

## DSN-1000/ 2000/ 3000 series Firmware Release Note

**Firmware: 2.8. 0.48**

**Hardware: DSN-1100-10 A1, DSN-2100-10 A1, DSN-3200/ 3400-10 A3**

**Date: January, 24, 2011**



Any system that is running v1.5.1 firmware or earlier must first be upgraded to version v1.6.1, and then upgraded to this new version.

The v2.8.0 software release requires that the Java Runtime Environment 6 (JRE 6) Release 1.6.0.0, or later (<http://java.com>) is installed on the system that will serve as the management host. The Java Runtime Environment software must be installed prior to the first connection to the xStack Storage Management Center.

Note: The upgrade from firmware V1.6.1 to this new version requires the installation of a new and improved system kernel. It is recommended that you copy your system configuration (LAGs, LUNs, targets, etc.) down on paper manually and have it available when the upgrade is complete. Please review your final configuration to make sure they match your previous settings. Make changes if necessary.

### **Enhancement:**

#### 1. Automatic “Down Drive” when a SMART Threshold is Exceeded

When any SMART Threshold on a SATA drive is exceeded, the system will automatically “down” that drive, and all volumes on that drive will be moved to other available drives. An e-mail notification message and/or an SNMP trap will be generated to report this action. This will help to proactively eliminate drive failures before they occur.

#### 2. Increased the Maximum Allowable Host Transfer Size

The maximum host transfer size was increased from 5MB to 10MB to support certain VMware environments.

#### 3. Improved E-mail and SNMP Notifications

All E-mail Notification messages and SNMP Traps now include a more detailed description of the specific failure condition (such as “Drive 0 Failed”), instead of simply instructing you to view the Event Log for a description of the failure.

#### 4. Event Log Entry for “Initialize Drive”

An Event Log entry is now added whenever a drive is initialized.

#### 5. Performance Improvements

The read-ahead caching algorithm was enhanced to use three buffers instead of two, which improves the performance when running with a single read-ahead thread.

## **Problems Resolved:**

The following issues have been fixed in this release:

### 1. Java GUI:

- The member number of a parity volume always displayed as “0” in the Physical Storage Extents tab
  - Attempting to delete a volume with an active iSCSI session did not pop-up an error dialog
  - The hostname in the Network Settings view was not updated after changing the hostname
  - The volume size was displayed to 8 decimal places when reconfiguring a Stripe volume to a Parity volume
  - A Network Portal did not appear in summary after replacing the network port with a VLAN-enabled port
  - Insufficient error checking when using the Volume Creation wizard to select certain volume types (such as “Email Server”) when fewer than four drives exist in the system
  - Hard drives that were almost full were not available for selection in the Volume Reconfigure Wizard, which prevented some volumes from being reconfigured
  - The System Administration view showed “Serial Number: Chassis 001-001” for some enclosure types that did not have a pre-programmed serial number
  - Attempting to re-configure a Volume to the same RAID type but using different disks had no effect
  - Not all events were extracted when the Event Log was saved
  - There was no validation of an attempt to upload a software image for a different hardware platform
2. Reliability improvements for out-of-order TCP packet processing, especially when the TCP window from the initiator host would shrink unexpectedly
3. The hostname contained in the body of an e-mail notification message did not correspond with the hostname that was specified through the GUI or the Admin menu of the Serial Console.
4. Numerous oscillating fan speeds for some enclosures caused the Event Log to fill-up with Fan Speed Change entries
5. The Event Log included several “RBOD Communication Error” events for some enclosures
6. The Event Log included unexpected “Fan Fault” errors for some enclosures
7. Saving the Event History caused a system failure when the Event Log contained exclusively “Engineering Info” entries
8. Setting the TCP “Time-to-Live” (TTL) parameter in the System Administration  Advanced
9. Settings tab caused the system to unexpectedly restart
10. The diagnostic capture was invalid when only a single 1GB memory DIMM was present

11. Unable to set the Hostname through the Admin menu if it started with a numeric character
12. Unable to boot via iSCSI when using a Broadcom 5709 host bus adapter
13. Various software instabilities resulted in a “bug-check” condition and caused the system to restart, which caused temporary loss of access to volumes.

**Known issues:**

1. VDS Hardware Provider

Support for the 32-bit version of Microsoft Virtual Disk Service (“VDS”) is available for Windows 2003 Server only, which allows you to use any VDS-based applications (such as Microsoft’s DiskRaid utility or Storage Manager for SANs) to configure and manage any xStack Storage product.

Microsoft’s VDS subsystem does not support the creation of Network Portals. Therefore the iSCSI network configuration must be performed using the Startup Wizard or the Management Center GUI. For more detailed information, refer to the Virtual Disk Services Guide and the related Microsoft documentation for DiskRaid and Storage Manager for SANs.

2. iSCSI Initiator Support for Windows 2000

We no longer provide iSCSI initiator support for Windows 2000, since Microsoft no longer provides support for that version. However, it is still possible to run the Management Console GUI from a Windows 2000 client.

3. Reverting to Earlier Versions

If you must return your system to an earlier version of software, you can click on the “Use Alternate Version” button, and the system will restart using the earlier version. However, be sure that all background tasks (such as parity volume initialization, volume reconfiguration or volume scan) have completed before clicking on the “Use Alternate Version” button. If the system does not restart automatically, you may need to restart the system manually.

4. Reconfiguring the Volume Chunk Size through the CLI

The ability to change the chunk size of a volume when using the CLI “reconfigure” command in the volume context is not supported in this version.

5. Micro-Rebuild Feature is Disabled for SATA Drives

The Micro-Rebuild feature is disabled for SATA drives in this release due to instabilities that exist with that feature. This feature may be re-activated in some future firmware release.

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