Dell SAS 5/E HBA Firmware update instructions for Linux (RHEL 3 & 4)

Release Title: SAS Non-RAID: Dell SAS 5/E Adapter, Firmware, English, Multi System, v. 00.10.51.00.06.12.05.00, A04
Release Date: 11/20/2007
Criticality: Recommended
Description: Dell PowerEdge SAS 5/E Adapter Firmware release

To install using update packages, please make sure that SAS 5/E drivers are at the following minimum levels

RHEL3 - 2.06.48.02
RHEL4 - 3.02.83.04
RHEL5.1 - Tested by Daniel 01/08/2008

Installation
1. Use (Mac) FUGU -->SCP to copy FRMW_LX_R168480.BIN to /home/rack/
2. ssh rack@ipaddress
3. su -   (use root passsword)
4. cd /home/rack
5. chmod +x FRMW_LX_R168480.BIN
6. mount -o remount,exec /tmp
        cat fstab if /tmp is not in standard location and command errors out
7. ./FRMW_LX_R168480.BIN and follow the remaining prompts to perform the update.
8. Proceed with reboot during firmware update process.
9. Log in again and rm -f FRMW_LX_R168480.BIN
10. If fstab was modified (see below), then follow steps G to I

**NOTE: If FRMW_LX_R168480.BIN is executed and error message "/tmp/FRMW_LX_R168480.BIN-6118-3887/spsetup.sh: line 1504: ./getSystemId: Permission denied
Collecting inventory...
/tmp/FRMW_LX_R168480.BIN-6118-3887/spsetup.sh: line 831: ./sasdupie: Permission denied" appears then follow the steps below before proceeding with step 2-9 again.
        A. vi /etc/fstab
        B. Duplicate this line "/dev/sda2   /tmp   ext3 defaults,nosuid,nodev,noexec   1 2"
        C. Change the copy to   "/dev/sda2   /tmp   ext3 defaults   0 0"
        D. REM the line by   "#/dev/sda2   /tmp   ext3 defaults,nosuid,nodev,noexec   1 2"
        E. :wq
        F. Reboot server and perform steps 2 to 7 above
        G. REMOVE the copied line and remove the REM "#" and :wq
        H. Reboot server and cat /etc/fstab to verify fstab config is the same before changing to accommodate firmware install.
        I. Logout and Update Ticket OR complete maintenance if LUNS need to be created next.

Fixes/Enhancements
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1. Fixed an issue that causes errors during cable disconnect scenarios when connected to a Dell MD3000 enclosure

2. Addressed an issue where interrupt warnings were seen during Operating system installations
3. Fixed an issue with rebuild progress reporting in an OS environment
4. Improved Tape performance on SAS 5/E with External SAS Tape Units
5. Disabled option in BIOS to change the "report device missing delay" which could potentially cause timing related issues and performance related issues with attached devices when toggled
6. Modified Webpack script for SAS 5 cards so that it is compatible with other 6th Generation SAS controllers
7. Modified the SAS5 Option ROM to improve CHS (Cylinder/Head/Sector) to LBA (Logical Block Address) translation, to add support for newer disk partition utilities