HP Client Automation

Enterprise Edition

for Windows® operating systems

Software Version: 7.90

Migration Guide

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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
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Table 1 indicates changes made to this document for Version 7.80.

Table 1 Document Changes for this Version

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

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1 Introduction

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



This document applies only to HPCA Enterprise Edition Core and Satellite installations; it does not apply to HPCA "classic" (component-based) installations.

To upgrade an HPCA Starter Edition or Standard Edition environment, refer to the *HPCA Starter and Standard Editions Migration Guide* for details.

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

- HPCA Enterprise Edition Core and Satellite version 7.20
- HPCA Enterprise Edition Core and Satellite version 7.50
- HPCA Enterprise Edition Core and Satellite version 7.80

2 System Requirements

HP Client Automation (HPCA) Enterprise version 7.90 supports those database servers listed in the *HPCA Enterprise Edition Release Notes*.

If your HPCA environment uses SQL Server, you must use either 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 Core Server



Be sure that your environment meets the System Requirements described on page 7 before you begin the HPCA migration process.

The upgrade process includes four steps:

Step 1: Backup the Existing HPCA Core Server Installation

Step 2: Upgrade to the Latest Version

Step 3: Restore HPCA Data

Step 4: Migrate the HPCA SQL/Oracle 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 HPCA Core Server Installation

Backup the existing Core Server installation and database to prepare for the upgrade.

To backup the existing installation

- From the HPCA media, copy the migrate folder to a temporary location (for example, C:\migrate).
 - This folder must be copied—the migration scripts cannot be run directly from the HPCA media.
- 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.

For example, to store the files on C:, 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.
- Wiew 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 or Oracle database before proceeding with the migration. Review the SQL Server or Oracle documentation for details.

Once you have completed Step 1: Backup the Existing HPCA Core Server 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 or Oracle databases must be the same as that used in the previous installation for the migration to work correctly.
- The OS Manager Boot Server was not integrated into the Core and Satellite installation in version 7.20, so it is not updated during the migration. If you had installed the Boot Server in version 7.20, any customizations made must be applied manually after you have installed the version 7.90 Core and Satellite.

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 that 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 HPCA Administrator on page 14 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

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.



It is important that you carefully review any actionrequired messages in the preview report. In particular, review those for the rcs module. The rcs migration logic detects any customizations you have made to the CSDB class schema and attempts to merge these forward. If an actionrequired message is generated for the rcs module, CSDB class schema customizations were detected and a script was generated to migrate these customizations forward. Each such script should be manually reviewed and, if necessary, modified before continuing with the restore operation.

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 hpca-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/Oracle Database.

Step 4: Migrate the HPCA SQL/Oracle 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, or they can be performed manually (see Appendix B: Migrating the HPCA SQL/Oracle Database Manually on page 22).

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 failed

where 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

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.

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 14 for details.

Step 6: Update Core Configuration and Content

Following the restore of the Core, perform the following actions prior to upgrading the deployed components.

Update HP Live Network Content

Perform a full HP Live Network update to ensure that all of your service content is current.

Since the services offered through HP Live Network may have changed since you last configured it through the HPCA Console, it is highly recommended that you validate your configuration before performing an update.

To configure your HP Live Network connection, in the HPCA Console, go to **Configuration** > **Infrastructure Management** > **Live Network**.

Unless directed otherwise by a support engineer, use the version of the Live Network Connector that is installed with HPCA.

To update your HP Live Network content, go to Operations > Infrastructure Management > Live Network

4 Upgrading Deployed Components

Use these instructions to upgrade HPCA Enterprise components that were deployed to devices in your environment.

The following sections describe how to upgrade Enterprise deployed components:

- Upgrading HPCA Agent on page 14
- Upgrading HPCA Administrator on page 14
- Upgrading Satellite Servers on page.15



These sections also contain pointers to any appropriate component-specific migration guides. All migration guides are stored on the HPCA media.

Upgrading HPCA Agent

You can upgrade the HPCA Agent by using any one of the following methods:

- Deploying the 7.90 agent from the HPCA Core Console
- Directly invoking the installation media (either locally or from a network drive)
- Using the HPCA installation services (upgrade decks) to enable automatic agent upgrade

It is not necessary to uninstall the existing agent prior to following any of the above methods to upgrade the agent.

For information about deploying agents through the HPCA Console, refer to the *HP Client Automation Enterprise Edition User Guide*.

For more information on the other methods of agent upgrade, refer to the *HP Client Automation Agent Migration Guide*.

Upgrading HPCA Administrator

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

To upgrade the Administrator installed on a device other than the Core server, first remove the existing version of the Administrator installed on the device. You can then install the latest version of the Administrator by performing either one of the following actions:

- Run the Administrator installation file in the \Media\admin\default\win32 directory on the HPCA media
- Deploy the HPCA_ADMINTOOLS service to the device from the HPCA Core Console



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

Additional migration information is available in the *HP Client Automation Administrator Migration Guide*.

Upgrading Satellite Servers

Step 1: Backup the Existing Installation

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

To backup the existing HPCA Satellite installation

- 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 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.

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

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

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.

View the hpca-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.

Step 4: Synchronize Satellite

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

To synchronize a Satellite server

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. 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

 ${\tt rNVD_INSTALLED_UNINSTALL}$

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

 ${\tt rCIM_ParallelController}$

rCIM_OperatingSystem

rCIM_NFS

rCIM_MediaPresent

rCIM_LogicalDiskBasedOnVolume

rCIM_LogicalDisk

rCIM_IDEController

 ${\tt rCIM_HPUX_SwBundles}$

rCIM_Export

rCIM_EthernetAdapter

rCIM_DVDDrive

rCIM_DiskDrive

 ${\tt rCIM_Directory}$

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

B Migrating the HPCA SQL/Oracle Database Manually

Instead of using the sqlmigrate.cmd script, you can migrate the HPCA SQL database manually after restoring your data.



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

The database tables listed in Appendix A: SQL Database Tables that Must be Migrated have had schema changes that require the tables to be re-created to generate the correct primary and foreign keys. Data from these tables should be exported or stored in temporary tables prior to beginning the manual migration process.

To migrate the HPCA SQL database manually

- 1 On the system hosting the HPCA Core, stop the HPCA Core service.
- 2 Export (or store in temporary tables) the data in the tables listed in Appendix A.
- 3 Drop the tables listed in Appendix A.
 - The order is important drop the tables in the SAME order shown in Appendix A.
- 4 Restart the HPCA Messaging Server service (to re-create the table schema).
- 5 Re-import your data into the tables.
 - The order is important import the data in the REVERSE order shown in Appendix A.

During the import process, data that violates database integrity will not be imported. Be sure to review this data to determine if it is still valid and still needed.

6 Start the HPCA Core service.

We appreciate your feedback!

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Document title:
Version number:
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