updated
- Software release date, which indicates the release date of this version of the software

To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

<http://h20230.www2.hp.com/selfsolve/manuals>

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Table 1 indicates changes made to this document for Version 7.90.

Table 1 Document Changes for this Version

Chapter	Version	Change
All	7.80	Rebranded for 7.80.
All	7.90	Rebranded for 7.90.

Support

You can visit the HP Software support web site at:

www.hp.com/go/hpsoftwaresupport

This Web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

Contents

- 1 Introduction 6
- 2 System Requirements..... 7
- 3 Upgrading HPCA Server 8
 - Step 1: Backup the Existing Installation 8
 - Step 2: Upgrade to the Latest Version 9
 - Step 3: Restore HPCA Data 10
 - Step 4: Migrate the HPCA SQL Database 11
 - Step 5: Log in to the Core Console..... 12
- 4 Upgrading Deployed Components..... 13
 - Upgrading the HPCA Agent 13
 - Upgrading the HPCA Administrator 14
 - Upgrading Infrastructure Servers..... 15
 - Upgrading Satellite Servers..... 15
 - Step 1: Backup the Existing Installation 15
 - Step 2: Upgrade to the Latest Version 16
 - Step 3: Restore HPCA Data..... 16
 - Step 4: Synchronize Satellite..... 17
- A SQL Database Tables that Must be Migrated 18

1 Introduction

This document explains how to upgrade your HP Client Automation (HPCA) Starter or Standard environment to HPCA version 7.90 while preserving your data.

- ▶ Beginning with HP Client Automation 7.50, HPCA Starter and Standard (HPCAS) are based on a new Core and Satellite model. Previous versions of HPCAS should be migrated to the latest version of HPCA Core and Satellite.

To upgrade an HPCA Enterprise Edition environment, refer to the *HPCA Enterprise Edition Core and Satellite Migration Guide* for details.

Use these instructions to upgrade the following products to the latest version of HPCA Core and Satellite:

- HPCA Standard or Starter Edition version 7.20
- HPCA Standard or Starter Edition version 7.50
- HPCA Standard or Starter Edition version 7.80


All versions earlier than version 7.20 must first be upgraded to HPCAS 7.20 or HPCAS 7.50 before migrating to 7.90. Versions 2.0, 2.1, and 2.11 can be upgraded to version 7.20. Version 2.11 can also be upgraded to version 7.50.

2 System Requirements

HP Client Automation (HPCA) Standard and Starter require SQL Server 2005 or SQL Server 2008 with HPCA version 7.90.

If you are using an older version of SQL Server, be sure to upgrade your database to either SQL Server 2005 or SQL Server 2008 before you begin the HPCA migration process described in this document. Refer to your SQL Server documentation for instructions.

3 Upgrading HPCA Server

-  Be sure that your environment meets the [System Requirements](#) described on page 7 before you begin the HPCA migration process.


The upgrade process for the HPCA Server includes four steps:


[Step 1: Backup the Existing Installation](#)


[Step 2: Upgrade to the Latest Version](#)

[Step 3: Restore HPCA Data](#)

[Step 4: Migrate the HPCA SQL Database](#)

-  During migration, the admin password is reset to *secret*. Be sure to change this after you have completed the migration process. Any users that were created in HPCA version 7.20 will not be able log in to the HPCA console after the migration. You must first log in as admin and grant role access to these users.

-  It is important to prevent agent and satellite connections to the Core during the upgrade process. Such connections can result in duplicate device entries and other problems. Ensure that access to the Core's Web Server and Configuration Server ports (3466 and 3464, respectively by default) is blocked until the upgrade and restoration of the Core is complete.

-  Any migration process is, by nature, destructive. Be absolutely sure that your environment is fully backed up before you begin.

Step 1: Backup the Existing Installation

Backup the existing HPCA installation and database to prepare for the upgrade.

To backup the existing HPCA installation

- 1 From the HPCA media, copy the `migrate` folder to a temporary location on the HPCA Core Server (for example, `C:\migrate`).

This folder must be copied—the migration scripts cannot be run directly from the HPCA media.

- 2 From the newly copied `migrate` folder, run **`hpcabackup.cmd`** followed by the drive letter on which you want to store the backup files. Be sure to specify a drive with a large amount of free space to contain the backup. The script will detect the space available when it runs and estimate the space needed. This is a personality extraction utility and the space required is roughly as much as the currently installed size.


To store the files on C:, for example, type:


```
hpcabackup C
```

The currently installed version is detected and, if adequate space is available, the upgrade process begins to store the backup files in `C:\HPCABackup\HPCABackup`.

When the process completes, you will see the following message:

```
All components have been successfully backed up to C:\HPCABackup
```

 If the backup script is run again, a new backup folder is created. The C:\HPCABackup\HPCABackup folder is renamed to a timestamp folder (for example, C:\HPCABackup\HPCABackup-1263495101) and a new C:\HPCABackup\HPCABackup folder is created.

 Do *not* move the HPCABackup folder to another drive. If you move this folder, the restore operation will not work.

3 View the `hpca-backup-report.html` file to determine what occurred during the backup process.


It is important to review all warning messages in this file, as these may indicate the need for manual intervention to ensure that settings are migrated properly.


4 As a standard precaution, also backup your existing SQL Server database before proceeding with the migration. Review the SQL Server documentation for details.

Once you have completed [Step 1: Backup the Existing Installation](#), all of your HPCA data has been extracted to the backup folder, and you are now ready to proceed to [Step 2: Upgrade to the Latest Version](#).

Step 2: Upgrade to the Latest Version

Run the latest HPCA Core MSI installer to upgrade to the latest version.


 The upgrade process will update the existing HPCA database. You do not need to remove the existing database.

 The DSN information used to connect to MS SQL Server databases must be the same as that used in the previous installation for the migration to work correctly.


[To upgrade to the latest version](#)

1 Run the latest HPCA Core installer.

When the MSI runs, it will detect an upgrade and prompt to confirm you have read the migration guide and completed the prerequisites steps (above) before continuing.

 Failure to complete the prerequisite steps above before running the upgrade will result in data loss.

2 Click **OK**.

 The installer will offer the option to configure Windows Firewall to enable access to the Web Server and Configuration Server ports (3466 and 3464, respectively). You should uncheck this option during the install and then manually configure your firewall to allow communication through these ports after the upgrade and restoration of the Core is complete.

The existing installation is removed, and the new version is installed. The First Time Setup Wizard opens in a browser window.

- 3 Close this browser window.



Do *not* run the First Time Setup Wizard. Your settings are automatically applied during the upgrade process.

- 4 If you are prompted to reboot the server, click **Yes** to reboot.



If you do not reboot when prompted, files marked for deletion will not be handled properly. It is imperative that you reboot immediately when prompted before continuing any further.



The HPCA Administrator is automatically installed with the 7.90 Core Server. If an existing HPCA Administrator was installed, it will be upgraded to the latest version. To upgrade an HPCA Administrator on another device, refer to [Upgrading Deployed Components](#) on page 13 in this guide.

Step 3: Restore HPCA Data

After you have upgraded to the latest version, restore your existing data into the new environment.

To restore HPCA data

- 1 From the `migrate` folder, run **hpcarestore.cmd** followed by the drive letter on which you stored the backup files in Step 1, above. For example, to restore the files from C:, type:

hpcarestore C

A preview report is generated.

- 2 Review the preview report.
- 3 After reviewing the preview report, type **y** to continue with the restore operation.

The data stored in the `HPCABackup` folder is migrated into the new HPCA environment.

If a failure occurs during restore, a subsequent restore will attempt to start where it left off. To perform a fresh restore, you must remove the `HPCA-restore*` files from the `HPCABackup` folder.

- 4 View the `hpa-restore-report.html` file to determine what occurred during the restore process.

It is important to review all warning messages that occur, as these may indicate the need for manual intervention to ensure that settings are properly migrated.

It is common to receive warnings during execution of the “rms” component when migrating from versions 7.20 or 7.50 – the problems indicated by these warnings will be corrected when you run `sqlmigrate` in [Step 4: Migrate the HPCA SQL Database](#).

Step 4: Migrate the HPCA SQL Database



This step is *not* required when migrating from version 7.80. It is only required when migrating from versions 7.20 or 7.50.



This step is destructive. It should only be performed by an experienced HPCA database administrator.

After you have upgraded your HPCA Core Server to the latest version and restored your data, you must migrate the HPCA database. This involves the following steps:

- Export the contents of specific database tables
- Drop these tables
- Re-create these tables
- Import the data into the updated table structure

You can use the `sqlmigrate` script to perform these steps.

To migrate the HPCA database

- 1 Stop the HPCA Core service.
- 2 In your local copy of the `migrate` folder, change to the `sql` folder. For example: `cd C:\migrate\sql`
- 3 Run the following command:

```
sqlmigrate DriveLetter
```

Here, *DriveLetter* is the drive where the script will store exported data and any error information generated during the subsequent import. Data is stored here:

```
DriveLetter:\HPCABackup\SQLMigrate
```



Be sure that ample free space is available on this drive



For large databases, this migration step can take many hours.



If the `sqlmigrate` script is run again, a new data folder is created:

```
DriveLetter:\HPCABackup\SQLMigrate-timestamp
```

where *timestamp* indicates when the data folder was created.

- 4 Examine the contents of the `C:\HPCABackup\SQLMigrate\errors` folder to ensure that the migration was successful. If errors occurred during the migration of a particular table, the following files are created in this folder.
 - `tablename.log` contains the insert statement and any errors that occurred
 - `tablename.tsv` contains the rows (if any) that failed to import
 - `tablename.sql` is a SQL Script of any insert statements that failedwhere *tablename* corresponds to the name of the pertinent database table.

Examine these files to determine if you need to perform any manual restoration of data.

See [Appendix A: SQL Database Tables that Must be Migrated](#) on page 18 for a list of the tables migrated by the `sqlmigrate` script.

- 5 Restart the HPCA Core service.

Step 5: Log in to the Core Console

- ▶ After your data is restored, you should log in to the console and start any dynamic group refresh jobs. This will make certain the groups are populated with the correct devices before the scheduled jobs run.

To log in to the updated console, use a browser and go to:

```
http://HPCA_host:3466
```

Where *HPCA_host* is the server's host name.

- ▶ Note that this URL is different than the URL used in some previous versions (for example, `http://HPCA_host:3480/ccm`).

You can now enable remote access to the Core's Web Server and Configuration Server ports.

After the Core has been upgraded, you will need to upgrade any deployed components. See [Upgrading Deployed Components](#) on page 13 for details.

4 Upgrading Deployed Components

Use these instructions to upgrade HPCA Starter and Standard components that were deployed to devices in your environment.

The following sections describe how to upgrade Starter and Standard deployed components:

- [Upgrading the HPCA Agent](#) on page 13
 - [Upgrading the HPCA Administrator](#) on page 14
 - [Upgrading Infrastructure Servers](#) on page 15 (for upgrading from releases earlier than 7.80)
 - [Upgrading Satellite Servers](#) on page 15 (for upgrading from release 7.80)
- Upgrading deployed components requires that you first upgrade the HPCA Server, as described in [Upgrading HPCA Server](#) on page 8.
- If you are upgrading from 7.20 and were using Settings Migration Manager to back up user settings, you will now need to use Personality Backup and Restore to perform new backups of user settings. Backups created with Personality Backup and Restore in version 7.50 or later are automatically migrated as part of the Core migration. Refer to the *HPCA Core User Guide* for additional information on creating and restoring backups of user settings with Personality Backup and Restore.

Upgrading the HPCA Agent

To upgrade the HPCA Agent

- 1 Use the Agent Deployment Wizard to deploy the latest HPCA Agent to all managed devices. The new HPCA Agent installation will upgrade the existing agent to the latest version.
- 2 Use the Reporting tab to verify that the HPCA Agent was upgraded. The version 7.90 HPCA Server deploys a version 7.90.x Agent (version 7.80 deployed a version 7.80.x agent, version 7.50 deployed a version 7.50.x agent, version 7.20 deployed a version 7.20.x Agent, and version 2.11 deployed a version 5.11.x agent).

A filter is available in **Search Options** → **Data Filters** → **Inventory Management Filters** → **Operational Filters** → **HPCA Agent Version**

If you upgraded an HPCA Agent without using the HPCA console to deploy the latest version, you will need to enable self-maintenance for upgraded HPCA Agents to receive the latest `rma.tkd`.

To enable self-maintenance for upgraded agents

- 1 Create the following directory:

```
InstallDir\Media\extended_infrastructure\management_agent\rma
```

In this case, *InstallDir* is the location where you originally installed HPCA. By default, this is `C:\Program Files\Hewlett-Packard\HPCA`.

- 2 Copy the following file into the directory that you just created:

```
InstallDir\Media\client\default\win32\rma\rma.tkd
```

- 3 Obtain the build number for `rma.tkd` by running the following command:

```
C:\Program Files\Hewlett-Packard\HPCA\ManagementPortal\nvdkit-hpca-rmp.exe version rma.tkd
```

- 4 Create a text file called `selfmaintenance` with the following parameters and values:

```
criticalRMABuildNum    rma_build
expectedRMABuildNum    rma_build
proactiveupgrade       0
```

where *rma_build* is the build number that you found in step 3.



Do not use tab characters to separate parameters and values. Also, the filename should **not** contain an extension (for example `.txt`).

- 5 Place the `selfmaintenance` file in the following HPCA installation directory:

```
InstallDir\Media\extended_infrastructure\management_agent\
```

Upgrading the HPCA Administrator

To upgrade the HPCA Administrator

The HPCA Administrator is automatically installed along with the 7.90 Core server. If an existing Administrator was present during the Core installation, it will be updated during the installation process.

To upgrade an HPCA Administrator installed to a device other than the Core, follow the instructions below.

- 1 Remove the existing Administrator:
 - If the Administrator was deployed from the console, use the Software Removal Wizard. Prior to version 7.90, the name of the Administrator was `CCM_PUBLISHER`.
 - If you installed the Administrator manually, use Add/Remove Programs.
- 2 Use the Software Deployment Wizard or the `HPCAE-Admin.msi` on the HPCA media to deploy the latest Administrator. As of version 7.90, the name of the Administrator service is `HPCA_ADMINTOOLS`.



After upgrading all of the HPCA Administrator installs in your environment, you can delete the `CCM_PUBLISHER` service in the HPCA Console. To delete a software service in the console, go to **Operations > Software Management > Software Library**.



Do not deploy the legacy `CCM_PUBLISHER` service in a 7.90 environment.

Upgrading Infrastructure Servers

To upgrade Infrastructure Servers

- ▶ Starting with HPCA version 7.80, Infrastructure Servers are called Satellite Servers. In order to upgrade to the new Satellite Server component, you must first remove the existing Infrastructure Server Service.
 - ▶ Satellite servers require a minimum of 512 MB of system memory. Prior to deploying a Satellite to a device, ensure that it meets this minimum requirement.
- 1 Remove any existing deployed Infrastructure Server Services:
 - a Under **Configuration** → **Infrastructure Management** → **Satellite Management**, select all servers with the Legacy Proxy server type.
 - b Click **Remove the Satellite Server**.
 - 2 Deploy the new Satellite Server component:
 - a Select the Satellite Servers in the list and deploy the new Satellite Server component.
 - b Click **Deploy the Satellite Server** component.

The new Satellite Server component is installed, enabling any new features available with the latest release.

- ▶ After migration, you must create Subnet Locations and assign them to Satellite Servers. This enables managed devices to connect to the appropriate Satellite Server. Refer to the *HPCA Core User Guide* for information about creating and assigning Subnet Locations.

The latest HPCA Agent must be deployed before you can use the **Auto-create locations based on Inventory Data** option. If the latest agent is not deployed, subnet values may not be detected, and Subnet Locations will not be created.

Upgrading Satellite Servers

Use this section only if you are upgrading from a 7.80 Satellite Server.

Step 1: Backup the Existing Installation

Backup the existing HPCA Satellite installation to prepare for the upgrade.

To backup the existing HPCA Satellite installation

- 1 From the HPCA media, copy the `migrate` folder to a temporary location on the HPCA Satellite Server (for example, `C:\migrate`).

This folder must be copied—the migration scripts cannot be run directly from the HPCA media.
- 2 From the newly copied `migrate` folder, run **hpcabackup.cmd** followed by the drive letter on which you want to store the backup files. Be sure to specify a drive with a large amount of free space to contain the backup.


To store the files on C:, for example, type:


hpcabackup C

The currently installed version is detected and, if adequate space is available, the upgrade process begins to store the backup files in C:\HPCABackup\HPCABackup

When the process completes, you will see the following message:

```
All components have been successfully backed up to C:\HPCABackup
```

 If the backup script is run again, a new backup folder is created. The C:\HPCABackup\HPCABackup folder is renamed to a timestamp folder (for example, C:\HPCABackup\HPCABackup-1263495101) and a new C:\HPCABackup\HPCABackup folder is created.

 Do *not* move the HPCABackup folder to another drive. If you move this folder, the restore operation will not work.

- 3 View the hpcabackup-report.html file to determine what occurred during the backup process.

It is important to review all warning messages in this file, as these may indicate the need for manual intervention to ensure that settings are migrated properly.

Step 2: Upgrade to the Latest Version

Run the latest HPCA Satellite MSI installer to upgrade to the latest version.

To upgrade to the latest version

- 1 Run the latest HPCA Satellite installer.

When the MSI runs, it will detect an upgrade and prompt to confirm you have read the migration guide and completed the prerequisites steps (above) before continuing.



Failure to complete the prerequisite steps above before running the upgrade will result in data loss.

- 2 Click **OK**.

The existing installation is removed, and the new version is installed. The First Time Setup Wizard opens in a browser window.

- 3 Close this browser window.



DO NOT run the First Time Setup Wizard. Your settings are automatically applied during the upgrade process.

- 4 If you are prompted to reboot the server, click **Yes** to reboot.

Step 3: Restore HPCA Data

After you have upgraded to the latest version of the Satellite, restore your existing data into the new environment.

To restore HPCA data

- 1 From the `migrate` folder, run **hpcarestore.cmd** followed by the drive letter on which you stored the backup files in Step 1, above. For example, to restore the files from C:, type:

hpcarestore C

The data stored in the `HPCABackup` folder is migrated into the new HPCA environment.

If a failure occurs during restore, a subsequent restore will attempt to start where it left off. To perform a fresh restore, you must remove the `HPCA-restore*` files from the `HPCABackup` folder.

- 2 View the `hpcarestore-report.html` file to determine what occurred during the restore process.

It is important to review all warning messages that occur, as these may indicate the need for manual intervention to ensure that settings are properly migrated.

Step 4: Synchronize Satellite

After you migrate a Satellite server, you must synchronize it with its Core server.

To synchronize a Satellite server

- 1 On the Satellite server, open a browser, and go to the following URL to open the HPCA user interface:

```
http://localhost:3466
```

- 2 Login as admin.
- 3 On the Operations tab, click **Server Status**.
- 4 Click **Synchronize satellite now**.

You have now successfully migrated your Satellite Server.

A SQL Database Tables that Must be Migrated

The following tables have had schema changes that require the tables to be re-created to generate the correct primary and foreign keys for HPCA version 7.80 and later. This process is performed automatically by the `sqlmigrate.cmd` script.

```
rWin32_WinSAT
rWin32_VideoController
rWin32_UserAccount
rWin32_USBController
rWin32_TimeZone
rWin32_SystemEnclosure
rWin32_SystemDriver
rWin32_StartupCommand
rWin32_SoundDevice
rWin32_SoftwareFeature
rWin32_SoftwareElement
rWin32_Share
rWin32_Service
rWin32_SerialPort
rwin32_quickfixengineering
rWin32_Product
rWin32_Processor
rWin32_Process
rWin32_Printer
rWin32_PortResource
rwin32_portablebattery
rWin32_PointingDevice
rWin32_PnPEntity
rWin32_PhysicalMemory
rWin32_ParallelPort
rWin32_PageFileUsage
rWin32_PageFileSetting
rWin32_PageFile
rWin32_OperatingSystem
rWin32_NetworkLoginProfile
rWin32_NetworkConnection
rWin32_NetworkAdapterConf
rWin32_NetworkAdapter
rWin32_MotherboardDevice
```

rWin32_MemoryDevice
rWin32_MemoryArray
rWin32_LogicalProgramGroup
rWin32_LogicalMemoryConf
rWin32_LogicalDisk
rWin32_LoadOrderGroup
rWin32_Keyboard
rWin32_IRQResource
rWin32_IDEController
rWin32_Group
rWin32_FloppyDrive
rWin32_FloppyController
rWin32_Environment
rWin32_DMAChannel
rWin32_DisplayControllerConf
rWin32_DisplayConf
rWin32_DiskPartition
rWin32_DiskDrive
rWin32_DeviceMemoryAddress
rWin32_DesktopMonitor
rWin32_Desktop
rWin32_ComputerSystemProduct
rWin32_ComputerSystem
rWin32_CDROMDrive
rWin32_CacheMemory
rWin32_Bus
rWin32_BootConf
rWin32_BIOS
rwin32_baseboard
rWiFi_NetworkAdapter
rRegistry
rNVD_WBEMStatus
rNVD_UserAccount
rNVD_SolarisPatch
rNVD_Product
rNVD_PDASystem
rNVD_NISUserAccount
rNVD_NISGroupAccount
rNVD_MulticastStatistics
rNVD_INSTALLED_UNINSTALL
rNVD_INSTALLED_APPS

rNVD_GroupMember
rNVD_GroupAccount
rNVD_DownloadStatistics
rMSSD_FailurePredictStatus
rMSSD_AttributeData
rhp_biosstring
rhp_biossensor
rhp_biospassword
rhp_biosorderedlist
rhp_biosinteger
rhp_biosevent
rhp_biosenumeration
rCIM_UnixOperatingSystem
rCIM_UnixLocalFileSystem
rCIM_UnixComputerSystem
rCIM_StorageVolume
rCIM_SoftwareFeatureElements
rCIM_SoftwareFeature
rCIM_SoftwareElement
rCIM_Service
rCIM_SCSIInterface
rCIM_SCSIController
rCIM_ResidesOnExtent
rCIM_ProductSoftwareFeatures
rCIM_Product
rCIM_Processor
rCIM_Process
rCIM_ParallelController
rCIM_OperatingSystem
rCIM_NFS
rCIM_MediaPresent
rCIM_LogicalDiskBasedOnVolume
rCIM_LogicalDisk
rCIM_IDEController
rCIM_HPUX_SwBundles
rCIM_Export
rCIM_EthernetAdapter
rCIM_DVDDrive
rCIM_DiskDrive
rCIM_Directory
rCIM_ComputerSystem

rCIM_CDROMDrive
DeviceUserGroup
SMBiosInfo
Query
DeviceNotify
FileAudit
DeviceZRStates
DeviceZRState
DeviceSynopsis
HDeviceStatus
DeviceStatus
HDeviceState
DeviceState
DeviceServices
DeviceMap
HDeviceErrors
DeviceErrors
Audit_Type
Audit_Attrs
Audit_Event
Audit_Cat
Audit_AttrNames
HAppEvent
AppEvent
HAppRNPEvent
AppRNPEvent
HAppMSIEvent
AppMSIEvent
JOBTASK
HJOBSTAT
JOBSTAT
JOBPARM
ADInfo
HDeviceConfig
DeviceConfig

We appreciate your feedback!

If an email client is configured on this system, by default an email window opens when you click on the bookmark “Comments”.

In case you do not have the email client configured, copy the information below to a web mail client, and send this email to **ca-docfeedback@hp.com**

Product name:

Document title:

Version number:

Feedback: