



# Intel<sup>®</sup> Server Platforms SPSH4 and SRSH4

## *Tested Hardware and Operating System List*

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Enterprise Platforms and Services Marketing

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## *Revision History*

Date	Revision Number	Modifications
7/11/02	0.5	Initial Release (preliminary) pending final validation on gold boards Gold BIOS
8/02/02	1.0	Added statement on Open Unix 8.0
8/07/02	1.1	Updated copyright and legal information. Updated operating system references. Update references to ISM. Updated 3rd party references.
8/12/02	1.2	Correct incorrect adapter numbers in the SCSI/RAID section.
12/17/02	2.0	Implemented new reporting format for tested products. Updated various test results with new base configuration.
7/20/03	3.0	Updated various test results with new base configuration
10/02/2003	3.1	Added Maxtor Atlas 10K IV drives. Updated copyright date. Updated hard drive names.
10/07/2003	3.2	Added Seagate 15K.3 and Hitachi UltraStar 15K73 hard drives.
March 1, 2004	3.3	Added New OS Support, added Atlas 15K 73 GB Maxtor Drives & serviced adapters
April, 2004	3.4	Added SuSE 8.0 as install only OS No add-in Adapters or Certification
May ,2004	3.5	Removed ISM support for Red Hat EL 3.0
Jan, 2005	3.6	Added SuSE 9.0 certification

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# 1. Introduction

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This document is intended to provide users of the Intel® server systems **SPSH4, SRSH4** 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 adapters, peripherals, and operating systems are tested or until the Intel® server systems **SPSH4, SRSH4** are 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 for those adapters and peripherals under the specified system configuration (System BIOS and Firmware revisions) and operating systems versions with which they were tested.

## 1.1 Test Overview

Testing performed on the Intel® server board **SXXX** is classified under two separate categories: Basic Installation Testing, and Adapter / Peripheral Compatibility and Stress Testing.

### 1.1.1 Basic Installation Testing

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



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

All Intel® server board **SSH4** testing was performed using the Intel® server chassis **SPSH4**, **SRSH4**.





## 2. Intel® Server Systems SPSH4,SRSH4 Base System Configurations

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



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

Base System Identifier #	Base Board	Processor Board	Memory Board	BIOS (Build)	BMC	HSC	FRU/SDR	Notes
1	A60891-603	A60895-502	A60893-401	P03 (69)	18a	0.08	5.0.6	
2	A60891-701	A60895-502	A60893-401	P03 (69)	18a	0.08	5.0.6	
3	A60891-701	A60895-601	A60893-401	P05 (75)	24	0.10	5.0.6	
4	A60891-705	A60895-602	A60893-402	P08 (83)	24	0.10	5.0.7	
5	A60891-706	A60895-603	A60893-402	P12(93)	27	0.10	5.69	
6	A60891-706	A60895-603	A60893-402	P14 (97)	28	0.11	6.6.A	

### 3. Supported Operating Systems

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The following table provides a list of supported operating systems for the Intel® server systems **SPSH4, SRSH4**. Each of the listed operating systems was tested for compatibility with Intel® server systems **SPSH4, SRSH4** base system 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.



Operating systems supported by Intel® Server Management software or LANDesk\* Client Manager software may be different than the operating systems supported by the Intel Server systems SPSH4, SRSH4. Please reference the Readme and User Guide documents that are included as part of each Intel Server Management and LANDesk\* Client Manager distribution for operating systems that are supported by that release.

Operating System	Base Configuration Tested
Microsoft* Windows* 2003 Enterprise Server	5, 6
MS Windows 2000 AS, SP4	6
Novell NetWare 6.5	5, 6
UnixWare 7.1.3 MP2	5
UnixWare 7.1.3 MP4	6
Red Hat Linux Enterprise Linux 3.0	5, 6
SuSE linux 8.0	5, install Only (see 1.11 above)
Suse SLES 9	6

### 3.1 Server Management Software Support

The following table provides information on the type and version of server management software which has been tested and is supported with each operating system on the Intel® server board SSH4...

Operating System	Server Management Software Package and version
Microsoft* Windows * 2000 AS SP3	Intel Server Management 5.5.6
Microsoft* Windows* 2003 Enter prise Server	Intel Server Management 5.5.6
Novell NetWare 6.5	Intel Server Management 5..5.6
UnixWare 7.1.3 MP2	Intel Server Management 5.5.6

### 3.2 Operating System Certifications

Listed below are the operating systems that Intel will certify with the Intel® server systems SPSH4, SRS4 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* 2000 Advanced Server	<a href="#">Intel® SSH4 Server</a> SID# 624633 (1) SID# 651435 (4)	OEM must request certification by Microsoft for their specific product. <a href="http://www.microsoft.com/hwdq/hcl/search.asp">http://www.microsoft.com/hwdq/hcl/search.asp</a> (Search on SSH4) <a href="http://developer.intel.com/design/servers/whql.htm">http://developer.intel.com/design/servers/whql.htm</a>
Microsoft Windows* 2003 Enterprise Server	<a href="#">Intel® SSH4 Server</a> SID# 703408 (4)	OEM must request certification by Microsoft for their specific product. <a href="http://www.microsoft.com/hwdq/hcl/search.asp">http://www.microsoft.com/hwdq/hcl/search.asp</a> (Search on SSH4) <a href="http://developer.intel.com/design/servers/whql.htm">http://developer.intel.com/design/servers/whql.htm</a>
Novell NetWare* 5.1 and 6.0, 6.5	<a href="#">Intel® SPSH4 Server</a> <a href="#">Intel® SRS4 Server</a>	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. <a href="http://developer.novell.com/yes/67898.htm">http://developer.novell.com/yes/67898.htm</a> <a href="http://developer.novell.com/yes/67897.htm">http://developer.novell.com/yes/67897.htm</a>

Operating System	Certification Listing	Comments
Red Hat* Linux AS 2.1 EL 3.0 AS	<a href="#">Intel SPSH4/SRSH4</a> HID In Process	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. <a href="http://hardware.redhat.com/hcl/?pagename=details&amp;hid=4144">http://hardware.redhat.com/hcl/?pagename=details&amp;hid=4144</a>
Caldera UnixWare 7.1.3	<a href="#">Intel SSH4 MP Server</a> In Process	Caldera 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. <a href="http://wdb1.caldera.com/chwp/owa/hch_search_wizard.screen">http://wdb1.caldera.com/chwp/owa/hch_search_wizard.screen</a>

## 4. Adapters and Peripherals

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 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 supported under this operating system.
SA (Similar Adapter)	This adapter is supported, but not tested. This adapter model has not been tested with this server board, but Intel will support it based on successful testing of a similar adapter from the same adapter family. Intel has high confidence that this adapter will function correctly with the server board. This adapter uses the same firmware and drivers, and has a nearly identical system interface to another adapter of the same family that has been successfully tested with this server board. In addition, Intel has secured IHV commitment to support the similar adapters equally. Customers should always test adapters as part of the final system configuration prior to deployment. All installation guidelines for the tested adapter also apply to the similar adapter.

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	Microsoft Windows 2003 Server Enterprise Edition SP1	Microsoft* Windows* 2000 Server / Small Business Server 2000	Novell Netware 6.5	Novell NetWare* 6.0, SP2	Red Hat Linux ES3.0 Advanced Server	Red Hat Linux* 8.0	SCO Unixware 7.1.3	Suse Linux Enterprise Server 9.0
<b>4.1 PCI RAID</b>											
Adaptec	ASR-2110S	2110S Phantom	PCI-64/66		1,2,3		1,2,3		[3]		
Adaptec	SCSI RAID 2200S	ASR-2200S/64MB	PCI-64/100								
Adaptec	SCSI RAID 2120S	2120S	PCI-64/100	6		6		6		6	6
Adaptec	SCSI RAID 3410S	ASR-3410S	PCI-64/100	6		6		6			6
Intel	RAID Controller SRCU32(Bisbee)	SRCU32U	PCI-64/100	6							
Intel	RAID Controller SRCU42L (Chilito)	SRCU42L	PCI-64/100	6							
Intel	RAID Controller SRCU42X (Chilito 2)	SRCU42X	PCI-64/100	6							
Intel	RAID Controller SRCS14L (Taft)	SRCS14L	PCI-64/100			6		6			6
LSI Logic	MegaRaid SCSI	LSI MegaRAID 320-2	PCI-64/100	6							
LSI Logic	MegaRaid SCSI	LSI MegaRAID 320-4X	PCI-64/100	6		6		6			6
AMI	Elite 1600	MegaRAID 493	PCI-64/100	6							
<b>4.2 PCI SCSI</b>											

Manufacturer	Model Name	Model Number	Interface	Microsoft Windows 2003 Server Enterprise Edition SP1	Microsoft* Windows* 2000 Server / Small Business Server 2000	Novell Netware 6.5	Novell NetWare* 6.0, SP2	Red Hat Linux ES3.0 Advanced Server	Red Hat Linux* 8.0	SCO Unixware 7.1.3	Suse Linux Enterprise Server 9.0
Adaptec†	ASC-29160N				1,2		1		1		
Adaptec	ASC-29160				SA		SA		SA		
Adaptec	ASC-29160LP				SA		SA		SA		
Adaptec	SCSI Card 39320	ASC-39320A	PCI-64/100	6		6		6		6	6
LSI Logic	MegaRaid SCSI	320-2	PCI-64/100	6							
LSI Logic	LSI22320-R Ultra320 SCSI Dual Channel	LSI22320-R	PCI-64/100	6							
<b>4.3 PCI MROMB</b>											
Intel	SRCMRU		PCI-64/66		1,2,3		1,2,3		3		
<b>4.4 PCI Fiber Channel</b>											
Emulex	LP9402DC-F2	LP9402	PCI-X133		1,2,3	6	2,3 See IG #6.1	6	ND		6
Emulex	Lightpulse LP10000DC-M2	LP10000DC-M2	PCI-X133	6		6		6			6
<b>4.5 PCI NIC</b>											
3Com	10/100/1000 PCI-X	3C996B-T	PCI-X133	6		6		6			6
D-Link	Fast Ethernet 10/100	DFE-530TX+	PCI-X133	6		6		6			
Intel	PWLA8490MF	PRO/1000MF Gigabit Server Adapter	PCI-X133		2,3 See IG #6.2		2,3 See IG #6.2		3 See IG #6.2		
<b>4.6 Modems</b>											

Manufacturer	Model Name	Model Number	Interface	Microsoft Windows 2003 Server Enterprise Edition SP1	Microsoft* Windows* 2000 Server / Small Business Server 2000	Novell Netware 6.5	Novell NetWare* 6.0, SP2	Red Hat Linux ES3.0 Advanced Server	Red Hat Linux* 8.0	SCO Unixware 7.1.3	Suse Linux Enterprise Server 9.0
3COM	3CP5610A	Performance Pro Modem	PCI-32/33		1		1		NT		
<b>4.7 USB/PS2 Devices</b>											
Logitech	M-UB48	MiniWheel* Mouse	USB/PS2		1		1		NT		
National Semiconductor	PS/2	National PC87417	USB/PS2	6		6		6		6	6
<b>4.8 CDROM Drives</b>											
Teac	CD-224E	CD-224E	ATA33	6		6		6		6	6
LITE-ON	LTN-486S	LTN-486S	ATA33	6							
LITE-ON	LTN-526S	LTN-526S	ATA33	6							
Samsung	SC-152	SC-152	ATA33		1		1		NT		
<b>4.9 DVD Drives</b>											
Hitachi	GD-8000	GD-8000	ATA33		1		1		NT		
<b>4.10 Tape Drives</b>											
Quantum	SDLT-220	Super DLT	SCSI-U2		1		1		NT		
Seagate	Scorpion	STD2401 LW	Ultra2/wide	6							
<b>4.11 Removable Drives</b>											
Fujitsu	MCJ3230AP	MCJ3230AP	ATA		1		1		NT		
<b>4.12 KVM</b>											
Avocent	1160ES	1160ES	PS/2		1		1		NT		
<b>4.13 Video</b>											
ATI®	Radeon 7000	Radeon 7000	PCI-X133	6		6		6		6	6



Manufacturer	Model Name	Model Number	Interface	Microsoft Windows 2003 Server Enterprise Edition SP1	Microsoft* Windows* 2000 Server / Small Business Server 2000	Novell Netware 6.5	Novell NetWare* 6.0, SP2	Red Hat Linux ES3.0 Advanced Server	Red Hat Linux* 8.0	SCO Unixware 7.1.3	Suse Linux Enterprise Server 9.0
<b>4.14 DISK Storage Chassis</b>											
Intel	Intel 5 Bay HSBP	AXX2HSDRVUG	Ultra 320	6							
Clariion	C5001 R-A	C5001 R-A	1 Gb/s FC-AL	6							
Clariion	EMC 2	DAE	1 Gb/s FC-AL	6							
EuroLogic	SANBloc	FC21010DR2-AC	2 Gb/s FC-AL	6							
Xyratex	RS-0800-LVD	RS-0800-LVD	U320/SCA	6		6					
Xyratex	RS-1600-FC	RS-1600-FC	2 Gb/s FC-AL	6		6		6			6
EuroLogic	UltraBloc 320	SC2100ERR-AC-B1	U320/SCA	6				6		6	6
<b>4.15 Hubs and Switches</b>											
3COM	3COM 12 port copper 1 Gb switch	SuperStack 3 4900	1 Gb/s	6							
3Com	SuperStack II 3900	3C39024	Gigabit/Ether	6							
D-Link	DGS Gigabit Over Copper Switch	DGS-1008	Gigabit Cu	6		6		6			6
D-Link	DGS Gigabit Over Copper/Fibre Mana	DGS-3224TG	Gigabit Cu/Fi	6							

Manufacturer	Model Name	Model Number	Interface	Microsoft Windows 2003 Server Enterprise Edition SP1	Microsoft* Windows* 2000 Server / Small Business Server 2000	Novell Netware 6.5	Novell NetWare* 6.0, SP2	Red Hat Linux ES3.0 Advanced Server	Red Hat Linux* 8.0	SCO Unixware 7.1.3	Suse Linux Enterprise Server 9.0
Intel	Express 530T	ES530T	Gigabit Cu	6							
Intel	NetStructure 470 Switch	ES470TRW	Gigabit					6		6	
Asante	Gigabit Over Copper Switch	GX5-800	Gigabit Cu	6							
HP	Procurve	J4898A-6001	Gigabit Cu	6							
Linksys	EtherFast® 8-Port 10/100 W	EZXS88	Ethernet							6	

## 5. Hard Disk Drives

The hard drives listed in the following table have been tested with the Intel® server systems **SPSH4**, **SRSH4** by Intel in its 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* 2000 Advanced Server
2	Microsoft* Windows* 2003 Enterprise Server
3	Novell NetWare* 6.5
4	Caldera UnixWare 7.1.3
5	Red Hat Linux EL 3.0 AS
6	Suse SLES 9

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.
SD (Similar Drive)	The hard disk drive is supported, but not tested. This hard drive model/capacity has not been tested with this server board, but Intel will support it based on successful testing of a larger capacity hard drive from the same hard drive family. Intel has high confidence that this hard drive will function correctly with the server board. This drive uses the exact same firmware and drivers as a larger capacity hard drive that has been successfully tested with this server board. The only difference between this drive and the one that was used in testing is the storage capacity. Intel provides the same level of support for all hard drives listed in this document, regardless of whether the drive was tested or not. Customers should always test hard drives as part of the final system configuration prior to deployment. Given the fact that a larger capacity hard drive from the same drive family has successfully completed testing on this server board, this particular hard drive capacity point will not be tested.
IHVT (IHV Tested)	The hard disk drive was tested according to Intel-approved guidelines and test procedures by the Independent Hardware Vendor (IHV) that manufactured the drive. Intel provides the same level of support for all hard drives listed in this document, regardless of whether the drive was tested in an Intel lab or not. IHV test reports remain the property of the IHV (Intel cannot provide copies of these reports).

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems
Addonics*	Combo HD Kit	AEMED35AUM	USB 2.0			1,2
Addonics		AEMED35AUM	ATA	15k		1,3
Fujitsu*	MAM	MAM3367MC	U160	15k	36	1,2,3,4,5
Fujitsu	MAN	MAN3367MC	U160	10K	36	1,2,3,4,5
Fujitsu	MAP	MAP3147NC	U320	10k	147	1,2,3
Fujitsu	MAP	MAP3735NC	U320	10k	73	1,2,3, 5
Fujitsu	MAP	MAP3367NC	U320	10K	36	1,2,3,5
Hitachi*	Ultrastar* 73LZX	IC35L036UCD210	U160	10K	36	1,2,3,4,5
Hitachi	Deskstar* 120GXP	IC35L120AVVA07	ATA/100	7200	120	1,2,3,4,5
Hitachi	Deskstar 120GXP	IC35L100AVVA07	ATA/100	7200	100	SD
Hitachi	Deskstar 120GXP	IC35L080AVVA07	ATA/100	7200	80	SD
Hitachi	Deskstar 120GXP	IC35L060AVVA07	ATA/100	7200	60	SD
Hitachi	Deskstar 120GXP	IC35L040AVVA07	ATA/100	7200	40	SD
Hitachi	Deskstar 120GXP	IC35L020AVVA07	ATA/100	7200	20	SD
Hitachi	UltraStar* 146Z10	IC35L146UCD10	U320	10K	146	1,2,3,4,5
Hitachi	Ultrastar 146Z10	IC35L073UCDY10	U320	10K	73	SD
Hitachi	UltraStar 146Z10	C35L036UCDY10	U320	10K	36	SD
Hitachi	UltraStar 146Z10	IC35L018UCDY10	U320	10K	18	SD
Hitachi	UltraStar 15K73	HUS157373EL3800	U320/SCA	15K	73	1,2,3 IHVT
Hitachi	UltraStar 15K73	HUS157336EL3800	U320/SCA	15K	36	SD IHVT
Maxtor	Atlas 15K	8C073J0	U320/SCA	15K	73	1,3
Maxtor*	Atlas 10K IV	8B146J0	U320	10K	146	1,2,3 IHVT
Maxtor	Atlas 10K IV	8B073J0	U320	10K	73	3,5,SD, IHVT,6
Maxtor	Atlas 10K IV	8B036J0	U320	10K	36	1,2,3,4,5, 6
Maxtor	Atlas 10K III	KW18J011-03-B-E	U160	10K	18	1,2,3,4,5
Maxtor	Diamond Max Plus D740X	MX Y0760MO	SATA/100	7200	60	1,2,3,4,5
Maxtor	DiamondMax D740X-6L	6L040J2	SATA/133	7200	40	1,2
Maxtor	3000 LE	USB2040QLE001	USB 2.0	5,400	60	1,2
Maxtor	DiamondMax Plus 9	6Y060M0	SATA/150	7200	60	1,2,3,5,6
Maxtor	Atlas 10K III-U320	KU18J017	U320/SCA	10K	18	3,4,5,6
Maxtor	Atlas 10K III-U320	KU18J018	U320/SCA	10K	18	3,5
Quantum	Atlas IV	KN09L011	U160/wide	7200	9	1,2,3
Quantum	Fireball Plus AS	QMP40000AS-A	ATA100	7200	40	1,2,4

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems
Quantum	Atlas 10K III	KW18J014	U160/SCA	10K	18	5,6
Seagate	Barracuda 9	ST19171 FC	1 Gb/s FC	7200	9	1,2
Seagate	Cheetah 9LP	ST39102FC	1 Gb/s FC	10K	9	1,2
Seagate	Cheetah 18LP	ST39103FC	1 Gb/s FC	10K	9	1,2
Seagate	Cheetah 18XL	ST39204LC	U160/SCA	10K	9	
Seagate*	Cheetah 10k.6	ST3146807LC	U320	10k	146	1,2,3,4,5
Seagate	Cheetah 10k.6	ST373307LC	U320	10k	73	SD
Seagate	Cheetah 10k.6	ST336607LC	U320	10k	36	SD
Seagate	Cheetah 15K.3	ST3146807LC	U320/SCA	15K	73	1,3 IHVT
Seagate	Cheetah 15K.3	ST373307LC	U320/SCA	15K	36	SD, IHVT
Seagate	Cheetah 15K.3	ST336607LC	U320/SCA	15K	18	3,5
Seagate	Cheetah 10K.6	ST336607FC	2 Gb/s FC	10K	36	1,2
Seagate	Cheetah 36ES	ST318406LC	U160	10K	18	1,2,3,4,5
Seagate	Cheetah X15 – 36LP	ST336752LC	U160	15K	36	1,2,3,4,5
Seagate	Cheetah X15 – 36LP	ST336732LC	U320	15K	36	1,2,3,4,5
Seagate	Cheetah 73LP	ST373405LC	U160	10K	73	1,2
Seagate	Barracuda ATA IV	ST380021A	ATA/100	7200	80	1,2,3,4,5
Seagate	Barracuda 7200.7	ST380011A	ATA100	7200	80	1,2,3,5,6
Seagate	Cheetah 36ES	ST318406LC	U160	10k	18	1,2,3,4,5
Seagate	Cheetah X15 36LP	ST318452FC	2 Gb/s FC	15K	18	1,2,3,5,6
Seagate	Cheetah 15K.3	ST318453FC	2 Gb/s FC	15K	18	1,2,3,5,6
Seagate	Cheetah 15K.3	ST318453LC	U320/SCA	15K	18	1,2,4,5,6
Seagate	Cheetah 10k.7	ST3300007LC	U320/SCA	10K	300	1,2,3,5
Seagate	Cheetah 15K.4	ST3146854LC	U320/SCA	15K	147	1,2,3,5
Western Digital	Caviar	WD800BB	ATA/100	7200	80	1,2,3,4,5
Western Digital	WD400	WD400EB-00CPF0	ATA/33	7200	40	1,2
Western Digital	Caviar WD800	WD800BB	ATA100	7200	80	3,6

## 6. Installation Guidelines

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### 6.1 ICP-Vortex GDT8623RZ may require the on-board SCSI be disabled to install Microsoft Windows 2000.

**Issue:** During Microsoft Windows 2000 installation, after the GDT drivers are loaded the following error may be displayed when trying to access the hard drives:

0x4, 0x1, 0, 0  
Setup cannot continue.  
Shutdown or restart.

**Implication:** This error message indicates that Microsoft Windows 2000 setup can not properly enumerate the drives.

**Guideline:** The on-board SCSI controller may need to be disabled. Creating a partition on the drive to create an ID in the MBR may also resolve the problem.

**Status:** See the Microsoft knowledge base article Q226361.  
(DR11801)

### 6.2 Can install Novell Netware to a drive connected to an Emulex LP9002 or LP9402.

**Issue:** When trying to install Novell Netware 6 onto an Emulex LP9002 or LP9402, the setup program hangs and an abend error message may be displayed.

The system event log (SEL) lists an unknown error.

**Implication:** Emulex does not support devices as boot devices under Novell Netware.

**Guideline:** Devices attached to an Emulex LP9002 or LP9402 must not be used as boot devices under Novell Netware.

**Status:** Will not fix.  
(DR12301)

### 6.3 Emulex LP9002 or LP9402 drivers will not compile under Red Hat Linux 7.3.

**Issue:** Emulex LP9002 / LP9402 boot time loadable drivers for Red Hat 7.3 are not included with the base OS. These drivers must be compiled into the OS, but when compiling various errors are displayed when using the “make build” command.

Implication: Devices attached to the Emulex LP9002 / LP9402 can not be used with Linux 7.3.

Guideline: Obtain driver source v.4.20n or later from Emulex.

Status: Fixed in Emulex driver source v.4.20n.

(DR11612)

#### **6.4 A Caldera OpenUnix core dump is observed when using a 3COM 3C996B adapter.**

Issue: Installing a 3COM 3C996B card on the legacy 32/33 bus (i.e slots 1 or 2) the adapter works as expected. However, when the 3COM 3C996B is installed in any of the 64 bit slots the OS is unable to add the card and an OS core dump may occur.

Implication: Can not use a 3COM 3C996B adapter in any 64 bit slots.

Guideline: Must use a 3C996B adapter; 3C996 adapters are not supported.

Update to 3C996B driver version 2.2.10 or later.

Status: Fixed in 3C996B driver version 2.2.10.

(DR12717)

#### **6.5 Adaptec ASR-3410S may stop functioning under Netware 6.**

Issue: Occasionally RAID drivers are shut down and disabled under Netware causing any attached RAID configurations to drop off-line.

Implication: RAID drives drop off-line.

Guideline: Utilize Netware 6.0 driver version 3.04 package.

It is possible that the .NLM is not being updated during the Netware install. The .NLM may be updated after OS installation by putting all update files in the NWUPDATE directory. Do not rely upon the Netware installer and NWCONFIG as they may only load .HAM and .DDI files when updating storage drivers. NWUPDATE will update files of any type.

Check the date on files such as I2OPCI.NLM to make sure updates have been loaded correctly.

Status: See Novell Netware installation guidelines.