



FUJITSU Storage ETERNUS SF Express V16.9A / Storage Cruiser V16.9A

Event Guide

B1FW-6002-11ENZ0(00)
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Preface

Purpose of This Manual

This manual explains the events displayed on ETERNUS SF Storage Cruiser (hereafter abbreviated as "Storage Cruiser") or ETERNUS SF Express (hereafter abbreviated as "Express") and these event types.

There are two types of events. One is a "set event" of which settings are described when the settings are made from this product to the device. The other is an "asynchronous event" that is displayed by decoding the SNMP Trap from the device. The trap events displayed here are displayed by default, but their display can be customized using the SNMP Trap XML definition file. Refer to "SNMP Trap XML Definition File" in the *ETERNUS SF Storage Cruiser Operation Guide* for more information.

Intended Readers

Anyone who plans, installs, configures, and maintains Storage Cruiser or Express to increase the availability of a system should read this manual. For system design, it is assumed that a basic knowledge of the configuration methods of servers, storage devices and networks is possessed.

Structure of This Manual

The structure of this manual is as follows.

[Chapter 1 Notes about Common Traps for Devices](#)

This chapter describes the notes about common traps for devices.

[Chapter 2 Server Node Events](#)

This chapter describes the server node events to be displayed by this software.

[Chapter 3 Fibre Channel Switch Events](#)

This chapter describes the Fibre Channel switch events to be displayed by this software.

[Chapter 4 Storage Device Events](#)

This chapter describes the storage device events to be displayed by this software.

[Chapter 5 Tape Library Events](#)

This chapter describes the tape library events to be displayed by this software.

[Chapter 6 Fibre Alliance MIB Support Device Events](#)

This chapter describes the Fibre Alliance MIB support device events to be displayed by this software.

[Chapter 7 Performance Management Traps](#)

This chapter describes traps of the performance management function of this software.

[Chapter 8 Device Polling Event](#)

This chapter describes events about the device polling function of this software.

Conventions

- "FUJITSU Storage" and "Fujitsu Storage" are omitted from the names of the products and manuals.
- This manual abides by the conventions listed in "Conventions" in the *ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Documentation Road Map*.

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Notes

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- The following model numbers are different in Japan and other countries.
When the model number of Japan appears in the text, take it as also referring to the model number of the other countries.

Japan	Other Countries
GP7B8FC1	GP7B8FC1U
PG-FC102	SNP:SY-F2244E2-P, SNP:SY-F2244E2-A, SNP:SY-F2244L2-P
PG-FC105	S26361-F2624-E1
PG-FC106	S26361-F2843-E1
PG-FC107	S26361-F3141-E10, S26361-F3141-E210
PG-FC201	S26361-F3141-E1
PG-FC202/202L	S26361-F3306-E1, S26361-F3306-E201
PG-FC203/203L	S26361-F3961-E1, S26361-F3961-E201
PG-FC204/204L	S26361-F3961-E2
PG-FCD101	S26361-F3023-E1
PG-FCD201	S26361-F3306-E601
PG-FCD202	S26361-D2865-A100
PW008FC2	PW008FC2U
PW008FC3	PW008FC3U
SE0X7F11F	SE0X7F11X
SE0X7F12F	SE0X7F12X
SE0X7F21F	SE0X7F21X
SE0X7F22F	SE0X7F22X
XSEFC401AF	XSEFC401AU, XSEFC401AX
XSEFC402AF	XSEFC402AU, XSEFC402AX

This product model is not the same in all regions. Check with your sales representative to see the model name in your area.

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Update History

Content of Update	Updated Section	Revision
The version information has been changed to 16.9A.	Cover page	11
Information related to the following device has been added. - ETERNUS CS800 M1 Information related to the following devices has been deleted. - ETERNUS VS850 S2 - ETERNUS CS800 S5/CS800 S4 - NetApp V-Series - Tintri VMstore series	General	10

Content of Update	Updated Section	Revision
Information related to the following devices has been added. - ETERNUS AX/HX series - ETERNUS AB/HB series	4.6, 4.7	9.2
The device name "NetApp AFF A series" has been changed to "NetApp AFF series".	4.8	
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Information related to the following devices has been added. - ETERNUS DX S5 series - ETERNUS AF S3 series Information related to the following devices has been deleted. - ETERNUS DX60, DX400 series, DX8000 series - ETERNUS VS850 - ETERNUS SN200 series - ETERNUS LT20, LT40, LT60, LT200, LT210, LT220, LT230, LT250, LT270 - ETERNUS CS800 S3/CS800 S2/CS800	General	9
The description for Conventions has been changed so that the <i>ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Documentation Road Map</i> is referenced.	"Conventions" in Preface	
The "Manual Organization and Reading Suggestions" section has been deleted from Preface.	Preface	
Information related to Microsoft Windows Server 2016 has been added.	"Notation" in Preface	8.1
Information related to the ETERNUS LT140 has been added.	"Notation" in Preface, 5.2	
Information related to the ETERNUS CS800 S7/CS800 S6/CS800 S5/CS800 S4 has been added.	5.9	
Information related to the ETERNUS DX8900 S4 has been added.	"Notation" in Preface	8
Notation related to VDX has been modified.	"Others" in Preface, 3.2	
Information related to Solaris 9 has been deleted.	"Notation" in Preface	7
Information related to the ETERNUS DX500 S4/DX600 S4 has been added.	"Notation" in Preface	
Information related to the ETERNUS AF250 S2/AF650 S2 has been added.	"Notation" in Preface, 4.5	
Information related to Microsoft Windows Server 2016 has been added.	"Notation" in Preface	
Information related to Windows Vista has been deleted.	"Notation" in Preface	6
Information related to SUSE Linux Enterprise Server 11 has been deleted and information related to SUSE Linux Enterprise Server 12 for AMD64 & Intel64 has been added.	"Notation" in Preface	
Information related to the ETERNUS DX60 S4/DX100 S4/DX200 S4 has been added.	"Notation" in Preface, 4.4	
The subtitle "Multipath Asynchronous Events" has been changed to "ETERNUS Multipath Driver Asynchronous Events".	2.2	

Content of Update	Updated Section	Revision
Monitoring keywords have been added to the ETERNUS Multipath Driver asynchronous events.	2.2	
Information related to HP-UX 11i v1/v2 has been deleted.	"Notation" in Preface, 2.4	5
Information related to VMware vSphere 4 has been deleted.	"Notation" in Preface	
Information related to the ETERNUS DX80/DX90 has been deleted.	"Notation" in Preface, 4.1	
Information related to the ETERNUS AF250/AF650 has been added.	"Notation" and "Others" in Preface, 4.5	
Information related to the ETERNUS LT60 has been deleted.	"Notation" in Preface, 5.1	
The trap number 3, 13, 14, and 15 have been added in "Specific Trap (Extended Trap)".	4.4, 4.5	
Event traps that are not reported from a device have been deleted.	4.4	
An event has been added.	Chapter 8	4
Information related to Microsoft Windows Server 2003 has been deleted.	"Notation" in Preface	
Information related to Windows 10 has been added.	"Notation" in Preface	
The level of the following events in the "Event Notification (M Messages)" has been modified: <ul style="list-style-type: none"> - Use capacity of Pool has changed. (NORMAL -> CAUTION) - Use capacity of Pool has changed. (NORMAL or CAUTION -> WARNING) - Use capacity of Pool has changed. (WARNING -> CAUTION) 	4.2	
The level of the following events in the "Event Notification (M Messages)" has been modified: <ul style="list-style-type: none"> - Use capacity of Pool has changed. (NORMAL -> CAUTION) - Use capacity of Pool has changed. (NORMAL or CAUTION -> WARNING) - Lack of pool capacity - Use capacity of Ftier Pool has changed. (NORMAL -> CAUTION) - Use capacity of Ftier Pool has changed. (NORMAL or CAUTION -> WARNING) - Lack of Ftier pool capacity 	4.3	
Information related to Tintri VMstore series has been added.	4.8	
The troubleshooting when the status has changed to unmonitored has been modified.	Chapter 8	
Information related to the ETERNUS DX8700 S3/DX8900 S3 has been added.	"Notation" in Preface	3.2
Information related to the NetApp FAS Series and V-Series has been added.	"Notation" in Preface, 4.7	
An event has been added.	Chapter 8	
The term "VMware Virtual Volumes" has been changed to "VMware vSphere Virtual Volumes" according to the terms used by VMware, Inc.	Throughout this manual	3.1
Information related to VMware vSphere(R) 6 has been added.	"Notation" in Preface	

Content of Update	Updated Section	Revision
Information related to the ETERNUS DX200F has been modified or added.	"Others" in Preface, 4.6	3
Information related to the ETERNUS DX60 S3 has been added.	"Notation" in Preface	
Information related to the ETERNUS LT260 has been added.	"Notation" in Preface, 5.5	
[Information] has been added.	Chapter 3	
The composition of the chapter has been changed.	Chapter 4	
The received event traps have been added.	4.4	
The description for the values that are displayed has been added.	Chapter 7	
The received event traps have been added.	4.3	2
Information related to the ETERNUS DX200F has been added.	"Others" in Preface	1.1

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Chapter 1 Notes about Common Traps for Devices

When Express or Storage Cruiser receives an event notification such as a SNMP Trap from devices, the common traps for devices are decoded and displayed.

Storage Cruiser can work in cooperation with Systemwalker Centric Manager, events are linked corresponding to the relevant event levels. As for the trap common to devices except for the following traps specific to vendor, the event linkage is not operated.

Table 1.1 Common Traps for Devices

Event	Level	Event Display
coldStart trap reception	Information	Cold Start Trap
warmStart trap reception	Information	Warm Start Trap
linkDown trap reception	Information	Link Down Trap
linkUp trap reception	Information	Link Up Trap
authenticationFailure trap reception	Information	Authentication Failure Trap
egpNeighborLoss trap reception	Information	EGP Neighbor Loss Trap

Chapter 2 Server Node Events

2.1 Windows Server Node

Fujitsu Multipath Disk Control Mechanism Asynchronous Events (SNMP Trap)

Failure Event	Level	Event Display (*1)	Troubleshooting
One path inhibition	Warning	[mpType: 403] "Access path (pPbBtT) fault"	Refer to the multipath driver manuals and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
		[mpType: 1010] "Access path (pPbBtT) fault"	
Some paths could not be detected at a server node startup. (Multipath operation could not be started.)	Warning	[mpType: 301] "Access path (pPbBtT) could not be detected."	

*1: The *mpType* displays "GRMPD" or "MPHD". The *P*, *B*, and *T* are variables that are displayed e.g. in the form "p2b0t0".

MPIO Asynchronous Events (SNMP Trap)

The events of msdsm (the multi path driver that is built into Windows operating system by the standard) are reported as MPIO events. When the multi path driver that is compliant to MPIO is used, e.g. ETERNUS Multipath Driver, these events may be reported.

Failure Event	Level	Event Display	Troubleshooting
Path inhibition	Warning	[MPIO:16] Access path fault.	Path switching has occurred. Check whether the problem is connection (cable disconnected, switch problem, etc) or in the storage device.
Path switching failed	Warning	[MPIO:32] Fail-over failed.	Path switching has occurred, but it has failed. Check whether the problem is connection (cable disconnected, switch problem, etc) or in the storage device.

2.2 Solaris Server Node

Asynchronous Event by Monitoring Keywords

The system message file "/var/adm/messages" is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to the Storage Cruiser's manager according to the level corresponding to the monitoring keywords. In this case, the detected message containing the monitoring keywords is sent to the Storage Cruiser's manager as is. If asynchronous events corresponding to the same message are detected several times within the message monitoring time (**PollingTime** parameter in the "Correlation.ini" file), these events are reported to the Storage Cruiser's manager only once.

Information

In the following tables, ".*" in the monitoring keywords is a regular expression (which indicates that any character appears 0 times and more).

- ETERNUS Multipath Driver Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
. *NOTICE: mphd.*I/O path switchover succeed.*	Warning	One-line message including monitoring keywords	Refer to the ETERNUS Multipath Driver manuals and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
. *NOTICE: mplb.*I/O Lun degraded.*			
. *NOTICE: mplb.*I/O path failed.*			
. *NOTICE: mplb.*I/O path failed, and standby.*			
. *NOTICE: mplb.*I/O path failed, and remaining online.*			
. *NOTICE: mplb.*disk controller connection is wrong.*			
. *NOTICE: mplb.*device connection is wrong.*			
. *WARNING: mphd.*I/O path for switch.*			
. *WARNING: mplb.*I/O Lun degraded, no more.*			
. *WARNING: mplb.*I/O path failed, no more.*			
. *WARNING: mplb.*connection of all paths is wrong.*			

- EMC PowerPath Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
. *All paths to.*are dead.*	Warning	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
. *Path.*to.*is dead.*			

- HITACHI JP1/HiCommand Dynamic Link Manager Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
. *All paths to.*are dead.*	Warning	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
. *KAPL08.*-E.*			

- PRIMECLUSTER GD, PRIMECLUSTER GFS series Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
NOTICE: sfx NOTICE: sfc NOTICE: sfd . *SDX.*: *INFO.*:	Information	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions.

Monitoring Keyword	Level	Event Display	Troubleshooting
WARNING: sfx WARNING: sfc WARNING: sfd .*SDX:.*WARNING:.*	Warning	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
PANIC: sfx PANIC: sfc ERROR: sfc HALT: sfd .*SDX:.*HALT:.* .*SDX:.*ERROR:.*	Error		

- Sun MPxIO Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
./scsi_vhci/ ssd.*multipath.*status:.*degraded.*	Warning	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
./scsi_vhci/ ssd.*multipath.*status:.*failed.*			

2.3 Linux Server Node

Asynchronous Event by Monitoring Keywords

The system message file "/var/adm/messages" is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to the Storage Cruiser's manager according to the level corresponding to the monitoring keywords. In this case, the detected message containing the monitoring keywords is sent to the Storage Cruiser's manager as is. If asynchronous events corresponding to the same message are detected several times within the message monitoring time (**PollingTime** parameter in the "Correlation.ini" file), these events are reported to the Storage Cruiser's manager only once.

Information

In the following tables, ".*" in the monitoring keywords is a regular expression (which indicates that any character appears 0 times and more).

- Multipath Asynchronous Events

Failure Event	Level	Event Display	Troubleshooting
.*mplb_mod:.*WARNING.*I/O error.* .*PATHDIAG:.*WARNING.*Auto Path.* .*MPD.*WARNING.*	Warning	One-line message including a monitored keyword	Refer to the ETERNUS Multipath Driver manuals and take required action.

- Device-Mapper Multipath Asynchronous Events

Failure Event	Level	Event Display	Troubleshooting
.*multipathd:.*remove.*path.*(uevent).* .*multipathd:.*checker.*failed.*	Warning	One-line message including a monitored keyword	Refer to the manuals for the corresponding middleware and take required actions.

- PRIMECLUSTER GD and PRIMECLUSTER GFS series Asynchronous Events

Failure Event	Level	Event Display	Troubleshooting
NOTICE: sfx NOTICE: sfc NOTICE: sfd .*SDX:.*INFO:.*	Information	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions.
WARNING: sfx WARNING: sfc WARNING: sfd .*SDX:.*WARNING:.*	Warning	One-line message including monitoring keywords	Refer to the manuals for the corresponding middleware and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
PANIC: sfx PANIC: sfc ERROR: sfc HALT: sfd .*SDX:.*HALT:.* .*SDX:.*ERROR:.*	Error		

2.4 HP-UX Server Node

Asynchronous Event by Monitoring Keywords

The system message file "/var/adm/syslog/syslog.log" is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to the Storage Cruiser's manager according to the level corresponding to the monitoring keywords. In this case, the message containing the detected monitoring keywords is sent to the Storage Cruiser's manager as is. If asynchronous events corresponding to the same message are detected multiple times within the message monitoring period (**PollingTime** parameter in the "Correlation.ini" file), these events are reported to the Storage Cruiser's manager only once.

Information

In the following tables, "." in the monitoring keywords is a regular expression (which indicates that any character appears 0 times and more).

- PV-LINK (LVM function) Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
.*LVM: Path.*! .*LVM: .*PVLink.*!	Error	One-line message including monitoring keywords	Take appropriate action as described in the message.

- HBA Driver Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
.*Target path.*gone offline.*	Error	One-line message including monitoring keywords	Take appropriate action as described in the message.

2.5 AIX Server Node

Asynchronous Event by Monitoring Keywords

The error log is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to the Storage Cruiser's manager according to the level corresponding to the monitoring keywords. In this case, the message containing the detected monitoring keywords is sent to the Storage Cruiser's manager as is. If asynchronous events corresponding to the same message are detected multiple times within the message monitoring period (**PollingTime** parameter in the "Correlation.ini" file), these events are reported to the Storage Cruiser's manager only once.

Information

In the following tables, "^" in the monitoring keywords is a regular expression (beginning of line). "\s+" is a regular expression (which indicates that a space character appears 1 times and more). ".*" is a regular expression (which indicates that any character appears 0 times and more).

- MPIO Asynchronous Events

Monitoring Keyword	Level	Event Display	Troubleshooting
^DE3B8540\s+.*	Warning	One-line message including monitoring keywords	Take appropriate action as described in the message.

Chapter 3 Fibre Channel Switch Events

Information

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

In traps other than event trap, if the "0x" is added to the beginning of the numeric value, it is a hexadecimal number. If the "0x" is not added, the numeric value is a decimal number.

3.1 Brocade series

From the Fibre Channel switch whose firmware version is 2.2 or later, the trap with the asterisk ("*") is not notified but is notified as an event trap.

	Failure Event	Level	Event Display
	System failure	Error	Central Memory FAULT
	System failure	Error	Embedded Port FAULT
	FC port failure	Error	FC Port No. <i>number</i> FAULT
	FC port online	Information	FC Port No. <i>number</i> Online
	FC port offline	Information	FC Port No. <i>number</i> Offline
*	Power supply failure	Error	Power Supply # <i>number</i> FAULT
*	Power-off	Error	Power Supply # <i>number</i> FAULT
*	Power loss	Warning	Power Supply # <i>number</i> Absent
*	Fan failure	Error	Fan # <i>number</i> FAULT
*	Fan rotational speed decrease error	Error	Fan # <i>number</i> Below Minimal Threshold
*	Fan loss	Warning	Fan # <i>number</i> Absent
*	Temperature sensor failure	Error	Temp # <i>number</i> FAULT
*	Temperature decrease error	Error	Temp # <i>number</i> Below Minimal Threshold
*	Temperature rise error	Error	Temp # <i>number</i> Above Maximum Threshold
*	Temperature sensor loss	Warning	Temp # <i>number</i> Absent
	Trap event	Error, Warning, Information	The unit trap message is output without any change.

It may takes a time to display the event when FC Port failure, FC Ports online or FC Port offline.

Following SNMP Traps are displayed in the event log when execute disconnect/connect FC cable in a short time.

- When the cable is disconnected: [Link Down Trap]
- When the cable is connected: [Link Up Trap]

The port where the trouble occurs cannot be specified from the event log, also the event linkage function does not operate. Login to the Fibre Channel switch to specify the Port where the trouble occurs, and confirm the state of the VE port and the GbE port.

Also following event logs are displayed with above event log.

- When the cable is disconnected: [FC Port No.214 Offline]
- When the cable is connected: [FC Port No.214 Online]

3.2 VDX series

Failure Event	Level	Event Display	Remarks
Port failure	Error	FC Port No. <i>number</i> FAULT	*1, *2, *3, and *4
Port Online	Information	FC Port No. <i>number</i> Online	
Port Offline	Information	FC Port No. <i>number</i> Offline	
Event traps	Error, Warning, Information	The message notified from the device is output as is.	-

*1

As for the Ethernet port and FC port number, the Index value output by "show fabric islports" command of VDX series is displayed.

In the case of the FCoE connection port, a displayed port number is the total value of followings.

- Last index value of the Ethernet port displayed by "show fabric islports" command
- Port number of FCOE IF output by "show fcoe interface brief" command

For example, when last index value of the Ethernet port is 60 and port number of FCOE IF is 5, a displayed port number is 65.

FCOE IF is displayed with the following format:

Displayed Format	Explanation
XX/YY/ZZ	The explanation of XX, YY, and ZZ is as follows: <ul style="list-style-type: none"> - XX : VCS ID - YY : RBridgeID - ZZ : Port number

*2

The Ethernet port is also displayed as "FC Port".

*3

For the Ge port, the following events of "[Table 1.1 Common Traps for Devices](#)" are displayed.

- In the case of Port Offline: [Link Down Trap]
- In the case of Port Online: [Link Up Trap]

The port number is not displayed. Therefore, log in to the target device and check the status of all Ge ports.

*4

When the firmware version is Network OS v3.0.1 or later, the following events of "[Table 1.1 Common Traps for Devices](#)" are displayed for all the ports.

- In the case of Port Offline: [Link Down Trap]
- In the case of Port Online: [Link Up Trap]

The port number is not displayed. Therefore, log in to the target device and check the status of all the ports.

3.3 PRIMERGY Fibre Channel Switch Blade

Refer to "[3.1 Brocade series](#)".

3.4 PRIMERGY BX Ethernet Fabric Switch

Refer to "[3.2 VDX series](#)".

Chapter 4 Storage Device Events

Information

The event traps disabled by the event notification setting of the storage device are not notified.

4.1 ETERNUS DX S5/S4/S3 series

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

Express and Storage Cruiser receive event traps that are described in the device manuals.

Specific Trap (Extended Trap)

Trap Number	Explanation	Remarks
2	This Trap is sent to notify that a component has failed or has been degraded.	-
3	This Trap is sent to notify that a battery life has expired.	-
5	This Trap is sent to notify that a component requires preventive maintenance.	-
6	This Trap is sent to notify that a temperature error has been detected.	-
7	This Trap is sent to notify that an event requires maintenance or preventive maintenance.	-
10	This trap is sent to notify that the link status of a CA port has been changed.	-
11	This Trap is sent to notify the Error level events related to Storage Cluster.	-
12	This Trap is sent to notify the Information level events related to Storage Cluster.	-
13	This Trap is sent to notify the Information level events related to Deduplication/Compression.	*1
14	This Trap is sent to notify the Error level events related to Automated Storage Tiering.	-
15	This Trap is sent to notify the Information level events related to Automated Storage Tiering.	-
22	This Trap is sent to notify that an event notified by Trap number 2 has returned to normal state.	-
25	This Trap is sent to notify that an event notified by Trap number 5 has returned to normal state.	-
26	This Trap is sent to notify that an event notified by Trap number 6 has returned to normal state.	-
50	This Trap is sent to notify the Error level events.	-
51	This Trap is sent to notify the Warning level events.	-
60	This Trap is sent to notify that a resource exceeds its quota warning value.	-
61	This Trap is sent to notify that a resource has reached its quota limit value.	-
62	This Trap is sent to notify that a resource no longer exceeds its quota warning value.	-
63	This Trap is sent to notify that a NAS volume snapshot has been successfully acquired.	-

*1: The same message may be notified several times from one device.

To change the event traps to be received, refer to "SNMP Trap XML Definition File" in the *Storage Cruiser Operation Guide* to modify the SNMP Trap XML definition file.

4.2 ETERNUS DX S2 series (excluding the ETERNUS DX60 S2)

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

Notification of Component Blockage

Target	Level	Event Display	Remarks
CM Unit	Error	P 01SSMM00 Controller Module#m(zz) Fault <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM DMA Port	Error	P 02SSMM0p Controller Module#m(zz) DMA PORT#p Fault <pp ss rr>	SS : Parts subtype MM : Module ID p : Port number zz : Model pp : Parts number ss : Serial number rr : Revision
CM BIOS	Error	P 03SSMM0v Controller Module#m(zz) BIOS#v Fault <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number zz : Model pp : Parts number ss : Serial number rr : Revision
CM RTC	Error	P 04SSMM00 Controller Module#m(zz) RTC Fault <pp ss rr>	SS : Parts subtype MM : Module ID zz : Model pp : Parts number ss : Serial number rr : Revision
CM NVRAM	Error	P 05SSMM00 Controller Module#m(zz) NVRAM Fault <pp ss rr>	SS : Parts subtype MM : Module ID zz : Model pp : Parts number ss : Serial number rr : Revision
CM MMC	Error	P 0600MM00 Controller Module#m(zz) MMC Fault <pp ss rr>	MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM Expander	Error	P 06SSMM0v Controller Module#m(zz) EXP#v Fault <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM DI PORT	Error	P 08SSMMvp Controller Module#m(zz) DI Port#p Fault <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number p : Port number

Target	Level	Event Display	Remarks
			<i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM Expander In Port	Error	P 09SSMMvp Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> In Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM Expander Out Port	Error	P 0ASSMMvp Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Out Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM Memory	Error	P 0BSSMMnn Controller Module# <i>m</i> (<i>zz</i>) Cache(MEM # <i>x</i> GB) Slot# <i>nn</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>nn</i> : Slot number <i>m</i> : CM number <i>zz</i> : Model <i>x</i> : Capacity <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM BUD	Error	P 0CSSMM00 Controller Module# <i>m</i> (<i>zz</i>) BUD(# <i>xx</i> GB) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM FAN	Error	P 0DSSMM00 Controller Module# <i>m</i> (<i>zz</i>) FAN Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM NAND Controller	Error	P 0ESSMM00 Controller Module# <i>m</i> (<i>zz</i>) NAND Controller Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision

Target	Level	Event Display	Remarks
CM SCU	Error	P 0FSSMM00 Controller Module# <i>m</i> (<i>zz</i>) SCU Fault < <i>pp ss rr</i> >	SS : Parts subtype MM : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CA	Error	P 10SSMM00 CA Slot# <i>n</i> - <i>v</i> (<i>zz</i>) (on CM# <i>m</i>) Fault < <i>pp ss rr</i> >	SS : Parts subtype MM : Module ID <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CA Port	Error	P 11SSMM0p CA Slot# <i>n</i> - <i>v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr</i> >	SS : Parts subtype MM : Module ID <i>p</i> : Port number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
SFP for FC-CA	Error	P 1ASSMM0p FC SFP CA Slot# <i>n</i> - <i>v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	SS : Parts subtype MM : Module ID <i>p</i> : Port number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
SFP for FCLink-CA	Error	P 1BSSMM0p FCLink SFP CA Slot# <i>n</i> - <i>v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	SS : Parts subtype MM : Module ID <i>p</i> : Port number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ for FC-CA	Error	P 1CSSMM0p FC SFP+ CA Slot# <i>n</i> - <i>v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	SS : Parts subtype MM : Module ID <i>p</i> : Port number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model

Target	Level	Event Display	Remarks
			<i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ for 10G-iSCSI-CA SFP+ for FCoE-CA	Error	P 1DSSMM0 <i>p</i> iSCSI FCoE SFP+ CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ Copper for 10G-iSCSI-CA SFP+ for FCoE-CA	Error	P 1E00MM0 <i>p</i> iSCSI FCoE SFP+Cp CA Slot# <i>S</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	<i>MM</i> : Module ID <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ Longwave for FC-CA	Error	P 1900MM0 <i>p</i> FC SFP+ Longwave CA Slot# <i>S</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	<i>MM</i> : Module ID <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
SFP Type Unknown	Error	P 1FSSMM0 <i>p</i> SFP(Type Unknown) CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information
CM FPGA	Error	P 21SSMM00 Controller Module# <i>m</i> (<i>zz</i>) FPGA Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM LAN Port	Error	P 22SSMM0 <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) LAN PORT# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port number <i>m</i> : CM number

Target	Level	Event Display	Remarks
			zz : Model pp : Parts number ss : Serial number rr : Revision
CM PCH	Error	P 2300MM00 Controller Module#m(zz) PCH Fault <pp ss rr>	MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM QSFP	Error	P 2ASSMMvp Controller Module#m(zz) QSFP#v#p Fault <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
FRT	Error	P 4000MM00 FRT#n Fault <pp ss rr>	MM : Module ID n : FRT number pp : Parts number ss : Serial number rr : Revision
BRT	Error	P 5000MM00 BRT#n Fault <pp ss rr>	MM : Module ID n : BRT number pp : Parts number ss : Serial number rr : Revision
BRT Out Port	Error	P 5100MM0P BRT#n Out Port#P Fault <pp ss rr>	MM : Module ID n : BRT number p : Port number pp : Parts number ss : Serial number rr : Revision
BRT In Port	Error	P 5200MMvP BRT#n InPort#P Fault <pp ss rr>	MM : Module ID v : EXP number p : Port number n : BRT number pp : Parts number ss : Serial number rr : Revision
BRT EXP	Error	P 5300MM0v BRT#n EXP#v Fault <pp ss rr>	MM : Module ID v : EXP number n : BRT number pp : Parts number ss : Serial number rr : Revision
BRT QSFP	Error	P 5A00MM0P BRT#n QSFP#P Fault <pp ss rr>	MM : Module ID n : BRT number P : Port number pp : Parts number

Target	Level	Event Display	Remarks
			ss : Serial number rr : Revision
SVC	Error	P 6000MM00 SVC#n Fault <pp ss rr>	MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision
SVC LAN Port	Error	P 6100MM0P SVC#n LAN PORT#P Fault <pp ss rr>	MM : Module ID P : Port number n : SVC number pp : Parts number ss : Serial number rr : Revision
SVC PCIe SW	Error	P 6200MM00 SVC#n PCIe SW Fault <pp ss rr>	MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision
SVC RCI board	Error	P 6300MM00 SVC#n RCI board Fault <pp ss rr>	MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision
CE FAN UNIT	Error	P 71000n00 CE FAN UNIT#n Fault <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
PANEL UNIT	Error	P 72000000 PANEL UNIT Fault <pp ss rr>	pp : Parts number ss : Serial number rr : Revision
CPSU	Error	P 73000n00 Power Supply Unit/ CPSU#n Fault <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
SCCB	Error	P 74000n00 SCCB#n Fault <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
BBU	Error	P 75000n00 BBU#n Fault <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
BCU	Error	P 75000n00 BCU#n Fault <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
BTU	Error	P 76000n00 BTU#n Fault <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision

Target	Level	Event Display	Remarks
3.5 Inch DISK	Error	P 80SSUU0N HDD 3.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code
3.5 Inch Disk (Failed Usable)	Error	P 80SSUU0N HDD 3.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code
3.5 Inch Disk (Disk abnormal performance)	Error	P 80SSUU0N HDD 3.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Slow Down <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code
2.5 Inch DISK	Error	P 81SSUUNN HDD 2.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision

Target	Level	Event Display	Remarks
			<i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch Disk (Failed Usable)	Error	P 81SSUUNN HDD 2.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch Disk (Disk abnormal performance)	Error	P 81SSUUNN HDD 2.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Slow Down < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD	Error	P 84SSUU0N SSD 3.5 DE#UU- Slot#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD (Failed Usable)	Error	P 84SSUU0N SSD 3.5 DE#UU- Slot#n(SAS xxxGB yykrpm cc) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number

Target	Level	Event Display	Remarks
			<i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD	Error	P 85SSUUNN SSD 2.5 DE#UU- Slot#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD (Failed Usable)	Error	P 85SSUUNN SSD 2.5 DE#UU- Slot#n(SAS xxxGB yykrpm cc) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch DISK (Compare Error)	Error	P 88SSUU0N HDD 3.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch DISK (Compare Error)	Error	P 88SSUUNN HDD 2.5 DE#UU- Disk#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD (Compare Error)	Error	P 88SSUU0N SSD 3.5 DE#UU- Slot#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD (Compare Error)	Error	P 88SSUUNN SSD 2.5 DE#UU- Slot#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
IOM6	Error	P 90SSUU0n IOM6 DE#UU/IOM#n Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
IOM6 Port	Error	P 91SSUU0np IOM6 Port DE#UU/ IOM#n/Port#p Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
IOM6 QSFP	Error	P 9ASSUU0np IOM6 QSFP DE#UU/ IOM#n/Port#p Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
PSU	Error	P D2SSUU0n Power Supply Unit DE#UU/PSU#n Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID

Target	Level	Event Display	Remarks
			<i>n</i> : Slot number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision

Warning (Temperature Alarm)

Target	Level	Event Display	Remarks
CE Abnormal exhaust gas temperature (FATAL)	Error	P 7A000000 CE Exhaust temperature Fatal	-
CE Abnormal exhaust gas temperature (Sensor failure)	Error	P 7A000000 CE Exhaust temperature sensor Fault	-
CE Abnormal exhaust gas temperature (WARNING)	Warning	J 7A000000 CE Exhaust temperature Warning	-
CE Abnormal intake temperature (Sensor failure)	Error	P 7B000000 CE Intake temperature sensor Fault	-
CE Abnormal intake temperature (WARNING)	Warning	J 7B000000 CE Intake temperature Warning	-
DE Abnormal exhaust gas temperature (FATAL)	Error	P DASSUU00 DE Exhaust temperature DE#UU Fatal	SS : Parts subtype UU : DE ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DASSUU00 DE Exhaust temperature sensor DE#UU Fault	SS : Parts subtype UU : DE ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DASSUU00 DE Exhaust temperature DE#UU Warning	SS : Parts subtype UU : DE ID
DE Abnormal intake temperature (Sensor failure)	Error	P DBSSUU00 DE Intake temperature sensor DE#UU Fault	SS : Parts subtype UU : DE ID
DE Abnormal intake temperature (WARNING)	Warning	J DBSSUU00 DE Intake temperature DE#UU Warning	SS : Parts subtype UU : DE ID

Warning (Expiration)

Target	Level	Event Display	Remarks
Six months before battery life expiration	Warning	J 70060n00 BATTERY#b 6MONTH WARNING YYYY/MM	<i>n</i> : Slot number <i>b</i> : BTU number YYYY/MM : Term of validity (year/month)
One week before battery life expiration	Warning	J 70070n00 BATTERY#b 1WEEK WARNING WARNING YYYY/MM	<i>n</i> : Slot number <i>b</i> : BTU number YYYY/MM : Term of validity (year/month)

Target	Level	Event Display	Remarks
N days before battery life expiration	Warning	J 70070n00 BATTERY#b NDAY WARNING WARNING YYYY/MM	n : Slot number b : BTU number N : Days YYYY/MM : Term of validity (year/month)
Battery life expiration	Error	J 70FE0n00 BATTERY#b EXPIRATION ALARM YYYY/MM	n : Slot number b : BTU number YYYY/MM : Term of validity (year/month)

Warning (Other)

Target	Level	Event Display	Remarks
CM Warning	Warning	J 01SSMM00 Controller Module#m(zz) Warning factor(ww) <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model ww : Factor Code pp : Parts number ss : Serial number rr : Revision
CM DMA Port Warning	Warning	J 02SSMM0p Controller Module#m(zz) DMA PORT#p Warning <pp ss rr>	SS : Parts subtype MM : Module ID p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM BIOS Warning	Warning	J 03SSMM0v Controller Module#m(zz) BIOS#v Warning <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM RTC Warning	Warning	J 04SSMM00 Controller Module#m(zz) RTC Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM NVRAM Warning	Warning	J 05SSMM00 Controller Module#m(zz) NVRAM Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM MMC Warning	Warning	J 0600MM00 Controller Module#m(zz) MMC Warning <pp ss rr>	MM : Module ID m : CM number

Target	Level	Event Display	Remarks
			zz : Model pp : Parts number ss : Serial number rr : Revision
CM Expander Warning	Warning	J 06SSMM0v Controller Module#m(zz) EXP#v Warning <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM DI PORT Warning	Warning	J 08SSMMvp Controller Module#m(zz) DI Port#p Warning <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM Expander In Port Warning	Warning	J 09SSMMvp Controller Module#m(zz) EXP#v In Port#p Warning <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM Expander Out Port Warning	Warning	J 0ASSMMvp Controller Module#m(zz) EXP#v Out Port#p Warning <pp ss rr>	SS : Parts subtype MM : Module ID v : Device number p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM BUD Warning	Warning	J 0CSSMM00 Controller Module#m(zz) BUD(#xxGB) Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model xx : Capacity pp : Parts number ss : Serial number rr : Revision
CM FAN Warning	Warning	J 0DSSMM00 Controller Module#m(zz) FAN Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision

Target	Level	Event Display	Remarks
CM NAND Controller Warning	Warning	J 0ESSMM00 Controller Module#m(zz) NAND Controller Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM SCU Warning	Warning	J 0FSSMM00 Controller Module#m(zz) SCU Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CA Warning	Warning	J 10SSMM00 CA Slot#n-v(zz) (on CM#m) Warning <pp ss rr>	SS : Parts subtype MM : Module ID n : Slot number v : Device number zz : Model m : CM number pp : Parts number ss : Serial number rr : Revision
CA Port Warning	Warning	J 11SSMM0p CA Slot#n-v(zz) (on CM#m) Port#p Warning <pp ss rr>	SS : Parts subtype MM : Module ID p : Port number n : Slot number v : Device number zz : Model m : CM number pp : Parts number ss : Serial number rr : Revision
CM FPGA Warning	Warning	J 21SSMM00 Controller Module#m(zz) FPGA Warning <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM LAN Port Warning	Warning	J 22SSMM0p Controller Module#m(zz) LAN PORT#p Warning <pp ss rr>	SS : Parts subtype MM : Module ID p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM PCH Warning	Warning	J 2300MM00 Controller Module#m(zz) PCH Warning <pp ss rr>	MM : Module ID m : CM number zz : Model pp : Parts number

Target	Level	Event Display	Remarks
			ss : Serial number rr : Revision
FRT Warning	Warning	J 4000MM00 FRT#n Warning <pp ss rr>	MM : Module ID n : FRT number pp : Parts number ss : Serial number rr : Revision
BRT Warning	Warning	J 5000MM00 BRT#n Warning <pp ss rr>	MM : Module ID n : BRT number pp : Parts number ss : Serial number rr : Revision
BRT Out Port Warning	Warning	J 5100MM0P BRT#n Out Port#P Warning <pp ss rr>	MM : Module ID n : BRT number P : Port number pp : Parts number ss : Serial number rr : Revision
BRT In Port Warning	Warning	J 5200MMvP BRT#n In Port#P Warning <pp ss rr>	MM : Module ID v : EXP number n : BRT number P : Port number pp : Parts number ss : Serial number rr : Revision
BRT EXP Warning	Warning	J 5300MM0v BRT#n EXP#v Warning <pp ss rr>	MM : Module ID v : EXP number n : BRT number pp : Parts number ss : Serial number rr : Revision
BRT QSFP Warning	Warning	J 5A00MM0P BRT#n QSFP#P Warning <pp ss rr>	MM : Module ID n : BRT number P : Port number pp : Parts number ss : Serial number rr : Revision
SVC Warning	Warning	J 6000MM00 SVC#n Warning <pp ss rr>	MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision
CE FAN UNIT	Warning	J 7100n00 CE FAN UNIT#n Warning <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
PANEL UNIT	Warning	J 72000000 PANEL UNIT Warning <pp ss rr>	pp : Parts number ss : Serial number rr : Revision
CPSU Warning	Warning	J 73000n00 Power Supply Unit/ CPSU#n Warning <pp ss rr>	n : Slot number pp : Parts number

Target	Level	Event Display	Remarks
			ss : Serial number rr : Revision
BBU Warning	Warning	J 75000n00 BBU#n Warning <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
BCU Warning	Warning	J 75000n00 BCU#n Warning <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
BTU Warning	Warning	J 76000n00 BTU#n Warning <pp ss rr>	n : Slot number pp : Parts number ss : Serial number rr : Revision
SMART notice from Disk (3.5inch)	Warning	J 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code
Disk preventative separation SMART (3.5inch)	Warning	J 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code
Disk abnormal performance SMART (3.5inch)	Warning	J 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) WarnSlow <pp ss rr tt uu>	SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision

Target	Level	Event Display	Remarks
			<i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance notice (3.5inch)	Warning	J 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) SlowDown < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from Disk (2.5inch)	Warning	J 81SSUUNN HDD 2.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk preventative separation SMART (2.5inch)	Warning	J 81SSUUNN HDD 2.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance SMART (2.5inch)	Warning	J 81SSUUNN HDD 2.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) WarnSlow < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number

Target	Level	Event Display	Remarks
			<i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance notice (2.5inch)	Warning	J 81SSUUNN HDD 2.5 DE#UU-Disk# <i>n</i> (SAS xxxGB yykrpm cc) SlowDown < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from SSD (3.5inch)	Warning	J 84SSUU0N SSD 3.5 DE#UU-Slot# <i>n</i> (SAS xxxGB yykrpm cc) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SSD preventative separation SMART (3.5inch)	Warning	J 84SSUU0N SSD 3.5 DE#UU-Slot# <i>n</i> (SAS xxxGB yykrpm cc) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from SSD (2.5inch)	Warning	J 85SSUUNN SSD 2.5 DE#UU-Slot# <i>n</i> (SAS xxxGB yykrpm cc) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SSD preventative separation SMART (2.5inch)	Warning	J 85SSUUNN SSD 2.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) Warning <pp ss rr tt uu>	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
IOM6 Warning	Warning	J 90SSUU0n IOM6 DE#UU/IOM#n Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
IOM6 Port Warning	Warning	J 91SSUUnp IOM6 Port DE#UU/IOM#n/Port#p Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
IOM6 QSFP Warning	Warning	J 9ASSUUnp IOM6 QSFP DE#UU/IOM#n/Port#p Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
IOM6 Check1	Warning	J C190UUnp IOM6 DE#UU/IOM#n Reboot <pp ss rr>	<i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM Check1	Warning	J C1MM0000 Controller Module#m(zz) Reboot <pp ss rr>	<i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CA Check1	Warning	J C1MM0000 CA Slot#n-v(zz) (on CM#m) Reboot <pp ss rr>	<i>MM</i> : Module ID <i>n</i> : Slot number <i>v</i> : Device number

Target	Level	Event Display	Remarks
			zz : Model m : CM number pp : Parts number ss : Serial number rr : Revision
BRT Check1	Warning	J C1MM0000 BRT#n Reboot <pp ss rr>	MM : Module ID n : BRT number pp : Parts number ss : Serial number rr : Revision
Multiple memory collectable error	Warning	J C3SSMM00 Controller Module#m(zz) Cache(MEM #xGB) Slot#nn Correctable Error <pp ss rr>	SS : Parts subtype MM : Module ID m : CM number zz : Model x : Capacity pp : Parts number ss : Serial number rr : Revision
PSU Warning	Warning	J D2SSUU0n Power Supply Unit DE#UU/PSU#n Warning <pp ss rr>	SS : Parts subtype UU : DE ID n : Slot number pp : Parts number ss : Serial number rr : Revision

RAID Recovery Notification

Target	Level	Event Display	Remarks
Start failure of rebuild to HS (non HS)	Error	M A0110xxx RAID Group#0xxx start failure of Rebuild processing	xxx : RAID group number
Start of rebuild to HS	Error	M A0410xxx RAID Group#0xxx start procedure of Rebuild processing	xxx : RAID group number
End of rebuild to HS	Error	M A0810xxx RAID Group#0xxx normal end of Rebuild processing	xxx : RAID group number
Abnormal end of rebuild to HS (source disk problem)	Error	M A0A10xxx RAID Group#0xxx abnormal end of Rebuild processing because of source disk problem	xxx : RAID group number
Abnormal end of rebuild to HS	Error	M A0B10xxx RAID Group#0xxx abnormal end of Rebuild processing	xxx : RAID group number
Retry of rebuild to HS	Error	M A0C10xxx RAID Group#0xxx retry procedure of Rebuild processing	xxx : RAID group number
Start of rebuild to DV	Error	M A1410xxx RAID Group#0xxx start procedure of Rebuild processing	xxx : RAID group number
End of rebuild to DV	Error	M A1810xxx RAID Group#0xxx normal end of Rebuild processing	xxx : RAID group number
Abnormal end of rebuild to DV (source disk problem)	Error	M A1A10xxx RAID Group#0xxx abnormal end of Rebuild processing because of source disk problem	xxx : RAID group number

Target	Level	Event Display	Remarks
Abnormal end of rebuild to DV	Error	M A1B10xxx RAID Group#0xxx abnormal end of Rebuild processing	xxx : RAID group number
Retry of rebuild to DV	Error	M A1C10xxx RAID Group#0xxx retry procedure of Rebuild processing	xxx : RAID group number
Start of Copyback	Error	M A3420xxx RAID Group#0xxx start procedure of Copyback processing	xxx : RAID group number
End of Copyback	Error	M A3820xxx RAID Group#0xxx normal end of Copyback processing	xxx : RAID group number
Abnormal end of Copyback (source disk problem)	Error	M A3A20xxx RAID Group#0xxx abnormal end of Copyback processing because of source disk problem	xxx : RAID group number
Abnormal end of Copyback	Error	M A3B20xxx RAID Group#0xxx abnormal end of Copyback processing	xxx : RAID group number
Retry of Copyback	Error	M A3C20xxx RAID Group#0xxx retry procedure of Copyback processing	xxx : RAID group number
Start failure of Redundant Copy (non HS)	Error	M A4130xxx RAID Group#0xxx start failure of Redundant Copy processing	xxx : RAID group number
Start of Redundant Copy	Error	M A4430xxx RAID Group#0xxx start procedure of Redundant Copy processing	xxx : RAID group number
End of Redundant Copy (Disk)	Error	P 21830xxx Disk Drive DE#uu-Disk#nn(SAS xxGB yykrpm cc) Redundant Copy end <pp ss rr>	xxx : RAID group number UU : DE ID nn : Slot number xx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
End of Redundant Copy (SSD 3.5inch)	Error	P 21830xxx SSD 3.5 DE#uu-Slot#nn(SAS xxGB cc) Redundant Copy end <pp ss rr>	xxx : RAID group number UU : DE ID nn : Slot number xx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
End of Redundant Copy (SSD 2.5inch)	Error	P 21830xxx SSD 2.5 DE#uu-Slot#nn(SAS xxGB cc) Redundant Copy end <pp ss rr>	xxx : RAID group number UU : DE ID nn : Slot number xx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
Abnormal end of Redundant Copy (source disk problem)	Error	M A4A30xxx RAID Group#0xxx abnormal end of Redundant Copy processing because of source disk problem	xxx : RAID group number

Target	Level	Event Display	Remarks
Abnormal end of Redundant Copy	Error	M A4B30xxx RAID Group#0xxx abnormal end of Redundant Copy processing	xxx : RAID group number
Retry of Redundant Copy	Error	M A4C30xxx RAID Group#0xxx retry procedure of Redundant Copy processing	xxx : RAID group number

Event Notification (M Messages)

Target	Level	Event Display	Remarks
Write Bad Data	Error	M E0050xxx WRITE BAD DATA	xxx : RLU number
PINNED Data (Occurred)	Error	M E10300MM PINNED DATA was created CM#m-CPU#v	MM : CM Module ID where PINNED occurred m : CM number v : CM CPU number
PINNED Data (Cleared)	Error	M E1FF00MM PINNED DATA was cleared CM#m-CPU#v	MM : CM Module ID where PINNED cleared m : CM number v : CM CPU number
NRDY (Factor 01)	Error	M E2070001 NOT READY(01:Configuration Error)	-
NRDY (Factor 02)	Error	M E2070002 NOT READY(02:CM F/W Version Error)	-
NRDY (Factor 04)	Error	M E2070004 NOT READY(04:Restore Fail)	-
NRDY (Factor 11)	Error	M E207000B NOT READY(11:Power Off/Fail Incomplete)	-
NRDY (Factor 12)	Error	M E207000C NOT READY(12:Backup Fail)	-
NRDY (Factor 13)	Error	M E207000D NOT READY(13:Multi CM Down)	-
NRDY (Factor 14)	Error	M E207000E NOT READY(14:Machine Down Recovery End)	-
NRDY (Factor 15)	Error	M E207000F NOT READY(15:Machine Down Recovery Failed)	-
NRDY (Factor 16)	Error	M E2070010 NOT READY(16:DE Build Error)	-
NRDY (Factor 17)	Error	M E2070011 NOT READY(17:CM Memory Shortage)	-
NRDY (Factor 19)	Error	M E2070013 NOT READY(19:FRT Fault)	-
NRDY (Factor 20)	Error	M E2070014 NOT READY(20:BRT Fault)	-
NRDY (Factor 21)	Error	M E2070015 NOT READY(21:Auto CFD)	-
NRDY (Factor 22)	Error	M E2070016 NOT READY(22:No Version)	-
NRDY (Factor 23)	Error	M E2070017 NOT READY(23:AC Input Shortage)	-

Target	Level	Event Display	Remarks
NRDY (Factor 24)	Error	M E2070018 NOT READY(24:Configuration Data restored from System Disk)	-
NRDY (Factor 25)	Error	M E2070019 NOT READY(25:BUD Capacity Shortage)	-
NRDY (Factor 26)	Error	M E207001A NOT READY(26:TPV Table Restore Fail from System Area)	-
NRDY (Factor 27)	Error	M E207001B NOT READY(27:TPV Table Restore Fail to BUD)	-
End of rebuild to HS (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx : RLU number
End of rebuild to DV (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx : RLU number
Disconnected intra-cabinet path	Error	M 0732MMpp Remote Copy Path (CM#xx CA#yy PORT#pp) Not Available	MM : Module ID pp : Port number xx : CM number yy : CA Slot number
REC automatic HALT occurrence	Error	M 13CF11xx REC Buffer HALT occurred. (xx)	xx : 00 is path error, 01 heavy load, 02 ERROR
Use capacity of Pool has changed. NORMAL -> CAUTION	Warning	M E8010xxx TPP#xxx turned to CAUTION(decrease of available capacity)	xxx : Thin Provisioning Pool number (hexadecimal notation)
Use capacity of Pool has changed. NORMAL or CAUTION -> WARNING	Warning	M E8020xxx TPP#xxx turned to WARNING(decrease of available capacity)	xxx : Thin Provisioning Pool number (hexadecimal notation)
Lack of pool capacity	Error	M E8050xxx TPP#xxx was all allocated	xxx : Thin Provisioning Pool number (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL -> CAUTION	Warning	M E8070xxx FTRP#xxx turned to CAUTION(decrease of available capacity)	xxx : FTRP number (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL or CAUTION -> WARNING	Warning	M E8080xxx FTRP#xxx turned to WARNING(decrease of available capacity)	xxx : FTRP number (hexadecimal notation)
Lack of Ftier pool capacity	Error	M E8090xxx FTRP#xxx was all allocated	xxx : FTRP number (hexadecimal notation)
Copy session [Active -> Error]	Error	M 13CE0001 Error session was detected. (Local:xxxxx Remote:xxxxx)	xxxxx : Number of copy sessions that status is Error
Copy session [Suspend -> Error]	Error	M 13CE0002 Foreseen error session was detected. (Local:xxxxx Remote:xxxxx)	xxxxx : Number of copy sessions that status changed from Suspend to Error
Copy session [Active -> Halt]	Error	M 13CE0003 Halt session was detected. (Remote:xxxxx)	xxxxx : Number of copy sessions that status is Halt
Copy session [Error -> Idle]	Error	M 13CE0004 Error session was cleared.	-

Target	Level	Event Display	Remarks
Copy session [Suspend -> Error -> Idle]	Error	M 13CE0005 Foreseen error session was cleared.	-
Copy session [Halt -> Active]	Error	M 13CE0006 Halt session was cleared.	-
Key Management Server communication Error	Error	M E928xyy Key Management Server communication Error (Key Server ID #xx)(Key Group ID#yy)	xx : Key server ID yy : Key group ID

Recovery Notification

Target	Level	Event Display	Remarks
CM Warning recovery	Information	R 01SSMM00 Controller Module#m(zz) Normal <pp ss rr>	SS : Parts subtype UU : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
CM Expander Warning recovery	Information	R 01SSMM0v Controller Module#m(zz) EXP#v Normal <pp ss rr>	SS : Parts subtype UU : Module ID v : Device number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision
IOM6 Warning recovery	Information	R 90SSUU0n IOM6 DE#UU/IOM#n Normal <pp ss rr>	SS : Parts subtype UU : DE ID n : EXP number pp : Parts number ss : Serial number rr : Revision
CPSU Alarm recovery (AC-Fail clear)	Information	R 73000n00 Power Supply Unit/ CPSU#n Normal <pp ss rr>	N : Side 0, side 1 pp : Parts number ss : Serial number rr : Revision
PSU Alarm recovery (AC-Fail clear)	Information	R D2SSUU0n Power Supply Unit DE#UU/PSU#n Normal <pp ss rr>	SS : Parts subtype UU : DE ID N : Side 0, side 1 pp : Parts number ss : Serial number rr : Revision
CE exhaust temperature alarm recovery	Information	R 7A000000 CE Exhaust temperature Normal	-
CE intake air temperature alarm recovery	Information	R 7B000000 CE Intake temperature Normal	-
DE exhaust temperature alarm recovery	Information	R DASSUU00 DE Exhaust temperature DE#UU Normal	SS : Parts subtype UU : DE ID
DE intake air temperature alarm recovery	Information	R DBSSUU00 DE Intake temperature DE#UU Normal	SS : Parts subtype UU : DE ID

CA Port Link Status Notification

Target	Level	Event Display	Remarks
CA port link status	Information	I 03000001 The status of Link became \$a in CM#\$b CA#\$c Port#\$d.	\$a : Link Status (LinkUp, LinkDown) \$b : CM number (0 - 7) \$c : CA number (0 - 3) \$d : Port number (0 - 3)

4.3 ETERNUS DX60 S2

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

Notification of Component Blockage

Target	Level	Event Display	Remarks
CM Unit	Error	P 01SSMM00 Controller Module#m(zz xxHz) Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM BE Expander	Error	P 06SSMM00 Controller Module#m(zz xxHz) BE Expander Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM DI PORT	Error	P 08SSMM0n Controller Module#m(zz xxHz) DI Port#n Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 1) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM SAS Port	Error	P 09SSMM00 Controller Module#m(zz xxHz) SAS Port Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision

Target	Level	Event Display	Remarks
CM BE Expander Port	Error	P 0ASSMM0n Controller Module#m(zz xxHz) BE Expander Port#n Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 2) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM Memory	Error	P 0BSSMM00 Controller Module#m(zz xxHz) Cache(MEM) Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) MEM: Memory capacity pp : Parts number ss : Serial number rr : Revision
CM Flash ROM	Error	P 0CSSMM00 Controller Module#m(zz xxHz) Flash ROM Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM NAND Controller	Error	P 0ESSMM00 Controller Module#m(zz xxHz) NAND Controller Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
SCU	Error	P 0FSSMM00 Controller Module#m(zz xxHz) Super Capacitor Unit Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CA Port	Error	P 11SSMM0n Controller Module#m(zz xxHz) Port#n Fault <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 1) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz)

Target	Level	Event Display	Remarks
			<i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM FE Expander	Error	P 12SSMM00 Controller Module# <i>m</i> (<i>zz</i> xxHz) FE Expander Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID (10 - 11) <i>m</i> : CM number <i>zz</i> : Model (FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/1.2GHz) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
CM FE Expander Port	Error	P 13SSMM0n Controller Module# <i>m</i> (<i>zz</i> xxHz) FE Expander Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID (10 - 11) <i>nn</i> : Port number (0 - 1) <i>xx</i> : Frequency (800MHz/1.2GHz) <i>zz</i> : Model (FC/SAS/iSCSI) <i>yy</i> : Number of ports (1 - 2) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
SFP Optical Shortwave	Error	P 1A00MM0n FC SFP Controller Module# <i>m</i> Port# <i>n</i> Fault < <i>pp ss rr oo</i> >	<i>MM</i> : Module ID (10 - 11) <i>n</i> : Port number (0 - 1) <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other information
SFP+ Optical Shortwave	Error	P 1C00MM0n FC SFP+ Controller Module# <i>m</i> Port# <i>n</i> Fault < <i>pp ss rr oo</i> >	<i>MM</i> : Module ID (10 - 11) <i>n</i> : Port number (0 - 1) <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other information
3.5 Inch DISK	Error	P 80SSDDNN Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS xxxGB yykrpm cc) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
3.5 Inch Disk (Failed Usable)	Error	P 80SSDDNN Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS xxxGB yykrpm cc) Failed Usable < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number

Target	Level	Event Display	Remarks
			ss : Serial number rr : Revision
3.5 Inch DISK (Compare Error)	Error	P 88SSDDNN Disk Drive DE# DD- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
2.5 Inch DISK	Error	P 81SSDDNN Disk Drive DE#DD- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
2.5 Inch Disk (Failed Usable)	Error	P 81SSDDNN Disk Drive DE#DD- Disk#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
2.5 Inch DISK (Compare Error)	Error	P 88SSDDNN Disk Drive DE# DD- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
3.5 Inch DISK	Error	P 82SSDDNN Disk Drive DE#DD- Disk#n(SATA xxxGB cc) Fault <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
3.5 Inch Disk (Failed Usable)	Error	P 82SSDDNN Disk Drive DE#DD- Disk#n(SATA xxxGB cc) Failed Usable <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b)

Target	Level	Event Display	Remarks
			<i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
3.5 Inch DISK (Compare Error)	Error	P 88SSDDNN Disk Drive DE# DD- Disk# <i>n</i> (SATA <i>xxx</i> GB <i>cc</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
3.5 Inch SSD	Error	P 84SSDDNN SSD 3.5 DE#dd- Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
3.5 Inch SSD (Failed Usable)	Error	P 84SSDDNN SSD 3.5 DE#dd- Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Failed Usable < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
3.5 Inch SSD (Compare Error)	Error	P 88SSDDNN SSD 3.5 DE#dd- Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
2.5 Inch SSD	Error	P 85SSDDNN SSD 2.5 DE#dd- Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
2.5 Inch SSD (Failed Usable)	Error	P 85SSDDNN SSD 2.5 DE#dd- Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Failed Usable < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17)

Target	Level	Event Display	Remarks
			<i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
2.5 Inch SSD (Compare Error)	Error	P 88SSDDNN SSD 2.5 DE#dd- Slot#n(SAS xxxGB cc) Fault <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
EXP	Error	P 900DD0N Expander DE#DD/EXP#N Fault <pp ss rr>	DD : DE ID N : Side 0, side 1 <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
EXP Port	Error	P 9100DDNn Expander Port DE#DD/ EXP#N/Port#n Fault <pp ss rr>	DD : DE ID N : Side 0, side 1 <i>n</i> : Port number (0 - 1) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision
PSU	Error	P D200DD0n Power Supply Unit DE#DD/PSU#n Fault <pp ss rr>	DD : DE ID <i>n</i> : Slot number (0 - 1) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision

Warning (Temperature Alarm)

Target	Level	Event Display	Remarks
DE Abnormal exhaust gas temperature (FATAL)	Error	P DA0tDD00 DE Exhaust temperature DE#DD Fatal	<i>t</i> : Type(1=1U, 2=2U) DD : DE ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA0tDD00 DE Exhaust temperature sensor DE#DD Fault	<i>t</i> : Type(1=1U, 2=2U) DD : DE ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA0tDD00 DE Exhaust temperature DE#DD Warning	<i>t</i> : Type(1=1U, 2=2U) DD : DE ID
DE Abnormal intake temperature (Sensor failure)	Error	P DB0tDD00 DE Intake temperature sensor DE#DD Fault	<i>t</i> : Type(1=1U, 2=2U) DD : DE ID
DE Abnormal intake temperature (WARNING)	Warning	J DB0tDD00 DE Intake temperature DE#DD Warning	<i>t</i> : Type(1=1U, 2=2U) DD : DE ID

Warning (Other)

Target	Level	Event Display	Remarks
CM Check1	Warning	J C1MM0000 Controller Module#m(zz xxHz) Reboot <pp ss rr>	MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
Multiple memory collectable error	Warning	J C301MM00 Controller Module#m(zz xxHz) Cache(MEM) Correctable Error <pp ss rr>	MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) MEM: Memory capacity pp : Parts number ss : Serial number rr : Revision
CM Warning	Warning	J 01SSMM00 Controller Module#m(zz xxHz) Warning factor(ww) <pp ss rr>	SS : Parts subtype m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) ww : Factor Code pp : Parts number ss : Serial number rr : Revision
CM BE Expander Warning	Warning	J 06SSMM00 Controller Module##m(zz xxHz) BE Expander Warning <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM SAS Port Warning	Warning	J 09SSMM0n Controller Module#m(zz xxHz) SAS Port#n Warning <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 1) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM BE Expander Port Warning	Warning	J 0ASSMM0n Controller Module#m(zz xxHz) BE Expander Port#n Warning <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 2) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number

Target	Level	Event Display	Remarks
			ss : Serial number rr : Revision
CM FLASH ROM	Warning	J 0C5SMM00 Controller Module#m(zz xxHz) Flash ROM Warning <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
CM NAND Controller	Warning	J 0E5SMM00 Controller Module#m(zz xxHz) NAND Flash Warning <pp ss rr>	SS : Parts subtype MM : Module ID (10 - 11) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
SMART notice from Disk (3.5inch)	Warning	J 80SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
Disk preventative separation SMART (3.5inch)	Warning	J 80SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
SMART notice from Disk (2.5inch)	Warning	J 81SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision
Disk preventative separation SMART (2.5inch)	Warning	J 81SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation

Target	Level	Event Display	Remarks
			cc : Disk information pp : Parts number ss : Serial number rr : Revision
SATA Disk notice from Disk (3.5inch)	Warning	J 82SSDDNN Disk Drive DE#DD-Disk#n(SATA xxxGB cc) SMART <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
SATA Disk preventative separation SMART (3.5inch)	Warning	J 82SSDDNN Disk Drive DE#DD-Disk#n(SATA xxxGB cc) Warning <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
SMART notice from SSD (3.5inch)	Warning	J 84SSDDNN SSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) SMART <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
SSD preventative separation SMART (3.5inch)	Warning	J 84SSDDNN SSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Warning <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
SMART notice from SSD (2.5inch)	Warning	J 85SSDDNN SSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) SMART <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision
SSD preventative separation SMART (2.5inch)	Warning	J 85SSDDNN SSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) Warning <pp ss rr>	SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity

Target	Level	Event Display	Remarks
			cc : Disk information pp : Parts number ss : Serial number rr : Revision
EXP Alarm (Warning Level)	Warning	J 900DD0N Expander DE#DD/EXP#n Warning <pp ss rr>	DD : DE ID N : Side 0, side 1 pp : Parts number ss : Serial number rr : Revision
EXP Port (Warning Level)	Warning	J 910DDNn Expander Port DE#DD/ EXP#N/Port#n Warning <pp ss rr>	DD : DE ID N : Side 0, side 1 n : Port number (0 - 1) pp : Parts number ss : Serial number rr : Revision

Event Notification (M Messages)

Target	Level	Event Display	Remarks
Write Bad Data	Error	M E0050xxx WRITE BAD DATA	xxx : RLU number
PINNED Data	Error	M E10300MM PINNED DATA	MM : CM Module ID where PINNED occurred
NRDY (Factor 01)	Error	M E2070001 NOT READY(01:Configuration Error)	-
NRDY (Factor 02)	Error	M E2070002 NOT READY(02:CM F/W Version Error)	-
NRDY (Factor 04)	Error	M E2070004 NOT READY(04:Restore Fail)	-
NRDY (Factor 11)	Error	M E207000B NOT READY(11:Power Off/Fail Incomplete)	-
NRDY (Factor 12)	Error	M E207000C NOT READY(12:Backup Fail)	-
NRDY (Factor 13)	Error	M E207000D NOT READY(13:Multi CM Down)	-
NRDY (Factor 14)	Error	M E207000E NOT READY(14:Machine Down Recovery End)	-
NRDY (Factor 15)	Error	M E207000F NOT READY(15:Machine Down Recovery Failed)	-
NRDY (Factor 16)	Error	M E2070010 NOT READY(16:DE Build Error)	-
NRDY (Factor 17)	Error	M E2070011 NOT READY(17:CM Memory Shortage)	-
NRDY (Factor 21)	Error	M E2070015 NOT READY(21:Configuration Data restored from System Disk)	-
NRDY (Factor 22)	Error	M E2070016 NOT READY(22:No Version)	-

Target	Level	Event Display	Remarks
End of rebuild to HS (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx : RLU number
End of rebuild to DV (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx : RLU number
Disconnected intra-cabinet path	Error	M 0732xyyy Remote Copy Path (MID#xx PORT#yy) Not Available	xx : MID yy : Port
REC automatic HALT occurrence	Error	M 13CF11xx REC Automatic HALT or ERROR occurred.(xx)	xx : 00 is path error, 01 heavy load, 02 ERROR
Copy session [Active -> Error]	Error	M 13CE0001 Error session was detected. (Local:xxxxx Remote:xxxxx)	xxxxx : Number of copy sessions that status is Error
Copy session [Suspend -> Error]	Error	M 13CE0002 Foreseen error session was detected. (Local:xxxxx Remote:xxxxx)	xxxxx : Number of copy sessions that status changed from Suspend to Error
Copy session [Active -> Halt]	Error	M 13CE0003 Halt session was detected. (Remote:xxxxx)	xxxxx : Number of copy sessions that status is Halt
Copy session [Error -> Idle]	Error	M 13CE0004 Error session was cleared.	-
Copy session [Suspend -> Error -> Idle]	Error	M 13CE0005 Foreseen error session was cleared.	-
Copy session [Halt -> Active]	Error	M 13CE0006 Halt session was cleared.	-

Recovery Notification

Target	Level	Event Display	Remarks
CM BE Expander Warning recovery	Information	R 06SSMM00 Controller Module#n(zz xxHz) BE Expander Normal <pp ss rr>	SS : Parts subtype MM : CM MID (10 - 11) n : Port number (0 - 1) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/1.2GHz) pp : Parts number ss : Serial number rr : Revision
EXP Warning recovery	Information	R 9000DDnn Expander DE#DD/EXP#n Normal <pp ss rr>	DD : DE ID nn : Port number (00 - 01) n : Port number (0 - 1) pp : Parts number ss : Serial number rr : Revision
PSU Alarm recovery (AC-Fail clear)	Information	R D200DD0N Power Supply Unit DE#DD /PSU#N Normal <pp ss rr>	DD : DE ID N : Side 0, side 1 pp : Parts number ss : Serial number rr : Revision
DE exhaust temperature alarm recovery	Information	R DA0tDD00 DE OUT TEMP Normal	DD : DE ID t : Type(1: 3.5"DE / 2: 2.5"DE)
DE intake air temperature alarm recovery	Information	R DB0tDD00 DE IN TEMP Normal	DD : DE ID t : Type(1: 3.5"DE / 2: 2.5"DE)

4.4 ETERNUS AF All-Flash Arrays, ETERNUS DX200F

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

Express and Storage Cruiser receive event traps that are described in the device manuals.

Specific Trap (Extended Trap)

Trap Number	Explanation	Remarks
2	This Trap is sent to notify that a component has failed or has been degraded.	-
3	This Trap is sent to notify that a battery life has expired.	-
5	This Trap is sent to notify that a component requires preventive maintenance.	-
6	This Trap is sent to notify that a temperature error has been detected.	-
7	This Trap is sent to notify that an event requires maintenance or preventive maintenance.	-
10	This trap is sent to notify that the link status of a CA port has been changed.	-
11	This Trap is sent to notify the Error level events related to Storage Cluster.	-
12	This Trap is sent to notify the Information level events related to Storage Cluster.	-
13	This Trap is sent to notify the Information level events related to Deduplication/Compression.	*1
14	This Trap is sent to notify the Error level events related to Automated Storage Tiering.	*2
15	This Trap is sent to notify the Information level events related to Automated Storage Tiering.	*2
22	This Trap is sent to notify that an event notified by Trap number 2 has returned to normal state.	-
25	This Trap is sent to notify that an event notified by Trap number 5 has returned to normal state.	-
26	This Trap is sent to notify that an event notified by Trap number 6 has returned to normal state.	-
50	This Trap is sent to notify the Error level events.	-
51	This Trap is sent to notify the Warning level events.	-

*1: The same message may be notified several times from one device.

*2: ETERNUS AF All-Flash Arrays only.

To change the event traps to be received, refer to "SNMP Trap XML Definition File" in the *Storage Cruiser Operation Guide* and modify the SNMP Trap XML definition file.

4.5 ETERNUS VS850 S3

Event traps are messages reported from a device. Refer to the device manuals for information on events to take appropriate action.

Level	Event Display	Failure Event
Information	ErrorCode=\$1, ErrorID=\$2, Node=\$3, FRU=\$4, Msg=\$5	A warning event has occurred.
Warning	ErrorCode=\$1, ErrorID=\$2, Node=\$3, FRU=\$4, Msg=\$5	A warning event has occurred.
Error	ErrorCode=\$1, ErrorID=\$2, Node=\$3, FRU=\$4, Msg=\$5	An error event has occurred.

The information shown in the table below is displayed in the event message for \$n.

\$n	Information
\$1	Error code
\$2	Error ID

\$n	Information
\$3	Node number identified by the event notification
\$4	FRU information identified by the event notification
\$5	Message

When the event trap does not contain any corresponding information, "None" is displayed for \$n.

If there is no need for device maintenance and the notification does not indicate a device error, "None" is displayed for \$1.

When the notification is for the clustered system overall and does not depend on a specific node, "None" is displayed for \$3.

 **Note**

In the default setting, Information level messages are not displayed. To display Information level messages, refer to "SNMP Trap XML Definition File" in the *Storage Cruiser Operation Guide* to change the Information level setting.

4.6 ETERNUS AX/HX series

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

Depending on the event level, the corresponding icon may turn red (**Error**) or yellow (**Warning**). (In case of the level "Information", the icon color is not changed.)

 **Information**

The message contents may differ depending on the Data ONTAP(R) version and the event.

 **Point**

Event traps are reported from each controller installed in the device. In this product, the messages are displayed on a per controller basis. Because of this, when registering a controller in this product, using a name that can easily identify that controller in the event trap is recommended. For the information on how to register a device, refer to "ETERNUS AX/HX series, ETERNUS AB/HB series" in the "Environment Configuration" chapter of the *Storage Cruiser Operation Guide*.

Failure Event	Level	Event Display
User definition error	Information	The device trap message is output as is.
DHM Disk Degrade-I/O	Warning	The device trap message is output as is.
DHM Disk Predictive Failure	Warning	The device trap message is output as is.
User definition (urgent)	Error	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
User definition (caution)	Error	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
User definition (important)	Error	The device trap message is output as is. Display example is as follows:

Failure Event	Level	Event Display
		userDefined == 20670538 priority == informational
User definition (error)	Error	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
User definition (warning)	Warning	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
User definition (notice)	Information	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
User definition (information)	Information	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
User definition (debug)	Information	The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational
Shutdown because of an exceeded time limit in degrade mode	Error	The device trap message is output as is. Display example is as follows: data disk in RAID group /voll/plex0/rg0 is broken. Halting system now.
Disk failure	Error	The device trap message is output as is. Display example is as follows: data disk in RAID group /voll/plex0/rg0 is broken.
Disk recovery	Information	The device trap message is output as is.
Shutdown because of a fan failure	Error	The device trap message is output as is. Display example is as follows: Multiple chassis fan enclosures have failed: Fans 1/2 Fans 3/4
Fan failure	Error	The device trap message is output as is.
Fan failure (warning)	Warning	The device trap message is output as is. Display example is as follows: Fans 1/2 are bad or missing; Replace quickly
Fan recovery	Information	The device trap message is output as is. Display example is as follows: Backplane_Fan_5 spinning at or above normal speed
Shutdown because of a power supply failure	Error	The device trap message is output as is.
Power supply failure	Error	The device trap message is output as is. Display example is as follows: Power supply is in degraded mode: Power Supply #1 is off

Failure Event	Level	Event Display
Power supply failure (warning)	Warning	The device trap message is output as is. Display example is as follows: Power supply 2 is powered off
Power supply recovery	Information	The device trap message is output as is. Display example is as follows: Power supply 1 is powered on
CPU usage rate warning	Warning	The device trap message is output as is.
CPU usage rate recovery	Information	The device trap message is output as is.
NVRAM battery completely discharged	Error	The device trap message is output as is.
NVRAM battery power low	Warning	The device trap message is output as is.
Cluster node error	Error	The device trap message is output as is. Display example is as follows: Cluster monitor: takeover started
Cluster node takeover	Information	The device trap message is output as is. Display example is as follows: Cluster monitor: takeover completed
Cluster recovery notification	Information	The device trap message is output as is. Display example is as follows: Cluster monitor: giveback completed
Volume usage rate warning (98%)	Warning	The device trap message is output as is. Display example is as follows: /vol/voll is full (using or reserving 98% of space and 0% of inodes).
Volume usage rate warning (95%)	Warning	The device trap message is output as is. Display example is as follows: /vol/voll is nearly full (using or reserving 95% of space and 0% of inodes).
Volume usage rate recovery	Information	The device trap message is output as is. Display example is as follows: No volumes are full or nearly full.
Shutdown because of a system temperature error	Error	The device trap message is output as is.
System temperature warning	Warning	The device trap message is output as is.
System temperature recovery	Information	The device trap message is output as is.
Shelf failure	Error	The device trap message is output as is. Display example is as follows: Fault reported on disk storage shelf attached to slot 8. Please check fans, power and temperature.
Shelf recovery	Information	The device trap message is output as is. Display example is as follows:

Failure Event	Level	Event Display
		Fault previously reported on disk storage shelf attached to channel 7 has been corrected.
Shutdown because the global status is NonRecoverable	Error	The device trap message is output as is.
global Status Critical	Error	The device trap message is output as is. Display example is as follows: Disk shelf fault.
global Status NonCritical	Warning	The device trap message is output as is. Display example is as follows: Disk on adapter 8, shelf 1, bay 1, failed.
Global status normal	Information	The device trap message is output as is. Display example is as follows: The system's global status is normal.
"soft Quota" threshold exceeded	Warning	The device trap message is output as is. Display example is as follows: Threshold exceeded for user 1008, tree 0 on volume voll
"soft Quota" normal	Information	The device trap message is output as is. Display example is as follows: Soft block limit returned to normal for user 1008, tree 0 on volume voll
autosupport transfer error	Warning	The device trap message is output as is. Display example is as follows: Autosupport mail was not sent because the system cannot reach any of the mail hosts from the autosupport.mailhost option
autosupport configuration definition error	Warning	The device trap message is output as is. Display example is as follows: Autosupport cannot connect to host lavender (Unknown mhost)
autosupport transmission	Information	The device trap message is output as is. Display example is as follows: System Notification mail sent
UPS power being supplied	Warning	The device trap message is output as is. Display example is as follows: Input power to UPS at 192.168.1.10 has failed.
There is a state of emergency because the UPS power has almost reached a state of discharge	Warning	The device trap message is output as is.
Shutdown due to a fully discharged UPS	Error	The device trap message is output as is. Display example is as follows: The time left on battery is marginal for UPS at 192.168.1.10.

Failure Event	Level	Event Display
Low UPS power warning	Warning	The device trap message is output as is.
UPS power recovery	Information	The device trap message is output as is. Display example is as follows: Input power to UPS at 192.168.1.10 has been restored.
AppEmergency trap	Error	The device trap message is output as is.
AppAlert trap	Error	The device trap message is output as is.
AppCritical trap	Error	The device trap message is output as is.
AppError trap	Error	The device trap message is output as is.
AppWarning trap	Warning	The device trap message is output as is.
AppNotice trap	Information	The device trap message is output as is.
AppInfo trap	Information	The device trap message is output as is.
AppTrap trap	Information	The device trap message is output as is.
Audit log wrap enabled	Information	The device trap message is output as is.
Saving to audit log	Information	The device trap message is output as is.
Audit log nearly full	Information	The device trap message is output as is.
Quota limit exceeded	Warning	The device trap message is output as is. Display example is as follows: Quota Event: status=exceeded, type=threshold, volume=vol1, limit_item=disk, limit_value=1024, user=65534, treeid=0
Recovery from the "quota limit exceeded" status	Information	The device trap message is output as is. Display example is as follows: Quota Event: status=normal, type=soft, volume=vol1, limit_item=disk limit_value=2048, user=65534, treeid=0
Directory size limit reached	Error	The device trap message is output as is.
ECC correctable error	Error	The device trap message is output as is.
Multiple ECC correctable errors	Warning	The device trap message is output as is.
FTP daemon error	Warning	The device trap message is output as is.
Maximum number of connections reached	Information	The device trap message is output as is.
Maximum number of connections nearly reached	Information	The device trap message is output as is.
FCP linkDown	Error	The device trap message is output as is.
FCP partner path definition error	Error	The device trap message is output as is.
Slot-limit-related event	Information	The device trap message is output as is.
Primary interface failure	Warning	The device trap message is output as is. Display example is as follows: vif1 has failed over to the Backup interface e7a received trap from [192.168.1.10].
Failure of all interfaces	Error	The device trap message is output as is. Display example is as follows:

Failure Event	Level	Event Display
		All links for vif1 have failed
vfiler stop	Information	The device trap message is output as is.
vfiler start	Information	The device trap message is output as is.
Virus detected	Error	The device trap message is output as is.
vscan server disconnected	Warning	The device trap message is output as is.
vscan setting changed	Information	The device trap message is output as is.
vscan server connection	Information	The device trap message is output as is.
vscan server upgraded	Information	The device trap message is output as is.
Media error occurrence during reconstruction (wafliron failure)	Error	The device trap message is output as is.
No matching volume	Error	The device trap message is output as is.
Volume status changed (offline or restricted)	Information	The device trap message is output as is.
Volume online	Information	The device trap message is output as is.
RMC card replacement required	Error	The device trap message is output as is.
RMC card cable connection error	Error	The device trap message is output as is.
Remote volume connection failed	Warning	The device trap message is output as is.
Remote volume connection restored	Information	The device trap message is output as is.
Remote volume recovery complete	Information	The device trap message is output as is.
Remote volume recovery started	Information	The device trap message is output as is.
Root volume conflict	Error	The device trap message is output as is.
Physical volume size limit exceeded	Error	The device trap message is output as is.
Volume offline	Information	The device trap message is output as is.
Volume made restricted	Information	The device trap message is output as is.
waf1_check execution required because of degraded volume and dirty parity	Error	The device trap message is output as is.
Volume error resulting in inability to place the volume online	Warning	The device trap message is output as is.
Synchronous SnapMirror error (transition to asynchronous mode)	Warning	The device trap message is output as is.
Return to synchronous SnapMirror mode	Information	The device trap message is output as is.
Shutdown due to abnormal controller temperature	Error	The device trap message is output as is.
Abnormal controller temperature	Error	The device trap message is output as is.
Unknown controller temperature	Warning	The device trap message is output as is.

Failure Event	Level	Event Display
Normal controller temperature	Information	The device trap message is output as is.
Controller CPU fan stopped	Error	The device trap message is output as is.
Controller CPU fan operating at a low speed	Warning	The device trap message is output as is.
Controller CPU fan normal	Information	The device trap message is output as is.
Multiple redundant controller power supplies failed	Error	The device trap message is output as is.
Redundant controller power supply degraded	Error	The device trap message is output as is.
Redundant controller power supply failed	Error	The device trap message is output as is.
Redundant controller power supply removed	Warning	The device trap message is output as is.
Redundant controller power supply turned off	Warning	The device trap message is output as is.
All redundant controller power supply functions normal	Information	The device trap message is output as is.
Redundant controller power supplies normal	Information	The device trap message is output as is.
Redundant controller fan degraded	Error	The device trap message is output as is.
Redundant controller fan removed	Warning	The device trap message is output as is.
Redundant controller fan stopped	Warning	The device trap message is output as is.
Redundant controller fan warning	Warning	The device trap message is output as is.
Redundant controller fan normal	Information	The device trap message is output as is.
Failure in write-verification of a snapvalidator-enabled volume	Error	The device trap message is output as is.
Domain controller disconnected	Warning	The device trap message is output as is.
Password replacement with the domain controller failed	Warning	The device trap message is output as is.
One plex failed	Warning	The device trap message is output as is.
One plex placed offline	Warning	The device trap message is output as is.
Device fault in the shelf	Error	The device trap message is output as is.
Device in the shelf repaired	Information	The device trap message is output as is.
Module fault in the shelf	Error	The device trap message is output as is.
Module fault in the shelf repaired	Information	The device trap message is output as is.
The directory size has reached the maximum value	Error	The device trap message is output as is.
The directory size is approaching the maximum value	Warning	The device trap message is output as is.

Failure Event	Level	Event Display
All control blocks for CIFS statistics are being used	Warning	The device trap message is output as is.
The power unit has been disengaged, therefore shutdown will occur if this is left as it is	Warning	The device trap message is output as is.
There is a discrepancy between power unit types	Error	The device trap message is output as is.
More than one package FAN is faulty, therefore shutdown will occur if this is left as it is	Error	The device trap message is output as is.
A power unit in the system has connected to an incompatible external power source	Error	The device trap message is output as is.
At least one volume usage rate recovery	Information	The device trap message is output as is.
Directory size limit nearly reached	Warning	The device trap message is output as is.
Domain controller connected	Information	The device trap message is output as is.
Module warning in the shelf	Warning	The device trap message is output as is.
Multiple power supply fan failure	Error	The device trap message is output as is.
System down detection by system remote management	Error	The device trap message is output as is.
System down detection by system remote management	Warning	The device trap message is output as is.
System down instruction by system remote management	Warning	The device trap message is output as is.
Periodic trap from system remote management	Information	The device trap message is output as is.
Test trap from system remote management	Information	The device trap message is output as is.
Multipath disk connected to one switch	Warning	The device trap message is output as is.
Multipath disk not detected for the partner	Warning	The device trap message is output as is.
Multipath disk not multipathed	Warning	The device trap message is output as is.
Disk disable	Error	The device trap message is output as is.
HBA offline	Warning	The device trap message is output as is.
LUN Snap restore notice	Information	The device trap message is output as is.
LUN clone created	Information	The device trap message is output as is.
LUN Clone Split started	Information	The device trap message is output as is.
LUN Clone Split completed	Information	The device trap message is output as is.
Flex Clone Split started	Information	The device trap message is output as is.
Flex Clone Split completed	Information	The device trap message is output as is.
Created a Volume Clone	Information	The device trap message is output as is.

Failure Event	Level	Event Display
Snapshot Autodeleted	Information	The device trap message is output as is.
Volume is Autogrown	Information	The device trap message is output as is.
All connections to domain controllers in the preferred domain controllers list have been lost	Error	The device trap message is output as is.
External cache card failure	Information	The device trap message is output as is.
External cache is taken offline	Information	The device trap message is output as is.
The remaining number of Snapshot copies for a backup schedule is below warning limit specified	Warning	The device trap message is output as is.
NTP Time Daemon lost contact with the configured target	Error	The device trap message is output as is.
Trend Micro antivirus license has expired	Warning	The device trap message is output as is.
Trend Micro antivirus license is about to expire	Information	The device trap message is output as is.
Cutover phase of volume move job has been deferred	Warning	The device trap message is output as is.
Cutover phase of volume move job attempt resulted in failure	Error	The device trap message is output as is.
A volume move job completed successfully	Information	The device trap message is output as is.
A volume move is waiting for the user to trigger cutover	Information	The device trap message is output as is.
The anti-virus software update failed.	Error	The device trap message is output as is.
The anti-virus software license validation failed.	Error	The device trap message is output as is.
McAfee product has expired.	Error	The device trap message is output as is.
Remedy action taken. The file has been repaired, deleted or quarantined.	Information	The device trap message is output as is.
License validation was successful.	Information	The device trap message is output as is.
Remedy action failed. The file was not repaired, deleted or quarantined.	Error	The device trap message is output as is.
McAfee engine has expired.	Error	The device trap message is output as is.
McAfee product is expiring.	Warning	The device trap message is output as is.
A file larger than 2GB is not scanned and marked as clean.	Warning	The device trap message is output as is.
McAfee engine is expiring.	Warning	The device trap message is output as is.
Virus found while scanning.	Warning	The device trap message is output as is.

Failure Event	Level	Event Display
McAfee anti-virus license activation failed.	Error	The device trap message is output as is.
The anti-virus service disabling failed in the clustered system.	Error	The device trap message is output as is.
The anti-virus service is disabled in the clustered system.	Information	The device trap message is output as is.
McAfee anti-virus license is about to expire.	Warning	The device trap message is output as is.
The anti-virus service is enabled in the clustered system.	Information	The device trap message is output as is.
Spyware found while scanning.	Warning	The device trap message is output as is.
The anti-virus service enabling failed in the clustered system.	Error	The device trap message is output as is.
The anti-virus software cannot be rolled back.	Error	The device trap message is output as is.
The anti-virus software is rolled back.	Information	The device trap message is output as is.
The anti-virus software is updated.	Information	The device trap message is output as is.

4.7 ETERNUS AB/HB series

Event traps are messages reported from a device. Refer to the device manuals for information on events to take appropriate action.

Point

- With the default setting, the messages that are to be displayed are reported when the Event Priority is "Critical". The status of the device does not change according to the event trap. To change the settings related to the reported message, refer to "SNMP Trap XML Definition File" in the *Storage Cruiser Operation Guide*.
- Event traps are reported from each controller installed in the device. In this product, the messages are displayed on a per controller basis. Because of this, when registering a controller in this product, using a name that can easily identify that controller in the event trap is recommended. For the information on how to register a device, refer to "ETERNUS AX/HX series, ETERNUS AB/HB series" in the "Environment Configuration" chapter of the *Storage Cruiser Operation Guide*.

4.8 NetApp FAS Series, FAS Series (with clustered Data ONTAP), and AFF series

Refer to "4.6 ETERNUS AX/HX series".

Chapter 5 Tape Library Events

5.1 ETERNUS LT20 S2/LT40 S2/LT60 S2

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

5.2 ETERNUS LT140

Event traps are messages reported from a device. Refer to the device manuals to take corrective actions.

5.3 ETERNUS LT260

Event traps are messages reported from a device. Refer to the device manuals to take corrective actions.

5.4 ETERNUS LT270 S2

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the device manuals to take corrective actions.

Failure Event	Level	Event Display
Library hardware error	Error	Library system failed. Use the remote panel to check the error contents(FSC=xxxx, Sensekey=xxxx,Cabinet Number=number).
Barcode reader error	Warning	Barcode reader in robot #number of cabinet #number failed.
CM error	Warning	An error occurred in media error (CM fail) (Barcode Label=xxxxx, cabinet #number).
CAS cell error	Warning	CAS unit #number of cabinet #number failed.
Cell error	Warning	Cell unit of cabinet #number failed (Barcode Label: xxxxx).
CIC sensor error	Warning	CIC sensor in robot #number of cabinet #number failed.
Battery alarm	Warning	Battery unit in LCT of cabinet #number failed.
Shelf 0 fan alarm	Warning	Shelf FAN 0 of cabinet #number failed.
Shelf 1 fan alarm	Warning	Shelf FAN 1 of cabinet #number failed.
Shelf 2 fan alarm	Warning	Shelf FAN 2 of cabinet #number failed.
CAS open error	Warning	An open error occurred in CAS unit #number of cabinet #number.
FC/SCSI adapter card error	Warning	Adapter #number failed.
Firmware BOOTUP alarm	Warning	The LCT of cabinet #number bootup alarm occurred.
EEPROM error	Warning	EEPROM failed.
PSU alarm	Warning	PSU unit #number of cabinet #number failed.
PSU power off alarm	Warning	Power-off occurred in PSU unit #number of cabinet #number.
PSU FAN alarm	Warning	PSU unit #number of cabinet #number FAN failed.
Temperature alarm	Warning	Cabinet #number temperature increased (temperature degree C), leading to an alarm.
Temperature abnormality error	Error	Cabinet #number temperature increased abnormally (temperature degree C), leading to a library system fail.
Humidity alarm	Warning	Cabinet #number humidity (humidity %) is abnormal.

Failure Event	Level	Event Display
ROBOT Down alarm	Warning	Robot #number of cabinet #number failed.
Front door open (during operation)	Warning	Front door of cabinet #number was opened.
Nearing no cleaning tape	Warning	The installed cleaning cartridges of cabinet #number will reach a limit soon.
Expired deadline for cleaning	Warning	Maximum number of uses of cleaning cell #number of cabinet #number (Barcode Label: xxxxx) was reached.
Cleaning cartridge none	Warning	Cleaning cartridge of cabinet #number is not available.
ROBOT Serdes alarm	Warning	Serdes in robot #number of cabinet #number failed.
Power control card alarm	Warning	Power control card failed.
LCD power off alarm	Warning	Power-off occurred in operation panel of cabinet #number.
Drive hardware error	Error	An error occurred in drive #number of cabinet #number. Use the remote panel to check the error contents (FSC=xxxx, Sensekey=xxxxxx).
Media error	Warning	An error occurred in media error (Barcode Label: xxxxx).
Fan alarm	Warning	A FAN alarm occurred in drive #number of cabinet #number.
Cleaning request	Warning	Drive #number of cabinet #number needs cleaning. Perform cleaning.
LCT/DCT IF failure	Warning	Interface between LCT and DCI (drive cluster #number of cabinet #number) failed.
DCI failure	Warning	DCI in drive cluster #number of cabinet #number failed.
Nearing Media Life	Warning	Media soon will be end of life (Barcode Label: xxxxx).
Reach Media Life	Warning	Media reached at the end of life (Barcode Label: xxxxx).
Nearing ROBOT Life	Warning	Robot #number of cabinet #number soon will be end of life.
Reach ROBOT life	Warning	Robot #number of cabinet #number reached at the end of life.
Nearing Drive Life	Warning	Drive #number of cabinet #number soon will be end of life.
Reach Drive Life	Warning	Drive #number of cabinet #number reached at the end of life.
Encryption key delivery abnormality over threshold	Warning	Key send retry threshold over.
Standby ROBOT patrol failure	Warning	Standby robot of cabinet #number patrol warning occurred.
Robot RPS over threshold	Warning	Robot of cabinet #number hang down warning occurred.
Cabinet through has reached end of life	Warning	Cabinet through #number reached at the end of life.
Cabinet through stopped because the front door is open	Warning	Cabinet through stopped because of front door opened.
Cabinet through down alarm	Warning	Cabinet through #number failed.
Standby cabinet through down alarm	Warning	Standby cabinet through #number failed.
LAN HUB0 error	Warning	LAN HUB0 of cabinet #number failed.
LAN HUB1 error	Warning	LAN HUB1 of cabinet #number failed.
Library firmware mismatch	Warning	Library firmware unmatch occurred in cabinet #number.
Library cabinet down	Warning	Cabinet fail occurred in cabinet #number.
I2C connection error	Warning	I2C connection error has occurred.

Failure Event	Level	Event Display
Cabinet connection error	Warning	Cabinet connection error has occurred.

5.5 ETERNUS CS800 M1/CS800 S7/CS800 S6

Event traps are messages reported from a device. When a warning event or an error event occurs, check the device status and contact a Fujitsu customer engineer.

Chapter 6 Fibre Alliance MIB Support Device Events

The events are reported from the following SNMP Traps to a device that supports Fibre Alliance MIB (Fibre Alliance Fibre Channel Management Framework Integration MIB, FA-MIB).

Information

About words of Event display in the table:

- The *status* is replaced with any of "Unknown", "Online", "Offline", "Bypassed", or "Diagnostics".
- When the level of an event except event trap is Information, an event display other than "OK" and "Ready" may appear.

Failure Event	Level	Event Display
The status of the unit has changed to normal.	Information	The status of the unit has changed to OK/ <i>status</i>
The status of the unit has changed to warning.	Warning	The status of the unit has changed to Warning/ <i>status</i>
The status of the unit has changed to unknown.	Warning	The status of the unit has changed to Unknown/ <i>status</i>
The status of the unit has changed to error.	Error	The status of the unit has changed to FAILED/ <i>status</i>
The status of the power supply, fan, or temperature sensor has changed to normal.	Information	The status of the sensor has changed to OK/ <i>status</i>
The status of the power supply, fan, or temperature sensor has changed to warning.	Warning	The status of the sensor has changed to Warning/ <i>status</i>
The status of the power supply, fan, or temperature sensor has changed to unknown.	Warning	The status of the sensor has changed to Unknown/ <i>status</i>
The status of the power supply, fan, or temperature sensor has changed to error.	Error	The status of the sensor has changed to FAILED/ <i>status</i>
The status of the Fibre Channel port has changed to normal.	Information	The status of the port has changed to Ready/ <i>status</i>
The status of the Fibre Channel port has changed to warning.	Warning	The status of the port has changed to Warning/ <i>status</i>
The status of the Fibre Channel port has changed to unknown.	Warning	The status of the port has changed to Unknown/ <i>status</i>
The status of the Fibre Channel port has changed to error.	Error	The status of the port has changed to FAILURE/ <i>status</i>
Event trap	Error, Warning, Information	The message of the device trap is output as it is.

Troubleshooting

When the level is **Error** or **Warning**, device maintenance is required.

For the event trap, device maintenance may also be required when the level is Information. If the contents of the message are unknown, contact a Fujitsu customer engineer.

For other events, no action is required when the level is Information.

Chapter 7 Performance Management Traps

Failure Event of Performance Monitoring

Failure Event	Level	Event Display	Troubleshooting
Performance data collection failure	Error	Performance data collecting failure	Confirm the device and the status of the LAN with IP address shown in the event message.
Start of performance data re-collection	Information	Performance data re-collecting start	No action is required.
Success of performance data re-collection	Information	Performance data re-collecting success	

Failure Event of Performance Threshold Monitoring

The display format of event messages differs depending on the customization of the "perf.conf" file and the monitored device. Refer to "Threshold Monitoring Types" and "perf.conf Parameter" in the *Storage Cruiser Operation Guide* for details.

- When configured so that additional information is not displayed for event messages

Failure Event	Level	Event Display	Explanation	Troubleshooting
Logical volume response time failure	Warning	Report-ID= <i>reportNumber</i> / Threshold value exceed : LogicalVolumeXX Response Time over YYms	XX : Volume number ("0x" added hexadecimal notation) YY : Threshold value (Decimal notation)	Check the configuration according to the contents of the event message.
Abnormal CM load	Warning	[For the ETERNUS DX900 S5, the ETERNUS DX8900 S4, or the ETERNUS DX8000 S3 series] Report-ID= <i>reportNumber</i> / Threshold value exceed : CECMXXXX Busy Rate over YY%	XXXX : CE number ("0x" added hexadecimal notation) + CM number ("0x" added hexadecimal notation) YY : Threshold value (Decimal notation)	
		[For the ETERNUS Disk storage systems other than listed above] Report-ID= <i>reportNumber</i> / Threshold value exceed : CMXX Busy Rate over YY %	XX : CM number ("0x" added hexadecimal notation) YY : Threshold value (Decimal notation)	
Abnormal RAID group load	Warning	Report-ID= <i>reportNumber</i> / Threshold value exceed :	XX : RAID group number ("0x" added hexadecimal	

Failure Event	Level	Event Display	Explanation	Troubleshooting
		RAIDGroupXX Busy Rate over YY%	notation) YY : Threshold value (Decimal notation)	
Abnormal Port Throughput load	Warning	Report- ID= <i>reportNumber</i> / Threshold value exceed : PortX Throughout over YY%	X : Port number (Decimal notation) YY : Threshold value (Decimal notation)	

- When configured so that additional information is displayed for event messages

Failure Event	Level	Event Display	Explanation	Troubleshooting
Logical volume response time failure	Warning	Report- ID= <i>reportNumber</i> / Threshold value exceed : LogicalVolumeXX(<i>volum</i> <i>eNumber</i>) Response Time over YYms (<i>volumeName</i>)	XX : Volume number ("0x" added hexadecimal notation) <i>volumeNumber</i> : Volume number (Decimal notation) YY : Threshold value (Decimal notation) <i>volumeName</i> : Volume name	
Abnormal CM load	Warning	[For the ETERNUS DX900 S5 or the ETERNUS DX8900 S4] Report- ID= <i>reportNumber</i> / Threshold value exceed : CECMXXXX(<i>CE_Numbe</i> <i>r</i> , <i>CM_Number</i>) Busy Rate over YY% (<i>CE_Name</i> <i>CM_Name</i>)	XXXX : CE number ("0x" added hexadecimal notation) + CM number ("0x" added hexadecimal notation) <i>CE_Number</i> : CE number (Decimal notation) <i>CM_Number</i> : CM number (Decimal notation) YY : Threshold value (Decimal notation) <i>CE_Name</i> : CE name <i>CM_Name</i> : CM name	Check the configuration according to the contents of the event message.
		[For the ETERNUS DX S5 series (excluding the ETERNUS DX900 S5) or the ETERNUS AF S3 series] Report- ID= <i>reportNumber</i> / Threshold value exceed : CMXX(<i>CM_Number</i>) Busy Rate over YY% (<i>CM_Name</i>)	XX : CM number ("0x" added hexadecimal notation) <i>CM_Number</i> : CM number (Decimal notation) YY : Threshold value (Decimal notation) <i>CM_Name</i> : CM name	
Abnormal RAID group load	Warning	Report- ID= <i>reportNumber</i> /	XX : RAID group number ("0x" added	

Failure Event	Level	Event Display	Explanation	Troubleshooting
		Threshold value exceed : RAIDGroupXX(<i>groupNumber</i>) Busy Rate over YY % (<i>groupName</i>)	hexadecimal notation) YY : Threshold value (Decimal notation) <i>groupName</i> : RAID group name	

Chapter 8 Device Polling Event

When the device polling function of this software detects the status change of the device, display it in the event as follows.

Note

When the status change of device is detected by performing the **Reload Conf.** operation, the following events are not displayed.

Event	Level	Event Display	Troubleshooting
When the status changes into error	Error	Unit status changed: Error	Check the device status.
When the status has changed warning	Warning	Unit status changed: Warning	Check the device status.
When the status has changed normal	Information	Unit status changed: OK	No action is required.
When the status has changed unmonitored	Warning	Connection Timeout	<p>Check whether the LAN between the Management Server and the device is operating normally. Check whether the status of each device is proper, processes for network communication such as SNMP are operating, and when the device contains the server node then the Storage Cruiser's agent is operating normally on the device.</p> <p>If the SNMP settings of a device that uses SNMP for communication is changed, perform the following method to reconfigure the system:</p> <ul style="list-style-type: none"> - Refer to "Change ETERNUS Disk Storage System Information" in the <i>Web Console Guide</i> to change the SNMP settings.
When communication has been recovered	Information	Connection OK	No action is required.
When error occurs in the polling function	Error	[Polling] (Error event)	<p>Take appropriate action for each event message as follows:</p> <ul style="list-style-type: none"> - Command could not be executed: <i>commandName</i> <p>This event occurs when command processing fails to start because of a resource shortage on the Management Server.</p> <p>If it is a temporary event, no special action need be taken. If it occurs regularly, however, check whether system resources (memory and file descriptors) on the Management Server have been depleted.</p> <ul style="list-style-type: none"> - XML File can not read: <i>fileName</i> <p>This event occurs when reading of the XML definition file fails. Check for an error in the definition contents.</p>

Event	Level	Event Display	Troubleshooting
			<ul style="list-style-type: none"> - XML File not found: <i>fileName</i> <p>This event occurs when there is no XML definition file. Check for the file in the correct directory, which is specified by the directory path.</p> <ul style="list-style-type: none"> - Other <p>Collect the message and other information for an investigation, and contact Fujitsu Technical Support.</p>
When the access status data failed to evaluate	Error	esast5050:Failed to evaluate performance data of Tier pool (<i>tierPoolName</i>).	The total number of used capacity of Tier pools that can be simultaneously evaluated by the Storage Cruiser's manager may possibly be exceeded. Refer to the <i>Messages</i> and take appropriate action according to the esast5050 message.
When the number of layers of Tier pool has changed by deleting a RAID group that configures the Tier pool	Warning	esast5055:Manager did not restart Automated Storage Tiering. Tier Pool Name= <i>tierPoolName</i>	Deleting a RAID group may cause Tiering policy to become unset. Refer to the <i>Messages</i> and take appropriate action according to the esast5055 message.

When communication is re-established, the event displayed differs, depending on the polling function communication method.

- Device status polling method

In accordance with the most recent status, any of the following events is displayed.

- "Unit status changed: OK"
- "Unit status changed: Warning"
- "Unit status changed: Error"

- Communication status polling method

The event "Connection OK" is displayed. Changes in device status are not detected.



See

Refer to "Device Polling" in "Function Outline" in the *Storage Cruiser Operation Guide* for information on polling methods.