BROADCOM[®] Release Notes: GCA (Signed): SAS3 IT/IR UEFI Boot Services Driver and HII utility v18.00.00.00

ReleaseOrder ID: SCGCQ01685493 Headline: GCA (Signed): SAS3 IT/IR UEFI Boot Services Driver and HII utility v18.00.00.00 Release Version: 18.00.00.00 UEFIBSDHII_MPT_GEN3_Phase16.0 UCM Project: UEFIBSDHII_MPT_GEN3_Phase16.0_Rel UCM Stream: Release Type: GCA State: Deployed Release Baseline: UEFIBSDHII_MPT_GEN3_Phase16.0_Rel_2018-04-04.6908@\SAS2 **Release Date:** 17-APR-18 Date Generated: Oct 01, 2019

Release History

- SCGCQ01684650 Beta Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.05.00
- SCGCQ01671275 Beta Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.04.00
- SCGCQ01598511 Beta Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.03.00
- SCGCQ01573104 Alpha Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.02.00
- SCGCQ01514842 Pre Alpha Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.01.00

 ReleaseOrder ID:
 SCGCQ01684650_Open In CQWeb

 Headline:
 Beta Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.05.00

Release Version:17.255.05.00UCM Project:UEFIBSDHII_MPT_GEN3_Phase16.0UCM Stream:UEFIBSDHII_MPT_GEN3_Phase16.0_RelRelease Type:BetaState:In_ReviewRelease Baseline:UEFIBSDHII_MPT_GEN3_Phase16.0_Rel_2018-04-04@\SAS2Release Date:04-APR-18Date Generated:Oct 01, 2019

Defects Fixed (1):

ID: SCGCQ01669985

Headline: UEFI BSD: A primitive value is not set properly. Description Of Change: A new value which was missing is added as One of Opcode. The string for this value is "PCI-E x8"

Issue Description: The XML file generated does not have a valid number for a primitive. Instead, it has a value that belonged to others.

Steps To Reproduce: 1. Connect a controller to a system where data population for OEM specific Formset is enabled.
2. Flash the board with the latest firmware(having proper SVID and SSID), BIOS and UEFI driver under test.
3. Reboot the server and launch UEFI Shell.
5 Run a tool to extract the data.
6. Verify each primitive field value.

ReleaseOrder ID: SCGCQ01671275 Open In CQWeb Beta Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.04.00 Headline: Release Version: 17.255.04.00 UCM Project: UEFIBSDHII_MPT_GEN3_Phase16.0 UCM Stream: UEFIBSDHII_MPT_GEN3_Phase16.0_Rel Release Type: Beta State: In_Review Release Baseline: UEFIBSDHII_MPT_GEN3_Phase16.0_Rel_2018-03-26@\SAS2 29-MAR-18 Release Date: Date Generated: Oct 01, 2019

Defects Fixed (1):

ID: SCGCQ01625015

Headline: OEM Specific Device ID changes

Description Of Change: Device ID has been corrected to display information correctly.

Issue Description: Incorrect OEM specific device id was causing wrong device information display in HII

Steps To Reproduce: Download rom file and reboot the system and enter HII to notice incorrect OEM specific information displayed

ReleaseOrder ID: SCGCQ01598511 Open In CQWeb Headline: Beta Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.03.00 Release Version: 17.255.03.00 UCM Project: UEFIBSDHII_MPT_GEN3_Phase16.0 UEFIBSDHII_MPT_GEN3_Phase16.0_Rel UCM Stream: Release Type: Beta State: In_Review Release Baseline: UEFIBSDHII_MPT_GEN3_Phase16.0_Rel_2018-02-20@\SAS2 **Release Date:** 23-FEB-18 Date Generated: Oct 01, 2019

Defects Fixed (1):

ID: SCGCQ01570204 (Port Of Defect SCGCQ01567494)
 Headline: RSOD when invalid device handle is passed
 Description Of Change: There was a NULL pointer exception case. Fixing the pointer dereference issues fixed the RSOD issue.
 Issue Description: System crashes in to RSOD when invalid handle is passed
 Steps To Reproduce: 1) Insert Drives into Backplane and Connect the backplane to Embedded Controller 2) Insert the Server into Chassis and Power on the Server.
 3) Install Windows OS on another controller which cans end in device hanldes.
 4) Boot the System into OS, System boots into OS Successfully.
 5) Perform reboot operation on top of OS.

6) Now boot the server into HII interface.

ReleaseOrder ID:	SCGCQ01573104_Open In CQWeb
Headline:	Alpha Release: SAS3 IT/IR UEFI Boot Services Driver and HII utility v17.255.02.00
Release Version:	17.255.02.00
UCM Project:	UEFIBSDHII_MPT_GEN3_Phase16.0
UCM Stream:	UEFIBSDHII_MPT_GEN3_Phase16.0_Rel
Release Type:	Alpha
State:	In_Review
Release Baseline:	UEFIBSDHII_MPT_GEN3_Phase16.0_Rel_2018-01-25@\SAS2
Release Date:	09-FEB-18
Date Generated:	Oct 01, 2019

Defects Fixed (1):

ID: SCGCQ01530516 (Port Of Defect SCGCQ01526232)

Headline: BSD Fails to detect all the physical disks of a RAID volume.

Description Of Change: While discovering the physical disks of a RAID level, the BSD wrongly looped the RAID count instead of physical disk count resulting skipping of remaining physical disks. BSD corrected to loop for all physical disk followed by RAID Count.

Issue Description: BSD Fails to detect all the physical disks of a RAID volume. The topology has a RAID volume which has physical disks. When BSD completed controller initialization, not all of the physical disks were discovered.

Steps To Reproduce: Create a RAID Level (of any type). When BSD completed controller initialization, observe that some of the physical disks were not discovered.

Enhancements Implemented (3):

ID: SCGCQ01198337

Headline: HII to display a warning when IOC detects an enclosure at a level beyond a non-zero MaxEnclosureLevel value set in BIOS Configuration Page

Description Of Change: During device discovery, HII detects whether any one of the attached enclosures is found at a level greater than a non zero value specified in the MaxEnclosureLevel field of the configuration page and if it is, an IOC exception will be displayed by HII with proper message until all of the enclosures attached at levels greater than MaxEnclosureLevel are removed from the topology and device discovery is executed in HII.

ID: SCGCQ01503518

Headline: Use Bay ID in center field of triplet identifier of a device in HII.

Description Of Change: Use Bay ID in center field of triplet identifier of a device in HII. Bay ID should be used if it is not being populated and is marked valid and is specific to OEM. The sorting of devices remains same as it is.

ID: SCGCQ01524677

Headline: Support new OEM specific controllers.

Description Of Change: Support new OEM specific controllers.

UCM Project:UEFIBSDHII_MPT_GEN3_Phase16.0UCM Stream:UEFIBSDHII_MPT_GEN3_Phase16.0_RelRelease Type:Pre-AlphaState:In_ReviewRelease Baseline:UEFIBSDHII_MPT_GEN3_Phase16.0_Rel_2017-11-24@\SAS2Release Date:18-DEC-17Date Generated:Oct 01, 2019

Defects Fixed (3):

ID: SCGCQ01345712 (Port Of Defect SCGCQ01344166)

Headline: Calling GetImageInfo of FMP causes memory corruption.

Description Of Change: Inside the GetImageInfo call the UEFI driver wrongly allocates insufficient memory for the ImageIdName and VersionName fields and accessing beyond the allocated memory and corrupts other unallocated memory regions. The fix is to allocate correct number of bytes that are required to hold ImageIdName and Version name and fill only within the allocated memory space.

Issue Description: Invoke FMP and call GetImageInfo member function. Observe that some of the memory is corrupted by the function call.

Steps To Reproduce: Invoke FMP and call GetImageInfo member function. Observe any of the memory is corrupted by the function call.

ID: SCGCQ01358393 (Port Of Defect SCGCQ01347573)

Headline: Not able to select any other disk than first disk while creating a IR volume.

Description Of Change: Certain system BIOS or browsers expect Question IDs to be unique. Hence our driver made to provide a unique question ID to create CheckBoxOpcode. The question ID are provided in incremental order.

Issue Description: Not able to select any other disk than first disk while creating a virtual drive in a specific OEM system BIOS.

Steps To Reproduce: Try to create a new VD on a system BIOS which expects unique Question ID for each disk presented.

ID: SCGCQ01376724 (Port Of Defect SCGCQ01376642)

Headline: Provide unique QI for each disk while creating virtual disk and for Ok button call back.

Description Of Change: Providing unique Question Id for each disk while creating virtual disk and for Ok button call back.

Issue Description: Providing unique QI for each disk while creating virtual disk and for Ok button call back.

Steps To Reproduce: This issue needs a specific system BIOS. This is not reproducible on all system BIOS. However, on specific system BIOS when user tries to select multiple drives to create a virtual disk, the cursor always comes back to first disk in the list.

Enhancements Implemented (5):

ID: SCGCQ01503522 Headline: OEM specific formset update Description Of Change: OEM specific formset update ID: SCGCQ01331384 (Port Of EnhancementRequest SCGCQ01331281)
 Headline: Limit Block I/O transfer size for volumes to a maximum of 4 MB
 Description Of Change: UEFI boot services driver has been modified to limit the driver from issuing I/Os greater than 4 MB to RAID volumes.

ID: SCGCQ01389006 (Port Of EnhancementRequest SCGCQ01247325) Headline: OEM specific Product Name is updated Description Of Change: OEM specific Product Name is updated in HII and BSD

ID: SCGCQ01389429 (Port Of EnhancementRequest SCGCQ01370422) Headline: Support for SEP devices in Extended SCSI PassThru Protocol

Description Of Change: Boot Services Driver adds SCSI enclosure processor device in its supported devices list. This device will have extended scsi pass thru and device path protocols installed and that can be used to communicate with device.