

ReleaseOrder ID: SCGCQ02093660
Headline: Point Release: SAS3FW_Phase16.0 - 16.00.08.00 IT/IR Release
Release Version: 16.00.08.00
UCM Project: SAS3FW_MASTER_DEV
Sub UCM Project: SAS3FW_Phase16.0
UCM Stream: SAS3FW_Phase16.0_Rel
Release Type: Point
State: Open
Release Baseline: SAS3FW_Phase16.0-2019-04-02-16.00.08.00_REL_1554226778@
ISAS_CTRL_FW
Release Date:
Date Generated: Apr 03, 2019

Defects Fixed (3):

ID: SCGCQ02063754
Headline: IR : drive(part of volume) becomes inaccessible after drive removal and insertion back to same port
Description Of Change: Removed the buggy code that was marking the drive as not mapped
Issue Description: Drive(part of volume) becomes inaccessible after drive removal and insertion back to same port because IR fails the commands to the drive as the drive is not mapped.
When the drive was inserted back, it was marked as not mapped due to a buggy code
Steps To Reproduce: 1. Creating RAID0 volume with 2 drives
2. Remove one drive
3. Insert it back to same slot
4. Drive on the other slot is not accessible.

ID: SCGCQ02080386 (Port Of Defect SCGCQ02030158)
Headline: PL: SCSI ATA Passthrough command hangs with higher than expected DataLength
Description Of Change: For determining when data transfer is complete for ATA passthrough PIO in commands, look at the number of sectors requested in the ATA command to determine whether more data is expected or not. If no more data is expected, complete the command. Compare to DataLength to determine underrun/overflow.
Issue Description: For ATA passthrough PIO data in commands, firmware processes all received data. The current code looks at DataLength in the IO request to see how much data is expected, and will keep waiting for more data until DataLength is satisfied. If, for example, the command only returns 512 bytes of data, but DataLength is 4096, the command will effectively hang as firmware continues waiting for more data that will never come.
Steps To Reproduce: Send an ATA passthrough that will return 512 bytes of data and set DataLength to greater than 512.

ID: SCGCQ02080388 (Port Of Defect SCGCQ01965930)
Headline: PL: FPE IO Timeout Following SCSI ATA Passthrough Command for Same Device
Description Of Change: Added code in PL to translate the byte count to sector count for this case, so that hardware functions correctly.
Issue Description: Although not typical, it's possible to submit an ATA passthrough command with a count specified in bytes, rather than sectors. PL firmware was just passing this byte count to SAS HW, which was expecting a sector count. If the count is a high value, say 512, the HW gets messed up and a future NCQ read command to the drive hangs (never completed in SAS core).
Steps To Reproduce: Send a SCSI ATA pass through data in command with a count of 512. Send other ATA passthrough commands after, and then read commands. A future read command should timeout.

Enhancements Implemented (1):

ID: SCGCQ02082743
Headline: IOP: Add Additional Prints for PCIe Configuration Request Trapping
Description Of Change: Extended the existing PCIe Configuration Request trap print to show the write data pulled from hardware, and added another print to show the data that firmware wrote back to hardware to complete the config trap.