

# hp smart array 5300 controller installation overview



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## System Requirements

For information about server compatibility and a complete list of supported operating systems, refer to

[www.hp.com/products/smartarray](http://www.hp.com/products/smartarray)

For more information about Intel® Itanium™ Processor Family (IPF) servers, for technical support, or for updated firmware, drivers, and utilities, refer to

[www.hp.com/support/itaniumservers](http://www.hp.com/support/itaniumservers)

## Safety Information



**WARNING:** To reduce the risk of personal injury or damage to the equipment, consult the safety information and user documentation provided with your server before attempting the installation. Many servers are capable of providing energy levels that are considered hazardous and are intended to be serviced by qualified personnel trained to deal with these hazards. Do not remove enclosures or attempt to bypass any interlocks that may be provided for the purpose of removing these hazardous conditions.

## Regulatory Notice

The rating label on the device gives the class (A or B) of the equipment.

- Class A devices do not have an FCC logo or ID on the label.
- Class B devices have an FCC logo or ID on the label.

After you have determined the device class, refer to the *HP Smart Array 5300 Controller User Guide* for complete regulatory compliance notices. This user guide is present in the controller kit either as a printed copy or as a file on the Controller Products Documentation CD.

## Getting Help

If you cannot find the information that you need in this overview, there are several other resources that you can use to get more detailed information.

- The *HP Smart Array 5300 Controller User Guide*
- The HP website ([www.hp.com](http://www.hp.com))
- The nearest HP authorized reseller (for the locations and telephone numbers of these resellers, refer to [www.hp.com](http://www.hp.com))
- HP technical support telephone numbers:
  - In North America, 1-800-652-6672
  - For other regions, refer to [www.hp.com](http://www.hp.com)

## Kit Contents

All kits contain an installation overview poster (this document) and the controller board. The other items present in the kit depend on the type of server for which the kit was bought.

### ProLiant Servers

#### 1. SmartStart CD

If this item is not provided, the Support Software CD is present instead.

This CD contains:

- Documentation files and demonstrations for SmartStart and Insight Manager software
- Device drivers and support software for the controller
- Rack Builder utilities
- Array Configuration Utility (ACU)
- ROM Update Utility
- Server Diagnostics
- Management Agents

#### 2. Support Software CD

This CD contains:

- Device drivers
- Array Configuration Utility (ACU)
- ROM Update Utility

#### 3. Controller Products Documentation (CPD) CD

This CD contains user documentation files for all HP controllers. The files are formatted for viewing and printing with Adobe® Acrobat® Reader, which is also provided on the CPD CD.

#### 4. Printed Documentation

The kit includes a Warranty Card, and any documents that are needed to give updated information about the controller.

In some countries, the option kit also contains a printed copy of the *HP Smart Array 5300 Controller User Guide*.

### IPF Servers

#### 1. HP SmartSetup DVD

#### 2. Printed Documentation

## About the Installation Procedure

The reverse side of this installation overview poster briefly describes each phase of the installation procedure. You should perform the phases in the sequence summarized below for the specific server type.

For detailed information about any phase of the installation procedure, refer to the *HP Smart Array 5300 Controller User Guide*.

### IPF Server

1. Install the controller board.
2. Update the controller firmware.
3. Create a logical drive.
4. Configure the system.
5. Finish setting up the system.

### Never-Used, Autoconfigurable ProLiant Server

To determine whether a server is autoconfigurable, refer to the server-specific setup and installation guide.

1. Install the controller board.
2. If necessary, install physical drives so that the desired RAID level is autoconfigured.
3. Power up the server.
4. Finish setting up the system.

### Never-Used, non-Autoconfigurable ProLiant Server

1. Install the controller board.
2. Update the firmware.
3. Configure the system.
4. Create and format at least one logical drive.
5. Finish setting up the system.

### Previously Configured ProLiant Server

The installation process is more complex for previously configured servers. For details, refer to the *HP Smart Array 5300 Controller User Guide*.

## Before Beginning the Installation

Before you begin the installation procedure, visit the HP website ([www.hp.com/support](http://www.hp.com/support)) to confirm that you have the latest version of each driver and utility file needed. Compare the version numbers of the files there with those of the same files on the software CD or DVD that is supplied in the controller kit.

## Installing the Controller

1. Close all applications, power down the server, and then power down any external storage units.
2. Power down any peripheral devices.
3. Disconnect all power cords from the server.
4. Open the server.



**WARNING:** To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.

To install the controller hardware in your server:

5. Install the controller board in an available PCI slot.
6. Connect internal hard drives to the new controller.
7. Close the server.
8. Reconnect all external storage and peripherals to the server.

## Updating the System Firmware

To update the firmware, you can use the Smart Components that are available on the HP website (<http://www.hp.com/support>). The web page that contains the components also gives details of how to download and use them.

Alternatively, you can use the software CD or DVD that is supplied in the controller kit. However, the files in the Smart Components may be more recent than those on the CD or DVD.

### ProLiant Servers

1. Insert the CD into the CD-ROM drive, and follow the on-screen prompts.
2. When you reach the license agreement (EULA) screen, click **Agree**.
  - If you are using the SmartStart CD, the **MyProLiant Server** screen is displayed. Click the **Maintenance** tab.
  - If you are using the Support Software CD, the **Home** screen is displayed.
3. Click **ROM Update Utility**.
4. Select **Express** or **Custom** mode, and then follow the on-screen instructions to update the firmware on the system and the controller.
5. Restart the server for the updates to take effect.

### IPF Servers

If the server is running a supported Microsoft® Windows® operating system, you can use the DVD to update the firmware.

1. Insert the DVD into the DVD-ROM drive.
2. On the main menu of the EFI-based configuration utility, select **Maintain Firmware**.
3. Select the firmware that you want to update.
4. Follow the on-screen prompts and instructions to complete the firmware update.
5. Reboot the server for the update to take effect.

For more information about IPF servers, for technical support, or for updated firmware, drivers, and utilities, refer to the HP website ([www.hp.com/support/itaniumservers](http://www.hp.com/support/itaniumservers)).

## Configuring the System

### ProLiant Servers

1. Power up the server.

The server runs the POST sequence, and briefly displays a prompt for RBSU.
2. At the prompt, press the **F9** key to start RBSU.
3. Follow the on-screen instructions to configure the system and to set the boot controller order.
4. Save the configuration and exit from the utility.
5. Restart the server for the new settings to take effect.

### IPF Servers

When you have finished configuring an array, you can create partitions on the system. If the server is running a supported Windows operating system, you can do this using the DVD that is supplied in the controller kit.

1. Insert the DVD into the DVD-ROM drive.
2. Follow the on-screen prompts and instructions to create an EFI system partition.
3. When creation of the system partition is complete, follow the on-screen prompts and instructions to create an HP service partition.

## Creating a Logical Drive

1. Power up the server.

For a few seconds during the POST sequence, the screen displays a prompt for you to start the Option ROM Configuration for Arrays (ORCA) utility.
2. Press the **F8** key.

ORCA opens.
3. Follow the on-screen prompts and instructions to create a logical drive.
4. Save the configuration and exit the utility.

# Finishing the System Setup

When you have completed the previous phases, you can:

- Install the operating system
- Install the device drivers
- Install management agents
- Create additional logical drives if desired

## ProLiant Servers

- If your kit contained the SmartStart CD, you can use this CD to install the operating system, device drivers, and management agents. For detailed instructions, refer to the printed insert in the SmartStart CD package.
- If your kit contained the Support Software CD:
  - Use the operating system CD to install the operating system.
  - Use the Support Software CD to install the device drivers, or use the latest drivers from the HP website ([www.hp.com/support](http://www.hp.com/support)).
  - Obtain the Management Agents (and Insight Manager, if necessary) from the HP website ([www.hp.com/servers/manage](http://www.hp.com/servers/manage)).

To create additional logical drives, you can use either ORCA or ACU. For more information about using ACU, refer to the *HP Array Configuration Utility User Guide*, available on the CPD CD in the controller kit.

## IPF Servers

### Operating System

For the definitive operating system installation instructions, refer to the operating system documentation.

### Device Drivers

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**IMPORTANT:** If you are configuring a new server, install the operating system before installing the device driver.

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If you install additional Smart Array controllers in the server, you also need to install the device drivers. For servers that use a supported Windows operating system, these drivers are present on the DVD that is provided in the controller kit.

1. Power down the server and disconnect the power cords.
2. Install the new controller and connect it to storage devices.
3. Power up the server.  
The operating system recognizes the controller, and launches the **Found New Hardware** wizard.
4. In the **Files Needed** dialog box, select the option to automatically search for the driver and insert the DVD.
5. When the driver installation process is complete, click **Finish** to exit the wizard, and then click **Yes** to confirm that you want to reboot the server.
6. Repeat the previous steps for each new controller that you want to install in the server.

## Management Agents

With IPF servers that are using a supported Windows operating system, you can install the Management Agents from the DVD that is supplied in the controller kit.

1. Power up the server.
2. When the operating system is running, insert the DVD into the DVD-ROM drive.  
The Resource Mode Utility (RMU) opens.
3. Select the server, and then click **Software and Drivers**.
4. Click **HP Server Agents**.
5. Double-click the setup.exe file.
6. Follow the on-screen prompts and instructions to install or update the Management Agents.
7. If SNMP is not installed on the system, install it from the **HP Server Agents** screen. (Alternatively, you can install SNMP from the Windows distribution CD.)

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**IMPORTANT:** The Management Agents cannot function if the server does not have SNMP installed.

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## Additional Logical Drives

You can use either ORCA or ACU to create additional logical drives. For detailed instructions about using ACU, refer to the *HP Array Configuration Utility User Guide*.