



3ware 9.5.2 Release Notes

Supporting 9690SA and 9650SE controllers

READ ME FIRST!

Introduction

Thank you for purchasing 3ware SAS and SATA RAID controllers. This document describes important recommendations that are not included in the Installation and User Guides. In order to better assist you, please read this document prior to contacting technical support.

For additional information, see our web site at:

<http://www.3ware.com/products/index.asp>

User Documentation:

<http://www.3ware.com/support/userdocs.asp>

Knowledgebase:

<http://www.3ware.com/KB/kb.asp>

Software Downloads:

<http://www.3ware.com/support/download.asp>

System and Drive Compatibility Lists:

http://www.3ware.com/products/sys_compatibility.asp

Service and Support:

<http://www.3ware.com/support/index.asp>

New U.S. Phone, after July 2009: 888-646-4566 (U.S. only) or 408-433-4567

Legacy U.S. Phone, until July 2009: 800-840-6055 (U.S. only) or 858-535-6517

European Phone: 00 44 (0)118 936 25 01



9.5.2 Release Highlights

- Added Intelligent Read Pre-fetch (IRP) feature for improved performance
- Added Background Task Activity Policy (BTAP)
- Added 256K stripe size for improved RAID-6 sequential performance
- Changed default stripe size from 64K to 256K for newly created arrays
- Changed default StorSave setting from protected to balanced mode
- Added audible alarm management for supported SES enclosures
- Added power management support for Linux
- Added a configurable delay for drive discovery
- Added 3DM 2 secure email notification support for Google mail
- Added 3DM 2 support for OpenSolaris

Release Details

The release is comprised of the following components:

- Firmware version: 4.08.00.006
 - 3BM (3ware BIOS Manager) version: 4.08.00.001
 - BBU (Battery Backup Unit) version: 2.00.00.023
- 3DM 2 version: 2.09.00.009
- CLI version: 2.00.09.012
- FreeBSD 5.x driver version: 3.50.04.003
- FreeBSD 6.x driver version: 3.60.04.006
- FreeBSD 7.x driver version: 3.70.05.005
- Linux 2.4 driver version: 2.24.07.004
- Linux 2.6 driver version: 2.26.08.005
- Linux 2.6 upstream version: 2.26.02.012
- OpenSolaris driver version: 1.7
- Windows miniport driver version: 3.00.04.070

Operating System Support (x86 32-bit and 64-bit)

- FreeBSD 5.x, 6.4, and 7.1
- Linux 2.4 and 2.6 kernels (2.6.8 through 2.6.29 specific)
- Linux Fedora Core 10
- Linux OpenSuSE 11.1
- Linux OpenSuSE Enterprise Server 10.0 SP2
- Linux Red Hat Enterprise 5.3
- Linux other distributions: <http://www.3ware.com/KB/article.aspx?id=14546>
- OpenSolaris 2008.11
- VMware 3.5 (Use 3ware drivers from 9.5.1 release)
- Windows XP, Vista, 2003, and 2008



Notes

Remember to check the 3ware web site for the latest updates and to sign up for the 3ware Technical Newsletter at: <http://www.3ware.com/support/index.asp>

Motherboard, hard drive, and enclosure compatibility

Please refer to 3ware's hardware compatibility list for tested hardware configurations. This list is updated on a regular basis. The hardware compatibility list is located at: http://www.3ware.com/products/sys_compatibility.asp

Bugs Fixed

Data integrity issue with certain SAS drives (SCR-1767)

Corrected a rare data integrity issue affecting 9690SA controllers from occurring if the controller self test is enabled with certain SAS drives attached.

Data integrity issue with RAID-5 arrays (SCR-1912)

Eliminated a rare chance of a data integrity issue from occurring if a RAID-5 array degrades prior to completing initialization.

Rebuild/Migrate & Verify rate setting changes (SCR-1675)

The background task rate settings for rebuild/migrate and verify have been corrected. A setting of 5 is now the fastest background task time and 1 is the slowest.

Improved FreeBSD error handling (SCR-1971)

The FreeBSD driver has been fixed so that if a controller error is encountered, a controller reset is issued. This prevents a system hang from occurring.

RAID-6 verify failure after initialization (SCR-1924)

A false verification failure no longer occurs after initializing a RAID-6 array with more than 29 drives.

Controller ID number changes if unit is created or deleted (SCR-1935)

Deleting or creating a 9650SE array no longer causes the controller ID numbers to change in 3DM 2 and CLI if three or more controllers are installed in a Windows system.

Spare not used for rebuild if degraded drive has device error (SCR-2100)

Fixed a case where the spare drive was not used for a rebuild, if the degraded drive had a device error.

AMI 9071 & 9072 drive enclosures not shown in 3BM (SCR-1479)

Supermicro and other AMI 9071 and 9072 based drive enclosures are now shown in the 3BM Enclosure Information screen.



Specific Fujitsu drives not shown after hot swap (SCR-1705)

Fujitsu MBA3300RC and MBA3147RC drives are now shown following a hot swap.

No CCU support for 9690SA controllers (SCR-1416)

Chassis Control Unit (CCU) support is now available for 9690SA controllers.

No rebuild progress (0%) is shown if Rapid RAID recovery is enabled (SCR-1412)

Rebuild progress is now shown in 3DM 2 and CLI for units with Rapid RAID recovery.

Unable to manage 9650SE port link speeds with CLI (SCR-1910)

CLI can now view and set 9650SE port link speeds, same as 9690SA controllers.

Missing or inoperable array if roamed after unclean shutdown (SCR-2102)

Array roaming, following an unclean shutdown with battery backup, is now supported.

A controller reset occurs instead of degrading failing drive (SCR-2111)

A failing drive, with multiple errors, now degrades properly with 9650SE controllers rather than causing a controller reset.

After replacing a failed drive, the new drive is not available (SCR-2112)

Replacement drives are now available for use following a rescan in 3DM 2 and CLI.

Added Western Digital & Samsung drive support for enclosures with LSI expanders

Refer to the current compatibility list for specific drives and enclosures supported:

http://www.3ware.com/products/sys_compatibility.asp.

Background scheduling with VMware & OpenSolaris (SCR-878)

Fixed a VMware and OpenSolaris issue where background tasks do not occur at the scheduled times.

Degraded drive not usable after a controller rescan (SCR-1513)

A degraded, but functional, drive returned to the same controller after the rebuild of the RAID-1 or RAID-10 array is now usable.



Errata

Important: Older drivers and software are not compatible with this release

Drivers and software released prior to 9.5.2 are not fully compatible with the firmware in this release. Please upgrade to a 3ware driver and software that is 9.5.2 (or newer) prior to updating the firmware on your 9690SA and/or 9650SE controllers.

3ware user guide & HTML bookshelf does not include 9.5.2 features

The 3ware User Guide will not be updated for 9.5.2, instead refer to the 9.5.2 addendum and included on the CD or at <http://www.3ware.com/support/userdocs.asp>.

Controller numbering in 3BM may not match 3DM 2 and CLI (SCR-1998)

Depending on the operating system installed, other devices present, and the order in which the various system drivers are loaded, the controller numbers in 3BM may not match 3DM 2 and CLI.

SES enclosure features may not be fully supported (SCR-1044)

Certain SES enclosures may not be reported correctly when viewed using the 3ware management utilities. Also some enclosures may not support or correctly implement all SES features such as enclosure alarms and LEDs. Please check your enclosure manufacturer for a list of supported features and recent updates.

3ware installation driver disk is not available for Fedora Core 10 (SCR-1792)

The 3ware installation driver disk is not supported with Fedora Core 10. The workaround is to first install the OS to the array, using the default 3ware driver, and then upgrade the driver following the procedure starting on page-195 of the 3ware User Guide.

After installing Fedora Core 10 the system fails to boot (SCR-1792)

Fedora Core 10 fails to boot after the installation is completed. The fix is to update GRUB prior to boot (press ESC to enter the GRUB command line) and add `scsi_mod.scan=sync`. Then boot the system, login as root, and update `/boot/grub/menu.lst` with the same fix to make the change permanent.

3DM 2 may not load with Fedora Core 10 (SCR-1782)

Due to increased security, <https://localhost> may not be used to load or view 3DM 2 with Fedora Core 10. Use the default local host IP address of <https://127.0.0.1> instead.

CLI does not load from 3ware CD menu with Fedora Core 10 (SCR-1781)

CLI does not load from the CD menu with Fedora Core 10. The workaround is to run it directly from a command line instead.

3ware uninstaller fails on Fedora Core 10 (SCR-1996)

The uninstaller, located at `/opt/AMCC/_uninst/uninstaller.bin`, fails to run with Fedora Core 10 (64-bit version only).



After installing OpenSuSE the system may fail to boot (SCR-1997)

Linux OpenSuSE may fail to boot after installation to a 3ware array due to various GRUB setup errors. If this occurs, try a newer version of OpenSuSE and start with a smaller array (less than 2 TB) without multiple LUNs. Also confirm the correct array (the one with the lowest ID) is selected prior to install.

Controller resets may occur with VMware (SCR-874)

On VMware systems, a controller reset may occur when upgrading the 3ware firmware or removing a drive from a redundant array. The system is able to recover successfully.

Drive spindle speed may be shown incorrectly (SCR-1164)

In certain cases drive spindle speeds may be incorrectly reported.

3ware 7/8000 series units are deleted when removed (SCR-233)

CLI or 3DM 2 should not be used to remove or export any RAID unit from a 7/8000 series controller with the exception of JBOD units. The unit will be deleted and is only recoverable with help of 3ware Technical Support.

WinAVAlarm does not sound on 64-bit Windows systems (SCR-1161)

No alarm is audible with Windows 64-bit systems when WinAVAlarm is activated for an Asynchronous Event Notification (AEN).

3BM may not continue foreground initialization (SCR-1219)

Foreground initialization in 3BM does not continue with remaining units, if a preceding unit initialization fails due to a missing or failed drive. 3BM exits with no error.

CLI controller's "pause" option is no longer supported (SCR-2018)

The option in CLI used to pause the output when viewing the controller's drive status details `/cx show drivestatus [pause [lines=n]]` is no longer officially supported and will be removed from the documentation in the next release.