Intel® Server Board SE8500HW4

Tested Hardware and Operating System List

Revision 1.5

February, 2006

Enterprise Platforms and Services Division

Revision History

Date	Revision #	Modifications
May 2005	1.0	Initial Release
May 2005	1.1	Removed Intel® SSR316MJ2 storage enclosure
June 2005	1.2	Added the LSI Logic* LSI20320 SCSI adapter, installation guidelines and removed Intel Confidential
June 2005	1.3	Added Agilent* RMC 3.0 KVM, installation guidelines and OS certifications
October 2005	1.4	Updated base configuration software stack, updated supported operating systems, reordered adapter section, updated adapter driver versions, added Teac floppy drive, removed Adaptec* ASR-2110, removed QLogic* QLA2200 and added installation guidelines
November 2005	1.4.1	Changed Red Hat* Enterprise Linux 4 for Intel EM64T to priority one operating system and lowered Red Hat Enterprise Linux 3 for Intel EM64T to priority two
February 2006	1.5	Added new adapters, removed old adapters and OSes, updated driver versions, added QSI* SDR-089SE DVD-ROM, added OS certifications and added installation guidelines

Disclaimers

Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications.

Intel retains the right to make changes to its test specifications at any time, without notice.

The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty.

Intel and Xeon are registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Table of Contents

1. Introduction

This document is intended to provide users of the Intel® Server Board SE8500HW4 with a guide to the different operating systems (OSes), adapter cards, and peripherals tested by Intel on this platform.

This document will continue to be updated as new add-in cards, peripherals, and operating systems are tested or until the SE8500HW4 is no longer in production. Each new release of the document will present updated information as well as continue to provide the information from previous releases.

Intel will only provide support to those add-in cards and peripherals under the specified system configuration (system BIOS and firmware) and operating systems and versions to which they were tested.

1.1 Test Overview

Testing performed on the SE8500HW4 is classified under two separate categories: compatibility testing and stress testing.

1.1.1 Compatibility Testing

Basic compatibility testing is performed with each supported operating system. Basic compatibility testing validates that the server can be used to install the operating system and the base hardware feature set is functional. A small set of peripherals is used for installation purposes only. No add-in cards are tested. Testing may include network connectivity and running of proprietary and industry standard test suites.

The latest version of an operating system signifies the latest supported version at the time of the actual test run. Each new release of this document may have a newly supported release of a given operating system. Previous releases of a supported operating system may not be tested beyond the basic compatibility test process.

1.1.2 Stress Testing

Stress testing is performed only on the most current release of a supported operating system at the time of a given validation run. The stress testing process consists of three areas: base platform, minimum stress testing, and full stress testing.

Base platform: Each base platform will successfully install a given operating system, successfully run a disk stress test, and successfully run a network stress test.

Minimum stress testing: Multiple adapter validation (MAV) testing uses configurations and test suites to gain an accurate view of how the server performs under varying complex configurations while interacting with network clients. All slots are populated with adapters that are running I/O (network, Fibre Channel, SCSI traffic). In conjunction with I/O traffic, a workload is run in parallel to consume processor and memory bandwidth. Each configuration is tested for at least 12 hours.

Full stress testing: This test sequence uses MAV configurations that include add-in adapters in all available slots, each running I/O (network, Fibre Channel, SCSI traffic) for a minimum 100-hour test run without injecting errors. In conjunction with I/O traffic, a workload is run in parallel to consume processor to memory bandwidth. Each configuration passes an installation test, a network/disk stress test, and tape backup test. Any significant issues that occur will require a complete test restart.

1.1.2.1 Support Commitment for Adapter/Peripheral Compatibility and Stress Testing

Intel commits to provide the following level of customer support for operating systems that receive adapter/peripheral compatibility testing:

- Intel will attempt to work with the vendor to resolve any compatibility issues between the platform and the operating system, adapter or peripheral. However, the vendor is under no obligation to resolve the issue.

Intel commits to provide the following level of customer support for operating systems that receive adapter/peripheral compatibility and stress testing:

- Intel will provide support for customer issues with these operating systems involving installation and/or functionality of the server board with or without the adapters and peripherals listed in this document as having been tested under the particular operating system.
- Support is defined as assistance in root causing issues, and determining a customer acceptable resolution to the issue associated with the operating system. The resolution may include, but is not limited to, on-board controller driver changes, engaging the vendor for resolution, BIOS changes, firmware changes, or determining a customer acceptable workaround for the issue.
- Intel will provide and test operating system drivers for each onboard video, network, and storage controller.
- Intel will enable vendors to provide driver support for add-in adapters using these operating systems.
- Intel will go through some of the steps to achieve certification to ensure its customers do not run across any problems, but the actual certification is the responsibility of the individual customer.

1.2 Pass/Fail Test Criteria

For each operating system, adapter, and peripheral configuration, a test passes if specific criteria are met. Specific configurations may have had particular characteristics that were addressed on a case-by-case basis. In general, a configuration passes testing if the following conditions are met:

- The operating system installed without issue:
  - Manufacturer's installation instructions or Intel's best-known methods were used for the operating system installation.
  - No extraordinary workarounds were required during the operating system installation.

  - The server system behaved as expected during and after the operating system installation.
  - Application software installed and executed normally.
- Hardware compatibility tests ran to completion without issue.
- Test software suites executed successfully:
  - Test and data files were created in the correct directories without issue.
  - Files copied from client to server and back compare to the original with zero issues reported.
  - Clients remain connected to the server system.
  - Industry standard test suites run to completion with zero issues reported.

2. SE8500HW4 Base System Configurations

The following table lists the base configurations tested. Base configurations will change as new revisions of the Intel® Server Board Set SE8500HW4 are released and/or new system BIOS, BMC firmware are flashed onto the board in the factory. Each base configuration is assigned an identifier number that is referenced in the tables throughout this document. New base configurations are added with each new release of this document.

Base System Identifier Number	Board Type	Board Number (PBA)	Processors	Notes
1	Front Panel I/O Board	C65075-301	64-bit Intel® Xeon® Processor MP with 8MB L3 cache at 3.33GHz 64-bit Intel® Xeon® Processor MP with 8MB L3 cache at 3GHz 64-bit Intel® Xeon® Processor MP with 4MB L3 cache at 2.83GHz	4U Chassis (C92307-006)
	Memory Board	C53307-501		
	SCSI Backplane Board	C53306-425		
	Power Distribution Board	C90042-300		
	Main Board	C51891-603		
2	Front Panel I/O Board	C61338-200	64-bit Intel® Xeon® Processor MP with 1MB L2 cache at 3.66GHz 64-bit Intel® Xeon® Processor MP with 1MB L2 cache at 3.16GHz Dual-core Intel® Xeon® processor 7040 Dual-core Intel® Xeon® processor 7010	6U Chassis (C92308-006)
	Memory Board	C53307-501		
	SCSI Backplane Board	C61492-405		
	Power Distribution Board	C55207-300		
	Main Board	C51891-603		

The most current software stack (BIOS/BMC/FRUSDR) is available at http://support.intel.com/.

3. Supported Operating Systems

The following table provides a list of supported operating systems for the Intel® Server Board Set SE8500HW4. Each of the listed operating systems was tested for compatibility with a base system configuration. Operating system compatibility testing verifies that the operating system will install and function with all on-board devices listed below. All priority one operating systems, those receiving both compatibility and stress, were tested under fully loaded configurations (adapters and hard drives populating all slots) with significant stress.

Any variations to the standard operating system installation process are documented in the installation guidelines section of this document. If there is not an installation guideline noted in the following table, then the operating system installed as expected using the manufacturer's installation instructions or Intel's best-known methods.

Operating System	Type of Testing	Update Level	Notes
Microsoft* Windows* Server 2003 Enterprise x64 Edition	Compatibility & Stress	Service Pack 1	Refer to IG 7.16
Microsoft Windows Server 2003 Enterprise Edition 32-bit	Compatibility & Stress	Service Pack 1	Refer to IG 7.16
Microsoft Windows 2000 Advanced Server	Compatibility only	Service Pack 4	
Red Hat* Enterprise Linux 4 for Intel EM64T	Compatibility & Stress	Update 1	Refer to IG 7.14, 7.17 & 7.18
Red Hat* Enterprise Linux 4 32-bit	Compatibility only	Update 1	Refer to IG 7.12, 7.17 & 7.18
Red Hat Enterprise Linux 3 for Intel EM64T	Compatibility only[1]	Update 6	Refer to IG 7.13
Red Hat Enterprise Linux 3 32-bit	Compatibility only	Update 6	Refer to IG 7.12
SuSE* Linux Enterprise Server 9 for Intel EM64T	Compatibility & Stress	Service Pack 2	Refer to IG 7.12, 7.17 & 7.18
SuSE* Linux Enterprise Server 9 32-bit	Compatibility only	Service Pack 2	Refer to IG 7.12, 7.17 & 7.18

[1]Note: Red Hat* Enterprise Linux 3 Update 4 for Intel EM64T was revised to receive compatibility only testing mid-way through initial SRA validation testing because required Independent Hardware Vendor driver updates were not available. See section 4 for specific adapter information related to this operating system.

3.1 Operating System Certifications

Listed below are the operating systems that Intel will certify with the Intel® Board Set SE8500HW4. However, the customer is responsible for their own certification from the individual operating system vendors. In many cases, the customer may leverage their operating system certifications from the testing tables below. See the comments column next to each operating system in the table below for additional information. Intel's certifications, pre-certification, and operating system testing may help reduce some of the risk in achieving customer certifications with the operating system vendors.

Operating System	Certification Listing	Notes
Microsoft* Windows* Server 2003 Enterprise 32-bit Edition	Go to https://winqual.microsoft.com/ WHQL Certification numbers: 974159, 975817, 1053042, 1080373, 1080820	
Microsoft* Windows* Server 2003 Enterprise x64 Edition	Go to https://winqual.microsoft.com/ WHQL Certification numbers: 1053042, 1080373, 1080820	
Red Hat* Enterprise Linux 4	Go to http://bugzilla.redhat.com/hwcert/show.cgi?id=177179	
SuSE* Linux Enterprise Server 9	Go to http://developer.novell.com/yessearch/Search.jsp Certification numbers are: 81069, 81076, 81078, 81079, 81080, 81081, 81082, 81083	

4. Adapters and Peripherals

Add-in adapter card and peripheral compatibility and stress testing was performed with the latest available version of an operating system and card software (driver, BIOS, firmware, etc.) at the time the validation testing occurred. Please contact the card vendor for current available software.

Note that not all adapter cards may have been tested under all operating systems. The following notation is used in the tested adapters and peripherals table below to indicate the support level that Intel provides for a particular adapter under a particular operating system:

Number (i.e. 1)	This adapter or peripheral has been tested and is supported under the specific configuration identified in the base system configurations table in Section 2 of this document.
Number in brackets (i.e. [1])	This adapter or peripheral has been tested, but is NOT supported under the specific configuration identified in the base system configurations table in Section 2 of this document.
NT	This adapter or peripheral has not been tested under this operating system and is not supported under this operating system.
ND	This adapter or peripheral has not been tested under this operating system due to limitations in Independent Hardware Vendor (IHV) driver availability, and is not suported under this operating system.

Any variations to the standard adapter installation process or to expected adapter functionality are documented in the Installation Guidelines section of this document. If there are installation guidelines affecting a particular adapter and operating system combination, these are referenced in the following table. If there is not an installation guideline noted in the following table, then the adapter installed and functioned as expected using manufacturer's installation instructions or Intel's best-known methods.

Testing of adapters cards normally is performed with unused add-in adapters and onboard controller expansion ROMs disabled in BIOS Setup. Intel recommends that customers disable the option ROM for add-in controllers and/or the on-board controllers when not booting from the controller or needing to use its built in utilities.

New for THOL v1.4

A superscript designation has been added to each adapter (sections 4.1-4.4) to help illustrate what level of testing it received and whether or not the driver is available in the base OS. The designations are as follows:

P1	The adapter received full stress testing in a fully loaded configuration
P2	The adapter received compatibility testing ensuring it worked with other adapters in a fully loaded configuration but received no stress testing
NAT	The driver for this adapter is available natively in the base OS

The adapters are divided into categories below based on their functionality.

Manufacturer	Model	Interface	Firmware BIOS, Setup Utility	Microsoft* Windows* Server 2003 Enterprise x64 Edition	Microsoft* Windows* Server 2003 Enterprise Edition 32-bit	Red Hat* Enterprise Linux 4 (32-bit and Intel EM64T versions)	Red Hat Enterprise Linux 3 (32-bit and Intel EM64T versions)	SuSE* Linux Enterprise Server 9 (32-bit and Intel EM64T versions)	Installation Guidelines
4.1 PCI-X/PCI Express RAID									
Adaptec*	ASR-2130/2230SLP[P1]	PCI-X* 133MHz	FW-7348	4.2.1.7372	4.2.1.7372	1.1.2-LK2		1.1-5	Refer to IG 7.2 & 7.3
Intel®	SRCU42L[P2]		2.42.02-R07A	5.4.19.0	5.4.19.0	ND	3.04	3.04	Refer to IG 7.10
	SRCU42X[P2]		FW-413Z	6.45.3.64 (Intel brand)	6.45.2.32 (Intel brand)	2.20.4.6	2.10.9.01	2.20.4.6	Refer to IG 7.10
	SRCU42E[P1]	PCI Express*	FW-514K						Refer to IG 7.10
LSI Logic*	MegaRAID* U320-2[P2]	PCI 66MHz	FW-413Y	6.45.3.64 (LSI brand)	6.43.2.32 (LSI brand)		2.10.8.2		Refer to IG 7.4 & 7.10
	MegaRAID U320-2e[P2]	PCI Express	FW-514L						Refer to IG 7.4 & 7.10
	MegaRAID U320-2x/4x[P1]	PCI-X 133MHz	FW-413Y						Refer to IG 7.4 & 7.10
4.2 PCI-X/PCI SCSI									
Adaptec	ASC-29160/39160[P2]	PCI 66MHz	B-3.10.0	7.0.000.000		6.3.11			
	ASC-29320A-R/39320A-R[P1]	PCI-X 133MHz	B-4.30			1.3.11[NAT]		2.0.14	
LSI Logic	LSI20320/20320-R[P2]		FW-1.03.23	1.10.05.00[NAT]	1.10.05.00	3.01.16[NAT]	2.05.16.01-11[NAT]	3.02.18[NAT]	Refer to IG 7.5 & 7.7
	LSI22320-R[P1]								Refer to IG 7.6 & 7.7

Manufacturer	Model	Interface	Firmware BIOS, Setup Utility	Microsoft* Windows* Server 2003 Enterprise x64 Edition	Microsoft* Windows* Server 2003 Enterprise Edition 32-bit	Red Hat* Enterprise Linux 4 (32-bit and Intel EM64T versions)	Red Hat Enterprise Linux 3 (32-bit and Intel EM64T versions)	SuSE* Linux Enterprise Server 9 (32-bit and Intel EM64T versions)	Installation Guidelines
4.3 PCI-X/PCI Express Fibre Channel									
Emulex*	LP1050Ex[P2]	PCI Express	1.90a4	1.11A0	1.10a4	8.0.16.6[NAT]	7.1.14	8.0.16.6_p3	
	LP10000ExDC[P1]					8.0.16.6_x2	1.10.4		Refer to IG 7.8
	LPE11002[P2]		NA				NT		
QLogic*	QLE2360/2362[P2]		B-1.69	9.02.17		8.01.00b7	7.03.00	8.01.00b7	
Emulex	LP9802/LP9802DC[P1]	PCI-X 133MHz	1.90a4	NA	5.1.11.0	8.0.16.6_x2	7.1.14	8.0.16.6[NAT]	
	LP10000/LP10000DC[P1]			1.11A0				8.0.16.6_p3[NAT]	
QLogic	QLA2340/2342[P1]		B-1.34	9.02.17		8.00.02[NAT]	7.03.00	8.01.00b7	
4.4 PCI-X/PCI Express Network Interface Card									
Intel	PRO/100+ S Dual Port – PILA8472D3G1P[P2]	PCI 33MHz	NA	8.0.16.0[NAT]	7.1.8[NAT]	3.3.6[NAT]			
	PRO/1000 MT Dual Port – PWLA8492MT[P1]	PCI-X 133MHz		8.6.11.0		6.1.16	5.6.10.1[NAT]	6.1.16	Refer to IG 7.9
	PRO/1000 MF Dual Port – PWLA8492MF[P1]								
	PRO/1000 MT – PWLA8490MT[P2]								Refer to IG 7.9
	PRO/1000 MF – PWLA8490MF[P2]								
4.5 USB Keyboard & Mouse									
Belkin*	ErgoBoard* Pro Keyboard	USB	NA	1, 2	1, 2	1, 2	1, 2	1, 2	
Logitech*	Internet Navigator* Keyboard								

Manufacturer	Model	Interface	Firmware BIOS, Setup Utility	Microsoft* Windows* Server 2003 Enterprise x64 Edition	Microsoft* Windows* Server 2003 Enterprise Edition 32-bit	Red Hat* Enterprise Linux 4 (32-bit and Intel EM64T versions)	Red Hat Enterprise Linux 3 (32-bit and Intel EM64T versions)	SuSE* Linux Enterprise Server 9 (32-bit and Intel EM64T versions)	Installation Guidelines
Microsoft*	Natural* Keyboard	USB	NA	1, 2	1, 2	1, 2	1, 2	1, 2	
Kensington*	PilotMouse* Optical Mouse								
Logitech	First Wheel Optical Mouse								
Microsoft	Wheel Mouse Optical Mouse								
4.6 Tape Drive									
Quantum*	DLTVS160 (Half height)	U160 SCSI	V34	3.6.0	3.6.0	NT			
	SDLT600 (Full height)		V30						
4.7 Slim Optical Drive									
QSI*/Philips*	SDR-083SE/SDRM0824	ATA33	MX20	1, 2	1, 2	1, 2	1, 2	1, 2	
QSI/Philips	SDR-089SE (RoHS)								
4.8 USB Floppy & Key Fob Memory Device									
Teac*	FD05PUB Floppy drive	USB	NA	1, 2	1, 2	1, 2	1, 2	1, 2	
Iomega*	Mini USB 2.0 Drive (512 MB & 1GB)								
Lexar*	Jump Drive* Pro 80X USB 2.0 (512MB & 1GB)								
SanDisk*	Cruzer* Mini USB 2.0 (512MB & 1GB)								
4.9 Keyboard/Video/Mouse (KVM) Switch									
Agilent*	RMC 3.0 – N2523A	PCI-X 100MHz	A.06.04.60	1, 2	1, 2	1, 2	1, 2	1, 2	
Avocent*	Auto View* 2000	USB	NA						
	Auto View 1000R								
NTI*	UNIMUX-USBV-xU								

5. On-Board Components

Manufacturer	Model	Firmware BIOS, Setup Utility	Microsoft* Windows* Server 2003 Enterprise x64 Edition	Microsoft Windows Server 2003 Enterprise Edition 32-bit	Red Hat Enterprise Linux 4 (32-bit & Intel EM64T versions)	SuSE* Linux Enterprise Server 9 (32-bit and Intel EM64T versions)	Installation Guidelines
5.1 SCSI Controller							
LSI Logic*	53C1030 Ultra320*	FW-NVJB1	1.10.02[NAT]	1.09.11[NAT]	3.01.16[NAT]	3.02.18[NAT]	Refer to IG 7.7
5.2 Gigabit Ethernet Controller							
Broadcom*	NetXtreme* BCM5704	FW-3.36	7.100c[NAT]	7.100c	8.2.18		
5.3 Video Controller							
ATI*	Radeon* 7000	NA	8.15 (6.14.10.6553)		4.0.1[NAT]	4.3.99.902[NAT]	Refer to IG 7.1
5.4 Optional Mass Storage Controllers							
Intel®	RAID Controller SROMBU42E (RAID On Main Board (ROMB))	FW-514K	6.45.3.64	6.45.2.32	2.20.4.6		Refer to IG 7.5 & 7.19
	Fibre Channel Module – AHWFCMOD	B-1.06	9.0.2.17		8.01.00B7		Refer to IG 7.15

6. Hard Disk Drives

The hard drives listed in the following table have been tested on the Intel® Server Board Set SE8500HW4, in on-site validation labs, and/or by individual drive vendors. The following operating system identifiers are used in the table to specify which operating system each drive was tested under.

Identifier number	Operating System
1	Microsoft* Windows* Server 2003 Enterprise Edition
2	Red Hat* Enterprise Linux 4 Update 1
3	SuSE* Linux Enterprise Server 9 SP-2

The following notation is used in the tested hard drives table below to indicate the support level that Intel provides for a particular hard drive with a particular operating system:

Number (i.e. 1)	This hard drive has been tested and is supported under the operating system identified by the operating system identification number.
Number in brackets (i.e. [1])	This hard drive has been tested, but is NOT supported under the operating system identified by the operating system identification number.
NT	This adapter or peripheral has not been tested under this operating system and is not supported under this operating system.

All hard disk drives below use the U320/SCA interface.

Manufacturer	Product Family	Model Number	RPM	Drive size[1]	Tested Operating Systems	Installation Guidelines
Fujitsu*	MAT 10K	MAT3300NC	10K RPM	300GB	1,2,3	
	MAU 15K	MAU3147NC	15K RPM	147GB		
Hitachi*	Ultrastar* 10K300	HUS103030FL3800	10K RPM	300GB		Refer to IG 7.11
Maxtor*	Atlas* 10K-V	8D300J0	10K RPM	300GB		
	Atlas 15K-II	8E147J0	15K RPM	147GB		
Seagate*	Cheetah* 10K-7	ST3300007LC	10K RPM	300GB		
	Cheetah 15K-3	ST318453LC	15K RPM	18GB		
	Cheetah 15K-4	ST3146854LC	15K RPM	146GB		

[1]Note: All hard drives within the product families listed above are supported regardless of size.

7. Installation Guidelines

7.1 Front panel video output does not function with shipped ATI* driver for Microsoft* Windows* 2003 Enterprise Edition versions

Issue: The front panel video output does not function properly.

Guideline: The user needs to boot the system using the rear video output and then follow these steps:

1. Obtain newest ATI driver from Intel or ATI
2. Go to Control Panel → Display → Settings Tab → Advanced
3. Uninstall current ATI driver
4. Install new driver currently 8.15

Status: Microsoft may incorporate this new driver in a future service pack.

7.2 System will hang at startup when both the Adaptec* ASR-2230SLP and LSI Logic* LSI22320-R are installed

Issue: System will not boot with both an ASR-2230SLP and LSI22320-R installed.

Guideline: Do not install both of these cards at the same time until a fix is available.

Status: This has been resolved in BIOS P05.1 and above.

7.3 Unable to install Microsoft Windows 2003 Enterprise x64 Edition to drives attached to an Adaptec ASR2230SLP

Issue: When using the 4.2.1.7367 driver during OS installation, the install prompts a second time for the driver and is unable to complete the install. When the ASR2230SLP is not used to store the primary boot drive it functions correctly.

Guideline: Don’t use the ASR2230SLP as the primary boot drive until a new driver is available.

Status: This issue has been resolved with the latest driver from Adaptec.

7.4 LSI Logic MegaRAID2* driver does not load correctly with Red Hat* Enterprise Linux 3 Update 4 EM64T

Issue: During install, the system loads the MegaRAID driver and then attempts to load the MegaRAID2 driver. However, it does not load successfully so the RAIDs attached to the ROMB are not seen.

Guideline: Perform a “noprobe” install and load only the MegaRAID2 driver. After that, all RAIDs should be visible to the OS.

Status: No additional fixes are expected. Continue to use the workaround.

7.5 System will hang at startup when RAID on MotherBoard (ROMB) is enabled and LSI Logic LSI20320 is installed

Issue: System will not boot with both ROMB enabled and LSI Logic 20320 installed.

Guideline: Disable ROMB when booting with the LSI 20320 card installed in the system.

Status: This issue will be resolved in BIOS P07 (ETA early March) and above, though the option ROM for the slot the adapter is in should be turned off to allow the onboard adapter to control it.

7.6 System may hang when updating the LSI Logic LSI22320-R firmware

Issue: LSI firmware driver can cause the system to hang when updating the firmware.

Guideline: Use only the IME version of the firmware, not the IT or IS versions.

Status: This issue is resolved by using the IME firmware.

7.7 System may hang at startup when onboard SCSI option ROM is disabled and any LSI SCSI card has its option ROM enabled

Issue: The SE8500HW4 implementation of the LSI Logic 53C1030 onboard SCSI/RAID controller works in conjunction with system BIOS to initialize the device. LSI Logic SCSI cards are not able to initialize the onboard device, either the onboard option ROM or SCSI card option ROM must be disabled to boot.

Guideline: Two options are available before adding a LSI Logic SCSI card to the system:

- To use both the onboard and the LSI SCSI card: in BIOS Setup disable the option ROM for the slot where the LSI Logic SCSI card will be installed. After installing the SCSI card, the onboard option ROM will execute and will control the added card. Both the added and the onboard SCSI will be functional.

- To use just the LSI SCSI card: in BIOS Setup disable the onboard SCSI controller. This will allow the added card to run but the onboard SCSI will not be functional.

Status: This is working as designed, there is no fix planned for this issue.

7.8 System may not boot when Emulex* LP10000ExDC is enabled

Issue: System may not boot from any peripheral device with the Emulex LP10000ExDC enabled.

Guideline: The failure occurs when multiple Option ROMs use the Extended BIOS Data Area. The work-around is to disable all Option ROMs except the ROM which controls the boot drive via the BIOS setup.

Status: This has been resolved in BIOS P05.1 and above.

7.9 Intel® PRO/1000 MT adapters not seen in slot 2

Issue: During resets and power state transitions the NIC may briefly draw more than 375 mA of current. For safety, the SE8500HW4 slot 2 hot plug controller will disable the slot when such an over current condition is present. During POST, this card will not be seen by the BIOS.

Guideline: Use this NIC only in slots 6 or 7 (non hot-plug slots).

Status: There is no fix planned for this issue.

7.10 System will hang at startup or blue screen in Microsoft Windows when LSI Logic RAID adapters are used in conjuction with Intel RAID adapters

Issue: LSI Logic RAID adapters and Intel RAID adapters (including ROMB) share a common implementation. At POST this can cause software conflicts between the adapters, and at OS runtime this can cause incompatible driver versions to be loaded and applied to the wrong adapter.

Guideline: LSI Logic RAID adapters cannot be used in the same system with Intel RAID adapters or when ROMB is enabled.

Status: There is no fix planned for this issue.

7.11 Hitachi* Ultrastar* 10K300 hard drive family cannot be used in slot 5 on Intel® Server Platform SR4850HW4

Issue: The inrush current of the Hitachi hard drive in slot 5 on the Intel® Server Platform SR4850HW4 causes the circuit protection of the SCSI backplane to activate and disable the drive.

Guideline: Use other certified hard drives or do not use in slot 5.

Status: This issue has been resolved with the new SCSI backplane that is included in systems with a top assembly number of C92307-005 or greater.

7.12 Red Hat Enterprise Linux 4 U1 and SuSE* Linux Enterprise Server 9 SP2, IA32 versions, require an extra kernel parameter when using more than 2 Intel® Xeon® processor 7000 sequence

Issue: The default kernels included in these releases do not support more than eight logical processors by default.

Guideline: Adding acpi=bigsmp to the kernel command line during boot this will allow the installation to continue and support up to 16 logical processors.

Status: A fix from the vendor will be available in the future.

7.13 Red Hat Enterprise Linux 3 U6, EM64T version, installation does not support using more than 2 Intel® Xeon® processor 7000 sequence

Issue: The kernel included with this release does not support more than eight logical processors. If more than eight logical processors are installed in the system, the installation kernel will not boot.

Guideline: Either use the 32-bit version of the operating system or disable Hyper Threading in BIOS Setup. Disabling Hyper Threading will lower the logical processors seen by the operating system to six/eight.

Status: A fix from the vendor will be available in the future.

7.14 Red Hat Enterprise Linux 4 U1, EM64T version, fully supports only 2 Intel® Xeon® processor 7000 sequence

Issue: The kernel included with this release cannot use more than eight logical processors. The installation process will complete but the operating system will only be able to utilize eight processors.

Guideline: Either use the 32-bit version of the operating system, or disable Hyper Threading in BIOS Setup. Disabling Hyper Threading will lower the logical processors seen by the operating system to six/eight.

Status: A fix from the vendor will be available in the future.

7.15 Installation and reinstallation of Intel Fibre Channel Module drivers on Microsoft Windows Server 2003 Enterprise Edition 32-bit fails

Issue: The installation and reinstallation of the Intel Fibre Channel Module fails because the drivers do not have a valid security catalog file and the .inf file does not correctly identify the installed card when running the hardware wizard.

Guideline: Use the newly released driver; 9.1.0.11.

Status: This is resolved with the new driver.

7.16 Microsoft Windows 2003 Enterprise Edition pre-SP1 may hang during installation with more than eight logical processors

Issue: During pre-SP1 OS installation, with four Dual-Core Intel® Xeon® processors 7000 sequence, chipset interrupts may go un-serviced due to the OS and hardware not being in sync.

Guideline: Ensure Microsoft Windows 2003 Enterprise Edition with SP1 is used for the installation. Alternatively Hyper Threading may be disabled in BIOS during the OS install and re-enabled once completed.

Status: There is no fix is planned for this issue.

7.17 Linux OSes may not correctly report the total amount of available memory if the BIGSMP kernel is not used during installation

Issue: If any Linux OS is installed using <4GB of main memory and later upgraded to >4GB it will not correctly show the amount of memory available.

Guideline: To avoid this issue use the kernel parameter acpi=BIGSMP during installation regardless of the amount of memory currently installed.

Status: There is no fix planned for this issue.

7.18 Linux OSes will kernel panic at startup when 64GB of main memory is used for the installation

Issue: Any Linux OS will kernel panic at startup if 64GB of main memory is used because there is not enough PCI address space available to initialize the OS.

Guideline: Add the kernel parameter "swiotlb=8192" or install with less memory.

Status: BIOS P07 will have a BIOS setup option to increase the size of the PCI address space. The default for this option will be 2GB which resolves the issue. Red Hat and SuSE will release a fix in a future release.

7.19 Mouse is not usable in LSI Logic WebBIOS configuration utility

Issue: Mouse is not usable in the LSI Logic WebBIOS configuration utility <CTRL H> because it is not supported by the system BIOS.

Guideline: Continue to use the keyboard in WebBIOS or use <CTRL M> to enter legacy BIOS setup.

Status: A fix from the vendor may be available in the future.