

MSA1000 Firmware 4.48 Release Notes

- Future controllers will have alternate memory components that are functionally identical to existing components but will require firmware version 4.48. All MSA1000 with redundant controllers require matching firmware versions, therefore an upgrade to 4.48 is required.
- Performance has been enhanced.
- All MSA1000 supported operating systems are now supported with this firmware release, including HP-UX.
- The HP-UX auto-negotiate 1GB/2GB issue has been fixed.

Fixes and new functionality since firmware version 4.24:

- Fixes an issue with Third Party Process Log Out that could result in a Microsoft Windows cluster node not being able to take ownership of a clustered disk device during a cluster failover
- Fixes an issue with the MSA1000 accepting the Forced Unit Access bit from some database applications which caused read/write requests to bypass cache and caused poor performance
- Fixes an issue where the MSA1000 array controller could get a 'Critical Lockup F112h' when inserting new disk drives or migrating disk drive from non smart array based SCSI controllers
- Improves I/O performance in environments which consist mainly of small block sequential I/O transfers

Fixes and new functionality since firmware version 2.38:

- Adds combined support for Windows/Netware/Linux/OpenVMS/True64 UNIX with the same version of firmware
- Increases performance over version 2.38 and 3.36 versions of firmware
- Adds support for SUSE SLES 8, United Linux 1.0, and NetWare 6.5
- Adds support for FCA2214/2214DC and FCA2404/2404DC in Windows environments
- Adds compatibility support for the next generation U320 drive enclosures, including:
 - HP StorageWorks Enclosure Model MSA30 single bus (4414) 302969-B21
 - HP StorageWorks Enclosure Model MSA30 dual bus (4454) 302970-B21
- Adds support for Secure Path 64-bit Windows on Itanium-2 based Integrity servers
- Drive rebuild and expand priorities can now be dynamically changed during a rebuild or expand job
- Adds firmware foundation for rolling firmware upgrades. Rolling firmware upgrades will be possible with the next revision of MSA1000 firmware
- Support for StorageWorks Secure Path 4.0c for Windows
- Fixes an issue found with SQL Server 2000 in which SQL may report the use of stale cache data under the following conditions:
 - Extremely heavy I/O load
 - Some percentage of MSA controller cache allocated to READ
 - Multiple small simultaneous writes to the same SCSI blocks
 - Write cache is full at the time of the request
 - If all of the above criteria are met, SQL may report error ID's 605, 644, and 823 when performing subsequent reads from the same SCSI blocks.

Firmware upgrades:

Before upgrading MSA1000 controller firmware, download the following support software and documentation:

- MSA1000 Support Software CD version 6.51:
ftp://ftp.compaq.com/pub/products/servers/supportsoftware/ISO/msa1k/MSA1K_A.651/iso/US/MSACD651.iso

The Support Software CD provides updated operating system drivers and utilities for the MSA1000. Drivers contained on the version 6.51 support software CD are required when using version 4.32 firmware.

- For users of Secure Path in a Microsoft Windows environment, download the SecurePath 4.0c update:
 - Workgroup Edition:
<http://h18006.www1.hp.com/products/sanworks/softwaredrivers/securepath/spwinwgv40c.html>
 - Enterprise Edition:
<http://h18006.www1.hp.com/products/sanworks/softwaredrivers/securepath/spwinv40c.html>
- Review the document "Upgrading the MSA1000 for Enhanced Features":
<ftp://ftp.compaq.com/pub/products/storageworks/whitepapers/upgradeMSAenhancedfeatures.pdf>

This document outlines the steps needed to upgrade MSA1000 controller firmware and software to the latest versions. Please note: Although this document may reference older versions of MSA firmware or software revisions, the upgrade procedures are the same.