

Installing SUSE LINUX Enterprise Server 9 on ProLiant servers

HOWTO



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Abstract

ProLiant servers provide an excellent platform for Linux. ProLiant servers are engineered from the ground up to provide performance, reliability, and scalability using industry-standard components. This HOWTO provides details for installing SUSE LINUX Enterprise Server 9 on ProLiant servers.

Supported products

HP works together with industry leading Linux distribution vendors and software partners during the hardware and software development phases to test daily software builds, tune the operating system, build in support for hardware features, and provide continuous feedback and fixes. All of this testing and development effort means that applications running on ProLiant servers with SUSE LINUX Enterprise Server 9 are more stable and work better.

The following sections include descriptions of and recommendations for supported utilities, drivers, and other ProLiant value-add software running on ProLiant servers.

ProLiant servers

HP supports Linux on a wide range of ProLiant server models. No other industry-standard server has been tested, retested, certified, and optimized for Linux applications the way the ProLiant server has. All the testing and development does not end at the walls of the legendary HP engineering facilities. HP's major Linux distribution partners also test and certify ProLiant servers, ensuring that their applications run right and run true, right out of the box.

In the Server Certification Matrix, the ProLiant servers that have been certified for Linux are listed by server model and supported Linux distribution and version. To view this matrix, visit <http://h18000.www1.hp.com/products/servers/linux/hplinuxcert.html>.

Descriptions of ProLiant servers are located at www.hp.com/servers/proliant.

Array configuration

For ProLiant servers with an array controller, press **F8** during the Power-On Self Test (POST) after the controller initializes. This procedure allows you to set up the drive arrays using Option ROM Configuration for Arrays (ORCA).

ROM-Based Setup Utility

ROM-Based Setup Utility (RBSU) is a utility that allows users to easily configure the system configuration of ProLiant servers. It allows a user to set the date and time, boot controller order, hardware interrupts, and advanced system settings.

The first time you power up a G3 or earlier ProLiant server, the system prompts you to enter RBSU, select an operating system, and select a language. Default configuration settings are made at this time and can be changed later. To run RBSU, press **F9** when prompted to do so during POST.

All default settings are set when a G4 ProLiant server is turned on for the first time. There is no longer a need to select an operating system. In this case, there is no requirement to run RBSU as part of the OS installation. However, RBSU is still a valid method for modifying system settings on G4 ProLiant servers.

ProLiant servers with the AMD Opteron processor do not have the RBSU feature.

Installation process

This section outlines several generalized procedures for installing SUSE LINUX Enterprise Server 9 on ProLiant servers. For other Linux distributions, refer to the appropriate HOWTO located on the Linux documentation page, <http://h18000.www1.hp.com/products/servers/linux/documentation.html>.

Note

HP also provides additional installation information for the ProLiant BL, DL, and ML server lines in the form of server installation notes or addendums, which may be accessed from the ProLiant Linux Documentation site at <http://h18000.www1.hp.com/products/servers/linux/documentation.html>.

ProLiant Essentials Rapid Deployment Pack installation

The ProLiant Essentials Rapid Deployment Pack is an optional server deployment product that facilitates the installation, configuration, and deployment of high-volumes of servers through a graphical user interface (GUI) console using either scripting or imaging technology. Server configuration time is reduced, making it possible to scale server deployments to high volumes in rapid fashion.

The Rapid Deployment Pack integrates two powerful products: Altiris eXpress Deployment Server and the SmartStart Scripting Toolkit. The management console's GUI provides an intuitive drag-and-drop of events, such as scripts and images, to deploy the operating systems and applications.

For instructions on how to install SUSE LINUX Enterprise Server 9 and all support software using the ProLiant Essentials Rapid Deployment Pack, refer to the documentation provided with the product or on the HP website at www.hp.com/servers/rdp.

ProLiant Essentials Integrated Lights-Out installation

IT expenses can be reduced by managing remotely from anywhere in the world with the ProLiant Essentials Integrated Lights-Out (iLO) Advanced Pack. This product integrates industry-leading Lights-Out functionality and system board management capabilities. The iLO Virtual Media feature may be used to remotely present your deployment floppy to the server for an over-the-network installation.

Refer to the iLO User Guide, located at <http://h18013.www1.hp.com/manage/ilo-description.html>, for information on how to use the iLO Virtual Media.

To view which servers support installation using the ProLiant Essentials Integrated Lights-Out Advanced Pack, visit <http://h18013.www1.hp.com/manage/supported-servers.html>.

SUSE LINUX Enterprise Server 9 installation

The sections that follow contain procedures for installing SUSE LINUX Enterprise Server 9 as a new installation. Before beginning SUSE LINUX Enterprise Server 9 installation, view the Server Certification Matrix, <http://h18000.www1.hp.com/products/servers/linux/hplinuxcert.html>, to ensure that this OS version is supported on the ProLiant server targeted for the install.

General installation procedures

1. Configure the drive arrays using ORCA, if applicable. When prompted, press **F8** at POST to create the logical drive. Press **F7** to boot with the default RAID setting.
2. Configure the server using RBSU.

Note

If you are installing SUSE LINUX Enterprise Server 9 on a G4 ProLiant server or on a ProLiant server with an AMD Opteron processor, skip this step.

- When prompted, press **F9** at POST.
 - Select **System Options** and set OS Selection to **Linux**.
 - Set the Controller Boot order, if applicable.
 - Press **F10** to save and exit RBSU.
3. Insert the SUSE LINUX Enterprise Server 9 CD #1 into the CD-ROM drive and boot the OS from the CD.
 4. Follow the instructions detailed in the SUSE LINUX Enterprise Server 9 Installation Guide, located at <http://www.novell.com/documentation/sles9/index.html>.
 5. After installing the operating system, upgrade the drivers by running the ProLiant Support Pack (PSP) located here: <http://h18023.www1.hp.com/support/files/server/us/locate/8346.html>. The PSP includes support for x86, AMD64, and Intel EM64T architectures. After downloading the PSP, the installation will begin after typing `./install.sh` from the directory that contains the PSP; you must be logged in as "root" to install the PSP.

Note

Optionally, you may install the desired HP value-add components individually using the rpm install process.

Network installation procedures

To perform a network installation of SUSE LINUX Enterprise Server 9, follow the instructions provided in the *SUSE LINUX Enterprise 9 Documentation* at <http://www.novell.com/documentation/sles9/index.html>.

Installing additional storage or network interface controllers

Before installing a storage or network interface controller:

1. Verify support of this controller for the ProLiant server at www.hp.com/servers/proliant.
2. Verify that the controller is supported on the operating system by visiting <http://h18000.www1.hp.com/products/servers/linux/options-matrix-all.html>.

3. Install the latest kernel to obtain the most recent driver for the controller. HP works closely with Linux partners to ensure that the most current drivers are included in each kernel release.

Installing a Remote Insight Lights-Out Edition adapter

Before installing a Remote Insight Lights-Out Edition (RILOE) or RILOE II adapter:

1. Verify support of this controller for the ProLiant server at www.hp.com/servers/proliant.
2. Download software to optimize the performance of the adapter, if desired.

Note

The adapter itself operates without any additional drivers (for example, the Remote Log In and Virtual Floppy features are available). However, HP provides software to enhance the capabilities of the adapter.

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- For x86 systems: <http://h18023.www1.hp.com/support/files/server/us/locate/8470.html>
 - For AMD64 and Intel EM64T systems:
<http://h18023.www1.hp.com/support/files/server/us/locate/8469.html>
3. Select the latest version of this package and download the file from the previously-mentioned URL. Follow the online instructions for installing the software.

Additional Software

HP Systems Insight Manager combines the best of Insight Manager 7, HP Tootools, and HP Servicecontrol Manager to deliver hardware fault, asset, and configuration management for all of your HP Systems.

HP SIM can be easily extended to deliver rapid deployment and performance management for ProLiant Servers, or workload and partition management for Integrity and HP 9000 systems. It can be extended for HP clients, storage, printers, and power products, and can manage non- HP platforms through industry standard management protocols.

For installation information, refer to the "Installing on Linux" section of the *HP Systems Insight Manager Installation and User Guide*, which is available for download at <http://h18013.www1.hp.com/products/servers/management/hpsim/infolibrary.html>.

For more information

The following links contain valuable information regarding Linux, ProLiant servers, software downloads, and additional technical documentation.

Table 1. HP web resources

Resource description	Web address
Linux at HP offers industry-defining technology, breakthrough performance, high availability, and easy serviceability.	www.hp.com/linux
Linux for ProLiant website contains software, hardware certification matrices, and documentation for ProLiant servers running Linux.	http://h18000.www1.hp.com/products/servers/linux/index.html
Linux Server Certification Matrix contains the latest tested, supported, and certified information about Linux operating systems supported on ProLiant servers.	http://h18000.www1.hp.com/products/servers/linux/hplinuxcert.html
Linux Options Support Matrix includes the latest Options Support Matrix and discusses products supported by Linux.	http://h18000.www1.hp.com/products/servers/linux/options-matrix-all.html
Linux Support Software provides support software, device drivers, agents, utilities and links to comprehensive support software listings for all supported Linux distributions.	http://h18000.www1.hp.com/products/servers/linux/softwaredrivers.html
Opensource.hp.com hosts a number of Open Source software projects running on various HP systems.	http://opensource.hp.com/
Manageability provides tools, guides, and information to reduce expense, minimize complexity, and speed execution.	www.hp.com/servers/manage
E-Commerce Solution Sizer is automated tool assisting the user with sizing hp hardware for E-Commerce and Web Server applications.	http://vcmpoapp02.compaq.com/aasizercode/aasizer.asp?L=no&SizerCountry=UnitedStates&SizerName=E_Catalog

The following links contain additional information for SUSE Linux Enterprise 9.

Table 2. SUSE web resources

Resource description	Web address
Novell Worldwide provides information about Novell solutions, training, and support.	www.novell.com
Welcome to SUSE LINUX contains the latest news about SUSE LINUX.	www.suse.com/us/index.html
SUSE LINUX Enterprise Server 9 serves as the portal for product information.	www.suse.com/us/business/products/server/sles/index.html
SUSE LINUX Enterprise Server 9 Documentation contains links to administration and installation guides.	www.novell.com/documentation/sles9/index.html

Call to action

To help us better understand and meet your needs for ISS technology information, please send comments about this paper to: TechCom@HP.com.

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TC040802HT, 08/2004

Printed in the US

