

# Specification Update

**Intel<sup>®</sup> Modular Server System MFSYS25,  
Intel<sup>®</sup> Modular Server System MFSYS35,  
Intel<sup>®</sup> Compute Module MFS5000SI,  
Intel<sup>®</sup> Compute Module MFS5520VI**

*Intel Order Number E29976-022*

**February, 2010**

**Enterprise Platforms and Services Division**

---

## ***Revision History***

<b>Date</b>	<b>Modifications</b>
November 2007	Initial release.
December 2007	Addition of erratum #14
January 2008	Addition of documentation change #2 & Erratum #15, Erratum 8 & 10 Moved to Fixed
May 2008	Updated existing erratum and added new erratum
August 2008	Updated existing erratum
October 2008	Updated existing erratum and product scope
November 2008	Updated existing erratum and added new erratum
December 2008	Updated existing erratum and added new erratum
January 2009	Updated existing erratum and added new erratum
February 2009	Added MFSYS35 to Spec Update. Updated existing erratum and added new erratum
March 2009	Updated existing erratum and added new erratum
April 2009	Updated existing erratum and added new erratum
May 2009	Added MFS5520VI to Spec Update. Updated existing erratum and added new erratum.
June 2009	Updated existing erratum and added new erratum
July 2009	Addition of erratum #35,36 and 37 and update documentation change
August 2009	Updated product scope.
September 2009	Addition of erratum #38 and 39
October 2009	Updated existing erratum.
November 2009	Updated existing erratum.
December 2009	Updated existing erratum and added new erratum #40 and 41.
January 2010	Updated product scope, existing erratum and added new erratum #42.
February 2010	No update.

## ***Disclaimers***

The Specification Update Server System may contain design defects or errors known as errata that may cause the product to deviate from the published specifications. Current characterized errata are documented in this Specification Update.

Information in this document is provided in connection with Intel products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Intel, Pentium, and Xeon are trademarks or registered trademarks of Intel Corporation.

\*Other brands and names may be claimed as the property of others.

Copyright © Intel Corporation 2010.

# Contents

<b>Preface .....</b>	<b>1</b>
1. Product Code: MFS5000SI – Intel® Compute Module MFS5000SI .....	2
2. Product Code: MFS5000SIB – Intel® Compute Module MFS5000SI – 3 Pack .....	2
3. Product Code: MFS5520VI – Intel® Compute Module MFS5520VI .....	2
4. Product Code: MFS5520VIB – Intel® Compute Module .....	2
MFS5520VI – 3 Pack .....	2
5. Product Code: MFSYS25 – Intel® Modular Server System MFSYS25 .....	3
6. Product Code: MFSYS35 – Intel® Modular Server System MFSYS35 .....	3
7. Product Code: AXXSCM3S – Intel® Storage Controller .....	3
8. Product Code: AXXSW1GB – Intel® Gigabit Ethernet Switch AXXSW1GB .....	4
9. Product Code: MFCMM – Intel® Management Module .....	4
10. Product Code: AXXPSU – 1000W Power Supply .....	4
11. Product Code: MFMIDPLANE – Intel® Modular Server System MFSYS25 – Midplane Board .....	4
12. Product Code: MFMIDPLANE – Intel® Modular Server System MFSYS35 – Midplane Board .....	5
13. Product Code: AXXGBIOMEZ – Intel® Compute Module MFS5000SI – Dual Gigabit Ethernet Expansion Card .....	5
14. Product Code: AXXGBIOMEZV – Intel® Compute Module MFS5520VI – Dual Gigabit Ethernet Expansion Card .....	5
<b>Summary Tables of Changes .....</b>	<b>6</b>
<b>Errata .....</b>	<b>9</b>
1. Intel® Compute Module MFS5000SI NIC/Activity LEDs do not display a link status	9
2. MFS5000SI remote floppy is not supported .....	9
3. 1024x768 Resolution with color depth set to thousands of colors not supported under Red Hat* Enterprise Linux 5.0 64-bit .....	9
4. NIC Utility <code>dcreate.exe</code> on MFS500SI -003 Resource CD incomplete .....	10
5. Event Log may report SMI Timeout Assertion after Server Power button is pressed	10
6. User is not able to configure different responses to pressing the Server Power Button in Microsoft Windows 2008* Enterprise Server Edition .....	10
7. Dual Intel® Storage Controller configuration not yet supported in the Intel® Modular Server System MFSYS25 and MFSYS35 .....	11
8. System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional .....	12
9. Deleting existing assigned virtual drive may result in GUI action failure .....	12
10. Certain Non-critical Events logged as Critical in GUI .....	12
11. System Fault LED does not turn on for all critical events .....	13
12. Email Alerting not enabled by default for three Critical Events .....	13

13.	Removing/Inserting USB devices during BIOS POST or in EFI may cause unexpected system behavior .....	14
14.	Simultaneous Remote KVM installs of OS or applications will not successfully complete on MFS5000SI.....	14
15.	Relative and Absolute KVM Mouse Mode not Supported on all Operating System's .....	15
16.	Compute Modules with RAID 6 Virtual Drives Experiencing Slow Response .....	15
17.	CONFIRM dialog box action not required to complete requested action.....	16
18.	Pressing F1 during a KVM session will bring up the local KVM console help not the remote system application help .....	16
19.	Ethernet Switch Module will fail to automatically update in an operational chassis	17
20.	Microsoft Windows Server 2003* cluster support not available .....	17
21.	Suse Enterprise Linux 10* U1 cluster node shown as running after being physically removed from chassis after failure.....	18
22.	Fujitsu 146GB, 2.5" SAS hard drive takes longer than expected to come on line after a hot insertion.....	18
23.	BIOS R0048 Does Not Support Mixed Stepping E-0 and C-0 Processors.....	19
24.	In Windows Enterprise Server 2008* Cluster failover testing, it has been observed that cluster nodes may lose access to the clustered shared LUN drives .....	19
25.	The CMM is not able to provide management information for the power supply when an AXXPSU at revision D73299-006 is installed in a system chassis .....	20
26.	The Network Time Server setting on the date/time web page of the Intel® Modular Server Control GUI does not allow selection of time zones .....	20
27.	SuSE* Linux Enterprise Server 10 U1 will mark the OS LUN as read only if a SCM affinity change is made while the SUSE* Linux Enterprise Server 10 operating system is running or booted.....	21
28.	Chassis fault LED does not illuminate after removing a Main Fan module or the I/O Fan module.....	21
29.	Local video disappears with Console Redirection and Quiet Boot Enabled in the MFS5520VI compute module .....	22
30.	Speed Step Disable in BIOS setup disables the LSI SAS controller in the MFS5520VI compute module .....	22
31.	Red Hat Enterprise Linux AS 5.0 U3, 32 bit Xen kernel, only shows 13GB of memory when more than 14GB of memory is installed.....	22
32.	MPIO takes a long time to install under Microsoft Windows* 2003 Cluster .....	23
33.	Virtual Drives from external ports are not recognized on reboot with Microsoft Windows* 2003 Enterprise.....	23
34.	Extraction and quick reinsertion of the Intel® Server Compute Module MFS5520VI may cause various issues.....	23
35.	DIMM temperature warning in VMWare ESX 3.5 and ESX 4.0 .....	24
36.	MFS5000SI compute module occasionally hangs during LTO-4 tape backup	

	operations .....	24
37.	Virtual Drives within a Storage Pool may lose server assignments after a Virtual Drive has been deleted .....	24
38.	LUN Copier not activated with valid key .....	25
39.	RAID 10 to RAID 1E Automatic Migration .....	25
40.	The installation of SLES 11 x86_64 fails on SSD .....	25
41.	GMM Web GUI SSL certification expired on Oct 27 2009 .....	26
42.	rKVM right Alt+F1 in VMWare 3.5, 4.0 launches help instead of ESX server console .....	26
<b>Documentation Changes .....</b>		<b>27</b>
1.	System Fault LED not depicted in front system views in Intel® Modular Server System MFSYS25 documentation .....	27
2.	Power Budget Information Incorrect in Intel® Modular Server System MFSYS25 TPS.....	27
3.	In the P2.6 Release Notes, Section G, Red Hat* Enterprise Linux 5 Server U1 (32bit and 64bit) is incorrectly listed as supporting shared LUN.....	28
4.	Intel® Modular Server System MFSYS25/MFSYS35 Quick Start User's Guide has an incorrect Package Contents list .....	28

## Preface

---

This document is an update to the specifications contained in the *Intel® Modular Server System MFSYS25/MFSYS35 Technical Product Specification* and the *Intel® Compute Module MFS5000SI Technical Product Specification*. It is intended for hardware system manufacturers and software developers of applications, operating systems, or tools. It will contain specification changes, specification clarifications, errata, and document changes.

Refer to the *Dual-Core Intel® Xeon® Processor 5100 Series and Dual-Core Intel® Xeon® Processor 5200 Series and Quad-Core Intel® Xeon® Processor 5300 Series and Quad-Core Intel® Xeon® Processor 5400 Series Specification Update* for specification updates on processors. Items contained in the *Dual-Core Intel® Xeon® Processor 5100 Series and Dual-Core Intel® Xeon® Processor 5200 Series and Quad-Core Intel® Xeon® Processor 5300 Series and Quad-Core Intel® Xeon® Processor 5400 Series Specification Update* that either do not apply to the product or have been worked around are noted in this document. Otherwise, it should be assumed that any processor errata for a given stepping are applicable to the Printed Board Assembly (PBA) revisions(s) associated with that stepping.

This documentation communicates the following types of changes:

**Specification Changes** are modifications to the current published specifications for Intel® server boards. These changes will be incorporated in the next release of the specifications. Specification changes include typos, errors, or omissions from the current published specifications. These changes will be incorporated in the next release of the documents.

**Specification Clarifications** describe a specification in greater detail or further highlight a specification's impact to a complex design situation. These clarifications will be incorporated in the next release of the documents.

**Errata** are design defects or errors. Errata may cause the server board behavior to deviate from published specifications. Hardware and software designed to be used with any given processor stepping must assume that all errata documented for that processor stepping are present on all devices.

## Product Scope

Below are the specific boards, BIOS and components covered by this update.

### 1. Product Code: MFS5000SI – Intel® Compute Module MFS5000SI

MM #	Server TA #	Server PBA #	BIOS	BMC	Change Description (PCN #)
892778	D91952-003	D70726-404	SB5000.86B.10.00.0030	13.8	Product Launch
	D91952-004	D70726-405	SB5000.86B.10.00.0043	1.30.3	PCN 108333-00

### 2. Product Code: MFS5000SIB – Intel® Compute Module MFS5000SI – 3 Pack

MM #	Server TA #	Baseboard PBA #	BIOS	BMC	Change Description (PCN #)
892856	E19099-001	D70726-404	SB5000.86B.10.00.0030	13.8	Product Launch
	E19099-002	D70726-405	SB5000.86B.10.00.0043	1.30.3	PCN 108333-00

### 3. Product Code: MFS5520VI – Intel® Compute Module MFS5520VI

MM #	Server TA #	Baseboard PBA #	BIOS	BMC	Change Description (PCN #)
901369	E42643-005	E41515-402	S5500.86B.01.10.0034	1.15.1	Product Launch

### 4. Product Code: MFS5520VIB – Intel® Compute Module MFS5520VI – 3 Pack

MM #	Server TA #	Baseboard PBA #	BIOS	BMC	Change Description (PCN #)
901669	E54314-002	E41515-402	S5500.86B.01.10.0034	1.15.1	Product Launch



## 5. Product Code: MFSYS25 – Intel® Modular Server System

### MFSYS25

MM #	System TA #	Midplane PBA #	CMM PBA #	ESM PBA #	SCM PBA #	HDD Bay PBA#	Interposer PBA#	PS TA #	Change Description (PCN #)
892235	D91400-003	D70484-403	D70735-403	D91241-002	D70737-404	D70727-303	D70481-403	D73299-005	Product Launch
	D91400-004	D70484-403	D70735-403	D91241-002	D70737-404	D70727-303	D70481-403	D73299-005	PCN 108305-01
	D91400-005	D70484-404	D70735-404	D91241-002	D70737-404	D70727-303	D70481-404	D73299-005	
902318	D91400-009	D70484-408	D70735-406	D91241-002	D70737-409	D70727-303	D70481-406	D73299-007	PCN 109490-01
	D91400-010	D70484-409	D70735-407	D91241-002	D70737-410	D70727-303	D70481-407	D73299-008	PCN 109774-01

## 6. Product Code: MFSYS35 – Intel® Modular Server System

### MFSYS35

MM #	System TA #	Midplane PBA #	CMM PBA #	ESM PBA #	SCM PBA #	HDD Bay PBA#	Interposer PBA#	PS TA #	Change Description (PCN #)
892300	D91403-004	D70484-407	D70735-404	D91241-002	D70737-404	D91372-301	D91371-301	D73299-005	Product Launch
	D91403-006	D70484-408	D70735-404	D91241-002	D70737-404	D91372-303	D91371-301	D73299-005	PCN 109490-01
	D91403-007	D70484-409	D70735-407	D91241-002	D70737-410	D91372-304	D91371-301	D73299-005	PCN 109774-01

## 7. Product Code: AXXSCM3S – Intel® Storage Controller

MM #	Module TA #	Baseboard PBA #	FW	Change Description (PCN #)
891831	E15895-002	D70737-404	2.91.140.1	Product Launch
	E15895-003	D70737-405	2.91.140.5	PCN 108362-01
	E15895-006	D70737-410	3.4.0140.08	PCN 109774-01

## 8. Product Code: AXXSW1GB – Intel® Gigabit Ethernet Switch

### AXXSW1GB

MM #	Module TA #	Baseboard PBA #	FW	Change Description (PCN #)
891842	E16069-002	D91241-002	1.0.0.6 / 1.0.0.25	Product Launch
	E16069-002	D91241-002	1.0.0.6 / 1.0.0.27	FW Update

## 9. Product Code: MFCMM – Intel® Management Module

MM #	Module TA #	Baseboard PBA #	CMM GUI	Change Description (PCN #)
891834	E16293-002	D70735-403	1.0.100.10012007.7372	Product Launch
	E16293-003	D70735-404	1.3.100.20080527.11328	
	E16293-006	D70735-406	5.5.100.20091202.19584	PCN 109774-01

## 10. Product Code: AXXPSU – 1000W Power Supply

MM #	Module TA #	Baseboard PBA #	Change Description (PCN #)
891843	E14835-02	D73299-005	Product Launch
902463	E14835-004	D73299-003	PCN 109736-00

## 11. Product Code: MF MIDPLANE – Intel® Modular Server System

### MFSYS25 – Midplane Board

MM #	Baseboard TA #	Baseboard PBA #	Change Description (PCN #)
891832	E19078-001	D70484-403	Product Launch
	E19078-002	D70484-404	PCN 108362-01
899916	E19078-004	D70484-408	PCN 109490-01

	E19078-005	D70484-409	PCN 109774-01
--	------------	------------	---------------

**12. Product Code: MFMIDPLANE – Intel® Modular Server System**

**MFSYS35 – Midplane Board**

MM #	Baseboard TA #	Baseboard PBA #	Change Description (PCN #)
899916	E19078-003	D70484-407	Product Launch
	E19078-004	D70484-408	PCN 109490-01
	E19078-005	D70484-409	PCN 109774-01

**13. Product Code: AXXGBIOMEZ – Intel® Compute Module**

**MFS5000SI – Dual Gigabit Ethernet Expansion Card**

MM #	Board TA #	Board PBA #	Change Description (PCN #)
891844	E15888-002	D70465-302	Product Launch
	E15888-002	D70465-303	

**14. Product Code: AXXGBIOMEZV – Intel® Compute Module**

**MFS5520VI – Dual Gigabit Ethernet Expansion Card**

MM #	Board TA #	Board PBA #	Change Description (PCN #)
901362	E42655-005	E41517-301	Product Launch

## Summary Tables of Changes

The following tables indicate the errata and the document changes that apply to the Specification Update. Intel intends to fix some of the errata in a future stepping of components, and to account for the other outstanding issues through documentation or specification changes as noted. The tables use the following notations:

**Doc:** Intel intends to update the appropriate documentation in a future revision.

**Fix:** Intel intends to fix this erratum in the future.

**Fixed:** This erratum has been previously fixed.

**No Fix:** There are no plans to fix this erratum.

**Shaded:** This erratum is either new or has been modified from the previous specification update.

**Table 1. Errata Summary**

No.	Plans	Description of Errata
1.	No Fix	Intel® Compute Module MFS5000SI NIC/Activity LEDs do not display a link status
2.	No Fix	Remote floppy is not supported
3.	Fixed	1024x768 Resolution with color depth set to thousands of colors not supported under Red Hat* Enterprise Linux 5.0 64-bit
4.	No Fix	NIC Utility <code>dcreate.exe</code> on MFS500SI -003 Resource CD incomplete
5.	Fixed	Event Log may report SMI Timeout Assertion after server power button is pressed
6.	No Fix	User is not able to configure different responses to pressing the Server Power button in Microsoft Windows 2008* Enterprise Server Edition.
7.	Fixed	Dual Intel® Storage Controller configuration not yet supported in the Intel® Modular Server System MFSYS25 (see details below for specific operating system support)
8.	Fixed	System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional
9.	Fix	Deleting an existing assigned virtual drive may result in GUI action failure
10.	Fixed	Certain Non-critical Events logged as Critical in GUI
11.	Fixed	System Fault LED does not turn on for all critical events
12.	Fix	Email Alerting not enabled by default for three Critical Events
13.	No Fix	Removing/Inserting USB devices during BIOS POST or in EFI may cause unexpected system behavior
14.	Fixed	Simultaneous Remote KVM installs of OS or applications will not successfully complete
15.	No Fix	Relative and Absolute KVM Mouse Mode not Supported on all Operating System's
16.	Fix	Compute modules with RAID 6 Virtual Drives Experiencing Slow / No Response
17.	Fixed	CONFIRM dialog box action not required to complete requested action
18.	Fixed	Pressing F1 during a KVM session will bring up the local KVM console help not the remote system application help.

19.	Fixed	Ethernet Switch Module will fail to automatically update in an operational chassis
20.	Fixed	Microsoft Windows Server 2003* cluster support not available
21.	No Fix	SuSE Enterprise Linux 10* U1 cluster node shown as running after being physically removed from chassis after failure
22.	Fixed	Fujitsu 146GB, 2.5" SAS hard drive takes longer than expected to come on line after a hot insertion
23.	Fix	BIOS R0048 Does Not Support Mixed Stepping E-0 and C-0 Processors
24.	Fixed	In Windows Enterprise Server 2008* Cluster failover testing, it has been observed that cluster nodes may lose access to the clustered shared LUN drives
25.	Fix	The CMM is not able to provide management information for the power supply when an AXXPSU at revision D73299-006 is installed in a system chassis.
26.	Fixed	The Network Time Server setting on the date/time web page of the Intel® Modular Server Control GUI does not allow selection of different time zones.
27.	No Fix	SuSE* Linux Enterprise Server 10 U1 will mark the OS LUN as read only if a SCM affinity change is made while the SUSE* Linux Enterprise Server 10 operating system is running or booted.
28.	Fixed	Chassis fault LED does not illuminate after removing a Main Fan module or the I/O fan module.
29.	Fixed	Local Video disappears with Console Redirection and Quiet Boot Enabled in the MFS5520VI compute module.
30.	Fixed	Speed Step disable in BIOS setup disables LSI SAS controller in the MFS5520VI compute module.
31.	Fix	Red Hat Enterprise Linux AS 5.0 U3, 32 bit Xen kernel only, shows 13GB of memory when more than 14GB of memory is installed.
32.	No Fix	MPIO takes a long time to install under Microsoft Windows* 2003 Cluster.
33.	No Fix	Virtual Drives from external ports are not recognized on reboot with Microsoft Windows* 2003 Enterprise.
34.	No Fix	Extraction and quick reinsertion of the Intel® Server Compute Module MFS5520VI may cause various issues.
35.	Fixed	DIMM temperature warning in VMWare ESX 3.5 and ESX 4.0.
36.	Fixed	MFS5000SI compute module occasionally hangs during LTO-4 tape backup operations
37.	Fix	Virtual Drives within a Storage Pool lose server assignments after a Virtual Drive has been deleted.

38.	Fixed	LUN Copier not activated with valid key.
39.	No Fix	RAID 10 to RAID 1E Automatic Migration
40.	Fix	The installation of SLES 11 x86_64 fails on SSD.
41.	Fixed	GMM Web GUI SSL certification expired on Oct 27 2009
42.	No Fix	rKVM right Alt+F1 in VMWare 3.5,4.0 launches help instead of ESX server console.

Table 2. Documentation Changes

No.	Plans	Description of Documentation Change
1.	Fixed	System Fault LED not depicted in front system views in Intel® Modular Server System MFSYS25 documentation
2.	Fixed	Power Budget Information Incorrect in Intel® Modular Server System MFSYS25 TPS
3.	No Fix	In the V2.6 Release Notes, Section G, Red Hat* Enterprise Linux 5 Server U1 (32bit and 64bit) is incorrectly listed as supporting shared LUN
4.	Fixed	Intel® Modular Server System MFSYS25/MFSYS35 Quick Start User's Guide has an incorrect Package Contents list

Following are in-depth descriptions of each erratum / documentation change indicated in the tables above. The errata and documentation change numbers below correspond to the numbers in the tables.

## Errata

---

### 1. Intel® Compute Module MFS5000SI NIC/Activity LEDs do not display a link status

**Problem** Compute Module NIC/Activity LEDs display is OFF instead of ON when link is established.

**Implication** Link status of the ports can be verified in the GUI on the Switch Status Tab. The Compute Module NIC/Activity LEDs will blink to show outbound NIC activity; however, the user should refer to the Switch Activity LEDs to verify communication status with the switch.

**Status** No Fix

### 2. MFS5000SI remote floppy is not supported

**Problem** MFS5000SI remote floppy is not supported.

**Implication** Customers will not be able to remotely mount a floppy drive during Remote KVM/Media redirection.

**Status** No Fix

### 3. 1024x768 Resolution with color depth set to thousands of colors not supported under Red Hat\* Enterprise Linux 5.0 64-bit

**Problem** Video resolution test fails under Red Hat\* Enterprise Linux 5.0 64-bit.

**Implication** Resolution of 1024x768 with color depth set to thousands of colors fails to enable.

**Status** Fixed in UFU V5.5

#### **4. NIC Utility dcreate.exe on MFS500SI -003 Resource CD incomplete**

Problem	MFS500SI Resource CD ROM E12216-003 NIC driver package contains a dcreate.exe file that errors out.
Implication	dcreate.exe is not functional on the MFS500SI Resource CD. If dcreate functionality is required, users can download the complete software stack from support.intel.com by going to <a href="http://downloadcenter.intel.com/">http://downloadcenter.intel.com/</a> , typing in “Intel® 82571EB” and selecting the file PRO2KXP.exe.
Workaround	None
Status	No Fix – utility removed from CD

#### **5. Event Log may report SMI Timeout Assertion after Server Power button is pressed**

Problem	SMI Timeout Assertion is logged as a critical event in the Event Log after the Server Power button is pressed; however, the server powers up normally.
Implication	No system impact – Timeout logic was incorrect, resulting in a false event logging.
Workaround	None
Status	Fixed, P2.6

#### **6. User is not able to configure different responses to pressing the Server Power button in Microsoft Windows 2008\* Enterprise Server Edition**

Problem	User is not able to configure different responses to pressing the Server Power button in the OS.
---------	--



Implication	By design the user should be able to configure the response of the Server Power button in the OS to do nothing, prompt for action, standby or hibernate. Changing these settings in the OS has no impact – the power button continues to power down the server.
Workaround	<p>Win2K8 allows the redefinition of the power button press to mean “Go into hibernate state” rather than “Power down.” If this configuration is enabled AND the power button is pressed the BMC will get out of sync with the physical power state since the BMC has no visibility into the changed OS configuration. In the context of a server in a chassis, redefining the power button to mean “hibernate” is not useful. In this environment, the OS should not be configured to hibernate on a power button rather than power off. If the OS is so configured and the power button is pressed, the power button should be pressed a second time to bring the power back up. The OS should be configured to power off in response to a power button.</p> <p>A server in this condition can also be recovered by doing a “forced power off” followed by a normal “power on”.</p>
Status	No Fix

## 7. **Dual Intel® Storage Controller configuration not yet supported in the Intel® Modular Server System MFSYS25 and MFSYS35**

Problem	Dual SCM configuration support not yet included in the MFSYS25 software stack for: <ul style="list-style-type: none"><li>A. Microsoft Windows* 2003 Enterprise, Microsoft Windows* 2008 Enterprise</li><li>B. Red Hat 5.0 and SUSE Linux Enterprise 10</li></ul>
Implication	Dual SCM configuration is not supported. Single SCM is only supported in slot 1.
Status	Fixed, all operating systems and with appropriate UFU. P2.3.1 for Microsoft Windows* 2003 R2 SP2 and Microsoft Windows* 2008, P2.6 for SUSE Linux Enterprise* 10 U1, V5.5 for Red Hat* 5.0 U4.

## 8. System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional

Problem	System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional.
Implication	Currently, the System Fault LED will only turn on if the device is capable of telling the CMM it has a fault condition. If a device's software is completely inoperable, the System Fault LED may not turn on.
Workaround	None. In the future the GUI will illuminate the System Fault LED if the CMM cannot communicate with the device after ~60 seconds of timeout.
Status	Fixed

## 9. Deleting existing assigned virtual drive may result in GUI action failure

Problem	While deleting an existing assigned virtual drive, GUI action fails with 'Storage subsystem is busy. Please try again in a few minutes.'
Implication	Intermittently - as a user tries to delete a virtual drive, they may receive a message indicating that the SCM is busy. The action will not complete properly until all the servers are shut down and the SCM is physically removed and replaced.
Workaround	None
Status	Fixed

## 10. Certain Non-critical Events logged as Critical in GUI

Problem	GUI logs certain correctable errors as critical in the Event Log
Implication	GUI may incorrectly log correctable errors, such as SBE or mismatched processors installed, as "critical" errors. GUI categorization of the events will be corrected in a future release. Note that correctable errors do not cause the System Fault LED to turn on by design, only critical errors light the LED. The

System Fault LED will only light for truly critical or higher severity issues such as MBEs.

Workaround None

Status Fixed

## 11. System Fault LED does not turn on for all critical events

Problem System Fault LED will not turn on as expected when certain critical events occur.

Implication When the Processor Cache Size Mismatch error occurs, the system will boot into BIOS setup; however, the System Fault LED will not turn on. Additionally when the Correctable Memory Error Threshold is reached, the event will be logged – however, the System Fault LED will not turn on.

Workaround None

Status Fixed

## 12. Email Alerting not enabled by default for three Critical Events

Problem On all critical event error logging, SNMP, and Email Alerting should be enabled by default. However, three Critical Events do not by default have Email Alerting enabled as expected.

Implication Both SNMP and Email Alerting were not enabled by default in the event policy for the following three events: Storage Subsystem – RAID Level Migration is aborted due to an internal error, CMM m – System Component Unfit, and CMM – CMM Internal Firmware Error.

Workaround Administrator can go in and enable SNMP and Email Alerting for these three events.

Status Fixed

### **13. Removing/Inserting USB devices during BIOS POST or in EFI may cause unexpected system behavior**

Problem	Removing/Inserting USB devices during BIOS POST or in EFI may cause unexpected system behavior such as a server reboot, lock up or unexpected characters being displayed.
Implication	Customer will not be able to remove USB devices during BIOS POST or while in EFI.
Workaround	Server module must be powered off and back on to recover. Do not remove/insert USB devices during server POST or while in EFI.
Status	No Fix

### **14. Simultaneous Remote KVM installs of OS or applications will not successfully complete on MFS5000SI**

Problem	Attempting to load two Operating Systems or software installations via Remote KVM sessions at the same time on two seperate servers using two laptops will not successfully complete on MFSYS5000SI
Implication	Customers will not be able to conduct simultaneous Remote KVM OS or application installations on MFSYS5000SI
Workaround	None
Status	Fixed

## 15. Relative and Absolute KVM Mouse Mode not Supported on all Operating System's

Problem	Two mouse modes are available, Relative (the default) and Absolute – both are not supported for all Operating Systems.
Implication	Absolute mouse mode is used with Microsoft® Windows and other operating systems that compute mouse movements from absolute X, Y coordinates. Relative mouse mode is used primarily with some Linux and Unix X/Windows displays and other operating systems that compute mouse movements from the change in relative position to the last position (how much the mouse moved).
Workaround	<p>When using Linux or other operating systems that compute mouse movements from change in relative position you must change the mouse mode setting in the KVM Viewer. Choose Mouse Mode from the KVM Viewer application Options menu. Select Relative Mode. If the remote and local cursors are not synchronized, toggle the Sync Cursor setting from On to Off and back to On.</p> <p>Note: Mouse mode should be selected before starting CD Redirection. The menu option will be disabled when CD redirection is enabled</p>
Status	No Fix

## 16. Compute Modules with RAID 6 Virtual Drives Experiencing Slow Response

Problem	Compute Modules with a Raid 6 Virtual Drive from a Storage Pool with 9 or more physical hard drives may experience slow response when transferring very large files.
Implication	<p>When the compute module storage configuration has a Raid 6 Virtual Drive from a Storage Pool with 9 or more physical hard drives, the user may experience an apparent system freeze when transferring very large files. When monitoring CPU utilization using Task Manager while copying files, utilization may drop to zero and the system will stop copying and responding to input.</p> <p>The issue also does not occur in RAID 6 configurations from a Storage Pool with less than nine hard disk drives or with Virtual Drives in RAID 5 or RAID 10 configurations.</p>

Workaround	Current workaround is to use a Virtual Drive configured as RAID 6 with less than nine hard disk drives or a version of RAID other than 6.
Status	Fix

## **17. CONFIRM dialog box action not required to complete requested action**

Problem	Any dialog box which prompts the user to type “confirm” before clicking OK in order to perform an action will actually complete the specific action if the user clicks OK without typing “confirm”. The action will complete if the user leaves the box blank or types any combination of letters including “confirm” before clicking OK.
Implication	A user may inadvertently perform an undesired action by clicking OK without typing “confirm”, typing any combination of letters or leaving the box blank.
Workaround	Prior to clicking OK ensure that the action about to be perform is actually desired.
Status	Fixed, P2.3.1

## **18. Pressing F1 during a KVM session will bring up the local KVM console help not the remote system application help**

Problem	Pressing F1 during a KVM session will bring up the local KVM console help not the remote system application help.
Implication	Remote system application help is not viewable by the user.
Workaround	There is currently not a workaround to this issue.
Status	Fixed, P2.3.1

## 19. Ethernet Switch Module will fail to automatically update in an operational chassis

**Problem** If an Ethernet Switch Module, not at FW level 1.0.0.27, is inserted into slot 1 or slot 2 in a chassis that is in steady state (no FW updates in progress or pending, and the chassis is just operating normally), the CMM's attempt to update the FW on the switch will not succeed. The FW update page will show that a FW update is 'pending'. Resetting or re-inserting the switch will not correct the situation. The CMM must be reset. The FW update will be applied to the switch when the CMM restarts. This applies to ESM1 and ESM2.

Note: This erratum applies only to ESM hot-insert. Installing P2.6 on a chassis that already has an ESM that is not at FW revision level 1.0.0.27 will allow the ESM to update without requiring a CMM restart.

**Implication** FW update will not complete.

**Workaround** Reset the CMM.

**Status** Fixed, V3.0

## 20. Microsoft Windows Server 2003\* cluster support not available

**Problem** Cluster support is not available for Microsoft Windows Server 2003\* R2 SP2.

**Implication** Cluster support is not available to customers using Microsoft Windows Server 2003\* R2 SP2.

**Workaround** There is currently not a workaround to this issue.

**Status** Fixed, V3.0, Reference Microsoft Windows Server 2003\* (x86 and x64) Cluster-Driver Installation BKM (E67062-002) for details.

## 21. Suse Enterprise Linux 10\* U1 cluster node shown as running after being physically removed from chassis after failure

Problem	When a node (compute module) is physically removed from the MFSYS25 chassis, the node is stopped but the resource is still shown as running. Manually stopping and restarting the resource will not correct this situation since the resource is still shown as running. When the node is reinserted its resource indicates as up and running again.
Implication	Incorrect resource status is displayed when a node is physically removed.
Workaround	User need to develop and integrate a STONITH driver using the <a href="#">Intel® Compute Module Power Control for Clusters WhitePaper</a> .
Status	No Fix

## 22. Fujitsu 146GB, 2.5” SAS hard drive takes longer than expected to come on line after a hot insertion

Problem	When a Fujitsu 146GB, 2.5” SAS drive is hot inserted into the hard drive bay, it takes longer than expected for the drive to come on line causing command timeouts. Resetting the Storage Control Module is required to have the drives come ready.
Implication	Hard disk drives are marked as not ready.
Workaround	Timeout values were extended in firmware to allow more time for the drives to become ready.
Status	Fixed, P2.6



## 23. BIOS R0048 Does Not Support Mixed Stepping E-0 and C-0

### Processors

Problem	BIOS code specifically designed to allow support for mixed stepping processors was not included in BIOS R0048.
Implication	The use of mixed stepping E-0 and C-0 processors and BIOS R0048 may cause erratic system behavior such as operating systems failing to load or install.
Status	This erratum may be fixed in a future BIOS release.
Workaround	None.

## 24. In Windows Enterprise Server 2008\* Cluster failover testing, it has been observed that cluster nodes may lose access to the clustered shared LUN drives

Problem	In Windows Enterprise Server 2008* Cluster failover testing, it has been observed that cluster nodes may lose access to the clustered shared LUN drives if a node is power cycled. If a node which has lost shared LUN access is the cluster resource owner for the cluster storage resources or becomes the owner, the cluster storage resources will go into an offline state.
Implication	Cluster storage resources going offline would lead to failures in any applications which are dependent on the cluster storage. Resetting SCM1 or power cycling the chassis will restore service.
Status	Fixed in UFU V2.7
Workaround	Resetting SCM1 or power cycling the chassis will restore service.

**25. The CMM is not able to provide management information for the power supply when an AXXPSU at revision D73299-006 is installed in a system chassis**

Problem	The CMM is not able to provide management information, firmware revision number or manufacturing information for the power supply when an AXXPSU at revision D73299-006 is installed in a system chassis.
Implication	In installations with firmware revision P2.3.5 the CMM will prompt “Install Power Supplies” in the Action Required window; in installations with firmware revision P2.6 that alert will not occur. In both cases, the PSU / system chassis will power up. This erratum does not prevent powering up of the Server Compute Module.
Status	Fixed in UFU P2.6.

**26. The Network Time Server setting on the date/time web page of the Intel® Modular Server Control GUI does not allow selection of time zones**

Problem	The Network Time Server setting on the date/time web page of the Intel® Modular Server Control GUI does not allow selection of different time zones. Time Zone is set at GMT.
Implication	Network Time Server is always set to GMT.
Status	Fixed in V2.7
Workaround	None.

**27. SuSE\* Linux Enterprise Server 10 U1 will mark the OS LUN as read only if a SCM affinity change is made while the SUSE\* Linux Enterprise Server 10 operating system is running or booted**

Problem	SuSE* Linux Enterprise Server 10 U1 will mark the OS LUN as read only if a SCM affinity change is made while the SuSE* Linux Enterprise Server 10 operating system is running or booted.
Implication	The OS LUN is marked as “read only”.
Status	No Fix.
Workaround	Power down the SuSE* Linux Enterprise Server 10 U1 operating system. While the operating system is powered down, go to the CMM UI and change the LUN affinity.

**28. Chassis fault LED does not illuminate after removing a Main Fan module or the I/O Fan module**

Problem	When one or both of the Main Fan modules or the I/O Fan module is removed from the system, the chassis fault LED does not illuminate.
Implication	There is no visual indication on the system that one or both of the Main Fan modules or the I/O Fan module have been removed
Status	Fixed in UFU V5.5.

## **29. Local video disappears with Console Redirection and Quiet Boot**

### **Enabled in the MFS5520VI compute module**

Problem	Local video disappears with Console Redirection and Quiet Boot enabled in the MFS5520VI compute module.
Implication	Local video will disappear if Console Redirection and Quiet Boot are enabled.
Status	Fixed in UFU V3.6.
Workaround	Do not enable Console Redirection and Quiet Boot.

## **30. Speed Step Disable in BIOS setup disables the LSI SAS controller**

### **in the MFS5520VI compute module**

Problem	Speed Step Disable in BIOS setup disables the LSI SAS controller.
Implication	When Speed Step is disabled in BIOS setup, the LSI SAS controller option ROM is disabled and storage is no longer seen.
Status	Fixed in UFU V3.6.
Workaround	Do not disable Speed Step.

## **31. Red Hat Enterprise Linux AS 5.0 U3, 32 bit Xen kernel, only shows**

### **13GB of memory when more than 14GB of memory is installed**

Problem	Red Hat Enterprise Linux AS 5.0 U3, 32 bit Xen kernel only, shows 13GB of memory when more than 14GB of memory is installed.
Implication	Memory is under reported.
Status	This erratum is a RHEL 5.0 U3 issue and has been reported to Red Hat for problem resolution.
Workaround	None.

### **32. MPIO takes a long time to install under Microsoft Windows\* 2003**

#### **Cluster**

Problem	MPIO takes a long time to install under Microsoft Windows* 2003 Cluster.
Implication	Delay can take as long as 2 – 5 minutes per virtual drive.
Status	No Fix.
Workaround	Install MPIO driver prior to setup of cluster. Do install/uninstall with one server module at a time; shut down cluster and update one server module at a time.

### **33. Virtual Drives from external ports are not recognized on reboot with Microsoft Windows\* 2003 Enterprise.**

Problem	Virtual drives from external ports are not recognized on reboot with Microsoft Windows* 2003 Enterprise.
Implication	On reboot, all LUNs set to LUN 0 will not be recognized and available..
Status	No Fix.
Workaround	Do not assign LUN 0 to LUNs on an external array. All LUNS on an external disk array should be set to a LUN other than LUN 0.

### **34. Extraction and quick reinsertion of the Intel® Server Compute Module MFS5520VI may cause various issues**

Problem	Extraction and quick reinsertion of the MFS5520VI compute module may cause various different issues.
Implication	If the compute module is reinserted too quickly, various issues may occur.
Status	No Fix.
Workaround	After extracting a MFS5520VI compute module, wait 15 seconds before reinserting.

### **35. DIMM temperature warning in VMWare ESX 3.5 and ESX 4.0**

Problem	VMWare ESX 3.5 and ESX 4.0 pick up a sensor as DIMM9 temperature and report a DIMM temperature warning.
Implication	VMWare ESX 3.5 and ESX 4.0 generates a false DIMM temperature warning for DIMM9.
Status	Fixed in UFU V4.0.

### **36. MFS5000SI compute module occasionally hangs during LTO-4 tape backup operations**

Problem	MFS5000SI compute module occasionally hangs during LTO-4 tape backup operations. The backup operation byte count will stop incrementing and access to the server compute module will also slow down. Attempts to cancel the tape backup job in progress or to restart Backup Exec services appear to hang as well.
Implication	MFS5000SI compute modules occasionally hang during LTO-4 tape backup operations.
Status	Fixed in UFU5.5.

### **37. Virtual Drives within a Storage Pool may lose server assignments after a Virtual Drive has been deleted**

Problem	When a Virtual Drive within a Storage Pool is deleted, assignments for subsequent Virtual Drives within the same Storage Pool may be lost during a firmware update or after a power cycle of the SCM.
Implication	In the event that Virtual Drive assignments are lost, effected Virtual Drives must be reassigned.

Status	Fix in future FW release.
Workaround	Do not powercycle SCM or update FW immediately following a Virtual Drive deletion. Maintain a current record of the storage layout and server assignments.

### 38. LUN Copier not activated with valid key

Problem	On systems upgrading from UFU 3.0 to UFU 4.0 directly, when the LUN Copier feature is added via the feature activation screen, the key for LUN Copier is accepted but the feature is not activated.
Status	Fixed in UFU V4.1
Workaround	Reset CMM settings to system default or update system firmware to UFU V4.1.

### 39. RAID 10 to RAID 1E Automatic Migration

Problem	RAID 10 Virtual Drives automatically migrated to RAID 1E Virtual Drives when the Storage Pool they belonged to was expanded by adding additional disks, either an even or odd number.
Implication	Working as designed . No impact to redundancy or performance.
Status	No fix.

### 40. The installation of SLES 11 x86\_64 fails on SSD

Problem	On MFSYS25 system with SSD installed, the installation of SLES 11 x86_64 fails at the point where the GRUB bootloader is being configured
Status	Fix in futuer FW release.
Workaround	Set SCM affinity to SCM2, installation will complete without a GRUB error.

#### **41. GMM Web GUI SSL certification expired on Oct 27 2009**

Problem GMM Web GUI SSL certification expired on Oct 27 2009.

Status Fixed in FW V5.5.

#### **42. rKVM right Alt+F1 in VMWare 3.5, 4.0 launches help instead of ESX server console**

Problem rKVM right Alt+F1 in VMWare 3.5,4.0 launches help instead of ESX server console.

Status No Fix

Workaround Use left Alt key+F1 since VMware does not support this function via right Alt key +F1.



## Documentation Changes

---

### 1. System Fault LED not depicted in front system views in Intel®

#### Modular Server System MFSYS25 documentation

**Problem** System Fault LED is not identified in the front system view of the Intel® Modular Server System MFSYS25 in the following documents: -008 MFSYS25 User Guide, -003 MFSYS25 Quick Start User's Guide, and -003 MFSYS25 TPS.

**Clarification** The System Fault LED is located on the front of the chassis, in-between the I/O Cooling Module and the server in the bottom slot of the chassis.

**Status** Fixed

### 2. Power Budget Information Incorrect in Intel® Modular Server

#### System MFSYS25 TPS

**Problem** The Power budget information for the MFSYS25 system is incorrect in the Intel® Modular Server System TPS.

**Clarification** The correct values are as follows:

Subsystem	12V Budget
<b>Compute Module</b>	<b>401 W</b>
<b>Mezzanine Card</b>	<b>5 W</b>
<b>CMM</b>	<b>6 W</b>
<b>I/O Switch</b>	<b>40 W</b>
<b>Storage Module</b>	<b>48 W</b>
<b>Hard Drive Bay</b>	<b>165 W</b>
<b>Midplane &amp; Cooling Modules</b>	<b>164 W</b>
<b>Power Supply blank</b>	<b>26 W</b>
System Total	
<b>Power subsystem spec</b>	<b>3000 W</b>

**Status** Fixed

### **3. In the P2.6 Release Notes, Section G, Red Hat\* Enterprise Linux 5 Server U1 (32bit and 64bit) is incorrectly listed as supporting shared LUN**

Problem	In the V2.6 Release Notes, Section G, Red Hat* Enterprise Linux 5 Server U1 (32bit and 64bit) is incorrectly listed as supporting shared LUN.
Clarification	Shared LUN is not currently supported on Red Hat* Enterprise Linux 5 Server U1 (32bit or 64bit). The Tested Hardware and Operating System List has this operating system listed correctly.
Status	No Fix

### **4. Intel® Modular Server System MFSYS25/MFSYS35 Quick Start User's Guide has an incorrect Package Contents list**

Problem	On the front side of the Intel® Modular Server System MFSYS25/MFSYS35 Quick Start User's Guide, Document #E11186-00X, the Package Contents list incorrectly shows a rail kit included in the system shipping container.
Clarification	A rail kit is not included in the base system configuration or the shipping container of either the MFSYS25 or MFSYS35 systems. The rail kit is an accessory, product code AXXMFRAIL that can be purchased separately.
Status	Fixed in document #E11186-008.