



Product Release Notes for 3ware 9690SA SATA+SAS 3GB/s and 9650SE SATA 3Gb/s RAID Controllers Cards

Release 9.5.5.1

READ ME FIRST!

Introduction

Thank you for purchasing an LSI 3ware RAID controller card. This document contains the latest information that may not be included in the Installation or User Guides. Please read this document before you contact Technical Support.

The latest 3ware product information, firmware, software upgrades, and OS drivers are available from LSI at: <http://www.lsi.com/support/Pages/download-search.aspx>

The LSI knowledge base, including frequently asked questions (FAQs), is viewed at: <http://kb.lsi.com>

LSI product compatibility and interoperability lists can also be found at: <http://www.lsi.com/support/Pages/interoperability.aspx>

For specific answers to 3ware questions, technical support, or to give feedback about a 3ware product, please visit: <http://www.lsi.com/support/email/Pages/3ware.aspx>

LSI also offers support 24 hours a day, 7 days a week at 800-633-4545 in North America, + 49 (0) 89 45833-113 in Germany, and 00-800-5745-6442 for international customers.

Sign up for the latest LSI news and support updates at: <http://twitter.com/LSIsupport>

Release Highlights

This release includes the following:

- SATA+SAS 3Gb/s controllers
 - 9690SA-4I
 - 9690SA-4I4E
 - 9690SA-8I
 - 9690SA-8E
- SATA 3Gb/s controllers
 - 9650SE-2LP
 - 9650SE-4LPML
 - 9650SE-4LPME
 - 9650SE-8LPML
 - 9650SE-12ML
 - 9650SE-16ML
 - 9650SE-24M8
- Added support for new SATA and SAS hard drives
- Added support for new Solid State Drives (SSD)
- Added support for new 4 TB capacity hard drives
- Added support for Windows 8 and Windows Server 2012

Release Details

This release has the following components:

- Firmware version: 4.10.00.027
- 3DM2 version: 2.11.00.021
- CLI version: 2.00.11.022
- FreeBSD 7.x driver version: 3.70.05.010
- FreeBSD 8.x driver version: 3.80.06.003
- FreeBSD 9.x driver version: 3.90.00.001
- Linux 2.4 driver version: 2.24.07.005 (source only)
- Linux 2.6 driver version: 2.26.08.006 (for supported distributions)
- Linux 2.6 up-stream driver version: 2.26.02.013 (for newer kernels)
- Mac OS X driver version: 2.2.10
- OpenSolaris driver version: 2.3
- Windows driver version: 3.00.05.057 (for all supported Windows releases)

Bug Fixes

- CLI segmentation faults in Linux (SCR-1110)
- CLI reports wrong capacity for 3 TB drives (SCR-1113)
- Removed firmware debugger print-outs (SCR-1117)
- VMware ESXi 5.x installation support (SCR-2271 & 2300)
- Upgraded OpenSSL version (SCR-2286)
- FreeBSD 6.x core dump due to 3DM2 library mismatch (SCR-2293)
- RAID-5 & 6 inoperable unit (SCR-1133 & SCR-2294)

Operating System Support

The following operating systems are supported:

- FreeBSD 7.4 and 8.1 (x86 & amd64)
- Linux (x86 and x86_64)
 - Fedora Core 11 & later
 - Red Hat Enterprise Linux 5.4 & later
 - openSUSE 11.1 & later
 - SUSE Linux Enterprise Server (SLES) 11 & later
 - For other distributions, refer to KB article: <http://kb.lsi.com/KnowledgebaseArticle14546.aspx>
 - Specific driver sources for kernels 2.6.8 through 2.6.37
- Mac OS X Leo (10.5), Snow Leopard (10.6), and Lion (10.7) for Intel Mac Pros
- OpenSolaris 2009.11 (x86 & amd64)
- VMware ESX, ESXi 4.x & ESXi 5.0 (x86_64)
 - VMware drivers are available at www.vmware.com and www.lsi.com
- Windows XP, Vista, 7, 8, 2003 SP2, 2008, 2008 R2, & 2012 (x86 & x64)

Restrictions

Important: Older Drivers & Software Tools Are Not Compatible With This Release

Drivers and software released prior to version 9.5.5.1 are not fully compatible with the firmware in this release. You must upgrade to a 3ware driver and a software level before you update the firmware on your 9690SA or 9650SE controllers.

Important: 3ware 7/8000 Series Units Are Deleted when Removed (SCR-233)

Do not use the CLI or the 3DM2 interface to remove or export any RAID unit from a 7/8000 series controller with the exception of JBOD units. If you remove or export any non-JBOD RAID unit using these interfaces, the unit is deleted and is recoverable only with the help of 3ware Technical Support.

Errata

Support for Hard Drives Larger Than 4 TB

As new capacity hard drives are made available, please check our compatibility list at <http://www.lsi.com/support/Pages/interoperability.aspx> for the latest additions.

Support for 3DM2 with Latest Windows Security Patch (SCR-1120)

The latest Windows security service patch stops 3DM2 from running. Contact LSI support for a beta version to fix this issue.

Support for 3DM2 with Linux 3.0 kernels (SCR-1148)

New Linux distributions using kernel 3.0 do not support 3DM2 email notification, causing the 3DM2 daemon to panic

Support for CLI with Linux 3.0 kernels (SCR-1135)

New Linux distributions using kernel 3.0, such as openSUSE 12.1, benignly reports "malloc: using debugging hooks" when running CLI. This error can be ignored.

Support for CLI with VMware

Refer to the following KB article for important tips when using CLI with VMware <http://kb.lsi.com/KnowledgebaseArticle16671.aspx>

SAS 6 Gb/s Expanders Are Not Supported on the 9690SA Controller

Due to a compatibility issue, do not use SAS 6 Gb/s expanders with the 9690SA controller.

3ware User Guide Does Not Include 9.5.2 and Newer Releases

The 3ware 9650 & 9690 User Guide is not updated for newer releases. Refer to the 9.5.2 addendum included on the CD and the 9.5.2 thru 9.5.5 release notes from www.lsi.com.

3ware CD Menu Tools Do Not Run With Fedora Core 10 & Later (SCR-1781)

Due to security restrictions the 3ware menu is no longer supported with Fedora Core. The workaround is to login as root and run the tools directly from a command line instead.

Fedora Core 11 Driver Does Not Load on Primary Storage (SCR-2154)

Due to an installer issue, the Fedora Core 11 operating system does not load the latest 3ware driver when you install the operating system on a 3ware controller. Run the workaround as documented in the `install.txt` file that is included on the storage medium that contains the driver software.

SUSE Driver Does Not Load Automatically for Secondary Storage (SCR-2166)

Due to SUSE Linux Enterprise Server (SLES) 11 restrictions, the 3ware driver fails to load on boot even after the `mkinitrd` command is executed. As a workaround, edit the `/etc/init.d/boot.local` file in the distribution to add either of the following commands:

```
insmod /lib/modules/<kernel version>/kernel/drivers/scsi/3w-9xxx.ko
modprobe --allow-unsupported 3w-9xxx
```

While other supported Linux distributions should not be affected, the same procedure may be used. For Redhat or Fedora, edit the `/etc/rc.d/rc.local` file instead.

Local Time Issue with openSUSE 11.1 and SLES 11 (SCR- 2164)

On openSUSE 11.1 and SLES 11, a system set for local time will post asynchronous event notification (AEN) messages with a GMT timestamp. This difference in time will delay the start of scheduled events that include (but are not limited to) rebuilds, verifies, initializations, and migrations. This problem has been fixed with the openSUSE 11.2 distribution. At the time of this writing, there is no service pack solution for the SLES 11 distribution. SLES 11 systems set to GMT time will not be affected by this problem.

CLI for FreeBSD May Fail to Show Controllers and CLI Version (SCR-945)

With certain FreeBSD systems CLI may report a syntax error with the show and show version commands. Other commands are not affected including /cx show & /cx/ux show.

CLI Allows Migration of a Single SAS Disk to RAID-1 Array Using a SATA Drive (SCR-594). Mixed SAS and SATA drive configurations are normally not allowed during creation and migration by 3BM, CLI, or 3DM2.

3DM2 May Display Invalid Characters in Email Notification Settings (SCR-705)

If the 3DM2 email notification setting fields are not populated, random characters may be displayed in place of a blank field. Only Windows operating systems appear to be affected. These characters can be safely ignored.

WinAVAlarm Does Not Sound on 64-bit Windows Systems (SCR-1161)

No alarm is audible with Windows 64-bit systems when the WinAVAlarm option is activated for an AEN.

OpenSolaris UFS File System Unit Limit (SCR-2157)

To support eight or more drive units on OpenSolaris 2009 v6, use the ZFS file system instead. There are limitations with eight or more units when using the UFS.

OpenSolaris System Hang Issue Using UFS File System (SCR-2087)

When creating a UFS file system in Open Solaris 2009 v6, you must use the -T option to avoid a possible system hang: `newfs -T /dev/rdisk/cx/tx/dx/sx`

Support for Units Larger than 2 TB OpenSolaris (SCR-973)

While the 9750 supports units that are greater than 2 terabytes in size, these storage objects are too big for some 32-bit kernels, such as OpenSolaris. Use the 3ware autocarve option as a workaround. Refer to the 3ware SATA+SAS RAID Controller Card Software User guide for more details.