



## SCS Engineering Release Notice

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*Phase16 GCA Release Version 7.31.00.00 - SAS2BIOS\_Phase16.0 (SCGCQ00398483)*

*(SCGCQ00398483) - Phase16 GCA Release Version 7.31.00.00 - SAS2BIOS Phase16.0*

*(SCGCQ00396599) - Phase16 Beta Release Version 7.30.03.00 - SAS2BIOS Phase16.0*

*(SCGCQ00377322) - Phase16 Beta Release Version 7.30.02.00 - SAS2BIOS Phase16.0*

*(SCGCQ00367947) - Phase16 Alpha Release Version 7.30.01.00 - SAS2BIOS Phase16.0*



## SCS Engineering Release Notice

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*Phase16 GCA Release Version 7.31.00.00 - SAS2BIOS\_Phase16.0 (SCGCQ00398483)*

***Defects=0, Enhancements=0 (Version Change Only)***



## SCS Engineering Release Notice

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*Phase16 Beta Release Version 7.30.03.00 - SAS2BIOS\_Phase16.0 (SCGCQ00396599)*

### **Change Summary ( Defects=1)**

SCGCQ00394942 (CSET) - Drive size of 1.088GiB was showing as 1.880GiB as a result of bad math.



# SCS Engineering Release Notice

Phase16 Beta Release Version 7.30.03.00 - SAS2BIOS\_Phase16.0 (SCGCQ00396599)

## Total Defects Resolved (1)

(SCGCQ00394942 - Port of SCGCQ00391844)

Defect 1/1

<b>HEADLINE:</b>	Drive size of 1.088GiB was showing as 1.880GiB as a result of bad math.
<b>DESC OF CHANGE:</b>	Modified calculations for drive sizes with capacities showing 2 digits in a 3 digit field.
<b>TO REPRODUCE:</b>	Boot with drives using 2 digits in a 3 digit field.
<b>ISSUE DESC:</b>	Drive size was wrong.



## SCS Engineering Release Notice

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*Phase16 Beta Release Version 7.30.02.00 - SAS2BIOS\_Phase16.0 (SCGCQ00377322)*

### **Change Summary ( Defects=3)**

SCGCQ00353016 (DFCT) - View Volume screen scroll bar partially hiding the "Disk size" unit GiB

SCGCQ00353709 (DFCT) - "Current Boot device set to device at slot 4" message Not displaying for

Adaptors with boot order other than 0

SCGCQ00369557 (DFCT) - The BIOS CU navigates to create new volume screen instead of back to raid properties screen.

**Total Defects Resolved (3)**

(SCGCQ00353016)		Defect 1/3
HEADLINE:	View Volume screen scroll bar partially hiding the "Disk size" unit GiB	
DESC OF CHANGE:	The CU Screen "FIELDS" make use of the "FULL WIDTH" value to display its contents at specified co-ordinates. With the introduction of new unit for phys disk (GiB), the CU field value occupied whole of the allotted space and when scrol bar appears the last character's (B) space is overwritten. To accommodate this new units (GiB) we have reduced the width of columns "Slot Num" and "Drive Status" by one. So this allows two extra spaces available for "Disk Size" column so that all 3 characters (GiB) are seen on screen even when scrollbar has appeared.	
TO REPRODUCE:	1.Create RAID volume and enter into View Volume Screen in BIOSCU 2.Observe Disk size (with unit) of volume members showing properly (refer image GiBHiding2.jpg) 3.Move the cursor to slot number column in View Volume Screen itself 4.Observe scroll bar has generated and it is partially hiding the "Disk size" unit GiB	
ISSUE DESC:	When the scroll bar is set in view volume screen, the last character of disk size unit is hidden by the scroll bar. This makes only first two characters (example Gi of GiB) to be seen on screen.	
(SCGCQ00353709)		Defect 2/3
HEADLINE:	"Current Boot device set to device at slot 4" message Not displaying for Adaptors with boot order other than 0	
DESC OF CHANGE:	The core BIOS prints this message when it hits a condition where the current boot device information has to be updated with the first drive in int13 table. This condition may be due to missing of current boot device or empty current boot drive information. So core BIOS validates Preferred, Alternate and Current boot device information and update the global BIOS Page 2 array. When there are 2 HBA present in topology, the second HBA's information is overwritten on first (global BIOS Page 2 array). To avoid this overwriting we have used a global variable that stores the information about whether this message should be displayed or not. Initially this global variable is set to TRUE and when current boot device information is updated, this variable is set to FALSE. Core BIOS displays this message if this variable is TRUE.	
TO REPRODUCE:	1. Connect 2 HBAs to controller and boot the system invoke BIOS CU 2. Connect drives to 1st adapter(Boot Order 0) and set any drive other than slot 0 say Slot4 as preferred (Alt+B) boot device and another device as Alternative (Alt+A)boot device 3. Reboot the system and observe BIOS Banner, showing message like "Current Boot device set to device at slot 4" also it will show same slot 4 device as boot in INI13 Entry Column(Refer Msgissue2.jpg) 4. This message Current Boot device set to device at slot 4 will appear every time the System is Rebooted, even without any Topology change. 5. Remove the Primary and Alt Boot in 1st Adapter 6. Again, Connect Same drives to 2nd adapter(Boot Order 1) and set any drive other than slot 0 say Slot 4 as preferred (Alt+B) boot device and another device as Alternative (Alt+A)boot device 7. Reboot the system and observe BIOS Banner, NOT showing message like "Current Boot device set to device at slot 4" but it will show same slot 4 device as boot in INI13 Entry Column(Refer Msgissue1.jpg) 8. The message will not be seen even in consecutive boots.	
ISSUE DESC:	"Current Boot device set to device at slot 4" message Not displaying for Adaptors with boot order other than 0.	
(SCGCQ00369557)		Defect 3/3
HEADLINE:	The BIOS CU navigates to create new volume screen instead of back to raid properties screen.	
DESC OF CHANGE:	The size of array IRDiskIdentifier[] is 30. Here offset is incremented to 29 and when we do "offset+1" we point to IRDiskIdentifier[30] which is beyond the array's last element. Insidently this IRDiskIdentifier[offset+1] is the "ViewExistingArray" s address. So we are overwriting this global variable here. This Global variable is used in view volume screen to know how we navigated to view volume screen. So we need to set IRDiskIdentifier[offset] as '\0' and not IRDiskIdentifier[offset+1] which is out of array boundry.	
TO REPRODUCE:	1) Create R1E volume 2) Click "View Existing Volume" tab 3) Invoke "esc" key . 4) Check now the navigation is not proper and it goes to Create New volume screen.	
ISSUE DESC:	After deleting the RAID volume also the same screen is seen. The BIOS CU navigation is incorrect. When we are in view existing volume screen and there is atleast one bare drive present in topology and we press ESC key. The CU should have navigated back to raid properties screen. But CU is going to create new volume (of same type as existing array) screen.	



## SCS Engineering Release Notice

Phase16 Alpha Release Version 7.30.01.00 - SAS2BIOS\_Phase16.0 (SCGCQ00367947)

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### **Change Summary ( Defects=10 Enhancements=3)**

SCGCQ00344084 (DFCT) - BIOS Banner not showing proper slot information. Showed 'FF' instead of the real data.

SCGCQ00358896 (DFCT) - The Pred Fail column for bare drives is always "NO"

SCGCQ00359686 (DFCT) - SAS2 BIOS: "Volume Size" shows inconsistent value in the 'Create New Volume' screen after selecting the last volume member

SCGCQ00364369 (DFCT) - SAS2 BIOS: MiB volume sizes are not honored correctly in the BIOS CU

SCGCQ00364393 (DFCT) - SAS2 BIOS: Help message for the "Slot No" in the "View Volume" screen doesn't contain any help info

SCGCQ00367915 (DFCT) - SAS2 BIOS: Locate of drives not documented in MPTBIOS.txt under the Create New Volume and Manage Hot Spare section.

SCGCQ00357916 (CSET) - Disabled adapter causes both adapters to be seen as unavailable even though the second adapter is enabled with devices.

SCGCQ00359491 (CSET) - Update mptbios.txt file to reflect MiB and GiB in place of MB and GB

SCGCQ00359582 (CSET) - "Inc PI" and description are missing under "Drive Status" section in mpt2bios(Other than Create Volume Screen title)

SCGCQ00365372 (CSET) - The POST Display do not wait for 3 seconds after first set of drives are displayed.

SCGCQ00305887 (ENHREQ) - MPTSAS2 BIOS CU - Locate of IR volume not documented in the MPTBIOS.txt

SCGCQ00343274 (ENHREQ) - Add a space between ProductID & RevisionID in the Device Identifier string in the CU

SCGCQ00344040 (ENHREQ) - In SAS Topology Maximum link speed displaying dotted line for cobra expander attached devices

**Total Defects Resolved (10)**

(SCGCQ00344084)		Defect 1/10
HEADLINE:	BIOS Banner not showing proper slot information. Showed 'FF' instead of the real data.	
DESC OF CHANGE:	Moved the Route Buffer creation (allocation) before the Adapter Details array creation so that it would not be deallocated prior to use by ShowAllDevices().	
TO REPRODUCE:	The configuration consisted of more than 64 devices. This large number of devices is required or the memory allocation for the Route Buffer will not be overwritten, and the problem therefore not seen.	
ISSUE DESC:	The memory allocation for the Route Buffer which contains the slot information was being deallocated before we were finished using it.	
(SCGCQ00358896)		Defect 2/10
HEADLINE:	The Pred Fail column for bare drives is always "NO"	
DESC OF CHANGE:	The CU code does "LogSense" only for phys disks as part of ReadIRProperty (For field tag FT_IR_MANAGE_ARRAY_ACTION_STATUS) and saves the SMART of the drive. However the same thing need to be done for bare drives as well (for field tag FT_IR_DISK_FAILURE). Hence the routine IsSmartErrorDevice(ptrDevInfo) is called for bare drives as well. This will make the "LogSense" for bare drives too and saves the SMART of the drive.	
TO REPRODUCE:	1. Connect few drives which have SMART on those. 2. While creating volume, all drive's Pred Fail column will have NO (even though the drives have SMART) 3. After creating volume, the same drives (Now phys disks) will have Pred Fail column YES in view volume screen. 4. Navigate to Manage HS screen and observe that Pred Fail column will have NO for those drives.	
ISSUE DESC:	Saved Release Note DataThe BIOS CU has provision to display the drive's SMART status under Pred Fail column. This coulumn will have either YES or NO text displayed based on drive's SMART status. However this column is set properly for phys disks and bare drives will always have NO irrespective of drive's SMART status. This is seen in two CU screens, one is Manage HS screen and another Create New Volume screen. The SMART status need to be correctly displayed for bare drives as well.	
(SCGCQ00359686)		Defect 3/10
HEADLINE:	SAS2 BIOS: "Volume Size" shows inconsistent value in the 'Create New Volume' screen after selecting the last volume member	
DESC OF CHANGE:	Changed the FIELD from number to String in the IRRArraySize[]. With this change the proper volume size with the unit is displayed.	
TO REPRODUCE:	1. Select RAID1 option to create RAID1 volume. 2. Go to "Create New Volume" screen 3. Select the first and second drive to create volume.	
ISSUE DESC:	The Volume Size shows inconsistent value when the second volume member drive is selected to create volume in the "Create New Volume" screen.	
(SCGCQ00364369)		Defect 4/10
HEADLINE:	SAS2 BIOS: MiB volume sizes are not honored correctly in the BIOS CU	
DESC OF CHANGE:	Added a parse for MiB in addition to GiB and TiB	
TO REPRODUCE:	Create a 1000M RAID partition using SAS2IRCU. Observe that the CU shows a size in MiB, not GiB.	
ISSUE DESC:	The code wasn't parsing for a MiB size.	
(SCGCQ00364393)		Defect 5/10
HEADLINE:	SAS2 BIOS: Help message for the "Slot No" in the "View Volume" screen doesn't contain any help info	
DESC OF CHANGE:	Added the help string for the Slot No in the view volume screen.	
TO REPRODUCE:	1. Create a volume. 2. Go to "View Volume" screen and select RAID phys disk in the "Slot No". 3. Go to the help message by pressing "F1".	
ISSUE DESC:	The help message for the "Slot No" in the "View Volume" screen gives the help info as below, "This item has no help available".	





# SCS Engineering Release Notice

Phase16 Alpha Release Version 7.30.01.00 - SAS2BIOS\_Phase16.0 (SCGCQ00367947)

**(SCGCQ00367915)** Defect 6/10

**HEADLINE:** SAS2 BIOS: Locate of drives not documented in MPTBIOS.txt under the Create New Volume and Manage Hot Spare section.

**TO REPRODUCE:** 1. Go to Create New Volume screen.  
2. Select the drives to create the volume. When the drive is selected the Locate LED will blink for the enclosure drive.

**ISSUE DESC:** When the enclosure drive is selected to be member of the volume or an Hot spare. BIOS fires Locate LED. This info was missing under the "Create New Volume" and "Manage Hot Spare" section in the MPTBIOS.txt file.

**(SCGCQ00357916 - Port of SCGCQ00330146)** Defect 7/10

**HEADLINE:** Disabled adapter causes both adapters to be seen as unavailable even though the second adapter is enabled with devices.

**DESC OF CHANGE:** Change made in BIOS to create an exception for 'disabled' devices found on the first discovery pass that was created to prevent a 'reset hang'.

**TO REPRODUCE:** Use two adapters, one enabled and the other disabled in NVM. Boot with devices attached to the enabled adapter. See the devices.  
Swap the adapters and run the same test again.

**ISSUE DESC:** Change made in BIOS to create an exception for 'disabled' devices found on the first discovery pass that was created to prevent a 'reset hang'.

**(SCGCQ00359491 - Port of SCGCQ00359484)** Defect 8/10

**HEADLINE:** Update mptbios.txt file to reflect MiB and GiB in place of MB and GB

**DESC OF CHANGE:** Updated the mptbios.txt to reflect the GiB wherever we see GB.

**TO REPRODUCE:** NA

**ISSUE DESC:** In mptbios.txt file, the size of the drive/volume was showing as GB, instead of GiB.

**(SCGCQ00359582 - Port of SCGCQ00357410)** Defect 9/10

**HEADLINE:** "Inc PI" and description are missing under "Drive Status" section in mpt2bios(Other than Create Volume Screen title)

**DESC OF CHANGE:** The mptbios.txt is updated with the relevant information.

**TO REPRODUCE:** None

**ISSUE DESC:** "Inc PI" and description are missing under the title of drive status (under the View Volume, Manage Volume and Manage Hot Spares screen) in mptbios.txt file.

**(SCGCQ00365372 - Port of SCGCQ00362667)** Defect 10/10

**HEADLINE:** The POST Display do not wait for 3 seconds after first set of drives are displayed.

**DESC OF CHANGE:** The POST code should increment the number of lines displayed after every line. When the line numbers incremented to 21, then POST waits for user to press any key to continue. If user do not press any key in 3 seconds, then POST goes to next set of drives to display.

**TO REPRODUCE:** 1. Connect more than 24 drives to a HBA.  
2. Set the global properties (In CU) to "Adapter adapter and all devices".  
3. Observe the POST display. The POST do not stop after first page is displayed.

**ISSUE DESC:** The POST Display do not wait fo r3 seconds after first set of drives are displayed.



# SCS Engineering Release Notice

Phase16 Alpha Release Version 7.30.01.00 - SAS2BIOS\_Phase16.0 (SCGCQ00367947)

## Total Enhancements Implemented (3)

(SCGCQ00305887) Enhancement 1/3

**HEADLINE:** MPTSAS2 BIOS CU - Locate of IR volume not documented in the MPTBIOS.txt  
**NEW FUNCTIONALITY:** BIOS fires Locate LED for all the drives that are part of the volume, when the View volume screen is opened.  
This info is updated under the "Veiw Volume" section in the MPTBIOS.txt file.

(SCGCQ00343274) Enhancement 2/3

**HEADLINE:** Add a space between ProductID & RevisionID in the Device Identifier string in the CU  
**NEW FUNCTIONALITY:** When the ProductID[16] space is fully used, it was difficult to differentiate between the ProductID & Product Revision in the Device Identifier String. Hence a space is added between the two for better readability.

(SCGCQ00344040) Enhancement 3/3

**HEADLINE:** In SAS Topology Maximum link speed displaying dotted line for cobra expander attached devices  
**NEW FUNCTIONALITY:** When Gen3 expander (Cobra) is connected to Gen2 controller and few drives are connected to cobra expander, the Max link speed (Gibs) column in SAS Topology will display 12.0.