Intel® RAID Controller SRCU32

Tested Hardware and Operating System List

Revision 2.0

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Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
3/18/03	1.0	Initial Release
11/6/03	2.0	Added latest test results

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1.   Introduction

This document is intended to provide users of the SRCU32 RAID controller with a guide to the different operating systems, server boards, chassis, disk drives and other peripherals tested by Intel for use with this RAID controller.

This document will continue to be updated as additional testing is performed, or until the SRCU32 RAID controller is no longer in production. Each new release of the document will also include the information from previous releases.

Intel will only provide support for this RAID controller when used in a system configured with the server boards listed and configured with the versions of RAID firmware, system BIOS / firmware, and operating system versions for which the tests were performed. Thorough testing has been performed of the SRCU32 with the Intel server boards, with Intel drive enclosures, and with the third party devices listed below; however, it is not practical to test the SRCU32 in every possible combination of server board, drive enclosure, hard drive, and peripheral. Sample combinations have been tested to gain added confidence in their inter-compatibility, and every device listed has been tested in one or more configurations.

1.1   Test Overview

Testing performed of the SRCU32 RAID controller is classified under two seperate catagories: Compatibility Testing and Stress Testing.

1.1.1   Basic Installation Testing

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

> **Note:** 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.

1.1.1.1   Support Commitment for Basic Installation Testing

Intel commits to provide the following level of customer support for operating systems that receive only basic installation testing:

- Intel will provide and test operating system drivers for each of the server board's integrated controllers, provided that the controller vendor has a driver available upon request. Vendors will not be required by Intel to develop drivers for operating systems that they do not already support. This may limit the functionality of certain server board integrated controllers.

- Intel will support customer issues that involve installation and/or functionality of operating system with the server board's integrated controllers only if a driver has been made available.
- Intel will NOT provide support for issues related to use of any add-in adapters or peripherals installed in the server system when an operating system that received basic installation testing only is in use.
- 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.

1.1.2   Adapter / Peripheral Compatibility and Stress Testing

Adapter / Peripheral Compatibility and Stress testing is performed only on the most current release of a supported operating system at the time of a given validation run. The Adapter / Peripheral Compatibility and Stress testing process consists of three areas: Base Platform, Adapter Compatibility, and Stress.

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.

Adapter Compatibility: Adapter compatibility validation (CV) testing uses test suites to gain an accurate view of how the server performs with a wide variety of adapters under the primary supported operating systems. These tests are designed to show hardware compatibility between the cards and the server platform and include functional testing only. No heavy stressing of the systems or the cards is performed for CV testing.

Stress Testing: This test sequence uses configurations that include add-in adapters in all available slots, (depending on chassis used) for a minimum 72-hour test run without injecting errors. Each configuration passes an installation test, a Network/Disk Stress test, and tape backup test. Any fatal errors 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 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.

⇒ For operating systems, adapter cards, and peripherals not listed in this document, there is no support commitment. Intel will consider support requests on a case-by-case basis.

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.   SRCU32 Firmware Configurations

The following table lists the controller / firmware configurations tested. This document will be updated with additional configurations as new revisions of the SRCU32 RAID controller and/or firmware versions for that controller are released. Each configuration is assigned an identifier number which is referenced in the tables throughout this document.

> Intel will only provide support for adapters and peripherals under the specified adapter configuration and operating systems versions with which they were tested.

Base System Identifier #	Product Code	Part Number	Firmware Revision
1	SRCU32	C90969-001	Ver 2.32.01-R01B
2	SRCU32U	C90969-002	Ver 2.34.05-R043
3	SRCU32U	Web Post	Ver 224.09-R05C

3. Operating Systems

The following table provides a list of supported operating systems for the Intel® RAID Controller SRCU32. Each of the listed operating systems was tested for compatibility with Intel® RAID Controller SRCU32 configuration listed in Section 2 of this document. Operating systems are supported only with the specified base system configuration(s) with which they were tested.

The following table also indicates whether each operating system received Basic Installation Testing, or Adapter / Peripheral Compatibility and Stress Testing. For information on the support commitments for Basic Installation Testing vs. Adapter / Peripheral Compatibility and Stress Testing, please reference Section 1 of this document.

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 installed as expected using manufacturer's installation instructions or Intel's best-known methods.

⇒   Caution - The operating systems listed below have been tested for compatibility with the SRCU32 RAID controller but the operating system and its associated driver may not have been tested for compatibility with the server board you have chosen to use. Please check the supported operating system list for your server board to verify operating system support compatibility. Intel® will only provide support for Intel RAID Controllers on Intel Server Boards for which the operating system is listed as tested in the server board's Tested Hardware and Operating System List. This document lists testing performed on Intel Server Boards only.

Ident#	Operating System	Base System Configuration Tested & Type of Testing	Notes
1	SCO OpenUnix* v8.0	Configuration 1 – Compatibility & Stress Configuration 2 – Compatibility & Stress Configuration 3 – Compatibility & Stress	
2	Caldera* Linux 3.1	Configuration 1 – Compatibility & Stress Configuration 2 - Basic Installation Configuration 3 - Basic Installation	
3	Debian* 2.2r6	Configuration 1 – Compatibility & Stress	
4	FreeBSD* 4.4 and 4.5	Configuration 1 – Compatibility & Stress	
5	Mandrake* 8.1	Configuration 1 – Compatibility & Stress	

Ident#	Operating System	Base System Configuration Tested & Type of Testing	Notes
6	Microsoft* Windows* 2000 Advanced Server, Service Pack 2&3	Configuration 1 – Compatibility & Stress Configuration 2 – Compatibility & Stress Configuration 3 – Compatibility & Stress	
7	Microsoft* Windows* NT 4.0, Service Pack 6a	Configuration 1 – Compatibility & Stress	
8	Novell Netware* 5.1, Service Pack 4	Configuration 1 – Compatibility & Stress Configuration 2 - Basic Installation Configuration 3 - Basic Installation	
9	Novell Netware* 6.0, Service Pack 1	Configuration 1 – Compatibility & Stress Configuration 2 – Compatibility & Stress Configuration 3 – Compatibility and Stress	
10	Red Hat* Linux 7.0	Configuration 1 – Compatibility & Stress	
11	Red Hat* Linux 7.1	Configuration 1 – Compatibility & Stress	
12	Red Hat* Linux 7.2	Configuration 1 – Compatibility & Stress	
13	Red Hat* Linux 7.3	Configuration 1 – Compatibility & Stress	See IG 7.1
14	Red Hat* Linux 8.0	Configuration 1 – Compatibility & Stress, Configuration 2 – Compatibility & Stress Configuration 3 – Compatibility and Stress	See IG7.2
15	SCO Open Server* 5	Configuration 1 – Compatibility & Stress Configuration 2 - Basic Installation Configuration 3 - Basic Installation	
16	SCO Unixware* 7.1.1	Configuration 1 – Compatibility & Stress Configuration 2 - Basic Installation Configuration 3 - Basic Installation	
17	SuSE* Linux 7.3	Configuration 1 – Compatibility & Stress	

Ident#	Operating System	Base System Configuration Tested & Type of Testing	Notes
18	Turbo Linux* 7	Configuration 1 – Compatibility & Stress Configuration 2 - Basic Installation Configuration 3 - Basic Installation	
19	Red Hat* Advanced Server 2.1[3]	Configuration 1 – Compatibility & Stress Configuration 2 - Basic Installation Configuration 3 - Basic Installation	See IG 7.3
20	Microsoft* Windows* Server 2003	Configuration 2 – Compatibility & Stress Configuration 3 – Compatibility and Stress	
21	Red Hat* Linux 9.0	Configuration 2 – Compatibility & Stress Configuration 3 – Compatibility & Stress	
22	SCO Unixware* 7.1.3	Configuration 2 – Basic installation Configuration 3 - Basic Installation	
23	Microsoft* Windows* Small Business Server 2000	Configuration 3 Basic Installation	Application portion of the package was not tested and is not supported.
24	Microsoft* Windows* Small Business Server 2003	Configuration 3 Basic Installation	Application portion of the package was not tested and is not supported.

1. The SRCU32 with Red Hat 7.3 requires the use of kernel patch 18-5. Full compatibility and stress testing were not performed. Support for this configuration will be limited to simple debug only.
2. The SRCU32 with Red Hat 8.0 requires the use of kernel patch 18-18.8.0. Full compatibility and stress testing were not performed. Support for this configuration will be limited to simple debug only.
3. The SRCU32 with Red Hat Advanced Server requires the use of kernel patch 2.4.9-e.12.i686 or later.

3.1   Operating System Certifications

Listed below are the operating systems that Intel®ll certify with the Intel® RAID Controller SRCU32. 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* 2003 Enterprise Server	SRCU32	OEM must request certification by Microsoft* or their specific product. http://www.microsoft.com/hwdq/hcl/search.asp (Search on SHG2) http://developer.intel.com/design/servers/whql.htm
Microsoft* Windows* 2000 Advanced Server	SRCU32	OEM must request certification by Microsoft*for their specific product. http://www.microsoft.com/hwdq/hcl/search.asp (Search on SRCU32) http://developer.intel.com/design/servers/whql.htm
Novell NetWare* 5.1 and 6.0	SRCU32	Novell checks Intel's test results, certifies (if appropriate), and posts the certificate on their web site. Customer can leverage the Intel certification, if customer product meets the operating system vendor standard. http://developer.novell.com/yes
Red Hat* Linux 7.2	SRCU32	Red Hat checks Intel's results, certifies (if appropriate), and posts the certificate on their web site. Customer can leverage the Intel certification, if customer product meets the operating system vendor standard. http://hardware.redhat.com/hcl/?pagename=hcl&view=certified&vendor=399&class=9#list

4. Intel Server Boards

This list includes the Intel® Brand server board software versions with which the server boards were configured at the time of testing. This document is updated on a quarterly basis, please check the website for information on the latest version available.

Server Board	Microsoft* Windows* 2003	Microsoft* SBS 2003	Microsoft* Windows* 2000	Microsoft* SBS 2000	Microsoft* Windows* XP	Microsoft* Windows* NT	Red Hat* Linux v7.3	Red Hat* Linux v8.0	Red Hat* Linux v9.0	Red Hat* Linux v2.1	Novell* NetWare v5.1	Novell* NetWare v6.0	Turbo* Linux 7.0	SuSE* Professional 8	Caldera* Unixware 7.1.3	Caldera* Unixware 7.1.1	Caldera* OpenUnix v8.0
TSRLT2/TSRMT2 Version Tested — BIOS P19, BMC 63, FRU/SDR 5.0.k, HSC N/A			X							X							
SAI2 Version Tested — BIOS P10, BMC NA, FRU/SDR NA, HSC NA			X				X										
SCB2[1] Version Tested — BIOS 2.12, BMC 63, FRU/SDR 5.0.P, HSC 0.05			X		X		X	X			X	X				X	X
SDS2 Version Tested — BIOS 3.2, BMC 32, FRU/SDR 5.0.E, HSC N/A			X				X				X	X				X	X
SE7500CW2 — BIOS P17, BMC N/A, FRU/SDR N/A, HSC N/A	X	X	X	X			X					X	X				X
SE7501CW2 — BIOS P07, BMC N/A, FRU/SDR N/A, HSC N/A	X	X	X	X					X	X		X					X
SE7505VB2 — BIOS 1.07, BMC N/A, FRU/SDR N/A, HSC N/A	X	X	X	X	X					X		X					
SE7500WV2[1] Version Tested — BIOS P05, BMC 19, FRU/SDR 5.0.9, HSC 0.07/0.05			X				X					X		X			

Server Board	Microsoft* Windows* 2003	Microsoft* SBS 2003	Microsoft* Windows* 2000	Microsoft* SBS 2000	Microsoft* Windows* XP	Microsoft* Windows* NT	Red Hat* Linux v7.3	Red Hat* Linux v8.0	Red Hat* Linux v9.0	Red Hat* Linux v2.1	Novell* NetWare v5.1	Novell* NetWare v6.0	Turbo* Linux 7.0	SuSE* Professional 8	Caldera* Unixware 7.1.3	Caldera* Unixware 7.1.1	Caldera* OpenUnix v8.0
SHG2 — Version Tested: BIOS 1.09, BMC 22, FRU/SDR 5.0.9, HSC 0.10	X	X	X	X			X	X			X	X	X				X
SE7501WV2[1] — BIOS P05, BMC 1.19, FRU/SDR 5.6.9, HSC 0.07/0.05	X	X	X	X				X			X	X		X			
SE7501BR2 — BIOS P13, BMC 1.18, FRU/SDR 5.5.i, HSC .10	X	X	X	X		X	X	X	X		X	X	X	X			X
SE7501HG2 — BIOS P10, BMC 1.17, FRU/SDR 5.5.1, HSC .10	X	X	X	X		X	X	X			X	X	X	X			X
SKA4 — BIOS 52.7, BMC 28, FRU/SDR 4.3.6, HSC .10			X				X				X	X				X	X
SSH4 — BIOS P08, BMC 24, FRU/SDR 5.0.6, HSC .10	X	X	X	X					X	X				X	X		

[1] Testing was performed on the SCSI SKU of this product.

5.   Enclosures, PCI Adapters, and Peripherals

Enclosure, add-in card, and peripheral testing has been performed with the SRCU32 controller by Intel® Labs, by independent test labs, or by the vendor. Compatibility and stress testing is performed with the latest version of an operating system at the time the validation testing occurred. Although a large sample of configurations were tested, due to the large number of possible configurations, not all devices were tested under all operating systems, and not all possible combinations or configurations of third party devices were tested for inter-compatability. Customers should refer to the Tested Hardware and Operating System List for the server board being used to verify that the device selected is also on the list for that product as well.

Add-in adapter card and peripheral compatibility and stress testing will only be performed with the latest version of an operating system at the time the validation testing occurred. The following table shows the operating system and base system configurations used to validate each device. 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 and peripherals were tested under all operating systems.

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.

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier

5.1 External[3] Storage

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Andataco	GigiRAID	8000LVD	Ultra2/SCA		9
Adjile*	Jaguar	JGC-33H421C	U160/SCA		1,6,7,8,9,11,12,13,14,16,19,20,22
Clariion*	FC5700	FC5700	Fibre Channel		2,3,4,5,6,7,8,10,11,16, 18
Compaq*	Storageworks 4314T		U160		2,3,4,5,6,7,8,10,11,16, 18
Dell*	PowerVault 201S		U160		2,3,4,5,6,7,8,10,11,16, 18
Dell*	PowerVault 211S		U160		2,3,4,5,6,7,8,10,11,16, 18
EuroLogic	UltraBloc 320	SC2100ERR-AC-B-12	U320/SCA		9,14,19
IBM*	EXP/300		U160		2,3,4,5,6,7,8,10,11,16, 18
Nstor*	NexStor	8Lj	U160		2,3,4,5,6,7,8,10,11,16, 18
Xyratex*	RS-0800-LVD	RS-0800-LVD	U320		1,6,9,14,22
Xyratex*	Salient SCSI	SS-1204-LVDS	Ultra2/SCA		22
Xyratex*	RS-1600-FC	RS-1600-FC	2GB/FC		6,9

5.2 Internal Storage[3]

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Intel®	SR1200		U160/SCA		1,6,9,12,13, 14
Intel®	SR1300		U160/SCA		1,6,9,12,13, 14,19
Intel®	SR2200		U320/SCA		1,6,9,12,13, 14
Intel®	SR2300		U320/SCA		1,6,9,12,13, 14,19
Intel®	SC5100		U160/SCA		1,6,9,12,13, 14
Intel®	SC5200		U320/SCA		1,6,9,12,13, 14
Intel®	SC5250		U320/SCA		1,6,9,12,13, 14

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier

5.3　CDROM Drives[1]

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Hitachi*	CDR-8335	CDR-8335	IDE		1,6,7,8,12,16,
Lite-ON*	LTN-483	LTN-483	IATA33		8
Lite-ON*	LTN-486	LTN-486	ATA33		6,9,19,20,22
Lite-ON*	LTN-526	LTN-526	IDE		1,6,9,11,12,13,
Mitsumi*	SR243T1	SR243T1	ATAPI		19,
Samsung*	CD-Master 24E	SN-124Q/MMI	IDE		1,6,9,12,13,14
Samsung*	CD-Master 52E	SC-152	IDE		6,9,12,
Sony*	CDU4811	CDU4811	IDE		6,8,9,11,13,14
Sony*	CDU4821	CDU4821	IDE		11,16
Sony*	CDU5211	CDU5211	IDE		1,6,9,12,13,14,20,22
Panasonic*	AXXDVDFloppy	SR-8177-B	IDE		1,6,9,13,14,17,19
Plextor*	PX-40TSUW				2,3,4,5,6,7,8,10,11,16, 18
Teac*	CD-224E	CD-224E	ATA33		6,8,16,19,
Teac*	CD-532E-B	CD-532E-B	IDE		1,12,,16
Toshiba	XM-6602B	XM-6602B	IDE		16

5.4　Tape Drives[2]

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Sony*	SDX-500	SDX-500C/TB	Ultra2/wide		9,14,20
Sony*	PCBacker II	SDT-11000/PB	Ultra2/wide		6,9
Seagate *	SCORPION 40		SCSI DDS4 DAT		2,3,4,5,6,7,8,10,11,16, 18
Quantum*	DLT8000				2,3,4,5,6,7,8,10,11,16, 18
Sony*	SDT 9000				2,3,4,5,6,7,8,10,11,16, 18
Seagate*	SCORPION 24	STD2401LW	DDS4 DAT		2,3,4,5,6,7,8,9,10,11,1416, 18

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier

5.5 Hard Disk Controllers

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Adaptec*	SCSI Card 2940U2W	AHA-2940U2W	PCI		6,9,14,19,20,22
Adaptec*	ASC-29160LP	ASC-29160LP	PCI-64/66		2,3,4,5,6,7,8,10,11,12,13,14,16, 18,19
Adaptec*	ASC-29160N	ASC-29160N	PCI-32/33		2,3,4,5,6,7,8,10,11,16, 18
Adaptec*	ASC-3950U2	AHA-3950U2B	PCI-64/33		6,7,8,16
Adaptec*	ASC-39160	ASC-39160	PCI-64/66		1,2,3,4,5,6,7,8,9,10,11,12,13,14,16, 18,19,23
Adaptec*	ASC-39320	ASC39320	PCI-X133		2,3,4,5,6,7,8,9,10,11,16, 18,20,22
Emulex*	LightPulse LP90002L	LP9002L-F2	FC-HBA PCI64/66		6,9,14,
Emulex*	LightPulse LP9002-T1	LP9002-T1	FC-HBA PCI64/66		14,19
Emulex*	LightPulse LP8000	LP8000T1	FC-HBA PCI64/66		1,6,9,11,12,13,14,16,19
Emulex*	LightPulse LP9402	LP9802 DC	FC-HBA PCI64/66 133		6,9,20
Emulex*	LightPulse LP9402	LP9402 DC	FC-HBA PCI64/66		1,6,9,14,20,22
JNI*	FCE6560	FCE6560	PCI-X133		2,3,4,5,6,7,8,10,11,16, 18
LSI Logic	LSI20160	LSI20160	PCI-64/66		6,12,13,14,19
LSI Logic*	LSI20160L	LSI20160L	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18
LSI Logic*	SYM22902	SYM22902	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18
LSI Logic*	LSI22320	LSI22320-R	PCI-64/133		1,6,9,12,14,20,22
LSI Logic*	SYM22903	SYM22903	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18,19
QLogic*	QLA1280	QLA1280	PCI-64/33		6,8,11,16
QLogic*	QLA12160	QLA12160/66	PCI-64/66		6,8,9,11,
QLogic*	QLA2100/66	QLA2100/66	PCI-64/66		6,7,8,11,16,19

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
QLogic*	QLA2200/66	QLA2200/66	PCI-64/66		1,2,3,4,5,6,7,8,9,10,11,14,16,18,22
QLogic*	QLA2200L	QLA2200L	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18
Qlogic*	SANBlade 2300	QLA2310	FC-HBA PCI-X/66		1,6,9,12,13,14,19,23
Qlogic*	SANBlade 2300	QLA2342	FC-HBA PCI-X/66		6,9,14,19,20
Symbios*	SYM22902 MiniHAB	SYM22902	PCI-64/33		1,6,9,12,13,14,19,23

5.6   SCSI RAID Controllers

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Adaptec*	SCSI RAID 2110S	ASR 2110S	PCI-64/66		2,3,4,5,6,7,8,9,10,11,16, 18
Adaptec*	SCSI RAID 2000S	ASR-2000S	PCI-64/66		9,14
Adaptec*	SCSI RAID 2100S	ASR-2100S	PCI-64/66		1,6,9,12,13,1419,
Adaptec*	SCSI RAID 3410S	ASR-3410S	PCI-64/66		1,6,9,12,13,14,16,19,20,22
AMI*	4714010232A	Enterprise 1600 (471)	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18
AMI*	Elite 1600	MegaRAID 493	PCI-64/66		1,6,9,12,13,14,19
ICP-Vortex*	GDT4523RZ	GDT4523RZ	PCI-32/66		2,3,4,5,6,7,8,10,11,16, 18
ICP-Vortex*	GDT6523RS	GDT6523RS	PCI-32/33		2,3,4,5,6,7,8,10,11,16, 18
ICP-Vortex*	GDT8623RZ	GDT8623RZ	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18
ICP-Vortex*	GDT8663RZ	GDT8663RZ	PCI-64/66		2,3,4,5,6,7,8,10,11,16, 18
Intel®	SRCU31L	Goodwin	PCI-32/33		2,3,4,5,6,7,8,10,11,16, 18
Intel®	Intel Server RAID Controller SRCZCR	SRCMRU	PCI-64/66		6,9,10,11,12,1314
Intel®	Intel Server RAID Controller SRCZCR	SRCZCR	PCI-64/66		1,6,9,10,11,12,13,14,20

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
Intel®	Intel Server RAID Controller SRCS14L	SRCS14L	PCI-64/66		2,3,4,5,6,7,8,10,11,14,16, 18
Intel®	Intel Server RAID Controller SRCU31	SRCU31A	PCI-64/33		1,6,8,9,10,11,12,13,14,16,19,20,22
Intel®	Intel Server RAID Controller SRCU32	SRCU32U	PCI-64/66		1,6,9,13,14,19,20,23
Intel®	Intel Server RAID Controller SRCU42L	SRCU42L	PCI-64/66		1,6,9,12,13,14,19,20,22,23
LSI Logic	Express 500	MegaRAID 475	PCI		9
Mylex*	A170-1-32NB	AcceleRAID 170	PCI-32/33		1,2,3,4,5,6,7,8,9,10,11,16, 18
Mylex*	A170LP-1-16NB	AcceleRAID 170 Low Profile	PCI-32/33		2,3,4,5,6,7,8,10,11,16, 18
Mylex*	E2000-4-32BD	eXtremeRAID 2000	PCI-64/33		2,3,4,5,6,7,8,10,11,16, 18
Mylex*	AcceleRAID 352	A352-2-32NB	PCI-64/33		1,9,12,14,19
Promise*	FastTrakTX2000	FastTrakTX2000	PCI-32/33		2,3,4,5,6,7,8,10,11,16, 18

5.7 Network Interface Controllers

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
3COM*	3c996-TX Gigabit Server Adapter	3c996-TX	PCI-X66		2,3,4,5,6,7,8,10,11,16, 18
3Com*	Fast Etherlink XL PCI	3C905C-TX-M	PCI		1,6,8,9,11,12,13,14,16,19,23
3Com*	Etherlink Server 10/100 PCI	3C980C-TXM	PCI		1,6,8,9,11,12,13,14, 16,19,23
3Com*	Gigabit Etherlink Server	3C985B-SX	PCI64		6,7,8,9,14,19
3Com*	10/100/1000 PCI-X Server	3C996B-T	PCI-X/133		14,19
3Com*	10/100/1000 PCI-X Server	3C996-T	PCI-X/133		14

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
DLink*	DFE - 530/TX+	DFE – 530/TX+	PCI-32/33		2,3,4,5,6,7,8,10,11,16, 18
Intel®	PRO/100+ S Server	PILA8470B	PCI		6,7,8,9,11,12,13,16
Intel®	PRO/100+ S Server	PILA8470D3G1P20	PCI-32/33		2,3,4,5,6,7,8,9,10,11,16, 18
Intel®	Pro/100 S Server	PILA8470D3G1L	PCI-32/33		1,2,3,4,5,6,7,8,9,10,11,12,13,14,16, 18,19,20,23
Intel®	Pro/100 S Dual Port Server adapter	PILA8472	PCI		6,7,8,9,11,16,
Intel®	Pro/100 S Dual Port Server adapter	PILA8472D3G1P	PCI64/33		1,2,3,4,5,6,7,8,9,10,11,12,13,14,16, 18,19,20,22
Intel®	PRO/100 S Server Adapter	PILA8474BUS	PCI		1,6,7,8,9,11,12,16,
Intel®	PRO/1000XT Gigabit Server Adapter	PILA8490XTP20	PCI-X133		2,3,4,5,6,7,8,10,11,16, 18
Intel®	PRO/1000T	PWLA8490	PCI		6,8,11,12,16,
Intel®	PRO/1000T	PWLA8490T	PCI-64/66		1,2,3,4,5,6,7,8,10,11,12,13,16, 18,19
Intel®	PRO/1000XF Gigabit Server Adapter	PWLA8490XF	PCI-X133		1,6,9,12,13,14, ,16,19,20,22
Intel®	Pro/1000 MF Server Adapter	PWLA8490MF	PCI-X/133		1,6,9,13,14,19,20
Intel®	Pro/1000 MT Server Adapter	PWLA8490MT	PCI-X/133		6,8,9,14,19,20
Intel®	Pro/1000 F Gigabit Server Adapter	PWLA8490SX	PCI64/66		6,8,9,11,12,13,14,15,19
Intel®	Pro/1000 XF Server Adapter	PWLA8490XFGL	PCI-X/133		1,6,9,13,14,19,23
Intel®	Pro/1000 XT Server Adapter	PWLA8490XT	PCI-X/133		1,6,9,12,13,14,16,19,20,23
Intel®	Pro/1000 XT Server Adapter	PWLA8490XTL	PCI-X/133		1,6,9,12,13,14,23
Intel®	Pro/1000 MF	PWLA8492MF	PCI-X/133		1,6,9,13,14,19

Manufacturer	Model Name	Model Number	Interface	Comments	Operating System Identifier
	Server Adapter				
Intel®	PRO/1000MT Dual Port Server Adapter	PWLA8492MT	PCI-X133		1,9,14,19

1. CD Rom drives are listed ONLY if the operating system was installed from this device.
2. Tape drives are listed ONLY if they were attached to the SRCU32.
3. Enclosures are list ONLY if they were attached to the SRCU32.

6.   Hard Disk Drives

Enclosure, add-in card, and peripheral testing has been performed with the SRCU32 controller by Intel® Labs, by independent test labs, or by the vendor. The SRCU32 controller is a Compatibility and stress testing is performed with the latest version of an operating system at the time the validation testing occurred. Although a large sample of configurations were tested, due to the large number of possible configurations, not all devices were tested under all operating systems, and not all possible combinations or configurations of third party devices were tested for inter-compatability. Customers should refer to the Tested Hardware and Operating System List for the server board being used to verify that the device selected is also on the list for that product as well.

Add-in adapter card and peripheral compatibility and stress testing will only be performed with the latest version of an operating system at the time the validation testing occurred. The following table shows the operating system and base system configurations used to validate each device. 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 and peripherals were tested under all operating systems.

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.

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems

6.1 Hard Disk Drives[1]

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems
Fujitsu*	Allegro 5	MAG3182LC	U160/SCA	10K	18GB	2,3,4,5,6,7,8,10,11,16, 18
Fujitsu*	Allegro 7LX	MAM3184MC	U160/SCA	15K	9.1GB	6,13,
Fujitsu*	Allegro 5 LE	MAE3091LC	U160/SCA	15K	9.1GB	2,3,4,5,6,7,8,10,11,16, 18
Fujitsu*	Allegro 7 LE	MAN3367MC	U160/SCA	10K		6,9,14,22
Hitachi*	DK30CJ	DK30CJ-18MC	U160/SCA	10K		9
Hitachi*	DK32DJ	DK32DJ-18MW	U160/Wide			6,19
IBM*	UltraStar 36Z15	IC35L018UCPR15	U160/SCA	15K	18GB	6,13,14
IBM*	UltraStar 73LZX	IC35L036UCD210	U160/SCA	10K	36GB	1,9,
IBM*	UltraStar 146ZN	IC35L146UCDY10-0	U320/SCA	10K	146GB	2,3,4,5,6,7,8,10,11,16, 18
Maxtor*	Atlas 10K III-U320	KU73J017	U320/SCA	10K	73GB	6,9,13,14
Quantum*	Atlas 10K III	KW18J014	U320/SCA	10K	18GB	6,
Maxtor*	Atlas 10K III-U320	KU18J017	U320/SCA	10K	18GB	6,9,14
Maxtor*	Atlas 10K III-U320	KU18J07E	U320/SCA	10K	18GB	1,6,9,14,22
Quantum*	Atlas IV	KN09J011	U160/SCA	7.2K	9GB	6,12,13,16,19,20
Quantum*	Atlas V	XC09J011	U160/SCA	7.2K	9GB	1,2,4,6,7,8,9,11,12,13,14,16,19,20,
Quantum*	Atlas IV	KN09L011	U160/Wide	7.2K	9GB	19
Quantum*	AtlasV	XC18J011	U160/SCA	7.2K	18GB	9,14,19,20
Quantum*	Atlas 10K III	KW36J011	U160/SCA	10K	36GB	6

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems
Quantum*	Atlas	QM309100KN-SCA	U160/SCA	7.2K	9.1GB	2,3,4,5,6,7,8,10,11,16, 18
Seagate*	Cheetah 36ES	ST318406LC	U160/SCA	10K	18GB	6,9,12,12,13,14,20,22
Seagate*	Cheetah 73LP	ST336605LC	U160/SCA	10K	36GB	1,23
Seagate *	Cheetah 73	ST173404LC	U160/SCA	10K	73GB	2,3,4,5,6,7,8,10,11,16, 18,19
Seagate*	Cheeta X15	ST318451LC	U160/SCA	15K	18GB	2,3,4,5,6,7,8,10,11,16, 18,19
Seagate*	Barracuda 18XL	ST39236LC	U160/SCA	7.2K	9GB	1,6,23
Seagate*	Cheetah 15K.3	ST373453LC	U320/SCA	15K	73GB	6,13,14
Seagate*	Cheetah X15	ST318432LC	U320/SCA	15K	18GB	2,3,4,5,6,7,8,10,11,16, 18,19
Seagate*	Cheetah X15	ST318452LC	U160/SCA	15K	18GB	6,9,19,20
Seagate*	Cheetah 15K.3	ST318453LC	U320/SCA	15K	18GB	9,14,19,20
Seagate*	Cheetah 10K.6	ST336607LC	U320/SCA	10K	36GB	6
Seagate*	Cheetah 9LP	ST34502LC	Ultra2/SCA	10K		7,8,
Seagate*	Barracuda 9LP	ST34573	Ultra2/SCA	7.2K		6,19,16,
Seagate*	Cheetah 18LP	ST39103LC	Ultra2/SCA	10K		6,20
Seagate*	Cheetah 18XL	ST39204LC	U160/SCA	10K		1,6,8,9,11,12,13,16,19,22
Seagate*	Barracuda 18XL	ST39236LC	U160/SCA	7.2K		68,9,14,16,19

1.   Hard disks are listed ONLY if they were attached to the SRCU32 during testing.

7.   Installation Guidelines

7.1   Red Hat Linux* 7.3 segmentation fault with an Intel® RAID controller installed

Issue: When using the normal installation of Red Hat Linux* 7.3 with the 2.4.18-3 kernel and an Intel RAID controller installed, the following issue is seen:

1. A shutdown command results in a segmentation fault.

2. It is not possible to use some tools such as storcon.

3. Accessing the proc file system (via cat /proc/scsi/gdth/#, where "#" stands for the controller number, also results in a segmentation fault.

This issue occurs only when using Red Hat kernel version 2.4.18-3 installed with SMP support, and it is not server board or RAID controller specific.

Implication: The Red Hat Linux 7.3, 2.4.18-3 SMP kernel does not function properly with the Intel RAID controller driver. See https://rhn.redhat.com/errata/RHBA-2002-292.html.

Guideline: Red Hat Linux kernel version 2.4.18-5 resolves this issue.

Status: This issue has been resolved in Red Hat Linux kernel version 2.4.18-5.

7.2   Red Hat Linux* 8.0 segmentation fault with an Intel® RAID controller installed

Issue: When using the normal installation of Red Hat Linux* 8.0 with the 2.4.18-14 kernel and an Intel RAID controller installed, the following issue is seen:

4. A shutdown command results in a segmentation fault.

5. It is not possible to use some tools such as storcon.

6. Accessing the proc file system (via cat /proc/scsi/gdth/#, where "#" stands for the controller number, also results in a segmentation fault.

This issue occurs only when using Red Hat kernel version 2.4.18-14 installed with SMP support, and it is not server board or RAID controller specific.

Implication: The Red Hat Linux 7.3, 2.4.18-14 SMP kernel does not function properly with the Intel RAID controller driver. See https://rhn.redhat.com/errata/RHBA-2002-292.html.

Guideline: Red Hat Linux kernel version 2.4.18-18.8.0 resolves this issue.

Status: This issue has been resolved in Red Hat Linux kernel version 2.4.18-5.

7.3   Red Hat Linux* Advanced Server 2.1 segmentation fault with an Intel® RAID controller installed

Issue: When using the normal installation of Red Hat Linux* AS2.1 using the standard installation package with an Intel RAID controller installed, the following issue is seen:

1. A shutdown command results in a segmentation fault.

2. It is not possible to use some tools such as storcon.

3. Accessing the proc file system (via cat /proc/scsi/gdth/#, where "#" stands for the controller number, also results in a segmentation fault.

This issue occurs only when using the installation kernel version installed with SMP support, and it is not server board or Intel RAID controller specific.

Implication: The Red Hat Linux AS2.1 SMP installation kernel does not function properly with the Intel RAID controller driver. See https://rhn.redhat.com/errata/RHBA-2003-069.html.

Guideline: Red Hat Linux kernel-smp-2.4.9-e.12.i686.rpm or later kernel version update resolves this issue

. Status: This issue has been resolved in Red Hat Linux kernel version update and will be resolved in future releases of the product.

7.4   Installation of Windows* 2003 Stor Port Driver

Issue: When using the normal installation of Windows 2003 using the Stor Port driver integrated on the first release of the installation CD the following issue is seen:

Can not recognize more than 4GB of memory in the server, enabling the PAE option in the boot ini file causes a blue screen.

Implication: The 1.12 Stor Port driver does properly handel DMA requests.

Guideline: Use the Mini Port driver version 3.13 or New Stor Port Driver 1.13 to resolve this issue.

Status: This issue is resolved in Stor Port driver 1.13, this driver has been WHQL logo'd.