



# StorView

## イベントログ、エラーコードの説明

エムアイシー・アソシエーツ株式会社

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## Advanced Power Management イベント

Advanced Power Management、APM level 1、APM level 2 に関連するイベントリスト

IDは、Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Advanced Power Management Event Messages	Type [ID]	Cause	Action
APM drive test failed (test result: <i>w</i> ) on drive w/ <i>xxxxxxxxxx</i> (Slot <i>y</i> , Enclosure <i>z</i> ). Sense Data <i>aa/bb/cc</i> .	Error [0xB1D (2845)]	Unrecoverable problem on APM level 1 drive.	Check the drive.
Drive w/ SN <i>&lt;Serial number&gt;</i> (Slot <i>&lt;Slot number&gt;</i> , Enclosure <i>&lt;Enclosure number&gt;</i> ) executes a spin up cycle.	Information [0xB93 (147)]	User or software commanded a drive spin up.	No action necessary.
Drive w/ SN <i>&lt;Serial number&gt;</i> (Slot <i>&lt;Slot number&gt;</i> , Enclosure <i>&lt;Enclosure number&gt;</i> ) executes a spin down cycle.	Information [0xB93 (147)]	User or software commanded a drive spin down.	No action necessary.
These drives execute a spin down cycle (unused drives: <i>&lt;Unused drive count&gt;</i> , spares: <i>&lt;Spare count&gt;</i> , failed drives: <i>&lt;failed drive count&gt;</i> ).	Information [0xB94 (148)]	User or software commanded spin down on the identified drive(s).	No action necessary.
These drives execute a spin up cycle (unused drives: <i>&lt;Unused drive count&gt;</i> , spares: <i>&lt;Spare count&gt;</i> , failed drives: <i>&lt;failed drive count&gt;</i> ).	Information [0xB94 (148)]	User or software commanded spin up on the identified drive(s).	No action necessary.
<i>&lt;Array drive count&gt;</i> drives from array with ID <i>&lt;Array number&gt;</i> execute a spin down cycle.	Information [0xB95 (149)]	User or software commanded spin down on the drives in the identified array.	No action necessary.

Advanced Power Management Event Messages	Type [ID]	Cause	Action
<Array drive count> drives from array with ID <Array number> execute a spin up cycle.	Information [0xB95 (149)]	User or software commanded spin up on the drives in the identified array.	No action necessary.
APM drive test started on <Drive count> drives.	Information [0xB96 (150)]	User or software executed a drive test.	No action necessary.
APM drive test started on <Drive count> drives from array with ID <Array number>.	Information [0xB96 (150)]	User or software executed a drive test on the drives in the selected array.	No action necessary.
APM drive test completed on <Drive count> drives.	Information [0xB97 (151)]	User or software executed drive test is complete.	No action necessary.
APM drive test completed on <Drive count> drives from array with ID <Array number>.	Information [0xB97 (151)]	User or software executed drive test on the drives in the selected array is complete.	No action necessary.
The expansion cable was connected to Enclosure <Enclosure number>.	Information [0xB98 (152)]	The user connected an expansion cable.	No action necessary.
The expansion cable was removed from Enclosure <Enclosure number>.	Information [0xB98 (152)]	The user disconnected an expansion cable.	No action necessary.
The expansion cable was removed from Enclosure <Enclosure number> or failed for more than 10 times in an hour.	Warning [0xB98 (2968)]	The user disconnected an expansion cable greater than 10 times or the cable failed for more than 10 times in an hour.	Replace cable.

# アラームイベント

SESプロセッサによって通知されるアラームに関連するイベントリスト

IDは、Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Alarm Event Messages	Type [ID]	Cause	Action
The audible alarm is temporarily muted.	Information [0xB8D (2957)]	The user muted the alarm. The audible alarm is temporarily muted.	No action necessary.
Alarm Disable.	Information [0xB8E (2958)]	The user disabled the alarm. The audible alarm has been disabled and will silence all alarm events. The disabled alarm will be cleared when the Alarm is enabled or the controller is reset.	No action necessary.
Alarm Enable.	Information [0xB8F (2959)]	The user disabled the alarm. The audible alarm has been enabled and will allow all alarms to be heard.	No action necessary.
Alarm <x> is Off (Muted). Where <x> is the alarm number. Currently there is only one alarm in the enclosure system, however this is a provision for future expansion.	Information [0xC6E (3182)]	No status condition being reported. Alarm silenced.	No action necessary. User pressed the Alarm Mute button on the front panel.
Alarm <x> is Intermittent.	Warning [0xC6E (3182)]	A status condition caused the alarm to sound every two minutes until muted.	Press the Alarm Mute button on the front panel and isolate the cause of the alarm.
Alarm <x> is Remind.	Warning [0xC6E (3182)]	A status condition that caused the alarm to sound is continuing to remind the user.	Press the Alarm Mute button on the front panel and isolate the cause of the alarm.
Alarm <x> is On Continuous.	Error [0xC6E (3182)]	A status condition caused the alarm to sound.	Press the Alarm Mute button on the front panel and isolate the cause of the alarm.

## コントローライベント

全モデルのコントローラとその構成に関するイベントリスト

IDは、Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Controller Events Messages	Type [ID]	Cause	Action
There was a fatal Watchdog Error.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Internal hardware or firmware failure.	Replace the controller.
There was a fatal ECC Error.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Fault SDRAM or damaged internal bus.	Replace the controller.
There was a fatal Host Fibre Channel Interface Error on Loop <xx>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Internal hardware or firmware failure on the coprocessor.	Replace the controller. Contact technical support.
There was a fatal Coprocessor Error.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Internal hardware or firmware failure on the coprocessor.	Replace the controller.
There was a fatal Data Abort: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	This fatal controller event log error indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal Prefetch Abort: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.

Controller Events Messages	Type [ID]	Cause	Action
There was a fatal Software Interrupt: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal Bad Instruction: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal IRQ INTERRUPT: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal ATU Error: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal PBI Error: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal AAU Error: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal Internal Error Log Continuation: <yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.



Controller Events Messages	Type [ID]	Cause	Action
There was a fatal F/W Error: <xx><yyyyyyyy>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
There was a fatal Firmware Error 0xB<xx>.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates an unexpected interrupt, exception, or error status internal to the policy processor or a related coprocessor.	No action necessary.
A fatal PCIe Interface Error: Link Training Error.	Error [0xB01 (2817)]	Indicates the PCIe bus of the policy processor is not fully operational.	Replace the controller.
A fatal PCIe Interface Error: Bad Link Width.	Error [0xB01 (2817)]	Indicates the protocol processor was unable to negotiate for the proper link width resulting in degraded controller performance.	Replace the controller.
There was a fatal PCIe Interface Error: Correctable Error.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Cannot clear PCIe correctable errors.	Replace the controller.
There was a fatal PCIe Interface Error: Presence Mismatch.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates a connection problem between the two controllers.	Replace the controller.
There was a fatal PCIe Interface Error: Fault Detected on Other (Partner) Controller.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates a connection problem between the two controllers.	Replace the controller.

Controller Events Messages	Type [ID]	Cause	Action
There was a fatal PCIe Interface Error: No Initialization Information from Other (Partner) Controller.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates a connection problem between the two controllers.	Replace the controller.
There was a fatal PCIe Interface Error: Information Mismatch on Other (Partner) Controller.  Additional Info: <i>(Advanced hex data for customer service or engineering use.)</i> .	Error [0xB01 (2817)]	Indicates a compatibility problem between the two controllers.	Replace the controller.
The controller's internal temperature <aa>C has exceeded the maximum limit. The controller will shutdown to prevent damage.	Error [0xB03 (2819)]	Blocked fan.  Failing fan.  Elevated ambient temperature.	Check enclosure for sufficient air flow.  Check for a failed Power Supply/Cooling module or Cooling Fan module, if found replace module.  Check the ambient temperature of the environment, decrease the local ambient temperature.
The Temperature Sensor x from Controller y reported a reading of z degrees Celsius and it has exceeded the maximum limit (n degrees Celsius). The controller will shutdown to prevent damage.	Error [0xB03 (2819)]	Blocked fan.  Failing fan.  Elevated ambient temperature.	Check enclosure for sufficient air flow.  Check for a failed Power Supply/Cooling module or Cooling Fan module, if found replace module.  Check the ambient temperature of the environment, decrease the local ambient temperature.

Controller Events Messages	Type [ID]	Cause	Action
The controller's internal temperature <aa>C is approaching the maximum limit. You should check the cooling system for problems.	Warning [0xB04 (2820)]	Blocked fan.  Failing fan.   Elevated ambient temperature.	Check enclosure for sufficient air flow.  Check for a failed Power Supply/Cooling module or Cooling Fan module, if found replace module.  Check the ambient temperature of the environment, decrease the local ambient temperature.
The Temperature Sensor <i>x</i> from Controller <i>y</i> reported a reading of <i>z</i> degrees Celsius and is approaching the maximum limit ( <i>n</i> degrees Celsius). You should check the cooling system for problems.	Warning [0xB04 (2820)]	Blocked fan.  Failing fan.   Elevated ambient temperature.	Check enclosure for sufficient air flow.  Check for a failed Power Supply/Cooling module or Cooling Fan module, if found replace module.  Check the ambient temperature of the environment, decrease the local ambient temperature.
The onboard cache protection battery backup unit has failed or has been disconnected.	Error [0xB07 (2823)]	Battery failure.	Replace battery in the controller.
The partner controller has failed or has been removed.	Error [0xB08 (2824)]	Failure or removal of one controller (partner) in an Active-Active configuration.	Re-install the controller.  or Replace the controller.
This controller has not received a response from the other (partner) controller in the allotted time, and therefore it has been disabled.	Error [0xB09 (2825)]	Failure or removal of one controller (partner) in an Active-Active configuration.	Replace the controller.
The controller's <x> voltage reading measures <aa>V which exceeds the limit.	Error [0xB19 (2841)]	Voltage regulator hardware failure. Enclosure 5V or 12V problem in the power supply.	Replace the controller. Replace the defective Power Supply or Power Supply/Cooling module.
Internal transfer error.	Error [0xB1A (2842)]	Hardware problem.	Replace the controller.

Controller Events Messages	Type [ID]	Cause	Action
Controller mismatch detected. “This” or “The other” controller was shut down.	Error [0xB1C (2844)]	RAID Controllers with different SAS controller chips have been installed. This is not a supported configuration.	Replace one of the controllers so that both controllers are of the same type.
The discovery process has completed identifying all SAS devices on the SAS domain.	Information [0xB22 (2850)]	A SAS discovery was completed.	No action necessary.
The discovery process has started to determine all SAS devices on the SAS domain.	Information [0xB23 (2851)]	A SAS discovery was initiated.	No action necessary.
The other (partner) controller has been inserted.	Information [0xB29 (2857)]	Partner controller has been inserted.	No action necessary.
The other (partner) controller has passed its self-test and is now ready (failback).	Information [0xB2A (2858)]	Partner controller is ready to fail back.	No action necessary.
The other controller has shut itself down, either because of a failure or user request.	Warning [0xB2B (2859)]	A controller failure.  User request to shutdown.	Replace Controller.  No action necessary.
A stripe synchronization of a RAID set has started. This occurs when a controller fails, or after a controller is powered off with write commands in progress.	Information [0xB2C (2860)]	A controller fails or is powered off during a write operation.	No action necessary.
A stripe synchronization of a RAID set has completed.	Information [0xB2D (2861)]	A controller fails or is powered off during a RAID write operation.	No action necessary.
The configuration has changed.	Information [0xB2F (2863)]	A change in the configuration has occurred.	If you are using the Save Configuration feature, re-save your configuration information - it no longer matches, otherwise no action is necessary.
The controller is flushing the partner’s mirrored cache to the drives. There are <xx> cache entries totalling <yy> 512-byte blocks.	Information [0xB35 (2869)]	Failure or removal of the partner controller.	No action necessary.

Controller Events Messages	Type [ID]	Cause	Action
The controller has completed flushing the partner's mirrored cache to the drives.	Information [0xB36 (2870)]	Completion of mirrored cache flushing.	No action necessary.
Line Power Mode is now active, the battery is not required.	Information [0xB42 (2882)]	Battery charging complete.  Special feature mode. Controller can be operated with battery removed and no LED status indication occurs.	No action necessary.
The backup battery unit attached to this controller is now functioning correctly.	Information [0xB42 (2882)]	Battery OK. Charged for <x> seconds.	No action necessary.
The controller has been powered off.	Information [0xB50 (2896)]	Removal of controller or power.	No action necessary.
The controller has been powered on.	Information [0xB51 (2897)]	The controller was powered on.	No action necessary.
The controller self-test was successfully completed.	Information [0xB52 (2898)]	Self-test completion on startup.	No action necessary.
The controller self-test has failed.	Error [0xB53 (2899)]	Self-test failure on startup.	Replace the controller.
The controller's NVRAM has been reset.	Information [0xB54 (2900)]	Occurs first time after production.	No action necessary.
The controller has an invalid World Wide Name.	Error [0xB55 (2901)]	Occurs first time after production.	Contact technical support.
The Event Log has been cleared.	Information [0xB56 (2902)]	The user has cleared the event log.	No action necessary.
The controller has been reset.	Information [0xB57 (2903)]	User initiated a reset to the controller.	No action necessary.
The controller has been shutdown gracefully.	Information [0xB58 (2904)]	User initiated a controller shutdown. The controller temperature threshold was exceeded and the controller shut itself down.	No action necessary. Check for a failed Cooling Fan or Power Supply/Cooling module, replace as needed. Check for blocked air flow, correct as needed. Check for high ambient temperature, reduce the environments ambient temperature.

Controller Events Messages	Type [ID]	Cause	Action
All identified enclosures have at least two communication paths to their SES devices.	Information [0xB5B (2907)]	SES initialization.	No action necessary.
Failover started.	Information [0xB5C (2908)]	Failure or removal of the partner controller.	No action necessary.
Failover completed.	Information [0xB5D (2909)]	Completion of failover process.	No action necessary.
Failback started.	Information [0xB5E (2910)]	Partner controller started failback.	No action necessary.
Failback completed.	Information [0xB5F (2911)]	Completion of failback process.	No action necessary.
The controller firmware has been upgraded to version <xxx>.	Information [0xB60 (2912)]	User upgraded the controller firmware.	No action necessary.
The controller battery backup unit is charging.	Information [0xB62 (2914)]	Battery charging started.	No action necessary.
Flushing of the battery protected cache has started. There are <xx> cache entries totalling <yy> 512-byte blocks.	Information [0xB63 (2915)]	Failure of power with writeback cache present.	No action necessary.
Flushing of the battery protected cache has completed.	Information [0xB64 (2916)]	Completion of cache flushing.	No action necessary.
The cache data being preserved by the controller's battery was lost. There were <xx> cache entries totalling <yy> 512-byte blocks.	Error [0xB65 (2917)]	Failure of power for an extended time with writeback cache present.	Check the file system.
The cached data was lost. There were <xx> cache entries, totalling <xx> MBs.	Error [0xB65 (2917)]	Failure of power for an extended time with writeback cache present.	Check the file system.
The cached data was lost. There were <xx> MBs lost in Array <yy>.	Error [0xB65 (2917)]	Failure of power for an extended time with writeback cache present.	Check the file system.
The controller has been shutdown either locally or remotely. The controller temperature was exceeded and the controller shut itself down.	Information [0xB65 (2917)]	Internal hardware or firmware failure.	Replace the controller.

Controller Events Messages	Type [ID]	Cause	Action
An SDRAM ECC error - bit <xx> at address <xx,xx,xx,xx.xx> has been detected and corrected.	Warning [0xB72 (2930)]	SDRAM error.	If it repeats, replace the controller.
A configuration parameter has been changed: <array name> (Array <number>) has been trusted due to a cancellation of an initialization.	Information [0xB74 (2932)]	A user cancelled an initialization.	No action necessary.
Hardware Error  Additional Info: ( <i>Advanced hex data for customer service reps or engineer use.</i> ).	Error [0xB7A (2938)]	The controller will continue to function, however the SES temperature sensing may not function properly.	Replace the controller.
Running <version_number> CEMI firmware version: Release <num>, Build <num>.	Information [0xB89 (2953)]	CEMI firmware is current.	No action necessary.
CEMI firmware upgrade from <original CEMI FW version>: Release <num>, Build <num> to new version: Release <num>, Build <num> failed because there is no response from the processor.	Error [0xB89 (2953)]	Firmware failed to upgrade due to non-responding controller.	No action necessary.
“Automatic” or “Manual” CEMI firmware upgrade from <original CEMI FW version>: Release <num>, Build <num> to new version: Release <num>, Build <num> <completed successfully>, <is underway>, or <failed>.  “Automatic” or “Manual,” depending on whether the upgrade attempt was automatic or manual.	Error [0xB89 (2953)]	Firmware is attempting to upgrade.	No action necessary.
Occurs when there is a remote request to restart Embedded module.  A remote request for a Embedded module reset was successful.	Information [0xB8A (2954)]	Embedded module reset was successful.	No action necessary.

Controller Events Messages	Type [ID]	Cause	Action
Occurs when there is a remote request to restart Embedded module.  A remote request for a Embedded module reset failed.	Error [0xB8A (2954)]	Embedded module reset failed.	Try again, if no success replace RAID Controller.
Occurs when there is a remote request to restart Embedded module.  A remote request for an Embedded module reset was blocked, CEMI is updating.	Error [0xB8A (2954)]	Embedded module reset was unsuccessful because the CEMI is being currently programmed.	Retry sending the request for a reset.
Embedded module reset generated an unknown log entry.	Error [0xB8A (2954)]	Embedded module reset was unsuccessful because of unknown reasons.	Try again, if no success replace RAID Controller.
When the firmware queries the PMC firmware version, these events are logged:  PMC images are up to date. CRC: <16 digit hex CRC code>.  PMC firmware image of type <%s> <%s>.  Where the first <%s> is one of: “bootrom” or “initstring” or “application” and the second <%s> is one of: “is up to date, current image’s CRC:<16 digit hex CRC code>,” or “was updated successfully from old image CRC: <16 digit hex CRC code> to new image CRC: <16 digit hex CRC code>.”	Information [0xB8B (2955)]		No action necessary.



Controller Events Messages	Type [ID]	Cause	Action
<p>When the firmware queries the PMC firmware version, these events are logged:</p> <p>PMC firmware image of type <i>&lt;%s&gt;</i> <i>&lt;%s&gt;</i>.</p> <p>Where the first <i>&lt;%s&gt;</i> is one of: “bootrom” or “initstring” or “application” and the second <i>&lt;%s&gt;</i> is “failed to update from old image CRC: <i>&lt;16 digit hex CRC code&gt;</i> to new image CRC: <i>&lt;16 digit hex CRC code&gt;</i>.”</p>	Error [0xB8B (2955)]		No action necessary.
Invalid SAS Disk I/O or EBOD I/O module found in Enclosure: <i>&lt;xxx&gt;</i> .	Error [0xB90 (2960)]	An unsupported EBOD I/O module was detected in the expansion enclosure.	Replace the subject EBOD I/O module with a correct supported module.
Drive power down/up maintenance is carried out on the drive (Slot <i>&lt;x&gt;</i> , Enclosure <i>&lt;y&gt;</i> ).	Information [0xB91 (2961)]	Drive maintenance.	No action necessary.
Drive maintenance is forcing the drive (Slot <i>&lt;x&gt;</i> , Enclosure <i>&lt;y&gt;</i> ) to fail.	Error [0xB91 (2961)]	Drive failure unknown.	Replace disk drive.
There is a mismatch of controller cache size causing the shutting down of this controller. This controller (version: <i>&lt;This Controller Version&gt;</i> , cache size: <i>&lt;This Controller Cache Size&gt;</i> ) versus partner controller (version: <i>&lt;Partner Controller Version&gt;</i> , cache size: <i>&lt;Partner Controller Cache Size&gt;</i> ).	Error [0xB92 (2962)]	A mismatch was detected between Controller 0 and 1 SDRAM Memory module sizes. Both SDRAM Memory modules in a dual controller (Active-Active) configuration must be the same size.	When this unsupported configuration occurs, Controller 1 is always shutdown and Controller 0 is always kept running, regardless of either controller's memory size. With Controller 1 shutdown, remove and install the same size SDRAM Memory module as what is installed in Controller 0. After the memory module is replaced, re-insert Controller 1.

Controller Events Messages	Type [ID]	Cause	Action
There is a mismatch of controller cache size causing the shutting down of the partner controller. This controller (version: <This Controller Version>, cache size: <This Controller Cache Size>) versus partner controller (version: <Partner Controller Version>, cache size: <Partner Controller Cache Size>).versus partner controller (version: %.2X, cache size: %s).	Error [0xB92 (2962)]	A mismatch was detected between Controller 0 and 1 SDRAM Memory module sizes. Both SDRAM Memory modules in a dual controller (Active-Active) configuration must be the same size.	When this unsupported configuration occurs, Controller 1 is always shutdown and Controller 0 is always kept running, regardless of either controller's memory size. With Controller 1 shutdown, remove and install the same size SDRAM Memory module as what is installed in Controller 0. After the memory module is replaced, re-insert Controller 1.
The header of the expander SPIMEM downloaded image is invalid.	Error [0xB99 (2969)]	Corrupt file.	Obtain a new copy of the file.
The expander SPIMEM was updated successfully.	Information [0xB99 (2969)]	Firmware was updated successfully.	No action necessary.
The ID of the expander SPIMEM download image does not match.	Error [0xB99 (2969)]	Corrupt file.	Obtain a new copy of the file.
The CRC of the expander SPIMEM download image does not match.	Error [0xB99 (2969)]	Corrupt file.	Obtain a new copy of the file.
Failed to verify the expander BOOTROM flash.	Error [0xB9A (2970)]	File failed to verify.	Replace the controller.
Failed to read from the expander EEPROM I2C.	Error [0xB9B (2971)]	Internal communication error.	Replace the controller.
The expander EEPROM was updated successfully.	Information [0xB9B (2971)]	Firmware was updated successfully.	No action necessary.
The controller watchdog interrupt warning was repeated <xx> times.	Warning [0xB9C (2972)]	Internal errors are being reported.	Replace the controller.
Unable to delete any array while an array expansion background operation is in progress.	Information [0xB9E (2974)]	Indicates the user attempted to delete any array while an array expansion background operation is in progress.	Wait for the background process has completed and try the array deletion again.

Controller Events Messages	Type [ID]	Cause	Action
Unable to delete any array while an array rebuild background operation is in progress.	Information [0xB9E (2974)]	Indicates the user attempted to delete any array while an array rebuild background operation is in progress.	Wait for the background process has completed and try the array deletion again.
Unable to delete any array while an array initialization background operation is in progress.	Information [0xB9E (2974)]	Indicates the user attempted to delete any array while an array initialization background operation is in progress.	Wait for the background process has completed and try the array deletion again.
Unable to delete any array while an array parity check background operation is in progress.	Information [0xB9E (2974)]	Indicates the user attempted to delete any array while an array parity check background operation is in progress.	Wait for the background process has completed and try the array deletion again.
The data rate on Host Port <x> has been limited to <n> Gbps instead of the <n> Gbps supported by the controller.	Warning [0xB9F] (2975)	The SFP inserted in the host port does not support the data rate set for that port.	User should be aware with the current SFP the port is speed limited, otherwise replace with a higher speed SFP more compatible with the data rate set for the host port.
This controller has temporarily paused its bootup process because its NVRAM timestamp <xxx> is different from the partner controller <xxx>. The partner controller's state: <value>.	Information [0xBA0] (2976)	The controller initialization is on hold due to differences between this controller and the other controller's NVRAM timestamp.	No action necessary.
This controller continues its bootup process.	Information [0xBA1] (2977)	The controller has exited the state of paused initialization and is continuing the boot process.	No action necessary.
This controller's NVRAM timestamp is not valid.	Warning [0xBA2] (2978)	The other controller has a valid timestamp which will be used or the configuration is not valid.	No action necessary.
The other controller's NVRAM timestamp is valid.	Information [0xBA3] (2979)	The other controller's NVRAM valid timestamp will be used and will be given control.	No action necessary.

Controller Events Messages	Type [ID]	Cause	Action
SAN LUN Mapping trial period has expired.	Information [0xBA8] (2984)	The SAN LUN Mapping licensed trial period or 15 day grace period has ended.	Purchase a valid SAN LUN Mapping license to reinstate functionality.  Contact technical support.
SAN LUN Mapping trial period expires in <xx> days.	Information [0xBA8] (2984)	This is a daily reminder that the SAN LUN Mapping is in its licensed trial period or 15 day grace period and will expire in the specified number of days.	Purchase a valid SAN LUN Mapping license to reinstate functionality.  Contact technical support.

## コントローラポートイベント

ホストサイドのコントローラポート、及びループに関するイベントリスト

IDは、Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Controller Port Event Messages	Type [ID]	Cause	Action
Host Loop 0 is not initializing correctly.	Error [0xB15 (2837)]	The loop is not initializing.	Check/replace the cable.  Replace the Controller.
SAS Port 0 will not initialize.	Error [0xB15 (2837)]	The port is not initializing.	Check/replace the cable.  Replace the Controller.
Host Loop 1 is not initializing correctly.	Error [0xB16 (2838)]	The loop is not initializing.	Check/replace the cable.  Replace the Controller.
SAS Port 1 will not initialize.	Error [0xB16 (2838)]	The port is not initializing.	Check/replace the cable.  Replace the Controller.
Host Loop 0/1 acquired Loop ID <xx> because we were not able to get Loop ID <xx> (as specified in the controller settings).	Error [0xB17 (2839)] [0xB18 (2840)]	Address conflict with either host adapter or other device on the same loop.	Resolve address conflict.
A LIP has occurred on Drive Loop <xx>.	Information [0xB21 (2849)]	The loop is disrupted or the host is booting.	No action necessary.
The Drive Loop (xx) is up.	Information [0xB22 (2850)]	Loop is up.	No action necessary.
The Drive Loop (xx) is down.	Information [0xB23 (2851)]	Loop is down.	Check/replace the cable.

Controller Port Event Messages	Type [ID]	Cause	Action
A LIP has occurred on Host loop <xx>. Reason: <type>. The LIP was repeated <yy> times.	Information [0xB24 (2852)]	<p>A LIP was generated so that a loop port could acquire a physical address on an arbitrated loop.</p> <p>A LIP was generated by port ID: &lt;xx&gt; so that the loop would be re-initialized.</p> <p>A LIP was generated because of a loop failure.</p> <p>A LIP was generated by port ID: &lt;xx&gt; because of a loop failure.</p>	No action necessary.
Host Loop <xx> is now up.	Information [0xB25 (2853)]	Loop is becoming ready.	No action necessary.
SAS Host Port <xx> is now up.	Information [0xB25 (2853)]	SAS port is becoming ready.	No action necessary.
Host Loop <xx> is down.	Information [0xB26 (2854)]	Loop is going down.	Check/replace the cable.
SAS Host Port <xx> is down.	Information [0xB26 (2854)]	SAS port is going down.	Check/replace the cable.
A host has accessed a Logical Drive <yy> for the first time, or for the first time following a reset or LIP. It accessed it through Host Loop <xx> (ID <zz>) with the SCSI command <check condition, busy, or task set full>.	Information [0xB2E (2862)]	<p>First access by a particular host after a LIP or reset.</p> <p>A host has accessed a Logical Drive &lt;yy&gt; for the first time, or for the first time following a reset. ID &lt;zz&gt; accessed it through Host Channel &lt;nn&gt; with the SCSI command 0x&lt;zz&gt;.</p>	No action necessary.
Host Loop <num> has reported an error status of 0x<xx> to a particular command.	Error [0xB37 (2871)]	This may indicate a loop reset or LIP during a command, or a loop failure. Repeat Count = <count>.	<p>No action necessary.</p> <p>However, this event is usually followed by another event that indicates the real problem.</p>

Controller Port Event Messages	Type [ID]	Cause	Action
SAS Host Port <num> has reported an error <port>. It was repeated <number of times the error happened> times.	Error [0xB37 (2871)]	This may indicate a reset or LIP during a command. Repeat Count = <count>.	No action necessary.  However, this event is usually followed by another event that indicates the real problem.
Drive Loop <num> has reported an error status of <error status> to a particular command. This may indicate a loop reset or LIP during a command, or a loop failure. Repeat Count = <number of times the error happened>.	Error [0xB38 (2872)]	The drive loop encountered a loop reset or LIP during a command or a loop failure has occurred.	No action necessary.
Host Loop <num> has reported an invalid status of 0x<xx> to a particular command.	Error [0xB39 (2873)]	This indicates a firmware error in the host fibre channel chip.	Contact technical support.
The controller has generated a LIP on Drive Loop <xx>, due to a loop error.	Error [0xB3C (2876)]	Controller initiated a LIP on Drive Loop 1 due to a loop error. Could be caused by a disk drive being pulled or any drive side loop LIP.	No action necessary.  However, this event is usually followed by another event that indicates the real problem.
The controller has generated a LIP on Host Loop <xx>, due to a loop error.	Error [0xB3D (2877)]	Controller initiated a LIP.	No action necessary.
The host system w/ WWN:<xxxxxxxxxxxx> and Loop ID of <xx> has logged into the controller through Host Loop <xx>. These events will only be listed for HBAs with SAN LUN Mappings.	Information [0xB3F (2879)]	Host systems logs into the controller.	No action necessary.

Controller Port Event Messages	Type [ID]	Cause	Action
SAS Host System <xxxxxxxxxxxxxx> has logged into <y>. (ID: <z>).	Information [0xB7C (2940)]	Host system has logged into the controller port <y>.	No action necessary.
SAS Host System <xxxxxxxxxxxxxx> has logged out of <y>. (ID: <z>).	Information [0xB7D (2941)]	Host system has logged out of the controller port <y>.	No action necessary.



## ドライブ、アレイのイベント

ドライブ、ループ、及びディスクアレイに関するイベントリスト

Dは、Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

注意: SATAディスクドライブのイベントメッセージは、ドライブのシリアルナンバーで示されます。

Drive & Array Event Messages	Type [ID]	Cause	Action
The drive w/SN <xxxxxxx> (Slot <nn>, Enclosure <nn>) (<Array Name> Drive <member index>) has failed due to an unrecoverable error. Sense Data: <xx>/<xx>/<xx>.	Error [0xB0A (2826)]	Typically due to a non-recoverable media error or hardware error.	Replace the disk drive.
The drive w/SN <xxxxxxx> (Slot <number>) (Drive <number>) has been marked as failed because it was removed.	Error [0xB0B (2827)]	Drive has been removed or bypassed by the user, or has a serious hardware error.  Removal of cables connecting the enclosures.	Replace the disk drive.  Replace the cables.
Rebuilding has failed due to an unrecoverable error on the new drive w/SN <xxxxxxx> (Slot <nn>) (Drive <number>) in the array.	Error [0xB0C (2828)]	Typically due to a non-recoverable media error, or hardware error.	Replace with a new drive and initiate a rebuild.
Rebuilding has failed due to an unrecoverable error on the new drive w/SN <xxxxxxx> (Slot <nn>, Enclosure <nn>) (<Array Name> Drive <num>).	Error [0xB0D (2829)]	Typically due to a non-recoverable media error or hardware error.	Backup all data and restore to a new array.
The drive w/SN <xxxxxxx> (Slot <nn>, Enclosure <nn>) (Slot <number>) (Drive <number>) has failed due to a time-out.	Error [0xB0E (2830)]	Drive error.	Replace the disk drive.
Drive Loop 1 is not initializing correctly.	Error [0xB10 (2832)]	Loop error.	Check the cables.

Drive & Array Event Messages	Type [ID]	Cause	Action
Disabled Enclosure <name> Slot <nn> due to excessive errors.	Error [0xB13 (2835)]	This indicates that the controller has shutdown the slot due to multiple errors from the drive.	Remove the drive in the identified slot will re-enable the PHY.
Drive Loop 1 has exceeded the allowable error count. The controller will not use this loop for data transfers. After two hours have elapsed, the loop will be re-enabled.	Error [0xB14 (2836)]	Too many errors on the loop.	Wait two hours and try again.
Array <name> is in a critical state.	Error [0xB1B (2843)]	Drive removal or failure.	Replace the disk drive and rebuild the array.
The drive w/SN <xxxxxxx> (Slot <number>) returned a bad status while completing a command. SCSI Info: Operation <type>, Status <type>.	Error [0xB27 (2855)]	Unknown status returned by the disk drive.	Contact technical support and provide them with a copy of the event log.
The drive w/SN <xxxxxxx> (Slot <nn>, Enclosure <nn>) timed out for the SCSI Operation <type>.	Warning [0xB28 (2856)]	Drive hardware error or bus error.	Check cabling and ensure the disk drives are properly seated.
A rebuild has started on the drive w/SN <xxxxxxx> (Slot <nn> (Drive <number>)).	Information [0xB30 (2864)]	A rebuild has started.	No action necessary.
A rebuild has completed on (Array <Name> Drive <number>).	Information [0xB31 (2865)]	A rebuild has completed.	No action necessary.
A rebuild has re-started on the drive w/SN <xxxxxxx> (Slot <nn> (Drive <number>)).	Information [0xB32 (2866)]	A rebuild has started.	No action necessary.
Array <name> has started initializing.	Information [0xB33 (2867)]	Initialization has started.	No action necessary.
Array <name> has completed initializing.	Information [0xB34 (2868)]	Initialization has completed.	No action necessary.

Drive & Array Event Messages	Type [ID]	Cause	Action
The controller has detected a data underrun from the drive w/SN <xxxxxxx> (Slot <nn>, Enclosure <nn>) for the SCSI Op Code 0x<xx>. This is caused by the controller detecting a bad CRC in a frame, and usually indicates a link problem, either with cabling or an enclosure.	Error [0xB3B (2875)]	Bus error.	Check cabling and ensure that the disk drive is properly seated in its slot.
An unrecoverable drive error has occurred as a result of a command being issued. This may be due to a drive error in a non-fault tolerant array, such as RAID 0, or when the array is already in a degraded mode. The controller will pass the status from the drive back to the host system, to allow the host recovery mechanisms to be used. Details: Host Loop <x>, Host Loop ID <y>, Mapped LUN Requested <z>, Op Code <zz>, Sense Data <uu>.	Error [0xB40 (2880)]	Typically due to a non-recoverable media error, hardware error, or loop (bus) error.	No action necessary.
A RAID parity check has started on <Array Name>. Type of parity check = <paritytype>.	Information [0xB43 (2883)]	Parity check started.	No action necessary.
A RAID parity check has completed on <Array Name>. Type of parity check = <paritytype>. Error Count = <zz>.	Information [0xB44 (2884)]	Parity check completed.	No action necessary.
A RAID parity check has been aborted on <Array Name>. Type of parity check = <paritytype>. Error Count = <zz>.	Information [0xB45 (2885)]	Parity check canceled by the user.	No action necessary.

Drive & Array Event Messages	Type [ID]	Cause	Action
A drive w/SN (Slot <nn>, Enclosure <nn>) has been inserted.	Information [0xB61 (2913)]	Drive was inserted.	No action necessary.
The controller has started updating a drive's firmware. Drive w/SN <xxxxxx> (Slot <nn> ID:<zz> Firmware Version: <yy.yy.yyyy>).	Information [0xB66 (2918)]	The controller has started updating a drive's firmware. Drive <w/sn <xxxxxxx> or w/wwn <xxxxxxxxxxxxxxxx>, Slot <nn>, Enclosure <nn>, Firmware Version:<xxx>.	No action necessary.
The controller has finished updating a drive's firmware. Drive SN: <xxxxxxx> ID:<zz> (Slot <number>) Firmware Version: <yy.yy.yyyy>).	Information [0xB67 (2919)]	The controller has finished updating a drive's firmware. Drive w/SN <xxxxxxx> or WWN <xxxxxxxxxxxxxxxx>, Slot <nn>, Enclosure <nn>, Firmware Version:<xxx>.	No action necessary.
An array expansion has started on Array <name>.	Information [0xB68 (2920)]	Expansion has started.	No action necessary.
An array expansion has completed on Array <name>.	Information [0xB69 (2921)]	Expansion has completed.	No action necessary.
An array expansion has restarted on Array <name>.	Information [0xB6A (2922)]	Expansion has restarted.	No action necessary.
The writeback cache on Array <name> has been disabled. Reason(s): (See reasons).	Warning [0xB6F (2927)]	Disabling of writeback cache for the indicated reasons: <ul style="list-style-type: none"> <li>• The partner controller has failed.</li> <li>• The battery is not charging or present.</li> <li>• The array has become critical.</li> <li>• A "prepare for shutdown" was received by the controller.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace the failed controller.</li> <li>• Charge the backup battery or re-install the battery.</li> <li>• Resolve the array issue and rebuild the array.</li> <li>• No action necessary.</li> </ul>
The writeback cache on Array <name> has been re-enabled.	Information [0xB70 (2928)]	Re-enabling of writeback cache.	No action necessary.

Drive & Array Event Messages	Type [ID]	Cause	Action
Because of a background verify failure, data blocks at LBA <yyy> from drive SN: <xxxxxxx> (Slot <number>) (Consecutive Number of Allocations <zz>) have been reallocated.	Warning [0xB71 (2929)]	Data Blocks at this location have media errors. The data is being reallocated to different blocks.	No action necessary.
A rebuild was aborted on (Array <yy> Drive <ww>).	Information [0xB73 (2931)]	A rebuild was canceled by the user.	No action necessary.
SATA Drive Error: (Slot <number>) Information <description>.	Error [0xB75 (2933)]	Drive or SATA link error.	No action necessary.
A drive w/ SN <xxxxxxx> (Slot <nn>) has been removed.	Error [0xB76 (2934)]	A drive w/ SN <xxxxxxx> (Slot <nn>, Enclosure <nn>) has been removed.	No action necessary.
There was a bad block during a rebuild on Array <nn>, Drive <mm>, LBA <xx xx xx xx xx>, Block Count <xx>.	Error [0xB78 (2936)]	A bad block was detected during the rebuild operation. Data loss will occur with that data stripe.	Replace drive after rebuild. Restore lost data from a known good backup.
An unsupported drive w/SN <xxxxxxx> (Target ID <num>) has been inserted.	Error [0xB7B (2939)]	A SATA drive with an A/A MUX Transition card was installed in a system with an older model controller.	Replace the SATA drive with one that has a A/P MUX Transition card installed.
<Array Name> is in an unsupported configuration with a mixture of A/P and A/A SATA drives.	Error [0xB8C (2956)]	The array is marked invalid because it contains SATA drives with a mixture of Active-Active and Active-Passive MUX Transition cards.  A SATA drive with an Active-Active MUX Transition card is not supported in older 12 drive enclosures.	Replace the offending drive with one that contains a matching MUX Transition card as the remaining drive members.

Drive & Array Event Messages	Type [ID]	Cause	Action
<Array Name> is in an unsupported A/P SATA drive mutiplexer configuration.	Error [0xB8C (2956)]	The array is marked invalid because it contains a SATA drive with an unsupported Active-Passive MUX Transition card.	Replace the offending drive with one that contains a matching MUX Transition card.
<Array Name> is in an unsupported A/A SATA drive mutiplexer configuration.	Error [0xB8C (2956)]	The array is marked invalid because it contains a SATA drive with an unsupported Active-Active MUX Transition card.	Replace the offending drive with one that contains a matching MUX Transition card.

## エンクロージャイベント

SESプロセッサからレポートされるエンクロージャ関連のイベントリスト

Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Enclosure Event Messages	Type [ID]	Cause	Action
Enclosure<xx> (w/ WWN:<xxxxxxxxxxxxxxxx>) timed out on SCSI command 0x02X.  <b>NOTE:</b> This event is only valid for the expansion enclosure or daisy-chained systems.	Warning [0xB79 (2937)]	This error is generated when a command to the Enclosure processor time-outs.  Faulty cable or drive malfunctions could be the cause of this error.	Verify if the system has gone to SES_LEVEL_1. If it has, verify the configuration.  You may occasionally see this error during drive insertion, failover/ failback or drive removal. As long as the system remains at SES_LEVEL_3 the user does not need to intervene. If this event is periodically posted in the event log the user may have a hard drive or EBOD I/O module problem. The system should be inspected to isolate the problem to either drives or EBOD I/O module.
Power supply <zz> is OK.	Information [0xB6B (2923)]	Normal condition reported.	No action necessary.
Power supply <zz> is operating outside of its specification.	Warning [0xB6B (2923)]	The specific power supply has failed. The specific power supply has the mains power removed.	Replace the power supply module. Ensure that the specific power supply mains power is applied.
Power supply <zz> is in a critical state.	Warning [0xB6B (2923)]	The specific power supply has failed.  The specific power supply has the mains power removed.  The power supply was removed.	Replace the power supply.  Ensure that the specific power supply mains power is applied.  Insert the power supply.

Enclosure Event Messages	Type [ID]	Cause	Action
Power supply <zz> is not installed.	Error [0xB6B (2923)]	The power supply was removed.	Re-insert the power supply, connect the power cord.
An Expansion enclosure was connected to Enclosure ax. The enclosure count increased from yy to zz.	Information [0xB98 (2968)]	Expansion cable was connected.	No action necessary.
An Expansion enclosure was removed from Enclosure xx. The enclosure count decrease from yy to zz.	Warning [0xB98 (2968)]	Expansion cable was disconnected.	Re-connect the SAS patch cable.
The expansion cable was removed from Enclosure <xz> or failed for more than 10 times in an hour.	Warning [0xB99 (2969)]	The user disconnected an expansion cable greater than 10 times or the cable failed for more than 10 times in an hour.	Replace cable.
The expansion cable was removed from Enclosure <xx> or failed for more than 10 times in a hour.	Information [0xB99 (2969)]	The firmware image was not corrupt.	No action necessary.
The expander SPIMEM image is valid. Current version: xxxxx, new version: xxxxx.	Information [0xB99 (2969)]	Firmware was updated successfully.	No action necessary.
The expander SPIMEM was updated successfully. Current version: xxxxx, new version: xxxxx.	Error [0xB99 (2969)]	Corrupt file.	Obtain a new copy of the file.
The header of the expander SPIMEM download image is invalid. Current version: xxxxx, new version: xxxxx.	Error [0xB99 (2969)]	Corrupt file.	Obtain a new copy of the file.
The ID of the expander SPIMEM download image does not match. Current version: xxxxx, new version xxxxx.	Error [0xB99 (2969)]	Corrupt file.	Obtain a new copy of the file.
The CRC of the expander SPIMEM download image does not match. Current version: xxxxx, new version: xxxxx.	Error [0xB99 (2969)]	Failed to update.	Obtain a new copy of the file.



Enclosure Event Messages	Type [ID]	Cause	Action
Failed to read from the expander SPIMEM. Current version: xxxxxx, new version xxxxx.  (RS-1220-F4-6412E Only)	Error [0xB99 (2969)]	Failed to update.	Replace the RAID Controller.
Failed to erase the expander SPIMEM. Current version: xxxxxx, new version: xxxxx.  (RS-1220-F4-6412E Only)	Error [0xB99 (2969)]	Failed to update.	Replace the RAID Controller.
Failed to program the expander SPIMEM page. Current version: xxxxxx, new version: xxxxx.  (RS-1220-F4-6412E Only)	Error [0xB99 (2969)]	Failed to update.	Replace the RAID Controller.
Failed to verify the expander SPIMEM image. Current version: xxxxxx, new version: xxxxx.  (RS-1220-F4-6412E Only)	Error [0xB99 (2969)]	Failed to update.	Replace the RAID Controller.
Failed to verify the expander SPIMEM image trailer. Current version: xxxxxx, new version: xxxxx.  (RS-1220-F4-6412E Only)	Error [0xB99 (2969)]	Failed to update.	Replace the RAID Controller.
The status returned by SAS-SATA Channel Card z from Enclosure xx: Unsupported. SAS Address: <SN>.  (RS-4835-F4-5402E Only)	Information [0xC4F (3151)]	-	-
The status returned by SAS-SATA Channel Card z from Enclosure xx: OK. SAS Address: <SN>.  (RS-4835-F4-5402E Only)	Information [0xC4F (3151)]	Normal condition reported.	No action necessary.

Enclosure Event Messages	Type [ID]	Cause	Action
The status returned by SAS-SATA Channel Card <i>z</i> from Enclosure <i>xx</i> : Critical. SAS Address: < <i>SN</i> >.  (RS-4835-F4-5402E Only)	Warning [0xC4F (3151)]	The specified SAS-SATA Channel Card has been removed.	Install the SAS-SATA Channel Card.
The status returned by SAS-SATA Channel Card <i>z</i> from Enclosure <i>xx</i> : Non-critical. SAS Address: < <i>SN</i> >.  (RS-4835-F4-5402E Only)	Information [0xC4F (3151)]	-	-
The status returned by SAS-SATA Channel Card <i>z</i> from Enclosure <i>xx</i> : Unrecoverable. SAS Address: < <i>SN</i> >.  (RS-4835-F4-5402E Only)	Error [0xC4F (3151)]	-	-
The status returned by SAS-SATA Channel Card <i>z</i> from Enclosure <i>xx</i> : Not Installed. SAS Address: < <i>SN</i> >.  (RS-4835-F4-5402E Only)	Error [0xC4F (3151)]	The specified SAS-SATA Channel Card was not installed at power up.	Install the SAS-SATA Channel Card.
The status returned by SAS-SATA Channel Card <i>z</i> from Enclosure <i>xx</i> : Unknown. SAS Address: < <i>SN</i> >.  (RS-4835-F4-5402E Only)	Error [0xC4F (3151)]	The specified SAS-SATA Channel Card has detected an unknown error.	Replace the SAS-SATA Channel Card.
The status returned by SAS-SATA Channel Card <i>z</i> from Enclosure <i>xx</i> : Not Available. SAS Address: < <i>SN</i> >.  (RS-4835-F4-5402E Only)	Error [0xC4F (3151)]	-	-
Power supply < <i>zz</i> > is in an unrecoverable state.	Error [0xC6B (3179)]	The power supply was removed.	Re-insert the power supply, connect the power cord.
Power supply < <i>zz</i> > is not installed.	Error [0xC6B (3179)]	The power supply was removed.	Re-insert the power supply, connect the power cord.
Fan < <i>zz</i> > is OK.	Information [0xC6C (3180)]	Normal condition reported.	No action necessary.

Enclosure Event Messages	Type [ID]	Cause	Action
Fan <zz> does not support status detection.	Information [0xC6C (3180)]	Unknown status.	No action necessary.
Fan <zz> is in a critical state.  Additional information may appear: The fan is stopped. The fan is running at its lowest speed. The fan is running at its second lowest speed. The fan is running at its third speed level. The fan is running at its forth speed level. The fan is running at its fifth speed level. The fan is running at its intermediate speed. The fan is running at its highest speed.	Error [0xC6C (3180)]	A specific fan failure.	Replace the cooling fan module.
Temperature sensor <zz> is OK.	Information [0xC6D (3181)]	Temperature sensors are reporting normal temperatures in the enclosure.	No action required.
Temperature <zz> is operating outside of specifications.	Warning [0xC6D (3181)]	Temperature sensors are reporting enclosure temperatures have reached the threshold of 50°C (122°F).	Ensure that both cooling fans are operating normally. (Replace if needed.) If the environment ambient temperature is high, reduce the ambient temperature. Ensure that the airflow is not blocked or restricted on the enclosure.

Enclosure Event Messages	Type [ID]	Cause	Action
Temperature sensor <zz> is in a critical state.	Error [0xC6D (3181)]	Temperature sensors are reporting enclosure temperatures have reached the threshold of 70°C (158°F).	Automatic system shutdown will begin. In Active-Active controller configurations, one controller will shutdown its partner and shutdown the drives, then itself. Ensure that the cooling fans are operating normally. (Replace if needed.) If the environment ambient temperature is high, reduce the ambient temperature. Ensure that the airflow is not blocked or restricted on the enclosure.

## 永続予約 (Persistent Reservations) イベント

永続予約 (Persistent Reservations) に関連するイベントリスト

Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Persistent Reservation Event Messages	Type [ID]	Cause	Action
Incorrect Reservation Key. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.
Incorrect Reservation Type. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.
I_T Nexus is not Reserved. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.
I_T Nexus is not Registered. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.
Reservation Conflict Detected. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.
Persistent Reservation Check Condition Detected. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.
Invalid Service Action Reservation Key. (Controller: <num>, Port <num>, Logical Drive <num>).	Information [0xB87 (2951)]	A Persistent Reservation issue has occurred.	No action necessary.

## サーバイベント

注意：ホストベースバージョンにのみこのイベントがあらわれます

サーバソフトウェアに関連するイベントリスト

Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Server Event Messages	Type [ID]	Cause	Action
The server has been started.	Information [0x101 (257)]	The server started successfully.	No action necessary.
A user (admin) has logged into the Server from Host: <name>, IP address: xx.xx.xx.xx.	Information [0x101 (257)]	The specified user has logged in.	No action necessary.
The server has been shutdown.	Information [0x102 (258)]	The host is shutting down or a user stopped the server service.	No action necessary.
A system rescan has been initiated.	Information [0x103 (259)]	The system rescan is starting note: a shutdown and start up event will follow.	No action necessary.
The serial number and key entered are incorrect. Remote features are temporarily disabled.	Error [0x104 (260)]	The serial number and key specified in the server settings file is not a correct match.	Open the software in a browser from the local console, click the Settings button. Re-enter the serial number and key. If you still have problems, contact technical support.
All event logs cleared.	Information [0x105 (261)]	A user cleared the event logs.	No action required.
A user <name> (IP:<IP_address>, Host: <host name>) has updated their password.	Information [0x106 (262)]	A specific user has updated their password.	No action required.
A user <name> (IP:<IP_address>, Host: <host name>) unsuccessfully attempted to update their password.	Information [0x107 (263)]	A specific user tried to change the password but verification failed or old password failed.	Ensure the user is authorized or needs assistance.

Server Event Messages	Type [ID]	Cause	Action
A user <name> has logged into the server from IP address: <IP_address>.	Information [0x108 (264)]	A specific user has logged into the server from the specified IP address location. The host name was not available.	No action required.
A user (<name>) has logged into the Server from Host: <host name>, IP address: <IP_address>.	Information [0x108 (264)]	A specific user has updated their password.	No action required.
A user <name> has been logged out of the server from IP address: <IP_address>.	Information [0x109 (266)]	A specific user has logged out.	No action required.
A user <name> (IP: <IP_address>,:) has been logged out of the server from Host: <host name>, IP address: <IP_address>.	Information [0x109 (266)]	A specific user has logged out.	No action required.
The multicast address is not configured. No communication will take place with other servers.	Warning [0x201 (513)]	The setting “MulticastPort” is not setup in the db/IP.db file. The setting was removed or the file became corrupt.	Open the file <software folder>\db\IP.db in a text editor, and add the following line: MulticastPort=9191. Save the file and start the software and press the RESCAN button or restart the service.
Multicast socket creation failure: <reason>	Warning [0x202 (514)]	Could not setup the necessary communication paths to talk to other servers. The specific cause will be specified in the <reason> appended to the message.	Change the multicast port used. Note that all servers must communicate with each other on the same multicast port. If the setting is changed on one, they must be changed on all servers.  Open the file <software folder>\db\IP.db in a text editor, and change the following line: MulticastPort=<port number>.

Server Event Messages	Type [ID]	Cause	Action
Multicast socket creation failure: <reason>  (Continued)	Warning [0x202 (514)]	Could not setup the necessary communication paths to talk to other servers. The specific cause will be specified in the <reason> appended to the message.	Save the file and start the software and press the RESCAN button or restart the service.
Shared memory used for the server and the GUI to communicate could not be created nor located.	Error [0x301 (769)]	Tried to create/locate the shared memory used for the server and server CGI script to communicate.	Quit and all connections accessing this server, wait 1 minute and restart them.
A CGI request was initiated from the GUI but the associated shared memory could not be opened.	Error [0x302 (770)]	The server script creates new shared memory for the server to access parameter passed from the GUI. This shared memory could not be found.	Retry request.  Quit and all connections accessing this server, wait 1 minute and restart them.  Restart the system.
A CGI request was initiated from the GUI but the associated parameters could not be located.	Error [0x303 (771)]	The server script creates new parameter for the server to access parameter passed from the GUI. This parameters could not be found.	Retry request.  Quit and all connections accessing this server, wait 1 minute and restart them.  Restart the system.
The server performed a CGI request but an internal error prevented the server from returning the results.	Error [0x304 (772)]	The request was performed but the server encountered an error that prevented completion.	Retry request.  Quit and all connections accessing this server, wait 1 minute and restart them.  Restart the system.
The server performed a CGI request but the shared memory needed to return the results could not be created.	Error [0x305 (773)]	The server completed the request and attempted to create shared memory to send the results back to the server CGI. The attempt failed.	Retry request.  Quit and all connections accessing this server, wait 1 minute and restart them.  Restart the system.



Server Event Messages	Type [ID]	Cause	Action
The server failed to complete a CGI request before its allowed time expired.	Error [0x306 (774)]	The server completed the request but by the time it was done the server CGI gave up.	Retry request.  Quit and all connections accessing this server, wait 1 minute and restart them.  Restart the system.
The server CGI script was unable to return CGI request results to the GUI.	Error [0x307 (775)]	The server passed the completed request to the server CGI but for some reason the request wasn't completed correctly by the server CGI script.	Retry request.  Quit and all connections accessing this server, wait 1 minute and restart them.  Restart the system.
Start up is complete.	Information [0xA01 (2561)]	The RAID controller module has been loaded by the server.	No action necessary.
Several failures encountered while trying to communicate with the RAID controller.	Error [0xA03 (2563)]	Several commands have been sent through a known good path but they have failed.	Ensure that the paths and hardware are operational.
Successful communication with controller after several failures.	Information [0xA04 (2564)]	A known failed path is now functional and passed retest.	No action necessary.

## SnapShot イベント

### Snapshot 関連のイベントリスト

Unixオペレーティングシステムで使われる16進数値とMicrosoft Windowsオペレーティングシステムで使われる10進値で示されます。

Snapshot Event Messages	Type [ID]	Cause	Action
Logical Drive <ID #>'s Snapshot capacity is at <x>%.	Warning [0xB81 (2945)]	ODA capacity has reached the indicated threshold.  The capacity value displayed is the current unused/remaining space at the time of the event.  The amount of space varies based on the ODA size. For ODA sizes of 1-50 GB, the values will be 40, 30, 20, 10. For ODA sizes 50-500 GB the values will be 15, 10, 5, 2. And for ODA sizes greater than 500 GB, the values will be 4, 3, 2, 1.	Delete some snapshots for this snapshotted logical drive.
Logical Drive <ID #>'s ODA is invalid.	Error [0xB81 (2945)]	ODA is no longer valid because of a RAID or snapshot error.	<ul style="list-style-type: none"> <li>• Restore from backup.</li> <li>• Establish a larger storage area for this snapshotted logical drive.</li> </ul>
Logical Drive <ID #>'s ODA has been overrun.	Error [0xB81 (2945)]	ODA is no longer valid. Capacity was exceeded during last snapshot.	<ul style="list-style-type: none"> <li>• Restore from backup.</li> <li>• Establish a larger storage area for this snapshotted logical drive.</li> </ul>
Logical Drive <ID #>'s had an ODA unassigned from it.	Information [0xB82 (2946)]	ODA was unassigned.	No action necessary.
Logical Drive <ID #>'s had an ODA assigned from it.	Information [0xB82 (2946)]	ODA was assigned.	No action necessary.
Snapshot <#> on Logical Drive <ID #> is being deleted.	Information [0xB84 (2948)]	Snapshot deletion has started.	No action necessary.

Snapshot Event Messages	Type [ID]	Cause	Action
Snapshot <#> on Logical Drive <ID #> has been deleted.	Information [0xB84 (2948)]	Snapshot was deleted.	No action necessary.
Snapshot <#> on Logical Drive <ID #> has been created.	Information [0xB84 (2948)]	Snapshot was created.	No action necessary.
A Snapback (based on Snapshot <x>) on Logical Drive <ID #> has been started <x,y>.	Information [0xB84 (2948)]	A snapback operation was started by the operator.	No action necessary.
A Snapback (based on Snapshot <x>) on Logical Drive <ID #> has completed <x,y>.	Information [0xB84 (2948)]	A snapback operation has successfully completed.	No action necessary.
Snapshot <x> had an error on Logical Drive <ID #> (ODA #, LUN #, Error=<error code>).	Error [0xB85 (2949)]	There is a problem with the logical drive being snapshotted.	Inspect the logical drives and arrays.
License has been modified - the new level is <#>.	Information [0xB86 (2950)]	A license update/upgrade was performed.	No action necessary.
Snapshot metadata was left in the controller cache and the power was removed and the battery was drained before the cache was flushed. A flush occurs every two seconds. Metadata is no longer valid. Fatal loss of snapshots will be the result.	Error [0xB88 (2952)]	Snapshot metadata was in the controller cache when the power was removed before the cache flushed. Followed by the backup battery was drained with a loss of the metadata.	Loss of snapshot, perform a new snapshot and ensure the power remains constant.
There is a mismatch of snapshot versions.	Error [0xB88 (2952)]	Snapshot metadata has encountered a version mismatch. There is a incompatible version of StorView and/or RAID Controller firmware installed.	Update the controller firmware to at least version 3.04.xxxx or later, and the StorView software to at least version 3.09.xxxx or later.
Metadata in the cache is invalid or out of date.	Warning [0xB88 (2952)]	A controller was inserted that contained old snapshot metadata in its cache.	No action necessary.

Snapshot Event Messages	Type [ID]	Cause	Action
Snapshot metadata is corrupted.	Error [0xB88 (2952)]	A snapshot metadata is corrupted and cannot be used.	No action necessary.
Snapshot metadata recovery was started.	Information [0xB88 (2952)]	A snapshot metadata recovery from cache was automatically started by the controller.	No action necessary.
Snapshot metadata recovery from cache just completed.	Information [0xB88 (2952)]	A snapshot metadata recovery from cache was completed.	No action necessary.

## フェイルドライブコード

ドライブは下記フォーマットのように表示されます。

Failed Drive:xx SN: <xxxxxxx>

Reason Code

Reason code は、下記リストの通りです

Reason Code	Reason	Action
Drive Time-out	The drive has either timed out or been removed.	Re-insert the disk drive. or Replace the disk drive.
Command: xx Sense Key: yy Ext Sense: zz	The drive has failed for the specified command, with the indicated SCSI sense key and extended sense key.	Replace the disk drive.

## SAS インタフェースエラーコード

以下のエラーコードが出た場合、RAIDコントローラがリセット、またはイニシャライズなどの自動のリカバリーを行います。

Error Code Message
There was an Inter-Controller Link Error.
There was an Inter-Controller Link Initialization Error.
There was a SAS Discovery Timeout.
There was a SAS Discovery Error.
There was a SAS Controller Reinitialization Error.
There was a SAS Interface Error xxxxxxxx *

\* xxxxxxxxは16進値不明のSASインタフェースチップより直接送られてくるエラーコードです。

# SAS ディスカバリーエラーコード

下記のエラーコードが出ても、対応する必要はありません。

Error Code Message
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Max SATA Targets.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Multiple Paths.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Table to Table.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Multiple Subtractive.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: SMP CRC Error.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: SMP Function Failed.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Route Table Index Missing.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Expander Out of Entries.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: SMP Timeout.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Expander Error.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Ports With Same Address.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Unaddressable Device Found.
An error has been detected on port 0/1 of the SAS domain or with a SAS device during the discovery process: Loop Detected.

**Note** A single event may contain multiple errors, in those situations the error is appended to the base message separated by a semicolon.

*Example:* An error has been detected on port 0 of the SAS domain or with a SAS device during the discovery process: Max SATA Targets; SMP Function Failed; Loop Detected.