



This Technical Advisory describes an issue which may or may not affect the customer's product

Intel Technical Advisory

TA-0970-1

5200 NE Elam Young Parkway
Hillsboro, OR 97124

January 25, 2011

MFS5000SI, MFS5520VI, MFS5520VIR SAS Initiator ID change after update to Unified Firmware Update V6.0 or higher

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Products Affected

Intel® Modular Server System MFSYS25 and MFSYS35 with UFU V5.5 (CMM GUI version 5.5.100.20091202.19584) or earlier loaded.

Intel® Compute Module MFS5000SI, TA # D91952-006 or earlier

Intel® Compute Module MFS5520VI, TA # E87653-003 or earlier

Description

The MFS5000SI and MFS5520VI onboard SAS controller LSI1064E SAS Initiator ID last digit will increment after a Unified Firmware Update from UFU V5.5 or lower to UFU V6.0 or higher. Each compute module has a unique SAS Initiator ID for each SCM installed in the MFSYS25/MFSYS35 chassis. The SAS Initiator ID is not used for mapping of internal storage within the MFSYS25/MFSYS35 chassis. Internal Virtual Drive are not affected by the changes to the SAS Initiator IDs. However, the SAS Initiator ID is used for mapping of LUNS within an external array to a particular compute module within the MFSYS25/MFSYS35 chassis.

A customer with an external disk array recently upgraded to UFU firmware v6.6 from UFU 4.1, and had problems due to the fact that all of the Compute Module SAS Initiator IDs last digits were incremented for both controllers on all 6 compute modules. For example:

5001517B0B534001 went to 5001517B0B534002

This invalidated all of the LUN mappings setup in the external disk array and caused all compute modules to lose visibility to the LUNs in the external disk array. To recover, the customer manually updated the SAS Initiator ID for each LUN in the external array.

Root Cause

The LSI* 1064E SAS controller used on the compute modules for the Intel Modular Server will automatically configure features of the SAS controller ports, including the SAS initiator ID for each port. Updates to the design of the automatic port configuration algorithm within the LSI* 1064E SAS 1.30 firmware release, UFU V6.0, and the previous LSI* 1064E SAS 1.25 release, UFU V5.5 or earlier, may cause the SAS initiator IDs presented on each SAS port to change after the new firmware is applied. Any external SAS devices such as RBODs which restrict access based on SAS initiator ID may need to be updated with new initiator IDs after the 1.30 firmware is applied.

Corrective Action / Resolution

None.

Workarounds

Customers with MFSYS25/MFSYS35 with an external array should be aware of the change in SAS Initiator ID after updating to UFU V6.0 or higher. Prior to updating to UFU V6.0 or higher, customers should record the exact mapping of LUNs to SAS Initiators as well as the SAS Initiator ID for each compute module in a table. The SAS initiator ID for a compute module is found within the Intel Modular Server Control GUI as shown below:



The screenshot displays the Intel Modular Server Control GUI. On the left is a navigation pane with categories like System, Reports, Settings, and Notification. The main area shows a server rack with six compute modules labeled 1 through 6. Module 1 is highlighted with a green dashed box and labeled 'vCenter'. Module 2 is labeled 'ESX_2'. Module 3 is labeled 'W2K3R2_DNS'. Module 4 is labeled 'W2K8R2_1'. Below the rack view, there are tabs for 'General', 'Details', 'Events', 'Sensors', and 'Virtual Drives'. The 'General' tab is active, showing a 'Product Data' table with the following information:

Property	Value
Status	OK, ON
Remote KVM	No session is active
Remote Serial Console	No session is active
Product Name	MFS5520VI Compute Module
Manufacturer	Intel Corporation
Manufacture Date	2009-11-20 06:29:17 AM
Part Number	E41515-404
Serial Number	BZVI94700112
Asset Tag	
Management Firmware Version	1.20.1
Management FW Boot Version	0.28
Server SAS Initiator ID 1 (for SCM1)	5001517CE6268002
Server SAS Initiator ID 2 (for SCM2)	5001517CE6268003
Total size of all physical memory	3072 MB

After the firmware update has completed, customers should go into the Intel Modular Server Control GUI and record the new SAS initiator ID for each computed module next to the previously recorded ID in the table created prior to the update. Once the new table with updated SAS Initiator IDs for each compute module has been recorded, the LUNs in the external array can be remapped to the new SAS Initiator IDs for each compute module.

Please contact your Intel Sales Representative if you require more specific information about this issue.

Enterprise Platforms & Services Division
Intel Corporation