Intel® RAID Controller SRCU42L

Tested Hardware and Operating System List

Revision 3.0

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Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
3/18/03	1.0	Initial release
10/27/03	2.0	Added latest test results
12/22/05	3.0	Added latest test results

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1. Introduction

This document provides users of the Intel® RAID Controller with a guide to the operating systems, server boards, chassis, disk drives, and other peripherals that Intel tested for use with RAID controller.

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

Intel will only support 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 that were successfully tested. This RAID controller has been thoroughly tested with the Intel® server boards, Intel drive enclosures, and with the third-party devices listed in this document. However, it is not practical to test the RAID controller with 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 RAID Controller SRCU42L is classified under two catagories: Compatibility Testing and Stress Testing.

1.1.1 Basic Installation Testing

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. New releases of this document may include 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. Intel does not require vendors 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 an 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, onboard 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**: 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 require a complete test restart.

1.1.2.1 Support Commitment for Adapter / Peripheral Compatibility and Stress Testing

Intel will 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 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, onboard 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.

Note: *Intel does not provide a support commitment for operating systems, adapter cards, and peripherals not listed in this document. Intel will consider support requests individually.*

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:

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 individually. 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 without error.
  - Clients remain connected to the server system.
  - Industry standard test suites run to completion without error.

2. Intel® RAID Controller SRCU42L Firmware Configurations

The following table lists the controller / firmware configurations tested. This document will be updated with additional configurations as new revisions of the RAID Controller SRCU42L 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	SRCU42L	A95156-001	Ver. 2.34.05-R043
2	SRCU42L	Web Post	Ver. 2.34.09-R05C
3	SRCU42L	Web Post	Ver. 2.42.00-R072
4	SRCU42L	Web Post	Ver. 2.42.02-R07A

3. Operating Systems

The following table provides a list of supported operating systems for the Intel® RAID Controller SRCU42L. Each operating system was tested for compatibility with RAID Controller SRCU42L configuration listed in Section 2. 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. See Section 1 for information on the support commitments for Basic Installation Testing and Adapter / Peripheral Compatibility and Stress Testing.

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.

Note: *The operating systems listed below have been tested for compatibility with the RAID Controller SRCU42L but the operating system and its associated driver may not have been tested for compatibility with the server board you have chosen to use. See the supported operating system list for your server board to verify operating system support compatibility with the server board.*

Ident#	Operating System	Base System Configuration Tested and Type of Testing	Notes
1	SCO OpenUnix* 8.0, MP 3	Configuration 1 – Compatibility and Stress Configuration 2 – Compatibility and Stress	
2	Caldera* Linux 3.1	Configuration 1 – Basic Installation Configuration 2 – Basic Installation	
3	Debian* 2.2r6	Configuration 1 – Basic Installation	
4	Free BSD* 4.4 and 4.5	Configuration 1 – Basic Installation	
5	Mandrake* 8.1	Configuration 1 – Basic Installation	
6	Microsoft Windows 2000* Server, Service Pack 3 / Microsoft*Windows*Small Business Server 2000	Configuration 1 – Compatibility and Stress Configuration 2 – Compatibility and Stress	Intel's testing was completed with Microsoft Windows 2000* Server. The Intel Server Board XXXX supports the operating system portion of Microsoft Windows Small Business Server 2000 only. The application portion is not tested or supported.
7	Microsoft Windows NT* 4.0, Service Pack 6a	Configuration 1 – Basic Installation	
8	Novell NetWare* 5.1, Service Pack 3	Configuration 1 – Basic Installation	

Ident#	Operating System	Base System Configuration Tested and Type of Testing	Notes
9	Novell NetWare* 6.0, Service Pack 2	Configuration 1 – Compatibility and Stress Configuration 2 – Compatibility and Stress	See IG #6.5 and #6.10
10	Red Hat* Linux 7.0	Configuration 1 – Basic Installation	
11	Red Hat* Linux 7.1	Configuration 1 – Basic Installation	
12	Red Hat* Linux 7.2	Configuration 1 – Basic Installation	
13	Red Hat* Linux 7.3	Configuration 1 – Compatibility and Stress	
14	Red Hat* Linux 8.0	Configuration 1, 2 – Compatibility and Stress	
15	SCO Open Server* 5	Configuration 1, 2 – Basic Installation	
16	SCO Unixware* 7.1.1	Configuration 1 – Basic Installation	
17	SuSE* Linux 8.0	Configuration 1 – Basic Installation	
18	Turbo Linux* 7	Configuration 1 – Compatibility and Stress	
19	Red Hat* Advanced Server 2.1	Configuration 1 – Basic Installation Configuration 2, 3 – Compatibility and Stress	
20	Microsoft* Windows* Server 2003	Configuration 2, 4 – Compatibility and Stress	
21	Red Hat* Linux 9.0	Configuration 1 – Compatibility and Stress Configuration 2 – Compatibility and Stress	
22	SCO Unixware* 7.1.3	Configuration 2 – Basic Installation	
23	Microsoft* Windows* Small Business Server 2000	Configuration 2 – Basic Installation	The application portion of the package is not tested or supported.
24	Microsoft* Windows* Small Business Server 2003	Configuration 2 – Basic Installation	The application portion of the package is not tested or supported.
25	Microsoft* Windows* Server 2003 EM64T	Configuration 4 – Compatibility and Stress	
26	Red Hat* EL 4.0 IA32E	Configuration 4 – Compatibility and Stress	
27	Red Hat* EL 3.0	Configuration 3 – Compatibility and Stress	
28	Red Hat* EL 3.0 IA32E	Configuration 4 – Compatibility and Stress	
29	Red Hat* EL 3.0 U3	Configuration 3, 4 – Compatibility and Stress	
30	Novell* Netware* 6.5	Configuration 3, 4 – Compatibility and Stress	

Ident#	Operating System	Base System Configuration Tested and Type of Testing	Notes
31	SuSE* Professional 9.0	Configuration 3, 4 – Compatibility	
32	SuSE* Professional 9.1 EM64T	Configuration 4 – Compatibility and Stress	
33	SuSE* EL 9.0	Configuration 4 – Compatibility and Stress	
34	SuSE* EL 9.0 EM64T	Configuration 4 – Compatibility and Stress	

1. The RAID Controller SRCU42L 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 RAID Controller SRCU42L 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 RAID Controller SRCU42L with Red Hat* Advanced Server 2.1 requires the use of kernel patch 2.4.9-e.12.i686.

3.1 Operating System Certifications

Listed below are the operating systems that Intel will certify with the Intel® RAID Controller SRCU42L. 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	Comment
Microsoft* Windows* 2003 Enterprise Server	SRCU42L	OEM must request certification by Microsoft or their specific product. Search on SRCU42L. http://www.microsoft.com/hwdq/hcl/search.asp http://developer.intel.com/design/servers/whql.htm
Microsoft Windows 2000 Advanced Server	SRCU42L	OEM must request certification by Microsoft for their specific product. Search on SRCU42L. http://www.microsoft.com/hwdq/hcl/search.asp http://developer.intel.com/design/servers/whql.htm
Novell* NetWare* 5.1 and 6.0	SRCU42L	Novell checks Intel's test results, certifies (if appropriate), and posts the certificate on their web site. The customer can leverage the Intel certification if the customer product meets the operating system vendor standard. http://developer.novell.com/yes
Red Hat* Linux 7.3		Red Hat checks Intel's results, certifies (if appropriate), and posts the certificate on their web site. The customer can leverage the Intel certification if customer product meets the operating system vendor standard. http://hardware.redhat.com/hcl/?pagename=hclandview=certifiedandvendor=399andclass=9#list

4. Intel® Server Boards

This list includes the Intel® Server Board software versions with which the server boards were configured at the time of testing.

Intel® Server Board	Microsoft* Windows* 2003 EE / SBS 2003	Microsoft* Windows* 2000 AS / SBS 2000	Microsoft* Windows* 2003 EE EM64T	Microsoft Windows*XP	Microsoft* Windows*NT 4.0	RedHat* EL 4.0 IA32e	RedHat* EL 3.0	RedHat* EL 3.0 IA32e	RedHat* EL 3.0 U3	Red Hat* AS 2.1	Red Hat* Linux 9.0	Red Hat* Linux v8.0	Red Hat* Linux v7.3	Novell* NetWare v5.1	Novell* NetWare v6.0	Novell* Netware v6.5	Turbo* Linux 7.0	SuSE* Professional 8	SuSE* Professional 9	SuSE* professional 9.1 EM64T	SuSE* Enterprise 9.0	SuSE* EL 9.0 EM64T	Caldera* Unixware 7.1.3	Caldera* OpenUnix v8.0
TSRLT2 / TSRMT2 Version Tested BIOS BMC FRU/SDR HSC P19 63 5.0.k N/A		X								X			X											
SCB2 Version Tested BIOS BMC FRU/SDR HSC 2.12 63 5.0.p N/A		X										X	X	X	X									X
SDS2 Version Tested BIOS BMC FRU/SDR HSC 3.2 32 5.0.E N/A		X										X	X	X	X									X
S875WP1-E Version Tested BIOS BMC FRU/SDR HSC P07 N/A N/A N/A	X	X		X								X												

SE7500WV2[1] Version Tested BIOS BMC FRU/SDR HSC P05 1.19 5.0.9 0.07 / 0.05		X											X		X			X						
SHG2 Version Tested BIOS BMC FRU/SDR HSC P09 22 5.0.9 0.10	X	X										X	X	X	X		X							X
SE7500CW2 BIOS BMC FRU/SDR HSC P17 N/A N/A N/A	X	X										X	X		X		X							X
SE7501CW2 BIOS BMC FRU/SDR HSC P07 N/A N/A N/A	X	X									X	X			X									X
SE7505VB2 BIOS BMC FRU/SDR HSC 1.07 N/A N/A N/A	X	X		X							X				X									
SE7501WV2[1] BIOS BMC FRU/SDR HSC P15 1.19 5.5.6 0.07 / 0.05	X	X										X		X	X			X						
SE7501BR2 BIOS BMC FRU/SDR HSC P13 1.18 5.5.1 .10	X	X			X						X	X	X	X	X		X	X						X
SE7501HG2 BIOS BMC FRU/SDR HSC P10 1.17 5.5.1 .10	X	X			X							X	X	X	X		X	X						X
SSH4 BIOS BMC FRU/SDR HSC P08 24 5.0.6 .10	X	X								X					X								X	

SE7210TP1-E BIOS BMC FRU/SDR HSC P08 2.40 N/A N/A	X	X					X												X		X			
SE7520BD2 BIOS BMC FRU/SDR HSC P07 2.40 N/A 1.07	X															X								
SE7520AF2 BIOS BMC FRU/SDR HSC P06 2.31 N/A 1.07	X	X					X									X								
SE7320SP2 BIOS BMC FRU/SDR HSC P06 2.40 1.40 N/A	X	X					X	X								X			X	X	X			
SE7525GP2 BIOS BMC FRU/SDR HSC P06 2.40 1.40 N/A	X	X		X				X								X			X	X				
SE7520JR2 BIOS BMC FRU/SDR HSC P09 2.40 N/A 1.06	X	X	X				X	X								X					X			
SE7221BK1-E BIOS BMC FRU/SDR HSC P05 2.40 1.80 N/A	X	X					X														X			
SE7221BA1-E BIOS BMC FRU/SDR HSC P0155 N/A N/A N/A	X								X															
SE7520BD2D2 BIOS BMC FRU/SDR HSC P01 2.40 N/A 1.07	X															X								
SE7320VP2 BIOS BMC FRU/SDR HSC P02 2.40 1.30 N/A	X	X					X									X								

SE7320VP2D2 BIOS BMC FRU/SDR HSC P04 2.40 1.70 N/A	X	X					X									X								
SE8500HW4 BIOS BMC FRU/SDR HSC P04 34 24 1.06	X		X			X	X														X	X		
SE7320EP2 BIOS BMC FRU/SDR HSC P01 N/A N/A N/A	X	X	X	X				X	X							X					X	X		
SE7525RP2 BIOS BMC FRU/SDR HSC P01 N/A N/A N/A	X	X	X	X				X	X							X					X	X		

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

5. Enclosures, PCI Adapters, and Peripherals

Enclosure, add-in card, and peripheral testing was performed on the Intel® RAID Controller SRCU42L 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-compatibility. Customers should see the *Tested Hardware and Operating System List* for the server board to verify that the device is included for the server board as well as for the RAID controller SRCU42L.

Add-in adapter card and peripheral compatibility and stress testing is 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 onboard devices are tested by default and are therefore not included in the following tables.

Note: *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.

Note: *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 onboard controllers when not booting from the controller or needing to use its built in utilities.*

5.1 External Storage

Note: *Enclosures are list ONLY if they were attached to the RAID Controller SRCU42L.*

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Adjile*	Jaguar	JGC-33H421C	U160/SCA		1, 6, 9, 13, 14, 20
Adjile*	Jaguar	JR-2B-FB33	U320/SCA		1, 6, 9, 13, 14, 20
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	SC2100ERR-AC-B 11	U320/SCA		1, 6, 9, 13, 14, 20, 22
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, 13, 14, 20, 22
Xyratex*	Salient SCSI Array	SS-1204-LVDS	Ultra2		20

5.2 Internal Storage

Note: *Enclosures are list ONLY if they were attached to the RAID Controller SRCU42L.*

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Intel®	SR1200		U160/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22
Intel®	SR1300		U160/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22
Intel®	SR2200		U320/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22
Intel®	SR2300		U320/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22
Intel®	SC5100		U160/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22
Intel®	SC5200		U320/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22
Intel®	SC5250		U320/SCA		1, 6, 9, 12, 13, 14, 19, 20, 21, 22

5.3 CD-ROM Drives

Note: *CD-ROM drives are listed ONLY if the operating system was installed from this device.*

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Lite-ON*	LTN-526S	LTN-526S	IDE		1, 6, 9, 13, 14
Lite-ON*	LTN-486S	LTN-486S	IDE		9, 19, 20, 22
Mitsumi*	SR243T1	SR243T1	IDE		1, 6, 9, 13, 14
Panasonic*	AXXDVDFloppy	SR-8177-B	IDE		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 18, 19
Plextor*	PX-40TSUW		SCSI		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Samsung*	CD-Master 52E	SC-152	IDE		1, 6, 9, 13, 14
Samsung*	CD-Master 24E	SN-124Q/MMI	IDE		6, 9, 14
Sony*	CDU5211	CDU5211	IDE		1, 6, 9, 12, 13, 14
Teac*	CD-224E	CD-224E	IDE		20
Toshiba*	SD-M1612	SD-M1612	IDE		1, 6, 9, 13, 14

5.4 Tape Drives

Note: *Tape drives are listed ONLY if they were attached to the RAID Controller SRCU42L.*

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Sony*	PCBacker II	SDT-11000/PB	Ultra2/wide		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		DDS4 DAT		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18

5.5 Hard Disk Controllers

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Adaptec*	2940U2W	AHA-2940U2W	PCI		14, 19
Adaptec*	ASC-29160LP	ASC-29160LP	PCI-64/66		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
Adaptec*	ASC-29160N	ASC-29160N	PCI-32/33		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
Adaptec*	ASC-39160	ASC-39160	PCI-64/66		1, 2, 3, 4, 5, 6, 7, 8, 910, 11, 12, 13, 14, 16, 18, 19, 20
Adaptec*	ASC-39320	ASC39320	PCI-X133		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 18, 19, 20, 22
Emulex*	LightPulse LP90002L	LP9002L-F2	FC-HBA PCI64/66		6, 12, 14, 22
Emulex*	LightPulse LP9002-T1	LP9002-T1	FC-HBA PCI64/66		14, 19
Emulex*	LightPulse LP8000	LP8000T1	FC-HBA PCI64/66		1, 6, 12, 13, 14, 20
Emulex*	LightPulse LP9402	LP9402	FC-HBA PCI64/66		6, 9, 13, 14, 20, 21
Emulex*	LightPulse LP9802	LP9802	FC-HBA PCI-X133		22
JNI*	FCE6560	FCE6560	PCI-X133		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
LSI Logic*	LSI20160	LSI20160	PCI-64/66		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		1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 18, 19,
LSI Logic*	SYM22903	SYM22903	PCI-64/66		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
QLogic*	QLA2200/66	QLA2200/66	PCI-64/66		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 18, 19, 20, 22
QLogic*	QLA2200L	QLA2200L	PCI-64/66		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 18, 20
Qlogic*	SANBlade 2300	QLA2310	FC-HBA PCI-X/66		1, 6, 9, 12, 13, 14, 19, 20, 22
Symbios*	SYM22902 MiniHAB	SYM22902	PCI-64/33		1, 6, 9, 13, 14

5.6 SCSI RAID Controllers

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Adaptec*	SCSI RAID 2000S	ASR-2000S	PCI-64/66		6, 14
Adaptec*	SCSI RAID 2100S	ASR-2100S	PCI-64/66		14
Adaptec*	SCSI RAID 2110S	ASR-2110X	PCI-64/66		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Adaptec*	SCSI RAID 3410S	ASR-3410S	PCI-64/66		14
AMI*	4714010232A	Enterprise 1600 (471)	PCI-64/66		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 22
AMI*	Elite 1600	MegaRAID 493	PCI-64/66		1, 6, 9, 14, 19, 20, 22
ICP-Vortex*	GDT4523RZ	GDT4523RZ	PCI-32/66		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 18
ICP-Vortex*	GDT6523RS	GDT6523RS	PCI-32/33		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 18
ICP-Vortex*	GDT8623RZ	GDT8623RZ	PCI-64/66		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 18 , 20
ICP-Vortex*	GDT8663RZ	GDT8663RZ	PCI-64/66		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Intel®	RAID Controller SRCU31L	SRCU31LA	PCI-32/33	See IG 7.1 and 7.2	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Intel®	RAID Controller SRCS14L	SRCS14L	PCI-64/66	See IG 7.1 and 7.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 16, 18 , 20
Intel®	RAID Controller SRCU31	SRCU31A	PCI-64/33	See IG 7.1 and 7.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20
Intel®	RAID Controller SRCMR	SRCMRU	PCI-64/66	See IG 7.1 and 7.2	1, 6, 9, 13, 14
Intel®	RAID Controller SRCU42L	SRCU42L	PCI-64/66	See IG 7.1 and 7.2	1, 6, 9, 13, 14, 20
Intel®	RAID Controller SRCU32	SRCU32U	PCI-64/66	See IG 7.1 and 7.2	1, 6, 9, 13, 14, 19, 20, 22
Intel®	RAID Controller SRCU42L	SRCU42L	PCI-64/66	See IG7.1	1, 6, 9, 12, 13, 14, 19, 20, 22
Intel®	RAID Controller SRCU42X	SRCU42X	PCI-X 133		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Intel®	RAID Controller SRCS16	SRCS16	PCI-64/66		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Intel®	RAID Controller SRCS28X	SRCS28X	PCI-X 133		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Intel®	RAID Controller SRCU42LX	SRCU42LX	PCI-X 133		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Intel®	RAID Controller SRCU41L	SRCU41L	PCI-64/66		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Intel®	RAID Controller SRCU42E	SRCU42E	PCI-E		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Intel®	RAID Controller SROMBU42E	SROMBU42E	PCI-E		20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Intel®	RAID Controller SRCFC22C	SRCFC22C	PCI-64/66		6, 9, 19, 20, 22
LSI Logic*	Express 500	MegaRAID 475	PCI-64/66		9, 13, 14
Mylex*	A170-1-32NB	AcceleRAID 170	PCI-32/33		2, 3, 4, 5, 6, 7, 8, 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		9, 14, 19
Promise*	FastTrakTX2000	FastTrakTX2000	PCI-32/33		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
QLogic*	QLA12160/66	Ultra-3 Series	PCI-64/66		2, 3, 16

5.7 Network Interface Controllers

Manufacturer	Model Name	Model Number	Interface	Comment	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, 9, 13, 14, 19
3Com*	Etherlink Server 10/100 PCI	3C980C-TXM	PCI		1, 6, 9, 12, 13, 14, 19
3Com*	Gigabit Etherlink Server	3C985B-SX	PCI64		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
DLink*	DFE - 530/TX+	DFE - 530/TX+	PCI-32/33		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Intel®	PRO/100+ Server	PILA8470B	PCI-32/33		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22
Intel®	PRO/100+ S Server	PILA8470D3G1P20	PCI-32/33		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 1416, 18, 19, 20, 22
Intel®	Pro/100 S Server	PILA8470D3G1L	PCI-32/33		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 1819, 20, 22

Manufacturer	Model Name	Model Number	Interface	Comment	Operating System Identifier
Intel®	Pro/100 S Dual Port Server adapter	PILA8472D3G1P	PCI64/33		1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 1416, 18, 19, 20, 22
Intel®	PRO/1000XT Gigabit Server Adapter	PILA8490XTP20	PCI-X133		2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Intel®	PRO/1000T	PWLA8490T	PCI-64/66		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 18
Intel®	PRO/1000XF Gigabit Server Adapter	PWLA8490XF	PCI-X133		1, 6, 9, 12, 13, 14, 19, 20, 22
Intel®	Pro/1000 MT Server Adapter	PWLA8490MT	PCI-X/133		1, 69, 14, 19, 20, 22
Intel®	Pro/1000 F Gigabit Server Adapter	PWLA8490SX	PCI64/66		6, 9, 14, 15
Intel®	Pro/1000 XF Server Adapter	PWLA8490XFGL	PCI-X/133		9, 13, 14, 19
Intel®	Pro/1000 XT Server Adapter	PWLA8490XT	PCI-X/133		1, 6, 9, 12, 13, 14, 19
Intel®	Pro/1000 XT Server Adapter	PWLA8490XTL	PCI-X/133		6, 9, 12, 13, 14
Intel®	Pro/1000 MF Server Adapter	PWLA8492MF	PCI-X/133		1, 6, 9, 13, 14, 19, 20, 22
Intel®	PRO/1000MT Dual Port Server Adapter	PWLA8492MT	PCI-X133		1, 9, 14

6. Hard Disk Drives

Enclosure, add-in card, and peripheral testing was performed on the Intel® RAID Controller SRCU42L by Intel Labs, by independent test labs, or by the vendor. The RAID Controller SRCU42L 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 was 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-compatibility. Customers should see the Tested Hardware and Operating System List for the server board to verify that the device is included for the server board as well as for the RAID Controller SRCU42L.

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 onboard devices are tested by default and are therefore not included in the following tables.

Note: *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.

Note: *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 onboard controllers when not booting from the controller or needing to use its built-in utilities.*

6.1 Hard Disk Drives

Note: *Hard disk drives are listed ONLY if they were attached to the RAID Controller SRCU42L during testing.*

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size in GB	Tested Operating Systems
Fujitsu*	Allegro 5	MAG3182LC	U160/SCA	10K	18	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Fujitsu*	Allegro 5 LE	MAE3091LC	U160/SCA	15K	9.1	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Fujitsu*	Allegro 7LX	MAM3184MC	U160/SCA	15K	18	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18
Fujitsu*	Allegro 7LE	MAN3367MC	U160/SCA	10K	36	22
IBM*	UltraStar 36Z15	IC35L018UCPR15	U160/SCA	15K	18	6, 13, 14
IBM*	UltraStar 73LZX	IC35L036UCD210	U160/SCA	10K	36	2, 3, 4, 5, 6, 7, 8, 10, 11, 14, 16, 18
IBM*	UltraStar 146ZN	IC35L146UCDY10-0	U320/SCA	10K	146	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
Maxtor*	Atlas 10K V	8D300L0	U320/SCA	10K	300	20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Maxtor*	Atlas 10K III-U160	KW18J014	U160/SCA	10K	18	6, 13, 14
Maxtor*	Atlas 10K III-U320	KU036J4	U320/SCA	10K	36	6, 13, 14
Maxtor*	Atlas 10K III-U320	KU73J017	U320/SCA	10K	73	6, 13, 14
Maxtor*	Atlas 10K III-U320	KU18J017	U320/SCA	10K	18	1, 6, 9, 12, 13, 14, 19, 20, 22
Maxtor*	Atlas 10K III-U320	KU18J07E	U320/SCA	10K	18	6, 9, 13, 14, 19
Maxtor*	Atlas 10K III-U320	KU18J018E	U320/SCA	10K	18	9, 19
Maxtor*	Atlas 10K III	KZ18JP4E	U320/SCA	10K	18	6, 20
Quantum*	Atlas V	XC09J011	U160/SCA	7.2K	9	2, 4, 6, 9, 14, 7, 20
Quantum*	Atlas V	XC18J011	U160/SCA	7.2K	18	9, 14, 20,
Quantum*	Atlas	QM309100KN-SCA	U160/SCA	7.2K	9.1	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
Quantum*	Atlas 10K III	KW18J014	U160/SCA	10K	18	9,
Quantum*	Atlas 10K III	KW36J011	U160/SCA	10K	18	6, 9, 20,
Seagate *	Cheetah 73	ST173404LC	U160/SCA	10K	73	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
Seagate*	Cheetah 36ES	ST318406LC	U160/SCA	10K	18	1, 6, 9, 12, 13, 19,
Seagate*	Cheetah 73LP	ST336605LC	U160/SCA	10K	36	1, 6
Seagate*	Cheetah X15	ST318451LC	U160/SCA	15K	18	6, 7, 8, 10, 11
Seagate*	Cheetah X15	ST318452LC	U160/SCA	15K	18	13,
Seagate*	Cheetah X15.3	ST318453LC	U320/SCA	15K	18	6, 9, 14, 19, 20, 22
Seagate*	Cheetah 10k.6	ST336607LC	U320/SCA	10K	36	20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size in GB	Tested Operating Systems
Seagate*	Cheetah 10k.6	ST3146807LC	U320/SCA	10K	146	20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Seagate*	Cheetah 10k.7	ST3300007LC	U320/SCA	10K	300	20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Seagate*	Cheetah 15k.3	ST336753LC	U320/SCA	15K	36	20, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Seagate*	Barracuda 18XL	ST39236LC	U160/SCA	7.2K	9	1, 6, 9, 20
Seagate*	Cheetah 15K 36LP	ST336732LC	U320/SCA	15K	36	6, 9, 13, 14
Seagate*	Cheetah 15K	ST373453LC	U320/SCA	15K	73	6, 13, 14
Seagate*	Cheetah X15	ST318432LC	U320/SCA	15K	18	2, 3, 4, 5, 6, 7, 8, 10, 11, 16, 18, 19
Seagate*	Cheetah 9LP	ST34502	Ultra2/SCA	10K	4.5	14
Seagate*	Cheetah 18LP	ST39103LC	Ultra2/SCA	10K	9	20
Seagate*	Cheetah 18XL	ST39204LC	U160/SCA	10K	9	6, 9, 14
Hitachi*	Ultrastar Family of drives	146Z10-18 thru 146	U320/SCA	10K	18, 36, 73, 146	1, 6, 9, 12, 14, 17

7. Reported Issues

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:

- A shutdown command results in a segmentation fault.
- It is not possible to use some tools such as storcon.
- Accessing the proc file system via cat /proc/scsi/gdth/# (where "#" is 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:

- A shutdown command results in a segmentation fault.
- It is not possible to use some tools such as storcon.
- Accessing the proc file system via cat /proc/scsi/gdth/# (where "#" is 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:

- A shutdown command results in a segmentation fault.
- It is not possible to use some tools such as storcon.
- Accessing the proc file system (via cat /proc/scsi/gdth/# (where "#" is 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 4 GB 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 handle 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.

7.5 Drive removal and immediate insertion may cause array failure

Issue: When hard drive cache is tuned on and a drive is removed then immediately reinserted in a RAID array, a non-recoverable drive failure might occur.

Implication: A non-recoverable drive failure might occur.

Guideline: When removing a drive from a RAID 1, 4, 5, 10, or 50 array, verify that the controller has recognized the drive failure as noted by a failure beep code or a change from green to amber for the drive status LED in the in the configuration tool prior to re-inserting a drive.

Status: No fix.

7.6 Low Level Format SCSI Hard Disk Failure

Issue: A “DRIVE NOT AVAILABLE” failure will be reported when performing a hard disk format with a SCSI hard disk attached to the RAID controller even if there is no medium error on the hard disk.

Implication: Failed to low-level format SCSI hard disk.

Guideline: Run the format disk function in the Storcon again, or use the hard disk low-level disk format utility available from the disk manufacturer to perform the format.

Status: No fix.

7.7 RAID 10 Configuration Rebuild Checkpoint Failure with Firmware 2.42.00.R072

Issue: RAID 10 configuration may experience a rebuild checkpoint failure, if a drive fails and is detected again at the next reboot.

Implication: Only if using RAID 10 array with Firmware 2.42.00.R072 and a drive fails, the configuration may experience a rebuild checkpoint failure, and the failed drive might be detected again at the next reboot

Guideline: 1. Configure a hot fix drive, should a drive fail, a rebuild will start automatically. It is advised to allow the rebuild to complete prior to rebooting the system

2. Repair the RAID10 during operation by using hot plug or manual repair options and allow the rebuild to start prior to reboot. It is advised to allow the rebuild to complete prior to rebooting the system

3. Remove failed disks before a reboot

4. Updated RAID controller firmware to version 2.42.02.R07A or later

Status: Fixed in 2.42.00-R07A.

7.8 Screen locks up under BIOS Console if the option ROM for the slot where the card is in is turned off

Issue: When the option ROM for the slot where the card is in is turned off, the system will hang if accessing the RAID controller under RAID BIOS console.

Implication: Failed to config RAID using RAID BIOS console.

Guideline: Turn on the option ROM for the RAID controller under BIOS Setup Utility before you activate RAID BIOS Console by 'Ctrl+G'.

Status: No fix.