



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

Intel Technical Advisory

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5200 NE Elam Young Parkway
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With Unified Firmware Update (UFU) 6.9 or 10.8, the Operating System Cluster Verification Tool can indicate a failure with SCSI Reservation.

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Products Affected

The following systems, if upgraded to UFU revision 6.9 and are operating with dual Storage Control Modules (SCM) in a Microsoft® Windows® (2008 R2) cluster environment are affected:

Intel® Modular Server System MFSYS25
Intel® Modular Server System MFSYS35

The following system, if upgraded to UFU revision 10.8 and is operating with dual Storage Control Modules (SCM) in a Microsoft® Windows® (2008 R2) cluster environment is affected:

Intel® Modular Server System MFSYS25V2

Description

With UFU revisions 6.9 and 10.8, clustering functionality may be impacted in certain environments. The Microsoft® Windows® (2008 R2) Cluster Verification Tool will indicate a failure with SCSI Reservation. Other operating system clustering solutions, such as VMware® and Linux variants, do not exhibit this symptom.

The problem occurs only when two SCMs are installed, and only affects clustering applications (or any that utilize SCSI reservation commands).

Root Cause

SCSI reservation and other related commands are being mishandled between the two SCMs when these commands originate in the compute module operating system and are sent down the secondary, rather than primary path for a given virtual drive. (With a dual SCM configuration there are two paths to each virtual drive, the primary to the SCM which "owns" the virtual drive, and the secondary to the alternate SCM which is only used for I/O should the primary path fail.) When the secondary path is used, the SCM may mistranslate the command and reserve (or release) the incorrect virtual drive. It should be noted that all read/write data commands are sent down the primary path and always to the correct virtual drive, so there is no chance of data integrity exposure to this problem.

Corrective Action / Resolution

An updated UFU build with corrected SCM firmware to correct this problem has been developed and is currently in validation for release during WW14 (Week of April 2, 2012).

The new UFU revision for the following systems will be 6.10.

Intel® Modular Server System MFSYS25
Intel® Modular Server System MFSYS35

The new UFU revision for the following system will be 10.9.

Intel® Modular Server System MFSYS25V2

The updated UFU, when available may be downloaded from the Intel Support website.

Workarounds

There are two possible workarounds for this issue; the first would be to move back to UFU revision 6.8 or 10.4 depending on system revision. The second workaround is to run with a single SCM in the system chassis.

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

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