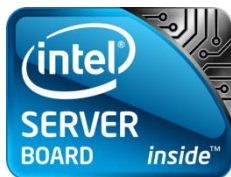


Intel® Rapid Storage Technology enterprise Specification Update

Intel® Server Boards and Intel® Server Systems
that support Intel® RSTe



March, 2012

Revision History

Date	Modifications
March, 2012	Initial release.

Disclaimers

The Monthly 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.

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Preface

This document is an update to the specifications contained in *Intel® Server Board and Intel® Server Systems supporting Intel® RSTe 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.

1. Nomenclature

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 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 specifications.

Documentation Changes include typos, errors, or omissions from the current published specifications. These changes will be incorporated in the next release of the specifications.

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.

2. Product Scope

The following specific boards, BIOS and components are covered by this update:

Product Code	Baseboard PBA Revision	BIOS Revision	BMC Revision	FRU/SDR Revision	ME Revision

Summary Tables of Changes

The following tables provide an overview of known errata and known document changes that apply to the specified Intel Server Products. 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.	Fix	Linux Operating Systems are not supported on RSTe mode
2.	Fix	UEFI Windows* Server 2008 R2 SP1 installation on SCU ports may fail under RSTe RAID mode
3.	Fix	HDD status LEDs do not function under specific configuration
4.	Fix	RSTe GUI installation may fail if there are no devices attached to any onboard AHCI ports
5.	Fixed	BMC continuously sends RAID volume rebuild event in RSTe mode of the SCU controller
6.	Fix	System may halt under specific BIOS configurations
7.	Fix	Microsoft Windows* 2003 x86 installation failure under Pass-through mode of SCU controller
8.		
9.		
10.		

Table 2. Documentation Changes

No.	Plans	Document Name	Description of Documentation Change
1.			
2.			
3.			
4.			

The following sections provide in-depth descriptions of each erratum/documentation change indicated in the tables above. The errata and documentation change numbers referenced in the following sections correspond to the numbers in the tables above.

Errata

1. Linux Operating Systems are not supported on RSTe mode

Problem	Intel® RSTe mode is not supported on Red Hat* Linux and SUSE* Linux.
Implication	User may not able to install Red Hat* Linux and SUSE* Linux on Intel® C600 Series Chipset based Server Boards under Intel® RSTe mode
Status	This issue may be fixed in future driver or BIOS releases.
Workaround	None

2. UEFI Windows* Server 2008 R2 SP1 installation on SCU ports may fail under RSTe RAID mode

Problem	System may encounter blue screen when installing Windows* Sever 2008 R2 SP1 under UEFI with below configurations: 1. Intel® C600 RAID Upgrade Key is installed and SAS HDDs are used on SCU ports. 2. BIOS options “EFI Optimized Boot” and “Use Legacy Video for EFI OS” are enabled. 3. Under RSTe RAID mode.
Implication	User may not able to install UEFI Windows* Server 2008 R2 SP1 on Intel® C600 Series Chipset based Server Boards with mentioned configuration.
Status	This issue may be fixed in a future BIOS release.
Workaround	None.

3. HDD status LEDs do not function under specific configuration

Problem	If drives are connected through expander to SCU ports and configured under RSTe mode, the HDD status LEDs may not function properly.
Implication	HDD status LED may not show the HDD locate, HDD fault or RAID rebuild message.
Status	This issue may be fixed in a future RAID driver.
Workaround	None.

4. RSTe GUI installation may fail if there are no devices attached to any onboard AHCI ports

Problem	When Microsoft* Windows* 2008 R2 is installed on SCU ports, the installation of RSTe drivers and the Graphic User Interface (GUI) in Windows 2008 R2 will fail, if the AHCI controller is enabled while no device is attached to the AHCI SATA ports.
Implication	User may not be able to install RSTe GUI under mentioned configuration when the AHCI controller is enabled and no devices are attached to the AHCI SATA ports.
Status	This issue may be fixed in a future RAID driver.
Workaround	The workaround is to either plug a SATA device into one of the AHCI SATA ports, or disable the onboard AHCI controller in BIOS

5. BMC continuously sends RAID volume rebuild event in RSTe mode of the SCU controller

Problem	When RSTe RAID is in degraded mode and a drive is inserted to start the RAID rebuild, System Event Log (SEL) records drive plug and rebuild events and then continuously sends a rebuild event message.
Implication	User may see the SEL flooded with RAID volume rebuild event entries.
Status	This issue was fixed in latest RSTe driver ver 3.0.0.3020 upd 2012.02.03.
Workaround	None.

6. System may halt under specific BIOS configurations

Problem	Once BIOS options “EFI Optimized Boot” and “Memory Mapped I/O Above 4GB” are both enabled, and RSTe mode is selected, system may halt during the system POST.
Implication	User may see system hang with mentioned configuration.
Status	This issue may be fixed in a future RSTe UEFI driver release.
Workaround	None.

7. Microsoft Windows* 2003 x86 installation failure under Pass-through mode of SCU controller

Problem	Microsoft Windows* Server 2003 x86 installations on SCU RSTe pass-through mode fail.
Implication	User may not be able to install Microsoft Windows* Server 2003 x86 on mentioned BIOS configuration.
Status	This issue may be fixed in a future RSTe driver release.
Workaround	None.