

ReleaseOrderPkg ID: SCGCQ02178470

Headline: MR 7.10 - Full flash images for all Broadcom channel boards (Package 51.10.0-2800)

Package Type: Ventura MR FW Package Broadcom - Quanta

Package Version: 51.10.0-2800

Date Generated: Jul 23, 2019

- SCGCQ02178462 (ReleaseOrder) - Point Release: MR_FW_SAS3.5_7.10_FC - 5.100.00-2651 Firmware
- SCGCQ02151049 (ReleaseOrder) - PL MR/SCS Libs: SAS3.5CtrlFw_Ventura_Ph_10.0_Point_MR - 10.25.08.00 MR PL Release
- SCGCQ01831988 (ReleaseOrder) - Ventura Boot Block - 7.02.00.00-0021
- SCGCQ01145903 (ReleaseOrder) - Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
- SCGCQ02126965 (ReleaseOrderPkg) - MR 7.9 Ventura Quanta SBR Package version 5.0900.09-0415
 - SCGCQ01965073 (ReleaseOrder) - Pre-Alpha Release: MR_RMC_SAS3.5_7.8 - 415 SBR_RMC
 - SCGCQ01421108 (ReleaseOrder) - PCE Settings v1.11 Update
 - SCGCQ01415846 (ReleaseOrder) - HW Settings v1.10 - Add HW_SET changes needed for ISSI SPI Flash Parts (IS25WP128 and IS25WP256D) support
 - SCGCQ01173982 (ReleaseOrder) - SPICO v1.06
 - SCGCQ01145903 (ReleaseOrder) - Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
 - SCGCQ01106013 (ReleaseOrder) - Point Release: MR_FW_BLD_TOOLS - BinToRom v1.01
 - SCGCQ01064344 (ReleaseOrder) - SBR Package Tools v1.01
- SCGCQ02177851 (ReleaseOrderPkg) - MR 7.10 NVData (5.1000.09-0001) for Quanta
 - SCGCQ02177844 (ReleaseOrder) - Point Release: MR_FW_SAS3.5_7.10_FC - 5.100.04-2642 NVDATA_XSD
 - SCGCQ01186894 (ReleaseOrder) - Alpha Release: MR_FW_BLD_TOOLS - 1.02 BinToRom
 - SCGCQ01145903 (ReleaseOrder) - Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
 - SCGCQ00786149 (ReleaseOrder) - SAS2 NVDATA Parser Tool Version 10.00.00.00
 - SCGCQ01965102 (HWBoardImageConfig) - Quanta_152D_8B01 QS3516B-240PD-R0156
 - SCGCQ01965099 (HWBoardImageConfig) - Quanta_152D_8B00_soem2 QS3516B-32PD-R0156
 - SCGCQ01965098 (HWBoardImageConfig) - Quanta_152D_8B00_soem1 QS3516B-32PD-R0156
 - SCGCQ01965095 (HWBoardImageConfig) - Quanta_152D_8B01_soem1 QS3516B-240PD-R0156
 - SCGCQ01965097 (HWBoardImageConfig) - Quanta_152D_8B01_soem2 QS3516B-240PD-R0156
 - SCGCQ01965101 (HWBoardImageConfig) - Quanta_152D_8B00 QS3516B-32PD-R0156
- SCGCQ02160202 (ReleaseOrderPkg) - x64 MR 7.10 Ventura BIOS Package 7.10.03.0_0x070A0400_07.10.07.01 (Signed UEFI and Signed HII)
 - SCGCQ02160201 (ReleaseOrder) - x64 MR 7.10 HEFU for Ventura 07.10.07.01 (Signed)
 - SCGCQ02140788 (ReleaseOrder) - x64 MR 7.10 UEFI Driver For Ventura v0x070A0400 (Signed)
 - SCGCQ02072823 (ReleaseOrder) - MR 7.10 Legacy BIOS for Ventura v7.10.03.0
 - SCGCQ01145903 (ReleaseOrder) - Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
 - SCGCQ01106013 (ReleaseOrder) - Point Release: MR_FW_BLD_TOOLS - BinToRom v1.01
- Custom Image Table

Point Release (SCGCQ02178462) - Firmware - 5.100.00-2651

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ReleaseOrderID: SCGCQ02178462

Headline: Point Release: MR_FW_SAS3.5_7.10_FC - 5.100.00-2651 Firmware

Release Version: 5.100.00-2651

Product Org: DCSG

Product Gen: SAS3.5

Product Family: MR_FW

UCM Project: MR_FW_SAS3.5_7.10_FC

Release Type: Point

UCM Stream: MR_FW_SAS3.5_7.10_FC_Rel

Owner: buildsvc

Release Baseline: MR_FW_SAS3.5_7.10_FC-2019-07-22-5.100.00-2651_REL_1563855539@MegaRAID

Release Date / Time: 23-JUL-19

Release Type: Point

Firmware Defects Fixed (10):

Defect ID: SCGCQ02123786

Headline: NVMe Drive goes missing after running PD Pull Push Script in loop

Description Of Change: On device missing delay expiration check if the device is missing and not registered with upper layers and mark the drive for deletion .

Issue Description: After device missing delay timer expiration drive is not removed properly when NVMe init is not successfull.

Steps To Reproduce: 1) Connect 2 NVMe drives and see they are discovered initially before running the pull-push script.
2) Start a script which will pull out two NVMe drives and connect it back in loop in every 7 seconds
3) After running for 40 cycles observe that drive goes in to missing state and never recovers after stopping the script.

Defect ID: SCGCQ02131859

Headline: Fix build error due to SCGCQ02128295

Description Of Change: Build error fixed

Issue Description: Fix build error due to SCGCQ02128295

Steps To Reproduce: Not applicable

Defect ID: SCGCQ02175420

Headline: Dell Workstation customer in Japan reported a performance issue with Patrol Read on 9440-8i

Description Of Change: Delay the patrol read appropriately in seconds instead of timer ticks. This will avoid starving IO processing and hence avoid performance drops.

Issue Description: Patrol read was scheduled aggressively. This resulted in starving the IO processing and hence performance drops.

Steps To Reproduce:

- In any system, connect 9440-8i and 2 SATA HDDs.
- Create 2D R1
- Run IOs on the VD using CrystalDiskMark tool with PR ON and OFF
- 7.4 pkg does not show per dip but 7.5Pkg onwards dip is seen

Defect ID: SCGCQ01763871

Headline: PL: (SATA only) Proper Sense key not set to failed read/write command while handling NCQ error

Description Of Change: Enabled a workaround in PL firmware, which ignores the NCQ Tag and uses the LBA in the NCQ error log to determine which outstanding IO encountered the error. The workaround is only executed for a SATA drive attached to an EDFB enabled expander

Issue Description: In SATA NCQ error handling scenario, there's one IO that hit the error, and the others are "collateral aborts", meaning they did not hit an error, but must be aborted anyway. PL uses the NCQ Tag value in the NCQ error log to determine which IO actually hit the error. There's a Broadcom Gen3 expander hardware bug which can cause Tag to be incorrect. Ultimately, controller reporting wrong sense key for the IO which actually hit error. This can only happen if SATA drive attached behind EDFB (DataBolt) enabled Broadcom Gen3 expander.

Steps To Reproduce: Connect Host managed SATA SMR drive behind EDFB (DataBolt) enabled Broadcom Gen-3 expander. Trigger sequential write on one zone and trigger random write on another zone to trigger write pointer not aligned error. Drive aborts command with abort error and controller reports incorrect sense key to the command on which error occurred.

Defect ID: SCGCQ02124585
Headline: Aero DBU PA4 : JBOD IO failure - unaligned read or write command

Description Of Change: FW now used LD number instead of targetId number to retrieve UserDataBlockSize in raid structure.
Issue Description: FW falsely fail aligned IO when retrieving UserDataBlockSize using tid reference, which FW should used LD reference into LD Raid structure.

Steps To Reproduce: Created the 48 JBOD's which has SAS,4K drives.
Created the file system and run IO (Chaos).
Within few minutes IO failure on few drives.
Observed in the fwlog.

05/08/19 1:44:49: C0:MptAllocCmdAndIssue: Found a unaligned read or write command. Id=11 func=f1 mptDL=1a00 Lbs=1000
05/08/19 1:44:49: C0:MptAllocCmdAndIssue: LMid=29a SMID=66a MSI=11

Can you kindly investigate from driver side, how unaligned IO issued to FW.

Defect ID: SCGCQ02105245
Headline: Performance drop observed with expander attached topology in latest firmware.

Description Of Change: Added a check to see if a SAS core is connected to only one expander with all its 8 phys then don't enable the hardware workaround to limit the dma group.

Issue Description: In a topology where an expander is connected to all 8 phys of one of the SAS core of controller along with 24 oem specific high performance SAS SSDs. A performance drop is seen with sequential writes of 4K and 8K data length and IOs outstanding per drive of more than 128.

This was found to be introduced due to a hardware workaround. Where if two expanders are connected to same SAS core and DMA queue masking feature is enabled, then in heavy IO load drives attached to one expander might encounter long periods of workload starvation, ultimately resulting in commands timing out on those drives. The fix there was to limit the dma group to match the port width of expander.

This however was also limiting the dma group if only one expander is connected.

Steps To Reproduce: Attach an expander with 8 phy connected to phys 0-8 of controller. Attach 20 or more high performance SAS SSDs. Run 4K or 8K IOs with queue depth of more than 128 to all the drives. Run this test with phase 4 and phase 9 firmware and observe that there is a more than 10% performance drop with latest firmware.

Defect ID: SCGCQ01958700
Headline: SATA: IO Timeouts with Read/Write and Non-Automated IO

Description Of Change: When an IO completes through the PL SCSI error reply path for a SATA drive, set the global flag to check for and start pending IOs.

Issue Description: When IO A, a non-automated IO to a SATA drive, is in progress, and IO B is added to the firmware pending IO list for the device, IO B and all subsequent IOs to the device may later timeout. This can happen if IO A completes through the SCSI IO error reply path, which does not try to start pending IOs for SATA. And it also requires that the global flag to check for and start pending IOs from the timer callback is cleared, meaning it wasn't set for any other devices that might need to have pending IOs started. If all this is true, IO B will never be un-pended, and the FPE manager state machine will remain in postponed state, which leads to all other IOs for the device timing out.

Steps To Reproduce: This was seen on a customer machine, and it's believed that it can only be reproduced with MegaRAID. Run customer workload to SATA drives, including non-automated IO and IO starts from MegaRAID direct to PL.

Defect ID: SCGCQ02138806
Headline: PL: SAS topology error - Device not addressable

Description Of Change: Do not send the Device Not Addressable discovery status if the device is an STP initiator only device.

Issue Description: When an STP initiator only device was present in the topology, PL was sending a Device Not Addressable discovery status back on MPI. This was propagated up the software stack as an error.

Steps To Reproduce: Use a topology that contains an STP initiator only device and perform port enable.

Defect ID: SCGCQ02137492
Headline: PFA LED is not on when a PFA drive is attached directly with predictiveFailureLED=1

Description Of Change: Cleared the setting of RqstOk bit in these scenarios

Issue Description: MR was setting PrdFault and RqtOK SES control page bits together for a predictive failure condition. On any failure conditions the RqstOK bit should not be set.

Steps To Reproduce: Connect a PFA and check if the Amber LED is set once the drive responds with Threshold Exceeded Sense Code

Defect ID: SCGCQ02082118
Headline: Before pd diag starts,shield diag fail event is logged.

Description Of Change: MR_EVT_PD_SHIELD_DIAG_FAIL event is not logged, if the diag is not started on that PD.

Issue Description: Currently, if any drives move to the shied state, and before diag starts, the drive is removed. we are issuing event MR_EVT_PD_SHIELD_DIAG_FAIL, which is a concern for apps like LSA.

Steps To Reproduce: Steps:
1.Create 1Drive R0 64 slice VD's, 2 Drive R1 64 slice VD's, 3 Drive R5 64 Slice VD's
2.Create 2 drive as a dedicated spare for these array group
3.Pull all RAID drives

After this operation, you can see Drive Diagnostics failed event in LSA.

Firmware Enhancements Implemented (2):

EnhancementRequest ID: SCGCQ02130325
Headline: Different DDR tuning parameters
Description Of Change: This ER is to address a different DDR settings for the certain boards for certain OEMs.

EnhancementRequest ID: SCGCQ02177564
Headline: Change default blockSSDWriteCacheChange to 0
Description Of Change: Change default blockSSDWriteCacheChange from 1 to 0 in all XSD files.

Point Release (SCGCQ02151049) - MR PL-SCS Libs - 10.25.08.00



ReleaseOrderID: SCGCQ02151049

Headline: PL MR/SCS Libs: SAS3.5CtrlFw_Ventura_Ph_10.0_Point_MR - 10.25.08.00 MR PL Release

Release Version: 10.25.08.00

Product Org: SCS

Product Gen: SAS3.5

Product Family: SAS3.5_Ctrl_Fw

UCM Project: SAS3.5CtrlFw_Ventura_Ph_10.0_Point_MR

Release Type: Point

UCM Stream: SAS3.5CtrlFw_Ventura_Ph_10.0_Point_MR

Owner: buildsvc

Release Baseline: SAS3.5CtrlFw_Ventura_Ph_10.0_Point_MR-2019-06-13-10.25.08.00_REL_1560453311@SAS_CTRL_FW

Release Date / Time: 13-JUN-19

Release Type: Point

MR PL-SCS Libs Defects Fixed (1):

Defect ID: SCGCQ02138806

Headline: PL: SAS topology error - Device not addressable

Description Of Change: Do not send the Device Not Addressable discovery status if the device is an STP initiator only device.

Issue Description: When an STP initiator only device was present in the topology, PL was sending a Device Not Addressable discovery status back on MPI. This was propagated up the software stack as an error.

Steps To Reproduce: Use a topology that contains an STP initiator only device and perform port enable.

GCA Release (SCGCQ01831988) - BootBlock - 7.02.00.00-0021

ReleaseOrderID: SCGCQ01831988

Headline: Ventura Boot Block - 7.02.00.00-0021

Release Version: 7.02.00.00-0021

Product Org: MegaRAID

Product Gen: SAS3.5

Product Family: MR_FW

UCM Project: MR_BOOT_BLOCK_CORE2_Ventura

Release Type: GCA

UCM Stream: MR_BOOT_BLOCK_CORE2_Ventura_Rel

Owner: varadat

Release Baseline:

Release Date / Time:

Release Type: GCA

BootBlock Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01599758

Headline: Driver and FW interaction to detect faulty card quickly to avoid boot delay

Description Of Change: Boot block sets mfi state to fault if FW image CRC is corrupt.

GCA Release (SCGCQ01145903) - ROMENV - 1.12

ReleaseOrderID: SCGCQ01145903

Headline: Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV

Release Version: 1.12

Product Org: MegaRAID

Product Gen: SAS2.5

Product Family: MR_FW

UCM Project: MR_FW_BLD_TOOLS

Release Type: GCA

UCM Stream: MR_FW_BLD_TOOLS_Dev

Owner: buildsvc

Release Baseline: MR_FW_BLD_TOOLS-2016-07-27-1.12_REL_1469655797@\\MegaRAID

Release Date / Time: 27-JUL-16

Release Type: GCA

ROMENV Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01145093

Headline: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present

Description Of Change: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present

ReleaseOrderPkg ID: SCGCQ02126965

Headline: MR 7.9 Ventura Quanta SBR Package version 5.0900.09-0415

Package Type: Ventura MR SBR Package - Quanta

Package Version: 5.0900.09-0415

Date Generated: Jul 23, 2019

Pre-Alpha Release (SCGCQ01965073) - SBR_RMC - 415

ReleaseOrderID: SCGCQ01965073

Headline: Pre-Alpha Release: MR_RMC_SAS3.5_7.8 - 415 SBR_RMC

Release Version: 415

Product Org: MegaRAID

Product Gen: SAS3.5

Product Family: MR_RMC_FW

UCM Project: MR_RMC_SAS3.5_7.8

Release Type: Pre-Alpha

UCM Stream: MR_RMC_SAS3.5_7.8_Rel

Owner: buildsvc

Release Baseline: MR_RMC_SAS3.5_7.8-2018-11-19-415_REL_1542665406@\\MegaRAID

Release Date / Time:

Release Type: Pre-Alpha

SBR_RMC Enhancements Implemented (2):

EnhancementRequest ID: SCGCQ01900838

Headline: Need build flag to exclude watchdog code

Description Of Change: Added USE_WATCHDOG build flag

EnhancementRequest ID: SCGCQ01912204

Headline: CCR ResetStatus User bits need to change in Aero

Description Of Change: Do not set Reset Status Register, bit 14, on Aero. It is changed from User0 to Porstn and is managed by HW

Point Release (SCGCQ01421108) - SBR_PCE - 1.11



ReleaseOrderID: SCGCQ01421108  
Headline: PCE Settings v1.11 Update
Release Version: 1.11
Product Org: MegaRAID
Product Gen: SASx
Product Family: MR_FW
UCM Project: SBR_Bld_Tools
Release Type: Point
UCM Stream: SBR_Bld_Tools_MR7_Dev
Owner: wyen
Release Baseline: SBR_Bld_Tools_MR7_Dev_2017-06-01@\\MegaRAID
Release Date / Time: 21-AUG-17
Release Type: Point

Point Release (SCGCQ01415846) - SBR_HW - 1.10



ReleaseOrderID: SCGCQ01415846  
Headline: HW Settings v1.10 - Add HW_SET changes needed for ISSI SPI Flash Parts (IS25WP128 and IS25WP256D) support
Release Version: 1.10
Product Org: MegaRAID
Product Gen: SASx
Product Family: MR_FW
UCM Project: SBR_Bld_Tools
Release Type: Point
UCM Stream: SBR_Bld_Tools_MR7_Dev
Owner: wyen
Release Baseline: SBR_Bld_Tools_MR7_Dev_2016-03-11_HW_SET.862@\\MegaRAID
Release Date / Time:
Release Type: Point

GCA Release (SCGCQ01173982) - SBR_SPICO - 1.06



ReleaseOrderID: SCGCQ01173982  
Headline: SPICO v1.06
Release Version: 1.06
Product Org: MegaRAID
Product Gen: SASx
Product Family: MR_FW
UCM Project: SBR_Bld_Tools
Release Type: GCA
UCM Stream: SBR_Bld_Tools_MR7_Dev
Owner: jgrivich
Release Baseline: SBR_Bld_Tools_MR7_Dev_2016-09-01@\\MegaRAID
Release Date / Time: 01-SEP-16
Release Type: GCA

GCA Release (SCGCQ01145903) - ROMENV - 1.12



ReleaseOrderID: SCGCQ01145903  
Headline: Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
Release Version: 1.12
Product Org: MegaRAID
Product Gen: SAS2.5
Product Family: MR_FW
UCM Project: MR_FW_BLD_TOOLS
Release Type: GCA
UCM Stream: MR_FW_BLD_TOOLS_Dev
Owner: buildsvc
Release Baseline: MR_FW_BLD_TOOLS-2016-07-27-1.12_REL_1469655797@\\MegaRAID
Release Date / Time: 27-JUL-16
Release Type: GCA

ROMENV Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01145093
Headline: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present
Description Of Change: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present

Point Release (SCGCQ01106013) - MR_FW_BLD_TOOLS - 1.01



ReleaseOrderID: SCGCQ01106013  
Headline: Point Release: MR_FW_BLD_TOOLS - BinToRom v1.01
Release Version: 1.01
Product Org: MegaRAID
Product Gen: SAS2.5
Product Family: MR_FW
UCM Project: MR_FW_BLD_TOOLS
Release Type: Point
UCM Stream: MR_FW_BLD_TOOLS_Dev
Owner: buildsvc
Release Baseline: MR_FW_BLD_TOOLS-2016-06-01-1.01_REL_1464821096@\\MegaRAID
Release Date / Time: 01-JUN-16
Release Type: Point

MR_FW_BLD_TOOLS Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01105905
Headline: Add Support for Environmental Offset
Description Of Change: Add Support for Environmental Offset

GCA Release (SCGCQ01064344) - SBR_TOOLS - 1.01



ReleaseOrderID: SCGCQ01064344  
Headline: SBR Package Tools v1.01
Release Version: 1.01
Product Org: MegaRAID
Product Gen: SASx
Product Family: MR_FW
UCM Project: SBR_Bld_Tools
Release Type: GCA
UCM Stream: SBR_Bld_Tools_MR7_Dev
Owner: jgrivich
Release Baseline: SBR_Bld_Tools_MR7_Dev_2016-03-11_PACKAGE_TOOLS@
MegaRAID
Release Date / Time: 12-APR-16
Release Type: GCA

SBR_TOOLS Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01064293
Headline: Add Support for DeviceID and Subsystem Insertion into PCI SET file
Description Of Change: Ability to update the base PCI_SET.bin file with Device ID, Vendor ID, Subsystem ID, and Subsystem Vendor ID

ReleaseOrderPkg ID: SCGCQ02177851  
Headline: MR 7.10 NVData (5.1000.09-0001) for Quanta
Package Type: Ventura MR NVDATA Package
Package Version: 5.1000.09-0001
Date Generated: Jul 23, 2019

Point Release (SCGCQ02177844) - NVDATA_XSD - 5.100.04-2642



ReleaseOrderID: SCGCQ02177844  
Headline: Point Release: MR_FW_SAS3.5_7.10_FC - 5.100.04-2642 NVDATA_XSD
Release Version: 5.100.04-2642
Product Org: DCSG
Product Gen: SAS3.5
Product Family: MR_FW
UCM Project: MR_FW_SAS3.5_7.10_FC
Release Type: Point
UCM Stream: MR_FW_SAS3.5_7.10_FC_Rel
Owner: buildsvc
Release Baseline: MR_FW_SAS3.5_7.10_FC-2019-07-20-5.100.04-2642_REL_1563650731@
MegaRAID
Release Date / Time: 20-JUL-19
Release Type: Point

NVDATA_XSD Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ02177564
Headline: Change default blockSSDWriteCacheChange to 0
Description Of Change: Change default blockSSDWriteCacheChange from 1 to 0 in all XSD files.

Alpha Release (SCGCQ01186894) - MR_FW_BLD_TOOLS - 1.02



ReleaseOrderID: SCGCQ01186894  
Headline: Alpha Release: MR_FW_BLD_TOOLS - 1.02 BinToRom
Release Version: 1.02
Product Org: MegaRAID
Product Gen: SAS2.5
Product Family: MR_FW
UCM Project: MR_FW_BLD_TOOLS
Release Type: Alpha
UCM Stream: MR_FW_BLD_TOOLS_Int
Owner: buildsvc
Release Baseline: MR_FW_BLD_TOOLS-2016-09-21-1.02_REL_1474468013@
MegaRAID
Release Date / Time: 21-SEP-16
Release Type: Alpha

MR_FW_BLD_TOOLS Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01186072
Headline: Added support for compression
Description Of Change: Add support for the -z option

GCA Release (SCGCQ01145903) - ROMENV - 1.12



ReleaseOrderID: SCGCQ01145903  
Headline: Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
Release Version: 1.12
Product Org: MegaRAID
Product Gen: SAS2.5
Product Family: MR_FW
UCM Project: MR_FW_BLD_TOOLS
Release Type: GCA
UCM Stream: MR_FW_BLD_TOOLS_Dev
Owner: buildsvc
Release Baseline: MR_FW_BLD_TOOLS-2016-07-27-1.12_REL_1469655797@
MegaRAID
Release Date / Time: 27-JUL-16
Release Type: GCA

ROMENV Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01145093

Headline: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present

Description Of Change: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present

GCA Release (SCGCQ00786149) - SAS2PARSER - 10.00.00.00

ReleaseOrderID: SCGCQ00786149

Headline: SAS2 NVDATA Parser Tool Version 10.00.00.00

Release Version: 10.00.00.00

Product Org: SCS

Product Gen: SAS2

Product Family: SAS2_Applications

UCM Project: SAS2PARSER

Release Type: GCA

UCM Stream: SAS2PARSER_Rel

Owner: rclegg

Release Baseline: SAS2PARSER_2_10_24_2014_v10.00.00.00_REL@
\\SAS2

Release Date / Time: 24-OCT-14

Release Type: GCA

SAS2PARSER Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ00572364

Headline: Modify sas2parser or equivalent for new ARM architecture

Description Of Change: Modified to detect ARM-based images and insert NVDATA

HWBoardImageConfig: (SCGCQ01965102) - Quanta_152D_8B01 QS3516B-240PD-R0156

hwBoardImgCfgId: SCGCQ01965102

Config Name: Quanta_152D_8B01 QS3516B-240PD-R0156

Board Number: QS-3516B-R6-PD240

PCB Internal Name: Talladega

Customer Account: Quanta

Vendor ID: 1000

Device Id: 0014

Sub-System Vendor Id: 152D

Sub-System Device Id: 8B01

FW Image Type: MR

HW Chip Name / Rev: LSISAS3516 B0

NVDATA ProductId: MRROMB

NVDATA Minor Version: 5013

NVDATA XSD Name: LSISAS3516.xsd

HWBoardImageConfig: (SCGCQ01965099) - Quanta_152D_8B00_soem2 QS3516B-32PD-R0156

hwBoardImgCfgId: SCGCQ01965099

Config Name: Quanta_152D_8B00_soem2 QS3516B-32PD-R0156

Board Number: QS-3516B-R5-PD32

PCB Internal Name: Talladega

Customer Account: Quanta

Vendor ID: 1000

Device Id: 0014

Sub-System Vendor Id: 152D

Sub-System Device Id: 8B00

FW Image Type: MR

HW Chip Name / Rev: LSISAS3516 B0

NVDATA ProductId: MRROMB

NVDATA Minor Version: 5014

NVDATA XSD Name: LSISAS3516.xsd

HWBoardImageConfig: (SCGCQ01965098) - Quanta_152D_8B00_soem1 QS3516B-32PD-R0156

hwBoardImgCfgId: SCGCQ01965098

Config Name: Quanta_152D_8B00_soem1 QS3516B-32PD-R0156

Board Number: QS-3516B-R5-PD32

PCB Internal Name: Talladega

Customer Account: Quanta

Vendor ID: 1000

Device Id: 0014

Sub-System Vendor Id: 152D

Sub-System Device Id: 8B00

FW Image Type: MR

HW Chip Name / Rev: LSISAS3516 B0

NVDATA ProductId: MRROMB

NVDATA Minor Version: 5014

NVDATA XSD Name: LSISAS3516.xsd

HWBoardImageConfig: (SCGCQ01965095) - Quanta_152D_8B01_soem1 QS3516B-240PD-R0156

hwBoardImgCfgId: SCGCQ01965095

Config Name: Quanta_152D_8B01_soem1 QS3516B-240PD-R0156

Board Number: QS-3516B-R6-PD240

PCB Internal Name: Talladega

Customer Account: Quanta

Vendor ID: 1000

Device Id: 0014

Sub-System Vendor Id: 152D

Sub-System Device Id: 8B01

FW Image Type: MR

HW Chip Name / Rev: LSISAS3516 B0

NVDATA ProductId: MRROMB

NVDATA Minor Version: 5014

NVDATA XSD Name: LSISAS3516.xsd

HWBoardImageConfig: (SCGCQ01965097) - Quanta_152D_8B01_soem2 QS3516B-240PD-R0156



hwBoardImgCfgId: SCGCQ01965097
Config Name: Quanta_152D_8B01_soem2 QS3516B-240PD-R0156
Board Number: QS-3516B-R6-PD240
PCB Internal Name: Talladega
Customer Account: Quanta
Vendor ID: 1000
Device Id: 0014
Sub-System Vendor Id: 152D
Sub-System Device Id: 8B01
FW Image Type: MR
HW Chip Name / Rev: LSISAS3516 B0
NVDATA ProductId: MRROMB
NVDATA Minor Version: 5014
NVDATA XSD Name: LSISAS3516.xsd

HWBoardImageConfig: (SCGCQ01965101) - Quanta_152D_8B00 QS3516B-32PD-R0156



hwBoardImgCfgId: SCGCQ01965101
Config Name: Quanta_152D_8B00 QS3516B-32PD-R0156
Board Number: QS-3516B-R5-PD32
PCB Internal Name: Talladega
Customer Account: Quanta
Vendor ID: 1000
Device Id: 0014
Sub-System Vendor Id: 152D
Sub-System Device Id: 8B00
FW Image Type: MR
HW Chip Name / Rev: LSISAS3516 B0
NVDATA ProductId: MRROMB
NVDATA Minor Version: 5013
NVDATA XSD Name: LSISAS3516.xsd

ReleaseOrderPkg ID: SCGCQ02160202  
Headline: x64 MR 7.10 Ventura BIOS Package 7.10.03.0_0x070A0400_07.10.07.01 (Signed UEFI and Signed HII)
Package Type: MR 3516 Ventura BIOS Package
Package Version: 7.10.03.0_0x070A0400_07.10.07.01
Date Generated: Jul 23, 2019

Point Release (SCGCQ02160201) - Hii - 07.10.07.01



ReleaseOrderID: SCGCQ02160201  
Headline: x64 MR 7.10 HEFU for Ventura 07.10.07.01 (Signed)
Release Version: 07.10.07.01
Product Org: MegaRAID
Product Gen: SAS3.5
Product Family: MR_BIOS
UCM Project: MR_SAS_HEFU_HII_7.10
Release Type: Point
UCM Stream: MR_SAS_HEFU_HII_7.10_Patch
Owner: chgr
Release Baseline: MR_SAS_HEFU_HII_7.10_Patch_2019-06-18_07_10_07_01@
MegaRAID
Release Date / Time: 24-JUN-19
Release Type: Point

GCA Release (SCGCQ02140788) - UEFI_Driver - 0x070A0400



ReleaseOrderID: SCGCQ02140788  
Headline: x64 MR 7.10 UEFI Driver For Ventura v0x070A0400 (Signed)
Release Version: 0x070A0400
Product Org: MegaRAID
Product Gen: SAS3.5
Product Family: MR_BIOS
UCM Project: MR_UEFI_Drv_7.10
Release Type: GCA
UCM Stream: MR_UEFI_Drv_7.10_Rel
Owner: chgr
Release Baseline: MR_UEFI_Drv_7.10_Rel_2019-04-08_v0x070A0400_Update2@
MegaRAID
Release Date / Time: 28-MAY-19
Release Type: GCA

UEFI_Driver Defects Fixed (1):

Defect ID: SCGCQ02053571
Headline: System fails to boot when the controller is not recoverable after OCR
Description Of Change: When FW montasked and UEFI Driver issued adapter reset and FW do not respond to the IO's issued by the upper layer, in such cases return the command with "EFI_NOT_READY" status and set the internal health to fault only when the state is not GOOD.
Issue Description: At various times during boot, initiated PreBoot OCR including right after HII is loaded. While running the test, by issuing PreBoot OCR command more than 15 times. And, 2 times out of those, system boot stuck and not boot to the OS after PreBoot OCR is done.
Steps To Reproduce: 1. Connect 9560-16i running in RAID personality. 16 SAS drives in unconfigured good through an internal backplane.
2. Flash the latest FW ROP.
3. Break into megamon and issue PreBoot OCR.

GCA Release (SCGCQ02072823) - BIOS - 7.10.03.0



ReleaseOrderID: SCGCQ02072823  
Headline: MR 7.10 Legacy BIOS for Ventura v7.10.03.0
Release Version: 7.10.03.0
Product Org: MegaRAID
Product Gen: SAS3.5
Product Family: MR_BIOS
UCM Project: MR_SAS_BIOS_7.10
Release Type: GCA
UCM Stream: MR_SAS_BIOS_7.10_Rel
Owner: chgr
Release Baseline: MR_SAS_BIOS_7.10_Rel_2019-03-11_07_10_03_0@
MegaRAID
Release Date / Time: 11-MAR-19

Release Type: GCA

BIOS Defects Fixed (1):

Defect ID: SCGCQ02069825
Headline: The RAID Controller is detected in configurable secure mode
Description Of Change: if OEM is hpe then don't display the configurable secure
Issue Description: For HPE we should not display below message
The RAID Controller is detected in configurable secure mode
Steps To Reproduce: Verify bios post banner

BIOS Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ02055368
Headline: Dell PERC11 PNP IDs For Aero Soft Secure A0 Silicon. B0 and Hard Secure B0
Description Of Change: Added BBS prod string for the following 2 adapters:
PERC H755N Front 0x1000 0x10E1/0x10E2 0x1028 0x1AE2
PERC H755 MX 0x1000 0x10E1/0x10E2 0x1028 0x1AE3

GCA Release (SCGCQ01145903) - ROMENV - 1.12

ReleaseOrderID: SCGCQ01145903
Headline: Point Release: MR_FW_BLD_TOOLS - 1.12 ROMENV
Release Version: 1.12
Product Org: MegaRAID
Product Gen: SAS2.5
Product Family: MR_FW
UCM Project: MR_FW_BLD_TOOLS
Release Type: GCA
UCM Stream: MR_FW_BLD_TOOLS_Dev
Owner: buildsvc
Release Baseline: MR_FW_BLD_TOOLS-2016-07-27-1.12_REL_1469655797@
MegaRAID
Release Date / Time: 27-JUL-16
Release Type: GCA

ROMENV Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01145093
Headline: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present
Description Of Change: Modify RomEnv to use Flash Header CRC instead of EOF CRC when extended header keyword is present

Point Release (SCGCQ01106013) - MR_FW_BLD_TOOLS - 1.01

ReleaseOrderID: SCGCQ01106013
Headline: Point Release: MR_FW_BLD_TOOLS - BinToRom v1.01
Release Version: 1.01
Product Org: MegaRAID
Product Gen: SAS2.5
Product Family: MR_FW
UCM Project: MR_FW_BLD_TOOLS
Release Type: Point
UCM Stream: MR_FW_BLD_TOOLS_Dev
Owner: buildsvc
Release Baseline: MR_FW_BLD_TOOLS-2016-06-01-1.01_REL_1464821096@
MegaRAID
Release Date / Time: 01-JUN-16
Release Type: Point

MR_FW_BLD_TOOLS Enhancements Implemented (1):

EnhancementRequest ID: SCGCQ01105905
Headline: Add Support for Environmental Offset
Description Of Change: Add Support for Environmental Offset

Custom Images:

Full Flash Images:				
File Path:	Check Sum 8-Bit:	Check Sum 16-Bit:	MD5 CheckSum:	Size (bytes):
customImages\8B00-16i\8B00-16i_NOPAD\8B00-16i_nopad.rom	2A25 9958	410F C516	293A5E8EEFFFE1523206E45D7691D5B2	6,553,600
customImages\8B01-16i\8B01-16i_NOPAD\8B01-16i_nopad.rom	2A25 9886	4110 5DAA	5C2458FB7EA7FA2F94474078F5F0F3FE	6,553,600
customImages\8B01-16i\8B01-16i_32MB\8B01-16i_32MB.rom	C489 9861	4043 03DE	768D767807506D7660DEAE857CAC3980	33,554,432
customImages\8B01-16i\8B01-16i_16MB\8B01-16i_16MB.rom	C589 9927	40C2 F9AF	2895C824D3BC7B031E9491483548719F	16,777,216
customImages\8B00-16i\8B00-16i_32MB\8B00-16i_32MB.rom	C489 9947	4042 1CAD	90E3AD33E237234C00E880E778F3F25A	33,554,432
customImages\8B00-16i\8B00-16i_16MB\8B00-16i_16MB.rom	C589 97D1	40C1 9DB5	08DFD196A9AEFBF30B52EFB8EBBBEC4F	16,777,216