



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

Intel Technical Advisory

TA-0931-2

5200 NE Elam Young Parkway
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Intel® Storage System SSR212MC2 may show an “Invalid SAS topology detected” during system reboot

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Products Affected

Table. 1. Products Affected

Product	Product code
Intel® Storage System	SSR212MC2
	SSR212MC2NA
	SSR212MC2R
	SSR212MC2RNA
	SSR212MC2BR
	SSR212MC2BRNA
	SSR212MC2RBR
	SSR212MC2RBRNA

Description

Intel has discovered an issue where the system may show an “Invalid SAS topology detected” error during system reboot when the RAID array is rebuilding or going through background drive initialization. When the RAID array is rebuilding or background initializing, the issue may occur if you reboot the system.

Root Cause

The issue has been root caused to a communications error between the RAID card with firmware prior to version v.1.12.270-0718 and the SAS expander with the firmware version V4. When the system reboots, the RAID controller is reset while the SAS expander and disk drivers are not reset. When the RAID array is rebuilding or when the system is going through background initialization, reboot the system can cause the RAID controller to lose the context of any non-completed commands which the SAS expander is executing. Therefore the next active communication between the RAID controller and the SAS expander will include unexpected content. As a result, the system may show an “Invalid SAS topology detected” error.

Corrective Action / Resolution

Please upgrade RAID controller firmware to v1.12.270-0718 and contact Intel using your normal warranty support process to replace SAS expander.

Provide warranty support with the following information:

1. Serial number of the SSR1212MC2 system.
2. This Technical Advisory number.
3. That you are requesting replacement SAS expander part number D89370-002.

The RAID controller firmware v.1.12.270-0718 is available for download from Intel's support website at <http://www.intel.com/support/motherboards/server/ssr212mc2/index.htm>.

Workarounds

This error message can be avoided by allowing the RAID array rebuild or background initialization to complete uninterrupted. If a reboot is required while the RAID is rebuilding or going through background initialization, a complete shutdown followed by power on of the system is recommended. To recover from the error condition, shutdown the system, remove and then reconnect the AC power cord(s) and power on the system. This will allow the system to recover if this error message is seen. In the case that the array is missing on powering up, please go into the Intel® RAID BIOS Console and set the drives back to online and the array will be back to the optimal state. Based on the investigation, the issue will not cause system data loss by following above workarounds.

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

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