



Installing Red Hat* Enterprise Linux 4.4*

Intel® Server Board S5000PAL



Abridged Recipe – visit www.intel.com/go/esaa to download complete version

Contents

Pass-Through Certification	4
Red Hat Linux Pass-Through Hardware Requirements.....	4
Reseller Steps to Receive Pass-Thru OS Certification.....	4
Hardware Components	5
(Configuration 1).....	5
(Configuration 2).....	6
(Configuration 3).....	8
Software Used in the Installation	9
Development Tools (Optional)	9
Red Hat* Enterprise Linux 4* Installation	10
The Graphical Installation Program User Interface.....	10
A Note about Virtual Consoles.....	10
The Text Mode Installation Program User Interface.....	12
Using the Keyboard to Navigate.....	13
Starting the Installation Program	14
Booting the Installation Program on x86 and Intel® 64 Systems.....	14
Additional Boot Options.....	15
Kernel Options.....	16
Selecting an Installation Method.....	17
Installing from CD-ROM.....	17
What If the IDE CD-ROM Was Not Found?.....	18
Installing from a Hard Drive	19
Performing a Network Installation.....	19
Installing via NFS	19
Installing via FTP.....	21
Installing via HTTP.....	21
Welcome to Red Hat Enterprise Linux.....	22
Language Selection.....	23
Keyboard Configuration.....	24
Disk Partitioning Setup.....	24
Automatic Partitioning.....	25
Partitioning Your System.....	27
Graphical Display of Hard Drive(s).....	27
Disk Druid's Buttons.....	28
Partition Fields.....	29
Recommended Partitioning Scheme.....	29
Adding Partitions.....	32
File System Types.....	33
Editing Partitions.....	34

Deleting a Partition	34
x86 and Intel® 64 Boot Loader Configuration	34
Advanced Boot Loader Configuration	36
Rescue Mode.....	37
Alternative Boot Loaders.....	37
SMP Motherboards and GRUB.....	38
Network Configuration.....	39
Firewall Configuration.....	41
Language Support Selection.....	43
Time Zone Configuration.....	45
Set Root Password.....	46
Package Group Selection	47
Preparing to Install.....	49
Installing Packages.....	49
Installation Complete.....	49
Appendix A: Additional Boot Options.....	51

Pass-Through Certification

Pass-Through Certification refers to the ability for third-party systems to be granted the same certification status as models previously certified by Intel Corporation. Currently, Pass-Through Certification is only available to vendors who purchase Intel server boards and/or systems and Red Hat* Ready Business Partner, Advanced & Premier Program with Red Hat, Inc.

Red Hat Linux Pass-Through Hardware Requirements

Intel Corporation first performs an original model certification as described in the Red Hat Hardware Certification Policies. Subsequent pass-through system certifications of EPSP OEM must meet the following additional requirements:

- Pass-Through certifications must be performed on systems that are a subset of the components covered by testing completed in the original model certification.
- No features or hardware may be added or subtracted from a pass-through system that would impact the certification of the pass-through system.
- Each Pass-Through Certification must have a unique vendor, make, and model number that are not shared with any other hardware that would not be covered by the original certification.
- Each Pass-Through Certification must have a unique vendor specification URL or must utilize the equivalent OEM specification URL.

Reseller Steps to Receive Pass-Thru OS Certification

- Submit the vendor server model name/number that corresponds to the Intel server platform name listed in this recipe along with the specific URL for the vendor platform used in the recipe to: red.hat.linux@intel.com
- The vendor server model will be placed on the Red Hat certified hardware list

Hardware Components (Configuration 1)

Quantity	Item	Version/Model	Notes
1	Intel Server Board S5000PAL	S5000PAL	
1	Intel® Server Chassis	SR1500 (1U)	
2	Intel® Xeon® processors		Please refer to the Qualified and Supported Processor List for Intel® Server Board S5000PAL at http://www.intel.com/support/motherboards/server/sb/CS-022346.htm
8	Memory	16GB (8x2GB)	Please refer to the Tested Memory List for Intel® Server Board S5000PAL at http://www.intel.com/support/motherboards/server/s5000pal/sb/CS-022919.htm
	BIOS	66	S5000.86B.02.00.0066
	BMC	55	
	FRUSDR	38	
	HSC	2.01	
	EERROM	3.01	
	ESB2 Ctrl:		
	AHCI	Enabled	Embedded
1	Midplane	Active w/ RAK	PBA: D28949-301
	SAS Mode	HW RAID	Embedded
1	Backplane	ESG-SHV BP	
1	NIC	PRO/1000 EB	Embedded 7.0.27
	I/OAT	Enabled	NO SUPPORT
	Video	ATI ES1000	Embedded/VESA
	RMM	None	
	Disk Drives		Please refer to the Tested Hardware and Operating System List for Intel® Server Board S5000PAL at http://support.intel.com/support/motherboards/server/sb/CS-025416.htm
2	SAS		2x73GB SAS
1	SAS 0	RAID 1	
1	SAS 1	RAID 1	

1	SAS 2	RAID 0	
1	SAS 3	RAID 0	
1	CD-ROM		Installed
	I/O Module	NIC I/O	Embedded 7.0.27

Table 1 – Intel® Server Board S5000PAL Configuration Hardware (Configuration 1)

(Configuration 2)

Quantity	Item	Version/Model	Notes
1	Intel Server Board S5000PAL	S5000PAL	
1	Intel® Server Chassis	SR1500 (1U)	
2	Intel® Xeon® processors		Please refer to the Qualified and Supported Processor List for Intel® Server Board S5000PAL at http://www.intel.com/support/motherboards/server/sb/CS-022346.htm
	Memory	16GB (8x2GB)	Please refer to the Tested Memory List for Intel® Server Board S5000PAL at http://www.intel.com/support/motherboards/server/s5000pal/sb/CS-022919.htm
	BIOS	66	S5000.86B.02.00.0066
	BMC	55	
	FRUSDR	38	
	HSC	2.01	
	EERROM	3.01	
	ESB2 Ctrl:		
	AHCI	Enabled	Embedded
	Midplane	Active w/ RAK	PBA: D28949-301
	SAS Mode	HW RAID	Embedded
	Backplane	ESG-SHV BP	
	NIC	PRO/1000 EB	Embedded 7.0.27
	I/OAT	Enabled	NO SUPPORT
	Video	ATI ES1000	Embedded/VESA
	RMM	None	
	Disk Drives		Please refer to the Tested Hardware and Operating System List for Intel® Server Board S5000PAL at

Quantity	Item	Version/Model	Notes
			http://support.intel.com/support/motherboards/server/sb/CS-025416.htm
	SAS		2x73GB SAS
	SAS 0	RAID 1	
	SAS 1	RAID 1	
	SAS 2	RAID 0	
	SAS 3	RAID 0	
	CD-ROM		Installed
	I/O Module	1064e SAS I/O	Embedded mptsas

Table 2 – Intel® Server Board S5000PAL Configuration Hardware (Configuration 2)

(Configuration 3)

Quantity	Item	Model/Version	Notes
1	Intel Server Board S5000PAL	S5000PAL	
1	Intel® Server Chassis	SR1500 (1U)	
2	Intel® Xeon® processors	Any Supported	Please refer to the Qualified and Supported Processor List for Intel® Server Board S5000PAL at http://www.intel.com/support/motherboards/server/sb/CS-022346.htm
	RAM	16GB (8x2GB)	Please refer to the Tested Memory List for Intel® Server Board S5000PAL at http://www.intel.com/support/motherboards/server/s5000pal/sb/CS-022919.htm
	BIOS	66	S5000.86B.02.00.0066
	BMC	55	
	FRUSDR	38	
	HSC	2.01	
	EERROM	3.01	
	ESB2 Ctrl:		
	AHCI	Enabled	Embedded
	Midplane	Passive	PBA: D28949-301
	SAS Mode	None	
	Backplane	ESG-SHV BP	
	NIC	PRO/1000 EB	Embedded 7.0.27
	I/OAT	Enabled	NO SUPPORT
	Video	ATI ES1000	Embedded/VESA
	RMM	Installed	Embedded USB drivers
	Disk Drives		Please refer to the Tested Hardware and Operating System List for Intel® Server Board S5000PAL at http://support.intel.com/support/motherboards/server/sb/CS-025416.htm
	SAS		3x73GB 3.5" SAS
	CD-ROM		Installed
	I/O Module	None	

Table 3 – Intel® Server Board S5000PAL Configuration Hardware (Configuration 3)

Software Used in the Installation

Dist. By	Description	File Name
Red Hat	Red Hat* Enterprise Linux 4* Update 4	Red Hat Enterprise Linux (sku# - IPP)

Table 4 - Software Bill of Materials

Development Tools (Optional)

Product	Description	Where to Buy
Intel® C++ Compilers for LINUX	The compiler automatically optimizes and parallelizes software to deliver rapid development and winning performance taking best advantage of the latest multi-core Intel® processor-based platforms.	http://www3.intel.com/cd/software/products/asmo-na/eng/compilers/278609.htm
Intel® Fortran Compiler for LINUX	The compiler automatically optimizes and parallelizes software to deliver rapid development and winning performance taking best advantage of the latest multi-core Intel® processor-based platforms.	http://www3.intel.com/cd/software/products/asmo-na/eng/compilers/279636.htm
Intel® Math Kernel Library	Highly optimized, extensively threaded math routines for scientific, engineering, and financial applications that require maximum performance.	http://www3.intel.com/cd/software/products/asmo-na/eng/266860.htm
Intel® Integrated Performance Primitives	Extensive library of multi-core-ready, highly optimized software functions for multimedia and data processing	http://www3.intel.com/cd/software/products/asmo-na/eng/perflib/ipp/buy/238658.htm
Intel® Threading Building Blocks	Intel's new C++ template-based runtime library that simplifies writing multithreaded applications for performance and scalability	http://www3.intel.com/cd/software/products/asmo-na/eng/294795.htm

Table 5 - Development Tools