Intel® Server Platform SR870BH2

Tested Hardware and Operating System List

Revision 3.1

November, 2006

Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
July 2003	1.0	Initial Release
October 2003	1.1	Added NTI KVM
January 2004	1.2	Format change for consistency with SR870BN4
April 2004	2.1	Updated adapter list, test unit configurations and added Red Hat EL3 Certifications
April 2004	2.2	Added Infiniband updates
November 2004	2.3	Added BIOS PR2.0, BMC 26 Base System
June 2005	2.4	Added BIOS PR3.1 (Build187), BMC 30 Base System, Red Hat* EL3 U4 and SuSE* Linux ES9 SP1
January 2006	2.5	Added BIOS PR3.3 (Build191), BMC 32 Base System, Red Hat* EL3 U6, Red Hat* EL4 U2 and SuSE* Linux ES9 SP2
July 2006	3.0	Added Dual-Core Itanium® 2 Processor 9000 Series test. Added RoHS compatible HDDs
November 2006	3.1	Added BIOS PR2.0 (Build 253) for Itanium® 2 Processor 9000 Series, BMC 34 Base System, Red Hat* EL3 U6, Red Hat* EL4 U3 and SuSE* Linux ES9 SP3

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Table of Contents

1.   Introduction

This document is intended to provide users of the Intel® Server Platform SR870BH2 with a guide to the different operating systems, 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 Intel server platform SR870BH2 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 Intel Server Platform SR870BH2 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.

Extended compatibility testing will occur on only the latest versions of a supported operating system. Extended compatibility testing will test for functionality of a variety of add-in adapters and peripherals. Test applications used will consist of both proprietary as well as 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 test process consists of three areas: Base platform, Multiple Adapter, and Endurance.

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.

Multiple Adapters: 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. Each configuration is tested for at least 12 hours.

Endurance Test: This test sequence uses configurations that include 8 add-in adapters for a minimum 100-hour test run without injecting errors. Three servers operating under Windows* Server 2003 Enterprise, Red Hat* AS2.1 and SuSE* LE are tested in parallel. Each configuration passes an installation test, a Network/Disk Stress test. Any fatal errors that occur will require a complete test restart.

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 error.
    - 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 error.
- Test software suites executed successfully
    - Test and data files were created in the correct directories without error.
    - Files copied from client to server and back compare to the original with zero errors reported.
    - Clients remain connected to the server system.
    - Industry standard test suites run to completion with zero errors reported.

2.   Intel® Server Platform SR870BH2 Base System Configurations

The following table lists the base configurations tested. Base configurations will change as new revisions of the Intel® Server Platform SR870BH2 are released and/or new system BIOS, BMC firmware are cut 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	Board Type	Board Assembly Number (PBA)	BIOS & Firmware	Itanium® 2 Processor	Notes
1	Front Panel Board	A28398-401	BIOS RC 5.1 BMC 25 HSC 11 SDR 14	1.4/1.5M 1.0/1.5M 1.3/3M 1.4/4M 1.5/6M	Itanium® 2 Processor with up to 6MB L3 Cache
	SCSI Back Plane Board	C28410-102			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	A67239-220			
	Mainboard	A61794-402 ZXW*			
2	Front Panel Board	A28398-400	BIOS RC 5.1 BMC 25 HSC 11 SDR 14	1.4/1.5M 1.0/1.5M 1.3/3M 1.4/4M 1.5/6M	Itanium® 2 Processor with up to 6MB L3 Cache
	SCSI Back Plane Board	C28410-103			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	A67239-300			
	Mainboard	A61794-500 ZXW*			
3	Front Panel Board	A28398-400	BIOS PR2.0 BMC 26 HSC 11 SDR 14	1.3/3M 1.6/3M 1.5/4M 1.7/4M 1.6/6M 1.7/9M	Itanium® 2 Processor with up to 9MB L3 Cache
	SCSI Back Plane Board	C28410-103			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	A67239-300			
	Mainboard	A61794-500 ZXW*			
4	Front Panel Board	C28398-400	BIOS PR3.1 BMC 30 HSC 14 SDR 15	1.3/3M 1.6/3M 1.6/6M 1.6/9M	Itanium® 2 Processor with up to 9MB L3 Cache
	SCSI Back Plane Board	C28410-103			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	A67239-300			
	Mainboard	A61794-500 ZXW*			
5	Front Panel Board	C40486-403	BIOS PR3.3 BMC 32 HSC 14 SDR 15	1.5/4M 1.6/6M 1.6/9M	Itanium® 2 Processor with up to 9MB L3 Cache
	SCSI Back Plane Board	C35245-105			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	C40484-241			
	Mainboard	C40483-405 ZXW*			
6	Front Panel Board	C40486-403 C39530-400	BIOS PR1.4 build 249 for Itanium® 2 Processor 9000 Series BMC 34 HSC 15 SDR 17	1.6/24M (QPAH) 1.6/18M (QPAI) 1.6/8M (QPAL) 1.4/12M (QPAM) 1.6/6M (QPAK)	QPAH/QPAI/QPAM are DC with MT QPAL is DC w/o MT QPAK is SC w/o MT
	SCSI Back Plane Board	C35245-105 C39528-103			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	C40484-241			
	Mainboard	C40483-405 ZXW* C58902-500			

7	Front Panel Board	C40486-403 C39530-400	BIOS PR2.0 build 253 for Itanium® 2 Processor 9000 Series BMC 34 HSC 15 SDR 17	1.6/24M (QRFJ) 1.6/18M (QRFL) 1.6/8M (QRFO) 1.4/12M (QRFM) 1.6/6M (QRFN)	
	SCSI Back Plane Board	C35245-105 C39528-103			
	Peripheral Adaptor Board	A83782-201			
	PCI Riser Board	C40484-241			
	Mainboard	C40483-405 ZXW* C58902-500			

*NOTE: Special production level equivalency modifications for internal validation & test.
Z: Change 82546EB to the 82546GB Network Interface Controller (NIC)
X: NIC EPROM update to enable ARP filtering related to IPMI command functionality
via TCO port (Refer to technical advisory TA-0685-1 for additional detail).
W: Updated NVRAM for LSI SCSI Integrated Mirroring functionality testing.

3. Supported Operating Systems

The following table provides a list of supported operating systems for the Intel® Server Platform SR870BH2. Each of the listed operating systems was tested for compatibility with a base Intel server platform SR870BH2 configuration. Operating system compatibility testing verifies that the operating system will install and function with all on-board devices.

Any variations to the standard operating system installation process are documented in the Installation Guidelines section of this document. If there are no installation guidelines noted in the following table, then the operating system is installed as expected by using manufacturer's installation instructions or Intel's best-known methods. Operating system versions are the latest available at time of testing which may differ from the current release.

Operating System	Base Configuration Tested
Microsoft* Windows* Server2003 Enterprise for Itanium® 2	1, 2, 3 & 4
Microsoft* Windows* Server2003 Enterprise for Itanium® 2 SP1	5, 6(M), 7
Red Hat* Linux* AS2.1 for Itanium® 2	1 & 2
Red Hat* Enterprise Linux AS v.3 for Itanium® 2 (Kernel 2.4.21-9.EL)	1 & 2
Red Hat* Enterprise Linux AS v.3 Update 2 for Itanium® 2 (Kernel 2.4.21-15.EL)	3
Red Hat* Enterprise Linux AS v.3 Update 4 for Itanium® 2 (Kernel 2.4.21-27.EL)	4
Red Hat* Enterprise Linux AS v.3 Update 6 for Itanium® 2 (Kernel 2.4.21-37.EL)	5, 6, 7
Red Hat* Enterprise Linux AS v.4 Update 2 for Itanium® 2 (Kernel 2.6.9-22.EL	5, 6
Red Hat* Enterprise Linux AS v.4 Update 3 for Itanium® 2 (Kernel 2.6.9-34.EL	7
SuSE* Linux Enterprise Server* 8.0 for Itanium® 2 SMP Kernel	1 & 2
SuSE* Linux Enterprise Server 9 for Itanium® 2 (Kernel 2.6.5-7.97)	3
SuSE* Linux Enterprise Server 9 SP1 for Itanium® 2 (Kernel 2.6.5-7.139)	4
SuSE* Linux Enterprise Server 9 SP2 for Itanium® 2 (Kernel 2.6.5-7.191)	5
SuSE* Linux Enterprise Server 9 SP3 for Itanium® 2 (Kernel 2.6.5-7.244 - default)	6, 7

*NOTE:
M – For running Microsoft* Windows* Server2003 Enterprise SP1 with Dual-Core Itanium® 2 Processor 9000 Sequence, a software update must be installed. For more details and information on how to obtain the update, please visit http://support.microsoft.com and see Knowledge Base article #916467.

3.1 Operating System Certifications

Listed below are the operating systems that Intel will certify the Intel Server Platform SR870BH2. 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 Intel's testing. See the "Comments" section 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	Comments
Microsoft* Windows* Server 2003 Enterprise	Intel® Server Platform SR870BH2	Intel has achieved certification on a base configuration. OEMs must obtain certification for their specific product. http://www.microsoft.com/windows/catalog/server/ (Search on SR870BH2)
Red Hat* AS2.1 Kernel	Intel® Server Platform SR870BH2	Intel has achieved certification on a base configuration. OEMs must obtain certification for their speciffic product. redhat.com	Red Hat Hardware Compatibility List (Search on SR870BH2)
Red Hat* EL v.3	Intel® Server Platform SR870BH2	Intel has achieved certification on a base configuration. OEMs must obtain certification for their speciffic product. redhat.com	Red Hat Hardware Compatibility List (Search on SR870BH2)
Red Hat* EL v.4	Intel® Server Platform SR870BH2	Intel has achieved certification on a base configuration. OEMs must obtain certification for their speciffic product. redhat.com	Red Hat Hardware Compatibility List (Search on SR870BH2)
SuSE* Linux Enterprise Server* 8 for Itanium® 2	Intel® Server Platform SR870BH2	Intel has achieved certification on a base configuration. OEMs must obtain certification for their specific product. http://www.suse.de/de/business/certifications/certified_hardware/intel/SR870BH2
SuSE* Linux Enterprise Server* 9 for Itanium® 2	Intel® Server Platform SR870BH2	Intel has achieved certification on a base configuration. OEMs must obtain certification for their specific product http://developer.novell.com/yes/84087.htm

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.

The adapters are divided into categories based on their functionality. All integrated on-board devices are tested by default and are therefore not included in the following tables.

Note that not all adapter cards were 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 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 are no installation guidelines 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.

Note: PCI hot-add is currently supported only with the Microsoft* Windows* Server 2003 operating system but is not available on the SR870BH2 platform.

Manufact urer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139 /191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
3.1 PCI-X/PCI RAID											
LSI*	MegaRAID U320-2x	PCIX-64/133 (64M)	4 (1L33/G118) 5, 6,7 (H429/414C)	1,2,3,4 (6.32.2.64) 5,6,7 (6.41.2.64)		1,2 (1.18J) 3 (2.10.1.1)	4 (1.18k) (2.10.8.2) 5,6,7 (2.10.8.2)	5,6,7 (2.20.4.6)	3/4 (2.20.0.rc1)/ (2.20.2.4) 5,6,7 (2.20.4.2)	1,2 (2.00.8)	
LSI*	MegaRAID U320-4x	PCIX-64/133 (64M)	5, 6,7 (H429/414C)	6,7 (6.41.2.64)			5,6,7 (2.10.8.2)	6,7 (2.20.4.6)	5,6,7 (2.20.4.2)		
LSI*	Enterprise 1600	PCI-64/66 (64M)		1 (6.32.2.64)		1 (1.18k)				1 (2.00.8)	
LSI*	Enterprise 1600	PCI-64/66	111U/F320	3,4 (6.41.2.64))		3 (1.18k)	4 (2.10.8.2)		3 (2.00.3) 4 (2.20.2.4)		
Intel	SRCU42X	PCIX-64/133 (128M)	3, 4 (H424/413Z) 6,7 (H429/414C)	3,4,6,7 (6.41.2.64)		3 (v2.10.1.1)	4 (v1.18k) 5,6,7 (2.10.8.2)	6,7 (2.20.4.6)	3/4 (2.00.8)/ (2.20.2.4) 5,6,7 (2.20.4.2)		
3.2 PCI-X/PCI SCSI											
Adaptec*	ASC-29160	PCI-64/66	3.10.0	1,2,3,4,6,7 (5.2.3790)		1,2,3 (6.2.36 DIST CD)	4,6,7 (6.2.36 DIST CD)	5,6/7 (6.2.36)/(6.3.11)	3,4,5 (6.2.36) 6,7 (6.3.11)	1,2 (6.2.36 DIST CD)	Legacy 32 firmware support only
Adaptec*	ASC-29320	PCI-64/66	4.30.0	5,6,7 (3.0.0.0)			5,6,7 (1.3.10-RH1)	5/6/7 (1.3.11)/ (2.0.14)/(2.0.15)	5/6,7 (1.3.11)/ (2.0.15)		

Manufact urer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139/191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
LSI*	LSI22320R	PCIX-64/133	1.03.00.39/1.03.00.39/1.03.07.00	1,2/3,4/6,7 (1.9.6.0)/ (1.9.11.0)/ (1.20.18.0)		1,2 (2.05.10) (2.05.05+) 3 (2.05.11.03)	4,6,7 (2.05.16.02) 5 (2.06.16.01)	6,7 (3.02.18)	3/4 (3.01.03)/ (2.05.16.02) 5/6,7 (3.02.18)/ (3.02.62)	1,2 (2.05.05+)	
LSI*	LSI53C1030	PCIX-64/133	1.03.10.00	3/6 (1.9.11)/ (1.20.18.0)		3 (2.05.11.03)	6 (2.05.16.02)	6 (3.02.18)	3/6 (3.01.03)/ (3.02.62)		
Adaptec*	ASC-39320	PCIX-64/133	4.25.0	1/2,6,7 (2.0.000.000)/ (3.0.0.0)		1,2 (1.3.10)	4,5,6,7 (1.3.10-RH1)	6/7 (2.0.14)/(2.0.15)	4,5 (1.3.11) 6,7 (2.0.15)	1,2 (1.3.10)	only for cards w/ B0 controller. Legacy 32 support only
Adaptec*	ASC-39160	PCI-64/66	3.10.0/3.10.0	1,2,3,4,5,6,7 (5.2.3790.0)		1,2,3 (6.2.36)	4 (6.2.36) 5,6,7 (6.2.36)	5,6/7 (6.2.36)/(6.3.11)	3,4,5 (6.2.36) 6,7 (6.3.11)	1,2 (6.2.36)	Legacy 32 firmware support only
Adaptec*	ASC-39320A	PCI-64/66		3 (3.0.0.0)		3 (1.3.10)					
Adaptec*	ASC-39320AR	PCI-64/66		3 (3.0.0)		3 (1.3.10)			3 (1.3.11)		
3.3 PCI-X/PCI Fiber Channel											
Aglient*	5420	PCIX-64/133		1,2,3,4 (4.0.8.11)		1,2,3 (L_0.7.1)	4 (L_0.7.1)		3 (L_0.6.7)	1,2 (L_0.7.1)	
Emulex*	LP9802DC	PCIX-64/133	(1.90a1/1.63a2) 5/6,7 (1.91a1/1.70a3)/ (1.91a3/3.11a4)	1,2,3 (6.5.0.11) 4/6,7 (6.5.10.10)/ (6.1.11.0)		1,2,3 (4.30L)	4 (7.1.14) 5,6,7 (7.3.2)	6,7 (8.0.16.17)	3,4 (2.10f) 5/6,7 (8.0.16.6)/ (8.0.16.17)	1,2 (1.23A)	
Emulex*	LP10000	PCIX-64/133	5/6,7 (1.91a1/1.70a3)/ (1.91a3/3.11a4)	6,7 (6.2.30.2)			5,6,7 (7.3.2)	6,7 (8.0.16.17)	5/6,7 (8.0.16.6)/ (8.0.16.17)		
LSI*	7402XP	PCI-64/133	5, 6,7 2.02.01/1.02.11	6,7 (5.2.3790.0)			5/6,7 (2.06.16.01)/ (2.05.16.02)	6,7 (3.02.18)	5/6,7 (3.02.18)/ (3.02.62)		

Manufact urer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139 /191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
QLogic*	QLA2342	PCIX-64/133	3.02.28/1.43 5 3.03.08/1.47	1,2/3 (8.2.3.11)/ (8.2.3.16) 4/6,7 (9.0.1.10)/ (9.0.2.16)		1,2 (6.06.00B11) 3 (6.07.02-RH2)	4,6,7 (7.01.01) 5 (7.05.00)	6,7 (8.01.00b7-fo)	3,4 (8.00.00) 5/6,7 (8.00.02)/ (8.01.02)	1,2 (6.06.00)	
3.4 PCI-X/PCI Network Interface Card											
Intel	PRO/1000M T PWLA8492 MT	PCIX-64/133		1,2/3 (7.3.13.0)/ (7.4.19.0) 4/6,7 (8.4.21.0)/ (8.6.17.0)		1,2 (5.2.16) 3 (5.2.30.1-k1)	4 (5.6.10.1) 5/6,7 (6.2.15)/ (7.0.33)	6,7 (7.0.33NAPI)	3/4 (5.2.3a)/ (5.6.10.1) 5/6,7 (6.2.15)/ (7.0.33)	1,2 (5.2.16) (5.2.22) (5.2.36)	Support for 6-layer cards only
Intel	PRO/1000 T PWLA8490T	PCI-64/66		1,2/3 (6.3.6.31)/ (7.4.19.0) 4/5/6,7 (8.4.21.0)/ (8.6.11.0)/ (8.6.17.0)		1,2 (5.0.43) *AS2.1 only 3 (5.2.30-k1)	4 (5.6.10.1) 5/6,7 (6.2.15)/ (7.0.33)	5 (6.2.15NAPI) 6,7 (7.0.33NAPI)	3/4 (5.2.39)/ (5.6.10.1) 5/6,7 (6.2.15)/ (7.0.33)	1,2 (5.0.43)	*NT on RH EL3.0 Tested on RH AS2.1 only
Intel	PRO/1000X T PWLA8490X T	PCIX-64/133		1,2/3 (6.3.6.31)/(7.4.19.0) 4 (8.4.21.0)		1,2 (5.0.43) *AS2.1 only 3 (5.2.30-k1)	4 (5.6.10.1)		3 (5.2.39) 4 (5.6.10.1)	1,2 (5.0.43)	*NT on RH EL3.0 Tested on RH AS2.1 only
Syskonnet *	SK9843	PCI-64/66	NA	3,4/6,7 (6.10.0.0)/ (8.55.2.2)	ND	1,2 (DIST CD) 3 (7.04)	4 (7.09) 5/6,7 (8.28.1.3)/ (8.31.2.3)	5,6 (8.28.1.3) 7 (8.31.2.3)	3/4 (6.23)/(7.09) 5/6,7 (8.24.1.3)/ (8.31.2.3)	1,2 (DIST CD)	
3.5 PCI-X & PCI Cluster Interconnect Adapter											
Myricom*	M3F-PCI64C-2	PCI-64/66	NA	NT	NT	1,2 (*2.01) *AS2.1 only				1,2 (2.01)	*NT on RH EL3.0 Tested on RH AS2.1 only

Manufacturer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139/191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
Myricom*	M3F-PCI64D	PCI-64/133	NA	NT	NT	1,2 (*2.01) *AS2.1 only				1,2 (2.01)	*NT on RH EL3.0 Tested on RH AS2.1 only
Myricom*	M3F-PCIXE	PCI-X 64/133	NA	NT	NT	1,2 (20031212231317PST)				1,2 (20031212231317PST)	

3.6 PCI Video card

Manufacturer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139/191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
ATI*	Radeon 7000	PCI-64/66	NA	1,3 (6.13.10.6153)	ND	1,2 (DIST CD) 3 (4.0.1)			3 (4.0.1)	1,2 (DIST CD)	

3.7 USB Keyboard

Manufacturer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139/191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
Logitech*	Internet Navigator	USB	NA	1,2	NA	1,2				NT	
Logitech*	LTCF-100306 (Y-BF37)	USB	NA	4,5,6,7	NA		4,5,6,7	5,6,7	4,5,6,7	NT	
Logitech*	Cordless Navigator Duo (Y-RJ21)	USB	NA	4	NA		4		4	NT	
Logitech*	Cordless Freedom	USB	NA	1,2,3	NA	1,2,3			3	NT	
A4Tech*	KBS-3	USB	NA	5,6,7			5,6,7	5,6,7	5,6,7		
Belkin*	F89E887	USB	NA	1,2	NA	1,2				NA	
Belkin*	F8E206	USB	NA	5,6,7			5,6,7	5,6,7	5,6,7		
BENQ*	A122	USB	NA	4	NA		4		4		
Microsoft*	Internet Keyboard	USB	NA	1,2,3,5,6,7	NA	1,2,3	5,6,7	5,6,7	3,5,6,7	NT	

Manufact urer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139 /191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
Microsoft*	Natural Keyboard Elite	USB	NA	1,2,4	NA	1,2	4		3,4	NT	
Dell*	RT7D10	USB	NA		NA	3				NT	

3.8 USB Mouse

Logitech*	Wheel /mini Mouse Optical	USB	NA	1,2,5,6,7	NA	1,2	5,6,7	5,6,7	5,6,7	NT	
Logitech*	Whee Mouse	USB	NA	1,2	NA	1,2				NT	
Logitech*	Cordless Mouse M-RP67	USB	NA		NA	3			3	NT	
Microsoft*	Wheel Mouse Optical	USB	NA	1,2,4	NA	1,2	4		4	NT	
Microsoft*	Intellimouse* Optical	USB	NA	1,2,3,4,5,6,7	NA	1,2,3	4,5,6,7	5,6,7	3,4,5,6,7	NT	
Dell*	MO56UC	USB	NA		NA	3				NT	

3.9 Slim DVD-CDRW Drive

Panasonic *	CW-8122-B	ATA33	NA	1,2	NA	1,2				1,2	
TEAC*	DW-224E-A98	ATA33	NA	1,2,3,4	NA	1,2	4,5,6		3,4,5,6	1,2	
IBM*	HLDS GCC-4240N	ATA33	NA	1,2	NA	1,2				1,2	
IBM*	HLDS GCC-4240N	IDE	NA	3	NA	3			3	1,2	
Samsung*	324B LP DVD/RW	ATA33	NA	1,2	NA	1,2				1,2	
Lite-on	LSC-24081	ATA33	NA	1,2	NA	1,2				1,2	
Lite-on	LSC-24081	IDE	NA	3	NA				3	1,2	

Manufact urer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139 /191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
3.10 USB Key Fob Memory Device											
Iomega*	64mb Mini Drive USB Flash32547	USB	NA	1,2,3,4	NA	1,2	4		4	NT	
Lexar*	JumpDrive 64MB PD064-231	USB	NA	1,2	NA	1,2			3	NT	
Lexar*	JumpDrive 128MB PD0128-231	USB	NA	1,2	NA	1,2				NT	
Lexar*	JumpDrive 256MB	USB	NA	5,6,7	NA		5,6,7	5,6,7	5,7		
Lexar*	JumpDrive 1GB	USB	NA	5,6,7			5,6,7	5,6,7	5,7		
Dell*	64M USM Flash Memory Keystorage	USB	NA	1,2,3,4	NA	1,2,3	4		3,4	NT	
Dell*	128M USM Flash Memory Keystorage	USB	NA	1,2,3,4	NA	1,2,3	4		3,4	NT	
Dell*	256M USM Flash Memory Keystorage	USB	NA	1,2,3,4	NA	1,2,3	4		3,4	NT	
IBM*	64MB USB 1.1	USB	NA	1,2	NA	1,2				NT	
Memorex*	64MB USB Thumb Drive	USB	NA	1,2	NA	1,2				NT	
Disk on Key*	DiskOnKey*-64MB pro	USB	NA	1,2	NA	1,2				NT	
3.11 Storage Enclosure Fibre Channel/SCSI (Enabled)											
Intel	SC5200	U320/SCA	NA	4,6,7	NA		4,6,7	6,7	6,7	NT	
Xyratex*	SS-1202	1 Gb/s FC-AL	NA	1,2	NA	1,2				NT	

Manufacturer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL/-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL/-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139 /191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
LSI*-Logic	DF4000R	2 Gb/s FC-AL	NA	1,2	NA	1,2				NT	
Eurologic*	FC2502DR	2 Gb/s FC-AL	NA	1,2	NA	1,2				NT	
Eurologic*	FC21010DR 2-AC	2 Gb/s FC-AL	NA	4,6,7	NA		4,6,7	6,7	6,7	NT	
EMC*	CX-600	2 Gb/s FC-AL	NA	1,2	NA	1,2				NT	
Dell*	Power Vault 220S	U320/SCA	NA	3,4,6	NA	3	4,6	6	3,6	NT	
Xyratex*	RX-0800-LVD	U320/SCA	NA	3	NA	3			3	NT	
Xyratex*	RS-1600-FC	2 Gb/s FC-AL	NA	3,4,6,7	NA		4,6,7	6,7	3,6,7	NT	
Eurologic*	SC2100ERR -AC-B1	U320/SCA	NA	3	NA	3			3	NT	

3.12 DVD ROM Slim

Panasonic*	SR-8177-BNS	ATA33	NA	1,2	NA	1,2				1,2	
Liteon*	LSD081	ATA33	NA	1,2	NA	1,2				1,2	
Teac*	DW-224E-A98	ATA33	NA		NA	3				1,2	

3.14 Tape Drives

Certance*	DDS4	SCSI	NA	4[+]	NA		4		4		
HP*	StorageWorks DAT C5687C/Q1554A/Q1555A	SCSI	NA	3	NA	3			3		
HP*	StorageWorks DLT VS80	SCSI	NA	3	NA	3			3		

Manufacturer	Model	Interface	Firmware BIOS,	Windows* Server 2003 Enterprise Build 3790 /SP1 (Driver Rev)	Windows PCI Hot Plug Test	Red Hat* EL3 Kernel 2.4.21-9.EL-15.EL (Driver Rev)	Red Hat* EL 3 U4/U6 Kernel 2.4.21-27.EL-37.EL (Driver Rev)	RedHat EL 4 U2/U3, Kernel 2.6.9-22.EL/-34.EL	SuSE Linux ES9 Kernel 2.6.5-7.97/139/191/244 (Driver Rev)	SuSE* SLES8 Kernel 2.4.21-107-SMP (Driver Rev)	Comments
HP*	StorageWorks DLT VS160	SCSI	NA	4[+]	NA		4		4		
Quantum*	DLT VS160	SCSI	NA	4[+]	NA		4		4		
Sony*	SDT_11000	SCSI	NA	3	NA	3			3		
Dell*	PowerVault 110T TR-S23BA	SCSI	NA	3	NA	3			3		
3.15 Infiniband PCI-X Adapters											
Infinicon*	Infiniserv7000 Infiniband HCA	PCI-X 133		NT	NA	Red Hat Advanced Server 2.1 only	NT		NT	NT	Mellanox Base
Quadrics*	QM500 PCI-X Network Adapter	PCI-X 133		NT	NA	Red Hat Advanced Server 2.1 only	NT		NT	NT	
3.16 Infiniband Switch (IB, FC/IB & Networking)											
Infinicon*	Infinio 7000	Infinifabric switch module		NT	NA	Red Hat Advanced Server 2.1 only	NT		NT	NT	FC, 4x IB, 1GBE 2GB FC & IP Ethernet
3.17 USB DVD-ROM											
Toshiba*	SD-C2612	USB	NA	4	NA		4		4	NT	

+ Need apply Microsoft* hotfix. See: http://support.microsoft.com/default.aspx?kbid=817688 for detail

5.   Hard Disk Drives

The hard drives listed in the following table have been tested on the Intel® Server Platform SR870BH2 by Intel, in Intel validation labs, and/or by individual drive vendors. The following operating system identifiers are used in the table to specify which OS each drive was tested under.

Identifier number	Operating System
1	Microsoft* Windows* Server2003 Enterprise for Itanium® 2
2	Red Hat* Enterprise Linux AS2.1 for Itanium® 2
3	Red Hat* Enterprise Linux AS v.3 for Itanium® 2
4	SuSE* Linux Enterprise Server 8 for Itanium® 2
5	SuSE* Linux Enterprise Server 9 for Itanium® 2
6	Red Hat* Enterprise Linux AS v.4 for Itanium® 2

Note that not all hard drives were tested under all operating systems. 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.

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems	Comments
Maxtor*	Atlas* 10K- IV	8B036JO	U320/SCA	10K RPM	36GB	1,2,3,4 & 5	
Maxtor*	Atlas* 10K- IV	8B073JO	U320/SCA	10K RPM	73GB	1,2,3 & 4	
Maxtor*	Atlas* 10K- III-u320	KU18J017	U320/SCA	10K RPM	18GB	1,3,5	
Maxtor*	Atlas* 10K- III-u320	KU18J018	U320/SCA	10K RPM	18GB	1,3,5	
Maxtor*	Atlas* 10K- III-u320	KU18J07E	U320/SCA	10K RPM	18GB	1,3	
Maxtor*	Atlas* 10K- III-u320	KU18JP7E	U320/SCA	10K RPM	18GB	1,3,5	
Maxtor*	Atlas* 10K- IV	8B0146JO	U320/SCA	10K RPM	146GB	1,2,3 & 4	
Maxtor*	Atlas 15K	8C036JO	U320/SCA	15K RPM	36GB	1,2,3 & 4	
Maxtor	Atlas 15K	8C073JO	U320/SCA	15K RPM	73GB	1,2,3 & 4	
Seagate*	Cheetah X 15K 36LP	ST318452FC	2GB/s FC	15K RPM	18GB	1,3,5	

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems	Comments
Seagate*	Cheetah 10K.6	ST336607LC	U320/SCA	10K RPM	36GB	1,2,3,4 & 5	
Seagate*	Cheetah 10K.6	ST373307LC	U320/SCA	10K RPM	73GB	1,2,3 & 4	
Seagate*	Cheetah 10K.6	ST3146807 LC	U320/SCA	10K RPM	146GB	1,2,3 & 4	
Seagate*	Cheetah 15K.3	ST318453LC	U320/SCA	15K RPM	18GB	1,3,5,6	
Seagate*	Cheetah 15K.3	ST318453FC	2GB/s FC	15K RPM	18GB	1,3,6	
Seagate*	Cheetah 15K.3	ST336753LC	U320/SCA	15K RPM	36GB	1,2,3,4,6	
Seagate*	Cheetah 15K.3	ST373453LC	U320/SCA	15K RPM	73GB	1,2,3 & 4	
Seagate*	Cheetah X 15K 36LP	ST336732LC	U320/SCA	15K RPM	36GB	1,3,5	
IBM	Cheetah 10K.6	ST373307LC	U320/SCA	15K RPM	73GB	1,5	
IBM	Cheetah 15K.3	ST336753LC	U320/SCA	15K PRM	36GB	1,3	
IBM*	Ultra star* 146Z10	C35L146 UCDY10	U320/SCA	10K RPM	146GB	1,2,3 & 4	
Fujitsu*	MAP Series	MAP3147NC	U320/SCA	10K RPM	147GB	1,2,3 & 4	
Fujitsu*	MAS Series	MAS3735NC	U320/SCA	15K RPM	73GB	1,2,3 & 4	

The following hard drives have also been tested and are supported on the SR870BH2 platform. (Bold items are ROHS compatible models.)

Supplier	Model	Part Number	Spindle Speed	Interface	Capacity	Firmware Version
Fujitsu	AL9-LE	MAT3735NC	10K RPM	U320	73GB	0105
Fujitsu	AL9-LE	MAT3147NC	10K RPM	U320	147GB	0105
Fujitsu	AL9-LE	MAT3300NC	10K RPM	U320	300GB	0105
Fujitsu	AL9-LX	MAU3367NC	15K RPM	U320	36GB	0105
Fujitsu	AL9-LX	MAU3735NC	15K RPM	U320	73GB	0105
Fujitsu	AL9-LX	MAU3147NC	15K RPM	U320	147GB	0105
Fujitsu		MAJ3182MC	10K RPM	U160	18GB	
Fujitsu		MAP3147NC	10K RPM	U320	146GB	5605
Fujitsu		MAS3735NC	15K RPM	U320	73GB	5B06
Hitachi	Python-A	HUS103073FL3800	10K RPM	U320	73GB	SA14
Hitachi	Python-A	HUS103014FL3800	10K RPM	U320	146GB	SA14
Hitachi	Python-A	HUS103030FL3800	10K RPM	U320	300GB	SA14
Hitachi	Viper-A	HUS151436VL3800	15K RPM	U320	36GB	SA14
Hitachi	Viper-A	HUS151473VL3800	15K RPM	U320	73GB	SA14
Hitachi	Viper-A	HUS151414VL3800	15K RPM	U320	146GB	SA14
IBM	Daytona			U320		S23C
IBM	Ultrastar 36LZX	DDYS-T18350	10K RPM	U160	18GB	
Maxtor	Atlas 10K-V	8D073J0	10K RPM	U320	73GB	JNX0
Maxtor	Atlas 10K-V	8D147J0	10K RPM	U320	147GB	JNX0
Maxtor	Atlas 10K-V	8D300J0	10K RPM	U320	300GB	JNX0
Maxtor	**Atlas 10K-V**	**8J073J0**	**10K RPM**	**U320**	**73GB**	
Maxtor	**Atlas 10K-V**	**8J147J0**	**10K RPM**	**U320**	**147GB**	
Maxtor	**Atlas 10K-V**	**8J300J0**	**10K RPM**	**U320**	**300GB**	
Maxtor	Atlas 15K-II	8E036J0	15K RPM	U320	36GB	JNZH
Maxtor	Atlas 15K-II	8E073J0	15K RPM	U320	73GB	JNZH
Maxtor	Atlas 15K-II	8E147J0	15K RPM	U320	147GB	JNZH
Maxtor	**Atlas 15K-II**	**8K036J0**	**15K RPM**	**U320**	**36GB**	
Maxtor	**Atlas 15K-II**	**8K073J0**	**15K RPM**	**U320**	**73GB**	
Maxtor	**Atlas 15K-II**	**8K147J0**	**15K RPM**	**U320**	**147GB**	
Maxtor	Quantum Atlas V			U160		
Maxtor	Atlas 10K-IV	8B0146JO	10K RPM	U320	146GB	DFV0
Maxtor	Atlas 10K-IV	8B036JO	10K RPM	U320	36GB	DFV0
Maxtor	Atlas 10K-IV	8B073JO	10K RPM	U320	73GB	DFV0
Maxtor	Atlas 15K	8C036JO	15K RPM	U320	36GB	DT60
Maxtor	Atlas 15K	8C073JO	15K RPM	U320	73GB	DT60
Maxtor		KU18J017	10K RPM	U320	18GB	B810
Maxtor		KU73J017	10K RPM	U320	73GB	B810
Seagate	Cheetah 10K-7	ST373207LC	10K RPM	U320	73GB	0002
Seagate	Cheetah 10K-7	ST3146807LC	10K RPM	U320	146GB	0002
Seagate	Cheetah 10K-7	ST3300007LC	10K RPM	U320	300GB	0002
Seagate	Cheetah 15K-4	ST336754LC	15K RPM	U320	36GB	0001
Seagate	Cheetah 15K-4	ST373454LC	15K RPM	U320	73GB	0001

Seagate	Cheetah 15K-4	ST3146854LC	15K RPM	U320	146GB	0001
Seagate	Cheetah X15	ST318451LC	15K RPM	U160	18GB	
Seagate	Cheetah 15K-3	ST373453LC	15K RPM	U320	73GB	0005