

# HP ProLiant Server Updates through System Center Configuration Manager 2007 Software Distribution



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# Introduction

This guide enables HP customers to use Microsoft® Systems Center Configuration Manager 2007 (SCCM), for management and distribution of HP ProLiant server system software, firmware, and ProLiant Support Packs (PSP) which are not included in the HP Server Update Catalog for SCCM. To successfully deploy SmartStart components and PSP through SCCM, the instructions in this white paper are required.

Customers using SCCM 2007 can use these procedures to deploy SmartStart Components and PSPs within the SCCM management structure. This guide enables management and distribution of PSPs and individual components (drivers, ROM, and software agents) to defined collections of servers. No other tools are required.

Customers can authorize and deploy software updates to servers. Deployment of PSPs is comprehensive. Customers receive the benefit of deploying PSPs which are tested together to ensure a smooth installation.

This guide is designed to be used as a set of instructions and does not require any additional tools or documentation to deploy HP ProLiant updates with SCCM 2007.

For those customers new to Microsoft System Management Server or System Center Configuration Manager 2007, HP recommends familiarizing yourself with the terminology and operations of SCCM before performing the procedures in this guide.

## Expectation and references

Only a standard Microsoft System Center Configuration Manager 2007 installation is required to deploy HP ProLiant SmartStart components and ProLiant Support Packs. You must install and verify SCCM before deploying HP components. For detailed SCCM setup information, see the SCCM documentation.

For more information on the Microsoft System Center Configuration Manager 2007, see the Microsoft System Center Configuration Center website.

The ProLiant Support Packs contain operating system-specific bundles of ProLiant-optimized drivers, utilities, and management agents.

PSP software components must carry specific digital signatures to operate within an SCCM environment. These requirements are different for Windows Server® 2000 and Windows Server 2003.

The following PSPs are supported under Windows Server 2000 products:

- HP ProLiant Support Pack 7.30 for Windows
- Later versions of HP ProLiant Support Packs for Windows 2000

The following PSPs are supported under Windows Server 2003:

- HP ProLiant Support Pack 7.40 (B) for Windows
- Later versions of HP ProLiant Support Packs for Windows 2003

The following PSPs are supported under Windows Server 2008:

- HP ProLiant Support Pack 8.0 (B) for Windows 2008
- Later versions of HP ProLiant Support Packs for Windows 2008
- HP ProLiant Support Packs for Windows 2008 R2

The latest HP ProLiant Support Packs are available at the [ProLiant Support Pack website](#).

The HP SmartStart components are available at the [SmartStart website](#).

Information on all HP ProLiant integrations with Microsoft® system management tools is available at the [Enterprise Management Integration Solutions](#).

## Using SCCM to update HP ProLiant server PSPs and components


This section reviews the basic steps for updating HP ProLiant servers:

- Creating an HP server collection
- Distributing an HP update

### Creating an HP server collection

Similar to Microsoft SMS 2003, a system administrator can use “collections” to logically group systems managed by SCCM. Collections represent a computer or a group of computers to which actions can be targeted. Collections are static, containing specified named computers, or they are dynamic, basing the members of the collection on a query of properties for those computers. An administrator can create an HP Server Collection to group and identify all managed HP servers in the environment using a dynamic collection.

To create an HP Server collection to target servers for updates, perform the following steps. The queries below can be added to any existing collection to identify HP servers.


1. Open the Configuration Manager Administrator console.
2. Expand **Site Database**, expand **Computer Management**, right-click **Collections**, and then select **New Collection**. The New Collection wizard appears.
3. Enter **HP Server** or an appropriate name in the Name field. This refers to the name of the collection. Click **Next**.
4. Click the **Query** toolbar button (.

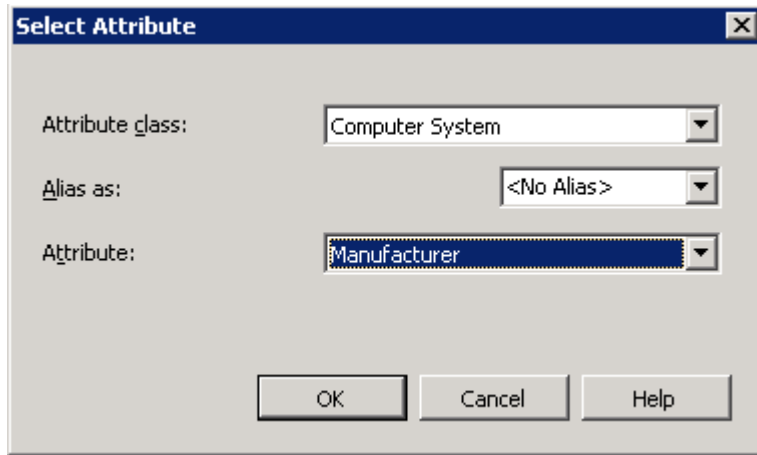
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#### Note:

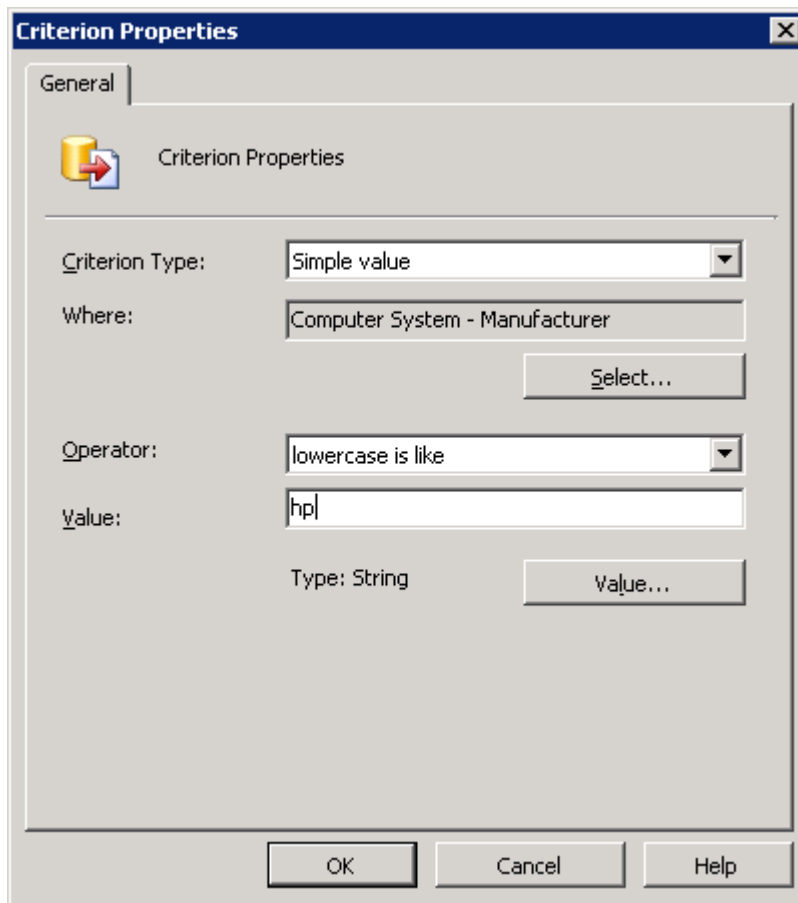
Do not save your query until all steps are completed. This requires you to create a new query.

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5. Enter an appropriate name for the query to be created in the Name field (for example, HP/Compaq servers). In the Resource class box, select **System Resource**. Click the **Edit Query Statement...** button.
6. Select the Criteria tab, and then click the **New** toolbar button (.
7. On the General tab, click the **Select...** button.
8. Enter the following options, and then click **OK**.

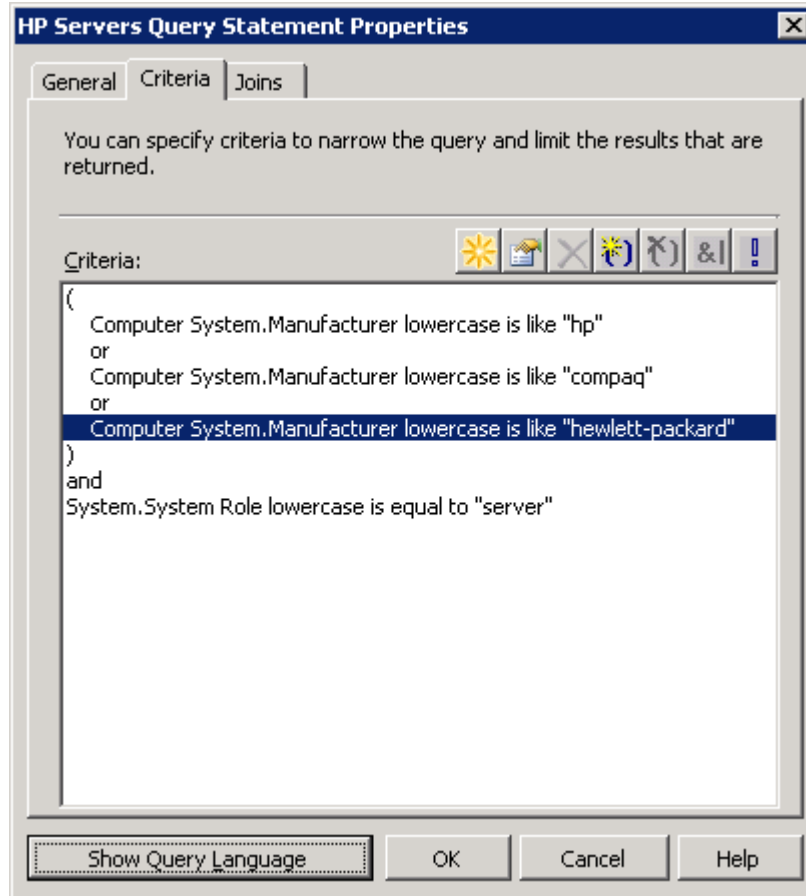


9. Enter the remaining Criterion Properties, and then click **OK**.



10. Repeat steps 6 through 9 using the following alternative input:  
In step 9, enter `compaq` in the Value field.
11. Repeat steps 6 through 9 using the alternative input below:  
In step 9, enter `hewlett-packard` in the Value field.
12. Repeat steps 6 through 9 using the alternative input:
  - a. In step 8, select **system** for the Attribute class, and select **System Role** for the Attribute.
  - b. In step 9, enter `server` in the Value field.

13. You now have three criteria statements. Select the first two criteria statements (first three lines), and then click the parenthesis toolbar button (  ) to join the two query statements as shown in the following figure.
14. With the statements still selected, click the **and/or** toolbar button(  ) to change the query to an or statement.
15. Confirm that your queries look the same as the Criteria shown in the following figure.



16. To continue the New Collection Wizard, click **OK, OK**.
17. Modify the collection update schedule as needed.
18. To complete the wizard, click **Next, Next**, and then **Finish**.

To add additional filters to your collections, the following query statements can be added to the query criteria to identify the server type and models of the HP servers:

- Computer System.Model lowercase is like "%proliant%" for filtering ProLiant servers
- Computer System.Model lowercase is like "%bl%" for filtering ProLiant BL servers
- Computer System.Model lowercase is like "%ml%" for filtering ProLiant ML servers
- Computer System.Model lowercase is like "%dl%" for filtering ProLiant DL servers
- System Resource.Operating System Name and Version is like "%Server 5.0%" for filtering Windows 2000 servers
- System Resource.Operating System Name and Version is like "%Server 5.2%" and Computer System.System Type is like "%x86%" for filtering x86 Windows 2003 servers
- System Resource.Operating System Name and Version is like "%Server 5.2%" and Computer System.System Type is like "%x64%" for filtering x64 Windows 2003 servers

## Distributing an HP update

ProLiant software, firmware, and PSP updates are distributed to ProLiant servers in the SCCM environment using SCCM Software Distribution mechanism. This process includes:

- Downloading and preparing the package
- Creating a package for the update and distributing the software
- Verifying the update status

### Downloading and preparing the package

ProLiant Software, Firmware, and PSP updates are published regularly at the Support and Drivers website. Worldwide download locations can be found at the [HP Support website](#).

Download the selected updates from the HP website and save them to a new folder that is accessible by SCCM. For example, c:\hpUpdate.

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#### Note:

Configuration Manager does not allow the PSPs or Smart Components to be modified (to pre-configure) in advance of using the Configuration Manager Software Deployment.

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Because SCCM maps program exit codes differently than the HP utilities, a script is required to translate the HP exit status code to a code that is acceptable by SCCM. The script initiates the update installation, retrieves the program exit code and converts it to the code read by SCCM. The following table shows the program exit code mapping:

HP program exit code	HP exit code status	SCCM exit code mapping	SCCM exit code status
0	Fail	1	Fail
1	Success	0	Success
2	Success , reboot needed	0	Success
3	Cancel, not needed	0	Success

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#### Note:

Due to the SCCM exit code status report limitation, HP recommends that the system administrator checks the actual installation status from c:\cpqsystem\log\cpqsetup.log and reboots the updated system after installation.

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The system administrator needs to create a command line script file named hpUpdate.cmd to initiate the installation of the update and process the exit code. The script includes the following text:

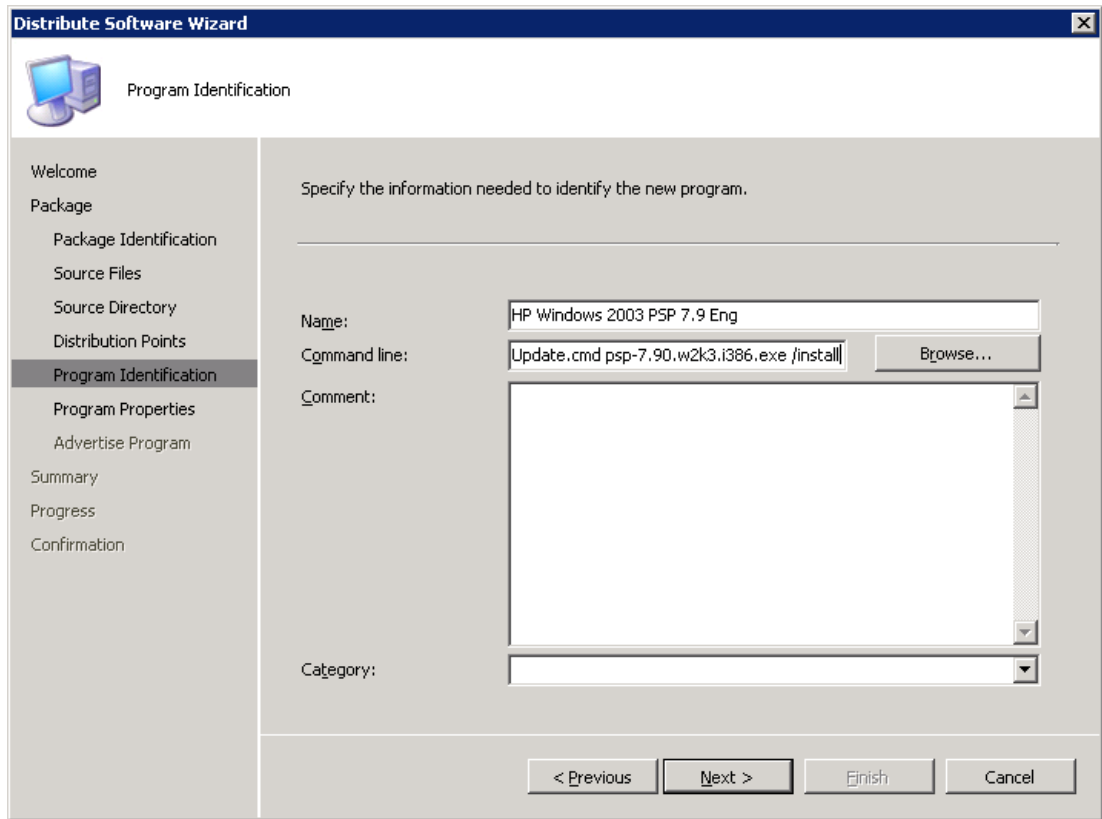
```
%*
if "%errorlevel%"=="0" exit 1
if "%errorlevel%"=="1" exit 0
if "%errorlevel%"=="2" exit 0
if "%errorlevel%"=="3" exit 0
```

The script is saved to the same folder where the updates are stored, c:\hpUpdate.

## Creating a package for the update and distributing the software

HP suggests the following general steps to create a package for the updates prepared in step A above. However, you can also use custom settings.

1. To open the Distribute Software Wizard:
  - a. Open the Configuration Manager Console
  - b. Expand Site Database, then Computer Management.
  - c. Expand **Software Distribution**.
  - d. Right-click **Packages**.
  - e. Select **Distribute>Software**.
2. To continue the wizard, click **Next**.
3. Select **Create a new package and program without a definition file**, and click **Next**.
4. Enter the appropriate information on the Package Identification page. Click **Next**.
5. Select **Always obtain files from a source directory**, and click **Next**.
6. Choose the Source directory location selection and insert or browse to the directory where the update and script are located. Click **Next**.
7. Choose the distribution points where you want to place the update, and then click **Next**.
8. On the Program Identification page, enter a name for the program. Complete the Command line field according to whether you are performing a PSP bundle or a single component update.
  - a. For PSP updates, enter `hpUpdate.cmd pspXXX.exe /install` in the Command line field. The `/install` parameter is used to start the installation in silent mode.
  - b. For single updates, enter `hpUpdate.cmd cpXXX.exe /silent` in the Command line field to deploy ProLiant software and firmware components. The `/silent` parameter is used to start the installation in silent mode.



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**Note:**

Firmware inventory information is not reported to SCCM. Open the System Management Homepage for the target machine to access detail firmware inventory information.

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9. Click **Next**.
10. On the Program Properties page, select **Whether or not a user is logged on** from the Program can run drop-down, and click **Next**.
11. To accept the default of creating an advertisement, click **Next**.
12. Select the program created in step 8 and click **Next**.
13. Click **Browse** and select the HP servers collection you created previously, then click **OK** and then **Next**.
14. Define the name of the advertisement and click **Next**.
15. Choose the desired selection for the advertisement sub-collection and click **Next**.
16. Define the schedule for when this program will be advertised and click **Next**.
17. Select the appropriate options to assign the program and click **Next**.
18. Click **Next** on the Summary page.
19. Click **Close** to complete the wizard.

### Verifying the update status

The update advertisement status can be verified on the Configuration Manager Console. Click **System Center Configuration Manager->Site Database->System Status->Advertisement Status**, and select the appropriate advertisement.



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**Note:**

HP recommends that the system administrator verifies the installation status from c:\cpqsystem\log\cpqsetup.log. If an update requires a reboot, reboot the updated system after installation.

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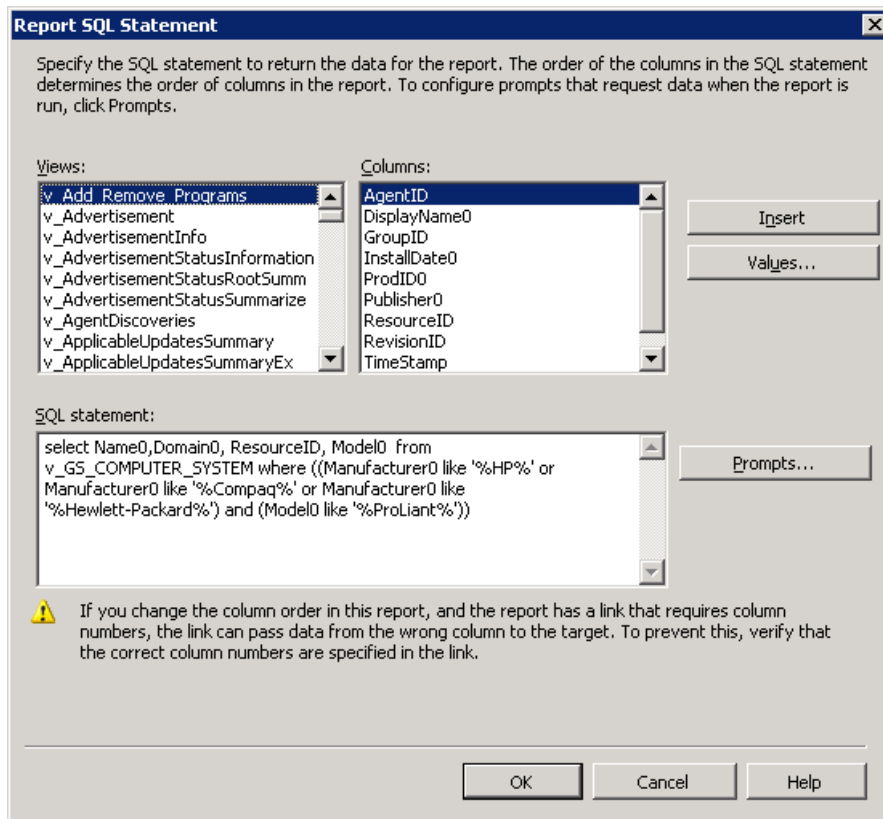
## Updating SCCM reports for HP servers

SCCM contains a Reports feature that enables administrators to generate reports according to their needs. The feature uses SQL statements to query information stored in the SCCM database. Due to the complexity of the SQL statements, make sure that only administrator familiar with SQL query statements modify the reports.

An administrator can use the Manufacturer0 field in the v\_GS\_COMPUTER\_SYSTEM views to help identify HP computers in their environment.

The following is an example of creating a report that displays a list of all HP servers.

1. Open the Configuration Manager Console.
2. Expand Site Database, and then select Computer Management.
3. Expand **Reporting**.
4. Right-click **Reports**.
5. Select **New>Report**.
6. Enter a name for the report (or example, All HP Servers).
7. Select an existing report category (for example, SMS site client information). You can also enter a new one report category (for example, HP Servers).
8. Click **Edit SQL Statement...**
9. Select the existing text in the SQL statement window, and then delete it.
10. Enter the following SQL query into the **SQL statement** window and click **OK**.
11. Select **Name0, Domain0, ResourceID, Model0** from v\_GS\_COMPUTER\_SYSTEM where ((Manufacturer0 like '%HP%' or Manufacturer0 like '%Compaq%' or Manufacturer0 like '%Hewlett-Packard%') and (Model0 like '%ProLiant%'))



12. Click **Next, Next**.

13. For the Link Type, select **Link to Computer Details**.

14. Click **Next**, and then click **Finish**.

Your report now appears in the list of reports. To find it quickly, type **ALL HP** in the Look for box at the top of the Reports page, and click **Find Now**. Your new report appears must be visible in the list.

To run the report, right-click the report, and select **Run**. Your HP computers must be listed in the report. Click the shortcut button (🔗) in the first column to open the computer details report for that server.

## Technical support and update service for HP Insight Control for Microsoft System Center

HP offers a number of software support services, many of which are provided to our customers at no additional charge. Insight Control products include one year of 24 x 7 HP Software Technical Support and Update Service. This service provides access to HP technical resources for assistance in resolving software implementation or operations problems. The service also provides access to software updates and reference manuals either in electronic form or on physical media as they are made available from HP. With this service, Insight Control customers benefit from expedited problem resolution as well as proactive notification and delivery of software updates. For more information about this service, see the [HP Insight Software Services website](#).

To register for Software Technical Support and Update Service, redeem your license certificate/key online. Once registered, you will receive a service contract in the mail containing the Customer Service phone number and your Service Agreement Identifier (SAID). You will need your SAID when calling for technical support. To use your SAID, go to the [IT Resource Center website](#). You can access the SUM to view your contract online and electronic delivery for product updates.

- **Warranty**  
HP replaces defective delivery media for a period of 90 days from the date of purchase. This warranty applies to all HP Insight Control and HP Systems Insight Manager products.
- [Join the discussion](#)  
The HP Support Forum is a community-based, user-supported tool for HP customers to participate in discussions amongst the customer community about HP products. For discussions related to Insight Software, see the "Management Software and System Tools" area.
- [Software and Drivers download pages](#)  
These pages provide the latest software and drivers for your ProLiant products.
- [SmartStart Release website](#)  
The SmartStart, Management, and Firmware CDs are now available for free download following registration from the SmartStart website. If you wish to receive physical kits with each release, you can order single release kits from the SmartStart website. To receive proactive notification when SmartStart releases are available, subscribe to [Subscriber's Choice website](#). The HP contact numbers are available at [HP Worldwide Customer Service website](#). For U.S. customers, say "Insight Manager" when prompted for the product name.

## Free support for the white paper: Manually updating HP Servers with Configuration Manager

Free assistance for this white paper is only available via e-mail at [SMSIntegrationPack.Support@hp.com](mailto:SMSIntegrationPack.Support@hp.com). Please include the following information in your email:

- Microsoft Windows operating system version and patch levels
- HP server type and models
- Screen prints of any error messages received
- Detailed description of the problem

## Support for other ProLiant integrations with Microsoft System Center products

For technical support of the ProLiant integrations with other Microsoft System Center products, see the [Enterprise Management Integration Solutions website](#), and select the appropriate product. A link to support process is available in the question and answers section.

## Support for ProLiant Support Packs and SmartStart

For HP technical support in the United States of PSPs or SmartStart components, see the [Contact HP United States webpage](#).

To contact HP by phone, call 1-800-HP-INVENT (1-800-474-6836). This service is available 24 hours a day, 7 days a week. For continuous quality improvement, calls may be recorded or monitored.

If you have purchased a Care Pack (service upgrade), call 1-800-633-3600. For more information about Care Packs, see the [HP website](#).

In other locations, see the [Contact HP worldwide \(in English\) webpage](#).

For more information and updates to this guide, see [Enterprise Management Integration Solutions website](#).

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