

ETERNUS SF

Express V15.0/ Storage Cruiser V15.0

Event Guide

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Preface

Purpose

This manual explains the events displayed on ETERNUS SF Storage Cruiser (hereafter "Storage Cruiser") or ETERNUS SF Express (hereafter "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. For more information, refer to "SNMP Trap XML Definition File" in the "ETERNUS SF Storage Cruiser Operation Guide".

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, and networks is possessed.

Organization

This manual is composed as follows:

[Chapter 1 Events Related to Operation of This Product](#)

This chapter describes the settings and events of the unit to be made by this software.

[Chapter 2 Events in Notifications Sent from Monitored Devices](#)

This chapter describes events to be displayed by this software.

[Chapter 3 Device Polling Event](#)

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

Notation

The names, abbreviations, and symbols shown below are used in this manual.

Operating systems

Formal name	Abbreviation	
Microsoft(R) Windows Server(R) 2003, Standard Edition Microsoft(R) Windows Server(R) 2003, Standard x64 Edition Microsoft(R) Windows Server(R) 2003, Enterprise Edition Microsoft(R) Windows Server(R) 2003, Enterprise x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Standard Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition	Windows Server 2003	Windows
Microsoft(R) Windows Server(R) 2008 Standard (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM) (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Enterprise (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM) (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Datacenter (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM) (32-bit)(64-bit)	Windows Server 2008	

Formal name	Abbreviation	
Microsoft(R) Windows Server(R) 2008 R2 Foundation Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter	Windows Server 2008 R2	
Microsoft(R) Windows(R) XP Professional Edition Microsoft(R) Windows(R) XP Home Edition	Windows XP	
Windows Vista(R) Home Basic Windows Vista(R) Home Premium Windows Vista(R) Business Windows Vista(R) Enterprise Windows Vista(R) Ultimate	Windows Vista	
Windows(R) 7 Home Basic Windows(R) 7 Home Premium Windows(R) 7 Professional Windows(R) 7 Enterprise Windows(R) 7 Ultimate	Windows 7	
Solaris(TM) 9 Operating System	Solaris 9	Solaris or Solaris OS
Oracle Solaris 10	Solaris 10	
Red Hat(R) Enterprise Linux(R) AS (v.4 for x86) Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T)	RHEL-AS4	Linux
Red Hat(R) Enterprise Linux(R) ES (v.4 for x86) Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T)	RHEL-ES4	
Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64)	RHEL5	
Red Hat(R) Enterprise Linux(R) 6 (for x86) Red Hat(R) Enterprise Linux(R) 6 (for Intel64)	RHEL6	
SUSE(R) Linux Enterprise Server 11 (for x86) SUSE(R) Linux Enterprise Server 11 (for EM64T)	-	
HP-UX 11.0 HP-UX 11i HP-UX 11i v2 HP-UX 11i v3	HP-UX	
AIX 5L V5.1 AIX 5L V5.2 AIX 5L V5.3	AIX	
VMware(R) Infrastructure 3 Foundation VMware(R) Infrastructure 3 Standard VMware(R) Infrastructure 3 Enterprise	VMware Infrastructure 3	VMware
VMware vSphere(R) 4 Essentials Kit VMware vSphere(R) 4 Essentials Plus Kit VMware vSphere(R) 4 Standard Edition(TM) VMware vSphere(R) 4 Standard Plus Data Recovery VMware vSphere(R) 4 Advanced Edition(TM) VMware vSphere(R) 4 Enterprise Edition(TM) VMware vSphere(R) 4 Enterprise Plus Edition(TM)	VMware vSphere 4	
VMware vSphere(R) 5 Essentials Kit VMware vSphere(R) 5 Essentials Plus Kit VMware vSphere(R) 5 Standard Edition(TM) VMware vSphere(R) 5 Standard Plus Data Recovery	VMware vSphere 5	

Formal name	Abbreviation	
VMware vSphere(R) 5 Enterprise Edition(TM)		
VMware vSphere(R) 5 Enterprise Plus Edition(TM)		

Oracle Solaris might be described as Solaris, Solaris Operating System, or Solaris OS.

Related products with Fujitsu Storage System ETERNUS and Storage Management Software ETERNUS SF

Formal name	Abbreviation		
ETERNUS DX60/DX60 S2 ETERNUS DX80/DX80 S2 ETERNUS DX90/DX90 S2	-		ETERNUS DX series ETERNUS Disk storage system
ETERNUS DX410 ETERNUS DX440	ETERNUS DX400 series	ETERNUS DX400/DX400 S2 series	
ETERNUS DX410 S2 ETERNUS DX440 S2	ETERNUS DX400 S2 series		
ETERNUS DX8100 ETERNUS DX8400 ETERNUS DX8700	ETERNUS DX8000 series	ETERNUS DX8000/DX8000 S2 series	
ETERNUS DX8100 S2 ETERNUS DX8700 S2	ETERNUS DX8000 S2 series		
ETERNUS2000 ETERNUS4000 ETERNUS8000	-		
Web GUI of ETERNUS DX series	ETERNUS Web GUI		
ETERNUSmgr			
ETERNUS LT20/LT20 S2 ETERNUS LT40/LT40 S2 ETERNUS LT60/LT60 S2 ETERNUS LT200 ETERNUS LT210 ETERNUS LT220 ETERNUS LT230 ETERNUS LT250 ETERNUS LT270	ETERNUS Tape library		

Software products

Formal name	Abbreviation
Microsoft(R) Internet Explorer(R)	Internet Explorer
Mozilla(R) Firefox(R)	Firefox
Microsoft(R) Cluster Service	MSCS
Microsoft(R) Windows Server(R) Failover Clustering	WSFC
Microsoft(R) Exchange Server	Exchange Server
Microsoft(R) SQL Server(TM)	SQL Server
PRIMECLUSTER Global Disk Services	GDS
PRIMECLUSTER Global File Services	GFS
Symfoware Server Enterprise Extended Edition Symfoware Server Enterprise Edition	Symfoware
HITACHI JP1/HiCommand Dynamic Link Manager	HDLM

Manuals

Formal name	Abbreviation
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Installation and Setup Guide	ETERNUS SF Installation and Setup Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Migration Guide	ETERNUS SF Migration Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Web Console Guide	ETERNUS SF Web Console Guide
ETERNUS SF Express / ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module	ETERNUS SF Operation Guide for Copy Control Module
ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Cluster Environment Setup Guide	ETERNUS SF Cluster Environment Setup Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Messages	ETERNUS SF Messages
ETERNUS SF Express / ETERNUS SF Storage Cruiser Event Guide	ETERNUS SF Event Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Glossary	ETERNUS SF Glossary

Others

- In this manual, "ETERNUS4000" does not include ETERNUS4000 models 80 and 100.
- In this manual, "ETERNUS LT20/LT40/LT60" includes ETERNUS LT20 S2/LT40 S2/LT60 S2.
- In this manual, "ETERNUS CS800" includes ETERNUS CS800 S2/CS800 S3.

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Notes

- No part of this manual may be reproduced without permission.
- This manual is subject to change without advance notice.
- The following model numbers are different in Japan and other countries.
When the model number of Japan appears in the text, please take it as 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. Please check with your sales representative to see the model name in your area.

- The following product names are different in Japan and other countries.
When the product name of Japan appears in the text, please take it as referring to the product name of the other countries.

Japan	Other countries
SafeDisk	SynfinityDisk
SafeCluster	SynfinityCluster
SafeFile	SynfinityFile

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Manual organization and reading suggestions

Manual organization

The following table describes the Manual organization of Express, Storage Cruiser and AdvancedCopy Manager.

When to read	Related manuals (abbreviated)	Related products (NOTE)			Explanation
		EXP	SC	ACM	
Before installation	Quick Reference	Yes	Yes	Yes	This manual is unique for each product. The following manuals are available: <ul style="list-style-type: none"> - Express Quick Reference - Storage Cruiser Quick Reference - AdvancedCopy Manager Quick Reference
	Overview	No	No	Yes	This manual is unique for each product.
During installation	Installation and Setup Guide	Yes			This manual is common for all products.
	Cluster Environment Setup Guide	No	Yes		This manual is common for Storage Cruiser and AdvancedCopy Manager.
	Migration Guide	Yes			This manual is common for all products.
During operation	Operation Guide	Yes	Yes	Yes	This manual is unique for each product. The following manuals are available: <ul style="list-style-type: none"> - Express Operation Guide - Storage Cruiser Operation Guide - Storage Cruiser Operation Guide for Optimization Option - AdvancedCopy Manager Operation Guide (for Windows) - AdvancedCopy Manager Operation Guide (for Solaris) - AdvancedCopy Manager Operation Guide (for Linux) - AdvancedCopy Manager Operation Guide (for HP-UX) - AdvancedCopy Manager Operation Guide (for AIX)
	Operation Guide for Copy Control Module	Yes	No	Yes	This manual is common for Express and AdvancedCopy Manager.
	Web Console Guide	Yes			This manual is common for all products.
Anytime	Event Guide	Yes		No	This manual is common for Express and Storage Cruiser.
	Messages	Yes			This manual is common for all products.
	Glossary	Yes			This manual is common for all products.

NOTE: "EXP" indicates Express, "SC" indicates Storage Cruiser and "ACM" indicates AdvancedCopy Manager.

How to read manuals

Please use the following table to find the most useful information in the Express, Storage Cruiser and AdvancedCopy Manager manuals to answer your inquiry.

Purpose	Related products (NOTE)	Manual	Main contents	How to read
Acquiring a product overview and basic operation knowledge	EXP	- Express Quick Reference	- Product overview - Installation decision - Overview of the necessary tasks from installation to first use	Please read if you want to acquire a fundamental knowledge of the product and its operation in order to decide to install it or not.
	SC	- Storage Cruiser Quick Reference		
	ACM	- AdvancedCopy Manager Quick Reference	- Main functions - Linkable applications - Procedure overview for Advanced Copy of ETERNUS Disk storage system	
		- AdvancedCopy Manager Overview		
Deciding if a version upgrade is required	common	- ETERNUS SF Migration Guide	- Incompatibilities with previous version - Notes and cautions about version upgrade - Version upgrade procedure	Please read if you want to upgrade from a previous version.
Installing and correctly operating the product Setting up operating environment depending on purpose	common	- ETERNUS SF Installation and Setup Guide	- Operating environment - Installation procedure - Setup procedure - Uninstallation procedure	Please read if you want to install and setup the product.
	SC, ACM	- ETERNUS SF Cluster Environment Setup Guide	- Supported cluster software - Installation procedure for a clustered system - Setup procedure for a clustered system - Uninstallation procedure for a clustered system	Please read if you want to install and setup the product on a clustered system.
Administration and operation of the installed system	EXP	- Express Operation Guide	- Starting and stopping the software - Device monitoring - Data copy inside the storage system - Necessary tasks after an architectural modification of the system as well as product maintenance	Please read if you want to start or shutdown the system, monitor the operation status, do backup/restore operations, etc.
	SC	- Storage Cruiser Operation Guide	- Starting and stopping the software - Device monitoring	

Purpose	Related products (NOTE)	Manual	Main contents	How to read
			<ul style="list-style-type: none"> - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference 	
		<ul style="list-style-type: none"> - Storage Cruiser Operation Guide for Optimization Option 	<ul style="list-style-type: none"> - Operating environment construction - Operating status monitoring - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference 	
	EXP, ACM	<ul style="list-style-type: none"> - ETERNUS SF Operation Guide for Copy Control Module 	<ul style="list-style-type: none"> - Starting and stopping the software 	
	ACM	<ul style="list-style-type: none"> - AdvancedCopy Manager Operation Guide (for Windows) - AdvancedCopy Manager Operation Guide (for Solaris) - AdvancedCopy Manager Operation Guide (for Linux) - AdvancedCopy Manager Operation Guide (for HP-UX) - AdvancedCopy Manager Operation Guide (for AIX) 	<ul style="list-style-type: none"> - Data backup/restore inside the storage system - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference 	
	common	<ul style="list-style-type: none"> - ETERNUS SF Web Console Guide 	<ul style="list-style-type: none"> - Operating environment - Screen layout description 	
Dealing with messages issued by the software	common	<ul style="list-style-type: none"> - ETERNUS SF Messages 	<ul style="list-style-type: none"> - Messages and their explanations - Parameter (variable information) description - System action - Countermeasures 	Please read if you want a practical way of investigating and dealing with messages issued by the software.
Dealing with events issued by the software	EXP, SC	<ul style="list-style-type: none"> - ETERNUS SF Event Guide 	<ul style="list-style-type: none"> - Phenomenon of event - Countermeasures 	Please read if you need to find a practical way of investigating and dealing with events.
Researching the meaning of specific terms related to the products and	common	<ul style="list-style-type: none"> - ETERNUS SF Glossary 	<ul style="list-style-type: none"> - Product specific terminology explanation - Explanation of important terminology appearing in the manual 	Please read if you want to learn the meaning of important terms, product specific terms or

Purpose	Related products (NOTE)	Manual	Main contents	How to read
other important terms			<ul style="list-style-type: none"> - Synonyms and related terms - Proper form of abbreviated terms 	abbreviations used in the manuals.

NOTE: "EXP" indicates Express, "SC" indicates Storage Cruiser and "ACM" indicates AdvancedCopy Manager.

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Chapter 1 Events Related to Operation of This Product

1.1 Events Related to Basic Operation

System Event output messages

create server node

Explanation

Login server be finished

Event ID

1

Function that output this event

rcxserver

delete server node

Explanation

A server was deleted.

Event ID

1

Function that output this event

rcxserver

set auto discovery mode to START

Explanation

Automatic detection mode has started.

Event ID

1

Function that output this event

rcxserver

set auto discovery mode to STOP

Explanation

The automatic detection mode has stopped.

Event ID

1

Function that output this event

rcxserver

setmode server node to (*mode*)

Explanation

A server was changed to mode (*mode*)
(*mode*) : Name of the changed mode

Event ID

1

Function that output this event

rcxserver

power on server node

Explanation

The server node was powered on.

Event ID

1

Function that output this event

rcxserver

power off server node

Explanation

Power-off was instructed.

Event ID

1

Function that output this event

rcxserver

reboot server node

Explanation

The server was rebooted.

Event ID

1

Function that output this event

rcxserver

1.2 Events Related to Storage Device Operation

When settings are made for user operations or devices, this software displays the settings or events.

Please refer to the following sections according to model type.

- [1.2.1 Common event](#)
- [1.2.2 Event to server node](#)
- [1.2.3 Event to fibre channel switch](#)

1.2.1 Common event



Point

The device name is not displayed in the event that there is "*" in the leftmost column of the following table.
Please sort by date and refer.

	Event log display example	Explanation	Measure
	Add + device-model-name	A device has been added.	
	Delete + device-model-name/parts-name	A device has been deleted.	
	Set SNMP Trap transmission address 12.34.56.78	The trap transmission address of the device was set to 12.34.56.78.	
	Delete SNMP Trap transmission address 12.34.56.78	The trap transmission address 12.34.56.78 was deleted from the device.	
	Change SNMP Trap transmission address	The trap transmission address of the device has been changed.	
*	Connect Access Path	The access path has been connected.	
*	Delete Access Path	The access path has been deleted.	
*	Re-set Access Path for + FC port name	The access path has been inherited.	
	Delete Switch Zone	The zoning information has been deleted.	
*	Failed	An error was found during the user operation.	Respond in accordance with the Operation History and the message ID during operation.
*	Same WWPN already exists.(WWPN=222800000EA60011)	WWPN (222800000EA60011) is duplicated.	Check the setting if the FC device allows change of the WWPN according to user settings.
	Invalid WWPN is detected in device model name (WWPN = WWPN information)	An incorrect WWPN was detected.	Check the setting if the FC device allows change of the WWPN according to user settings.
*	Same iSCSI Name and same IP Address already exists. (iSCSI Port= iqn.1991-05.com.microsoft:bx600s3-wsfc.fpro(192.168.1.1))	There is a duplicate value in the iSCSI Port iSCSI name and IP address settings.	Check the iSCSI name and IP address settings, and edit them so that each setting has a unique value.
	Invalid iSCSI Name is detected in iSCSI Port (iSCSI Port= iSCSI Port information)	An invalid iSCSI name was detected.	Check the iSCSI name setting.

	Event log display example	Explanation	Measure
	SNMP Trap was received. But the source IP address(12.34.56.78) of SNMP Trap is duplicately used by some devices in DB of Manager.	A SNMP trap was received, but the source IP address of the SNMP trap is used by multiple management target devices.	Make sure that the IP address and other information entered for incorporating the device manually is correct.
	Unsupported Firmware Version v12.34.56	A device with firmware v12.34.56, which is not supported by Storage Cruiser, was detected.	Firmware not supported Storage Cruiser is used for the target device. Contact your Fujitsu engineer (CE or SE) because patches need to be applied to Storage Cruiser. This message is displayed at the time of an operation such as [Reload Conf.]. See also "FIRMWARE_VERSION_CHECK" of "sanma.conf Parameter" in the "ETERNUS SF Storage Cruiser Operation Guide".

1.2.2 Event to server node

Event log display example	Explanation	Measure
Add Storage Affinity (fcaw0 -> [Disk] WWPN=22280000EA60011 TID=3 LUN=5,6)	Storage affinity (LUN binding) was created for the FC adaptor WWPN=22280000EA60011 of the disk unit from the HBA with the logical name fcaw0, TID=3 LUN=5, 6. When the target device is a tape unit, the LUN number is not displayed.	
Delete Storage Affinity (fcaw0 -> [Disk] WWPN=22280000EA60011 TID=3)	The storage affinity (LUN binding) for the FC adaptor WWPN=22280000EA60011 of the disk unit was deleted from the HBA with the logical name fcaw0, TID=3.	
Delete Storage Affinity (fcaw0 -> [Disk] WWPN=22280000EA60011)	The storage affinity (LUN binding) for the FC adaptor WWPN=22280000EA60011 of the disk unit was deleted from the HBA with the logical name fcaw0.	
Add Storage Affinity [24FF00E000A80033]	The storage affinity 24FF00E000A80033 was set to the HBA port.	
Add Maxthrottle [fjpfca0:210000eba00:40]	MaxThrottle40 was set to the 210000eba00 target of fjpfca0.	
Change Maxthrottle [fjpfca0: 210000eba00: 10->20]	The setting of MaxThrottle of the 210000eba00 target of fjpfca0 was changed from 10 to 20.	
Create Multipath Device [mplb2048,mplb2049]	The multipath device instance mplb2048 and mplb2049 was configured.	

Event log display example	Explanation	Measure
Skip Set Maxthrottle [fjpfca0: 210000eba00:40]	The setting of MaxThrottle was skipped. 40 was supposed to have been set to the 210000eba00 target of fjpfca0.	Describe the MaxThrottle definition in fjpfca.conf, and enable the setting on the target server node.
Completed Machine Admin(ESF) Configuration information update	Updating the configuration information of the machine administration was completed normally.	
Failed Machine Admin(ESF) Configuration information update	Updating the configuration information of the machine administration failed.	Collect the data required for troubleshooting, and then contact your Fujitsu systems engineer.
Completed FJCluster automatic resource registration	The cluster resource registration was completed normally.	
Delete FJCluster resource [mplb2048]	The mplb2048 device was deleted from the cluster resource.	
Delete Multipath Device [mplb2048,mplb2049]	The multipath devices mplb2048 and mplb2049 were deleted.	
Delete Maxthrottle [22280000EA60011]	MaxThrottle related to the storage affinity: 22280000EA60011 of the HBA port was deleted.	
Delete Storage Affinity [22280000EA60011]	The storage affinity: 22280000EA60011 of the HBA port was deleted.	
WebServer001:failed to release old server resource	During the automatic server recovery, the storage resource from the server node WebServer001 that is to be replaced could not be detached.	After the processing is completed, check the SAN environment, and delete the unnecessary logical resources such as access paths or volumes from the server node to be replaced.
allocate LogicalVolume (StorageA:LogicalVolume0x0000, LogicalVolume0x0001,LogicalVolume0x0002)	A LogicalVolume was allocated to a server node.	
release LogicalVolume (StorageA:LogicalVolume0x0000, LogicalVolume0x0001,LogicalVolume0x0002)	A LogicalVolume was deleted from a server node.	

1.2.3 Event to fibre channel switch

Event log display example	Explanation	Measure
Create Zone SNM_000B(WWPN=200000E06941432A, WWPN=220000000EBA0147)	Zone SNM_000B was created with WWPN=200000E06941432A and WWPN=220000000EBA0147.	
Add Zone SNM_000B(WWPN=200000E06941432A, WWPN=220000000EBA0147) to Zoning Configuration SNM_BCSI	Zone SNM_000B was added to the zoning configuration SNM_BCSI, and the zone was activated.	

Event log display example	Explanation	Measure
Create Dummy Zone SNM_000B(WWPN=000B00000E000000, WWPN=000C00000E000000)	Dummy zone SNM_000B was created with WWPN=200000E06941432A and WWPN=220000000EBA0147.	
Add Dummy Zone SNM_000B(WWPN=000B00000E000000, WWPN=000C00000E000000) to Zoning Configuration SNM_BCSI	Dummy zone SNM_000B was added to the zoning configuration SNM_BCSI, and the dummy zone was activated.	
Remove Zone SNM_0007(WWPN=200000E06941456F, WWPN=222800000EA60011) from Zoning Configuration SNM_BCSI	Zone SNM_0007 was deleted from the zoning configuration SNM_BCSI, and the zone was deactivated.	
Remove Zone SNM_0007 from Zoning Configuration SNM_BCSI	Zone SNM_0007 was deleted from the zoning setting SNM_BCSI, and the zone was deactivated.	
Delete Zone SNM_0007(WWPN=200000E06941456F, WWPN=222800000EA60011)	Zone SNM_0007 that had been created with WWPN=200000E06941456F and WWPN=222800000EA60011 was deleted.	
Delete Zone SNM_0007	Zone SNM_0007 was deleted.	
Create Zoning Configuration SNMP_BCSI	The zoning configuration SNMP_BCSI was created and activated.	
Delete Zoning Configuration SNMP_BCSI	Zoning configuration SNMP_BCSI was deleted.	
Unable to add zone(WWPN=200000E06941456F, WWPN=222800000EA60011)	A zone between WWPN = 200000E06941456F and WWPN = 222800000EA60011 could not be created.	Use the management software of the Fibre Channel switch or the telnet command to create the zone.
Unable to delete zone(WWPN=200000E06941456F, WWPN=222800000EA60011)	The zone created between WWPN = 200000E06941456F and WWPN = 222800000EA60011 could not be deleted.	Use the management software of the Fibre Channel switch or the telnet command to delete the zone.
Unable to delete zone(SNM_0007)	The zone SNM_0007 could not be deleted.	Use the management software of the Fibre Channel switch or the telnet command to delete the zone.

1.2.4 Event to storage node

Event log display example	Explanation	Measure
Add Host Affinity (WWPN=200000E069400BC8 to CA 23 / Affinity Group 0)	The access path for affinity group 0 was set via CA23 from HBA WWPN=200000E069400BC8.	
Delete Host Affinity (WWPN=200000E069400BC8 to CA 23 / Affinity Group 0)	The access path for affinity group 0 was deleted via CA23 from HBA WWPN=200000E069400BC8.	
Create AffinityGroup2(LogicalVolume0x0000,0x0001,0x0002)	AffinityGroup2, with LogicalVolume0x0000, 0x0001, and 0x0002 mapped to it, was added to the device.	

Event log display example	Explanation	Measure
Delete AffinityGroup3(LogicalVolume0x000a,0x000b,0x000c)	AffinityGroup3, with LogicalVolume0x000a, 0x000b, and 0x000c mapped to it, was deleted from the device.	
Change LUNMapping of AffinityGroup3(Add:LogicalVolume0x0006,0x0007)	LogicalVolume0x0006 and 0x0007 were added to LUNMapping for AffinityGroup3 of the device.	
Change LUNMapping of AffinityGroup4(Delete:LogicalVolume0x0008,0x0009)	LogicalVolume0x0008 and 0x0009 were deleted from LUNMapping for AffinityGroup4 of the device.	
Unused AffinityGroup exists.(1,2,3)	AffinityGroup1, 2, or 3 exists and has not been allocated to a server node.	If the output AffinityGroup is not needed, use storage management software to delete it.
Failed to delete AffinityGroup5, 6	AffinityGroup5, 6 could not be deleted.	Verify AffinityGroup using storage management software. Delete any AffinityGroup if it is left.
pool status changed: Warning	The use capacity ratio of Thin Provisioning Pool exceeded the warning threshold.	Please confirm the use capacity and the notification threshold of Thin Provisioning Pool. Please execute the change of the capacity enhancing or the notification threshold if necessary.
pool status changed: Caution	The use capacity ratio of Thin Provisioning Pool exceeded the caution threshold.	Please confirm the use capacity and the notification threshold of Thin Provisioning Pool. Please execute the change of the capacity enhancing or the notification threshold if necessary.
pool status changed: Normal	The use capacity ratio of Thin Provisioning Pool reached a normal	

Chapter 2 Events in Notifications Sent from Monitored Devices

When Express or Storage Cruiser receives an event notification such as an SNMP trap from the unit, the notification is 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 2.1 Trap common to 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 trapz reception	Information	EGP Neighbor Loss Trap

2.1 Explanation of Asynchronous Events of the Server Node (Host)

2.1.1 Solaris OS server node (Host)

Multipath asynchronous events (SNMP traps) (When the Agent version of the server node is 1.x)

Failure event	Level	Event display	Troubleshooting
One path blocked	Error	<i>MPType</i> access path(<i>MPAccessPath</i>) fault	Refer to the manual for the multipath driver and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
All paths blocked	Error	<i>MPType</i> access path(<i>MPAccessPath</i>) fault and no more path	
A multipath asynchronous event (SNMP trap) was reported to Manager; however, Manager does not manage the corresponding multipath information. (This may occur when Manager was either uninstalled or installed following a server node unit search.)	Error	Multi path(<i>Controler Controller Number</i>) fault	Search the server node related to the asynchronous event (SNMP trap).

"*MPType*" of the event display is displayed, "MPLB" or "MPHD".

"*MPAccessPath*" of the event display is displayed, "c1t1" etc.

"*Controller Number*" of the event display is displayed, "No.2" etc.

Asynchronous event for monitored 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 Manager according to the level corresponding to the monitoring keywords. In this case, the detected message containing the monitoring keywords is sent to Manager as is. If asynchronous events corresponding to the same message

are detected several times within the message monitoring time (Polling Time in the Correlation.ini parameter), these events are reported to Manager only once.

- Multipath asynchronous events (When the Agent version of the server node is 2.0 and 13.0 or later)

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Monitoring keyword	Level	Event display	Troubleshooting
. *NOTICE: mphd.*I/O path switchover succeed.*	Warning	One-line message including monitoring keywords	Refer to the manual for the multipath driver and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
. *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 path failed, no more.*			
. *WARNING: mplb.*connection of all paths is wrong.*			

- EMC PowerPath asynchronous event (When the Agent version of the server node is 2.0 and 13.0 or later)

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Monitoring keyword	Level	Event display	Troubleshooting
. *All paths to.*are dead.*	Warning	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product. Generally, the connection to storage devices and the cable connections must be checked.
. *Path.*to.*is dead.*			

- HITACHI JP1/HiCommand Dynamic Link Manager asynchronous event (When the Agent version of the server node is 2.0 and 13.0 or later)

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Monitoring keyword	Level	Event display	Troubleshooting
. *All paths to.*are dead.*	Warning	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product. Generally, the connection to storage devices and the cable connections must be checked.
. *KAPL08.*-E.*			

- Safe/PRIMECLUSTER GDS, GFS series asynchronous event

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Monitoring keyword	Level	Event display	Troubleshooting
NOTICE: sfx NOTICE: sfc NOTICE: sfd .*SDX:.*INFO:.*	Information	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product.
WARNING: sfx WARNING: sfc WARNING: sfd .*SDX:.*WARNING:.*	Warning	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product. 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	One-line message including monitoring keywords	

- Sun MPxIO asynchronous event (Server node Agent version 13.2 or later)

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Monitoring keyword	Level	Event display	Troubleshooting
./scsi_vhci/ ssd.*multipath.*status:.*degraded.*	Warning	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product. Generally, the connection to storage devices and the cable connections must be checked.
./scsi_vhci/ssd.*multipath.*status:.*failed.*			

Event reporting a changed host name

Manager uses the host name to identify each of the server nodes. However, in cases where server nodes cannot be identified correctly after their host name has changed, the following event is output:

Event	Level	Event display	Troubleshooting
The host name of a server node has changed	Warning	hostname of server node (<i>IPaddress</i>) has been changed from <i>Server-A</i> to <i>Server-B</i>	The hostname for the server having the IP address indicated in the event display has been changed to <i>Server-B</i> . Reset the hostname to <i>Server-A</i> . To do so, edit /etc/inet/hosts file, which contains the definitions of the hostnames.

The "*IPaddress*" indicated in the event display is the IP address of the corresponding server node.

"*Server-A*" is the name set to which the corresponding server node was originally set.

"*Server-B*" is the name to which the corresponding server node is currently set.

2.1.2 Windows server node (Host)

Fujitsu multipath disk control mechanism asynchronous events (SNMP trap)

- When the Agent version of the server node is 1.x

Failure event	Level	Event display	Troubleshooting
One path blocked	Error	<i>MPT</i> ype access path(<i>MP</i> AccessPath) fault	Refer to the manual for the multipath driver and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
Failure in detecting a part of paths on server node startup (failure in starting multipath operation)	Warning	Some paths could not be detected	
A multipath asynchronous event (SNMP trap) was reported to Manager; however, Manager does not manage the corresponding multipath information. (This may occur when Manager was either uninstalled or installed following a server node unit search.)	Error	Multi path(Controler <i>port</i> Target <i>target</i>) fault	Search the server node related to the asynchronous event (SNMP trap).

"*MPT*ype" of the event display is displayed, "MP".

"*MP*AccessPath" of the event display is displayed, "p2b0t0" etc.

"*port*" of the event display is displayed, "No.2" etc (SCSI port number).

"*target*" of the event display is displayed, "ID0" etc (target number).

- When the Agent version of the server node is 2.0 and 13.0 or later

Failure event	Level	Event display	Troubleshooting
1 path inhibition	Warning	[<i>MPT</i> ype: 403] "Access path (p <i>P</i> b <i>B</i> t <i>T</i>) fault	Refer to the manual for the multipath driver and take required actions. Generally, the connection to storage devices and the cable connections must be checked.
		[<i>MPT</i> ype: 1010] "Access path (p <i>P</i> b <i>B</i> t <i>T</i>) fault	
Some paths could not be detected at a server node startup. (Multipath operation could not be started.)	Warning	[<i>MPT</i> ype: 301] "Access path (p <i>P</i> b <i>B</i> t <i>T</i>) could not be detected.	

"GRMPD" or "MPHD" is displayed under "*MPT*ype" in the event.

"*P*", "*B*", and "*T*" in the event display 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 since Windows Server 2008 by the standard) are reported as MPIO events. When the multi path driver that is compliant to MPIO is used, e.g. Fujitsu 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 cable is disconnected or whether the parts failure of storage device is occurred.
Path switching was failed	Warning	[MPIO:32] Fail-over failed.	Path switching has occurred, but it has been failed. Check whether the cable is disconnected or whether the parts failure of storage device is occurred.

Event reporting a changed host name

Manager uses the host name to identify each of the server nodes. However, in cases where server nodes cannot be identified correctly after their host name has changed, the following event is output:

Event	Level	Event display	Troubleshooting
The host name of a server node has changed	Warning	hostname of server node (<i>IPaddress</i>) has been changed from <i>Server-A</i> to <i>Server-B</i>	The hostname for the server having the IP address indicated in the event display has been changed to <i>Server-B</i> . Reset the hostname to <i>Server-A</i> . To do so, edit %WINDIR%\system32\drivers\etc\hosts file, which contains the definitions of the hostnames.

The "*IPaddress*" indicated in the event display is the IP address of the corresponding server node.

"*Server-A*" is the name set to which the corresponding server node was originally set.

"*Server-B*" is the name to which the corresponding server node is currently set.

2.1.3 Linux server node (Host)

Asynchronous event monitored by 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 Manager according to the level corresponding to the monitoring keywords. In this case, the detected message containing the monitoring keywords is sent to Manager as is. If asynchronous events corresponding to the same message are detected several times within the message monitoring time (Polling Time in the Correlation.ini parameter), these events are reported to Manager only once.

- Multipath asynchronous events

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Failure event	Level	Event display	Troubleshooting
. *mplb_mod.*WARNING.*I/O error.* .*PATHDIAG.*WARNING.*Auto Path.* .*MPD.*WARNING.* (*1)	Warning	One-line message including a monitored keyword	See the ETERNUS multipath driver manual and take action.

*1: Red Hat Enterprise Linux 5 or higher only

- Device-Mapper Multipath asynchronous events

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Failure event	Level	Event display	Troubleshooting
. *multipathd.*remove.*path.*(uevent). * .*multipathd.*checker.*failed.*	Warning	One-line message including a monitored keyword	Refer to the manual for the corresponding middleware product.

- PRIMECLUSTER GDS and GFS Series asynchronous events

".*" in the monitoring keyword is a regular expression (which indicates that any characters appears 0 times and at more).

Failure event	Level	Event display	Troubleshooting
NOTICE: sfx NOTICE: sfc NOTICE: sfd .*SDX:.*INFO:.*	Information	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product.
WARNING: sfx WARNING: sfc WARNING: sfd .*SDX:.*WARNING:.*	Warning	One-line message including monitoring keywords	Refer to the manual for the corresponding middleware product. 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	One-line message including monitoring keywords	

Event reporting a changed host name

Manager uses the host name to identify each of the server nodes. However, in cases where server nodes cannot be identified correctly after their host name has changed, the following event is output:

Event	Level	Event display	Troubleshooting
The host name of a server node has changed	Warning	hostname of server node (<i>IPaddress</i>) has been changed from <i>Server-A</i> to <i>Server-B</i>	The hostname for the server having the IP address indicated in the event display has been changed to <i>Server-B</i> . Reset the hostname to <i>Server-A</i> . To do so, edit the /etc/hosts file, which contains the definitions of the hostnames.

The "*IPaddress*" indicated in the event display is the IP address of the corresponding server node.

"*Server-A*" is the name set to which the corresponding server node was originally set.

"*Server-B*" is the name to which the corresponding server node is currently set.

2.1.4 HP-UX server node (Host)

Asynchronous event monitoring by 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 Manager according to the level corresponding to the monitoring keywords. In this case, the message containing the detected monitoring keywords is sent to Manager as is. If asynchronous events corresponding to the same message are detected multiple times within the message monitoring period (Polling Time in the Correlation.ini parameter file), these events are reported to Manager only once.

- PV-LINK (LVM function) asynchronous events

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

Monitoring keyword	Level	Event display	Troubleshooting
.*LVM: Path.*! .*LVM: .*PVLink.*!.* (HP-UX 11iv2 and higher)	Error	One-line message including monitoring keywords	Take appropriate action as described in the message.

- HBA driver asynchronous events

".*" in the monitoring keywords is a regular expression (which indicates that any characters appears 0 times and more).

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.

2.1.5 VS850 server node (host)

An event trap is a message that is sent from the device. For details on these messages, refer to the instruction manual for hardware, and take appropriate action.

Level	Event display	Failure event
Information	ErrorCode=% 1%, ErrorID=% 2%, Node=% 3%, FRU=% 4%, Msg=% 5%	An information 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.

Information

Character strings in the event display

- The information shown in the table below is displayed in the event message for %n%.

%n%	Information
% 1%	Error code
% 2%	Error ID
% 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 cluster 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 "ETERNUS SF Storage Cruiser Operation Guide", and change the Information level setting.

2.2 Fibre Channel Switch

2.2.1 SN200 (Brocade) Events

From the Fibre Channel switch whose firmware version is 2.2 or more, the trap with the asterisk ("*") isn't 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.number FAULT
	FC port online	Information	FC Port No.number Online
	FC port offline	Information	FC Port No.number Offline
*	Power supply failure	Error	Power Supply #number FAULT
*	Power-off	Error	Power Supply #number FAULT
*	Power loss	Warning	Power Supply #number Absent
*	Fan failure	Error	Fan #number FAULT
*	Fan rotational speed decrease error	Error	Fan #number Below Minimal Threshold
*	Fan loss	Warning	Fan #number Absent
*	Temperature sensor failure	Error	Temp #number FAULT
*	Temperature decrease error	Error	Temp #number Below Minimal Threshold
*	Temperature rise error	Error	Temp #number Above Maximum Threshold
*	Temperature sensor loss	Warning	Temp #number Absent
	Trap event	Error, Warning, Information	The unit trap message is output without any change.

Note

- 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 doesn't operate. Please 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]

2.2.2 PRIMERGY Fibre Channel Switch Blade Events

Refer to "2.2.1 SN200 (Brocade) Events".

2.2.3 SN200 MDS (Cisco MDS) Events

Failure event	Level	Event display	Troubleshooting
The domain ID is not configured or assigned.	Warning	Domain ID is not configured or assigned on a <i>VSAN-number</i>	Check the domain ID setting and set the appropriate ID.
The principal switch was selected.	Warning	Principal switch is selected on a <i>VSAN-number</i>	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination switch.
A fabric was built or reconfigured.	Warning	Fabric is built or reconfigured on a <i>VSAN-number</i>	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination switch.
The module status has become unknown. The module is likely to be faulty.	Error	Module is unknown state	Replace the possibly faulty module.
The module was stopped by user operation.	Warning	Module is administratively disabled	Perform a user operation to activate the module.
The module is active, but is diagnosed to have encountered an error.	Warning	Module is operational but there is some diagnostic information available	Since this error is likely to recur, preventive replacement is recommended.
The module has entered an error state.	Error	Module has failed due to some condition	Replace the possibly faulty module.
The installed module was lost.	Error	Module has been provisioned but it is missing	Replace the possibly faulty module unless this status was encountered during operation.
An incompatible module is installed.	Error	Module has not been provisioned and wrong type of module is plugged in	Verify that the components are installed at correct locations.
The module is incompatible with the current configuration.	Error	Module is not compatible with the current configuration	Set up a configuration that is suitable for the installed module.
A module diagnostic test encountered an error caused by hardware failure.	Error	Module diagnostic test failed due to some hardware failure	Replace the possibly faulty module.
The module is still not ready.	Error	Module is waiting for an external or internal event to become operational	Contact the support service if the possibly faulty location cannot be identified using device error logs or other information.
The module is inactive although it is switched on.	Error	Module is administratively set to be powered on but out of service	Check the module status or configuration. If no abnormality is found, contact the support service.
The module is inactive due to a temperature abnormality although it is switched on.	Error	Module is powered on but out of service by environmental temperature problem	Check the fan status. If no problem is found, check the installation environment.
The power was cut off.	Error	Module is in powered down state	If the power was not intentionally turned off, replace the possibly faulty module.

Failure event	Level	Event display	Troubleshooting
The system power is not sufficient for the module.	Error	System does not have enough power in power budget to power on this module	Check the power environment. If no problem is found, contact the support service.
The module is being rebooted.	Error	Module is being power cycled	If the module is not intentionally being rebooted, contact the support service.
The module is active, but is likely to enter an error state.	Error	Module is still operational but may go into a failure state	Contact the support service if the possibly faulty location cannot be identified using device error logs or other information.
The module is active, but is likely to encounter system failure.	Error	Module is still operational but could potentially take the system down	Contact the support service if the possibly faulty location cannot be identified using device error logs or other information.
The power to the FRU was cut off for an unknown reason.	Error	FRU is powered off because of unknown problem	Replace the possibly faulty module.
The power to the FRU was cut off.	Warning	FRU is administratively powered off	To maintain redundancy, perform user operation to turn on the power to the module.
The power to the FRU was turned off because of insufficient system power.	Warning	FRU is powered off because available system power is insufficient	Check the power environment. If no problem is found, contact the support service.
The power to the FRU was cut off because of a power problem within the FRU.	Error	FRU is powered off because of power problem in the FRU	Check the power status. If no problem is found, check the installation environment.
The power to the FRU was cut off due to a temperature problem.	Error	FRU is powered off because of temperature problem	Check the power status. If no problem is found, check the installation environment.
The power to the FRU was cut off due to a fan problem.	Error	FRU is powered off because of fan problems	Check the fan status. If no problem is found, check the installation environment.
The status of the FRU has changed to error.	Error	FRU is in failed state	Replace the possibly faulty module.
The power is normal, but the power supply fan is faulty.	Error	FRU is on but fan has failed	Replace the pertinent power supply.
The status of the fan has changed to unknown.	Error	FAN is unknown state	Contact the support service.
The power to the fan was cut off.	Error	FAN is powered down	Verify that the fan is correctly inserted. If the problem remains, contact the support service.
The fan has become faulty.	Warning	FAN is partial failure	Replace the fan.
The sensor threshold has been exceeded.	Information	The sensor value(%VALUE%) crossed the threshold(%VALUE%)	If this event recurs frequently, contact the support service.
A software crash occurred and the core file was generated.	Information	Software crash occurs and a core file is generated.	Replace the supervisor or device.
The trunking port has failed.	Warning	Trunking port is down(%CAUSE%)	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination switch.

Failure event	Level	Event display	Troubleshooting
			The "The status of the port has changed" event occurs at the same time as this event.
The status of the Fibre Channel port has changed to normal.	Information	The status of the port has changed to Ready/%STATUS% fc%SLOT NUMBER%/PORT NUMBER INSIDE THE SLOT%(PORT NUMBER%) *1	No action is required.
The status of the Fibre Channel port has changed to warning.	Warning	The status of the port has changed to Warning/%STATUS% fc%SLOT NUMBER%/PORT NUMBER INSIDE THE SLOT%(PORT NUMBER%) *1	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination device.
The status of the Fibre Channel port has changed to unknown.	Warning *2	The status of the port has changed to Unknown/%STATUS% fc%SLOT NUMBER%/PORT NUMBER INSIDE THE SLOT%(PORT NUMBER%) *1	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination device.
The status of the Fibre Channel port has changed to error.	Error	The status of the port has changed to FAILURE/%STATUS% fc%SLOT NUMBER%/PORT NUMBER INSIDE THE SLOT%(PORT NUMBER%) *1	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination device.

*1: Any of the following words is inserted in %STATUS%.

Unknown, Online, Offline, Bypassed, Diagnostics

*2: When "The status of the port has changed to Unknown/Offline" is displayed, it is notified as Information level.

2.2.4 McDATA Fibre Channel Switch Events

Failure event	Level	Event display	Troubleshooting
The status of the Fibre Channel port has changed to online.	Information	The status of the port has changed to Online Port No.%NUMBER%	None.
The status of the Fibre Channel port has changed to offline.	Information	The status of the port has changed to Offline Port No.%NUMBER%	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination switch.
The status of the Fibre Channel port has changed to testing.	Information	The status of the port has changed to Testing Port No.%NUMBER%	If the Testing operation was not performed, contact Support.
The status of the Fibre Channel port has changed to error.	Error	The status of the port has changed to Faulty Port No.%NUMBER%	Check whether the cable was disconnected and then reconnected. If this operation was not performed, check the SFP, cable, and the connection destination switch.

Failure event	Level	Event display	Troubleshooting
The status of the FRU has changed to unknown.	Warning	The status of the unit has changed to Unknown FRU(%FRU NAME%) %NUMBER% * 1	Replace modules that are deemed to be defective.
The status of the FRU has changed to normal.	Information	The status of the unit has changed to Active FRU(%FRU NAME%) %NUMBER% * 1	None.
The status of the FRU has changed to backup.	Information	The status of the unit has changed to Backup FRU(%FRU NAME%) %NUMBER% * 1	None.
The status of the FRU has changed to update/busy.	Information	The status of the unit has changed to Update-busy FRU(%FRU NAME%) %NUMBER% * 1	None.
The status of the FRU has changed to error.	Error	The status of the unit has changed to failed FRU(%FRU NAME%) %NUMBER% * 1	Replace modules that are deemed to be defective.
A connection has been made to a device for which connection is not allowed.	Warning	The switch detects that a port binding violation occurs.	Check the SANtegrity settings.
The status of the FRU has changed to unknown.	Warning	The FRU(%FRU NAME%) %NUMBER% is removed or changes to an unknown status. * 1	Replace modules that are deemed to be defective.
The status of the FRU has changed to normal.	Information	The FRU(%FRU NAME%) %NUMBER% transitions to an active status. * 1	None.
The status of the FRU has changed to backup.	Information	The FRU(%FRU NAME%) %NUMBER% transitions to a backup status. * 1	None.
The status of the FRU has changed to update/busy.	Information	The FRU(%FRU NAME%) %NUMBER% transitions to an update/busy status. * 1	None.
The status of the FRU has changed to error.	Error	The FRU(%FRU NAME%) %NUMBER% transitions to a failed status. * 1	Replace modules that are deemed to be defective.
The Fibre Channel port Link Bit error rate has exceeded the threshold.	Warning	Bit error rate for a link exceeded an allowed threshold in Port No. %NUMBER%	Check the SFP, cable, and the connection destination switch.

Failure event	Level	Event display	Troubleshooting
The Fibre Channel port connection was lost.	Warning	Lost of signal or sync in port %NUMBER%	Check the SFP, cable, and the connection destination switch.
An abnormal sequence was received.	Error	Not operational primitive sequence was received in Port No.%NUMBER%	Check the SFP, cable, and the connection destination switch.
The sequence timed out.	Error	Primitive sequence timeout occurred in Port No.%NUMBER%	Check the SFP, cable, and the connection destination switch.
An invalid sequence was detected.	Error	Invalid primitive sequence was detected in Port No.%NUMBER%	Check the SFP, cable, and the connection destination switch.
A new connection was detected.	Information	The firmware detects that a new connection has been established on a Port No.%NUMBER%	None.

*1: The %FRU NAME% may contain any of the following strings:

BKPLNE, CTP, SBR, Center FAN, FAN, POWER, GLSL, GSML, GXXL, FPM, UPM, GLSR, GSMR, GXXR, FINT1, XPM

Also see "2.5.1 Fibre Alliance MIB Support Device Events".

2.3 Storage device

2.3.1 ETERNUS4000(models 300, 500), ETERNUS8000(models 700, 900, 1100, 2100) Traps

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

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 010tMM00 CM#MM Fault	t: Type(1-3) MM: Module ID(10-11)
CM Mantaray SP	Error	P 030tMMnn CM#MMDMA PORT Alarm	t: Type(1-3) MM: Module ID(10-17) nn: Chip No.(0-1)
CM DI NP	Error	P 040tMMnn CM#MMDI Alarm	t: Type(1-3) MM: Module ID(10-17) nn: Chip No.(0-1)
CM DI SP	Error	P 0500MMnn CM#MMDI PORT Alarm	MM: Module ID(10-17) nn: Port No.(0-7)
CM SMC	Error	P 0600MM00 CM#MM SMC Alarm	MM: Module ID(10-11)
CM MMC	Error	P 0700MM00 CM#MM MMC Alarm	MM: Module ID(10-11)
CM DI SP/Path	Error	P 0A00MMnn CM#MMDI PORT/PATH Alarm	MM: Module ID(10-11) nn: Port No.(0-7)
CM Memory:512MB	Error	P 0B1tMMnn CM#MM MEMORY(512MB) Fault	t: Type(1-2) MM: Module ID(10-17) nn: Slot No.(0-3)

Target	Level	Event display	Remarks
CM Memory:1GB	Error	P 0B2tMMnn CM#MM MEMORY(1024MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
CM Memory:2GB	Error	P 0B4tMMnn CM#MM MEMORY(2048MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
CM Memory:4GB	Error	P 0B8tMMnn CM#MM MEMORY(4096MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
Compact Flash	Error	P 0C0tMM00 CM#MM COMPACT FLASH Fault	t : Type(1-3) MM : Module ID(10-17)
CM FAN UNIT	Error	P 0D00MM00 CM#MM FAN UNIT Fault	MM : Module ID(10-17)
CA	Error	P 10ttMM00 CA#MM (on CM#XX) CaType Fault	tt : Type(00-19) MM : CA Module ID(40-4F,,,70-7F) XX : CM Module ID(10-17)
CA Port	Error	P 11ttMMnn CA#MM (on CM#XX) CaType PORT Alarm	tt : Type(00-19) MM : CA Module ID(40-4F,,,70-7F) XX : CM Module ID(10-17) nn : Port No.(00-01)
SFP Optical Shortwave	Error	P 1A ttMMnn CA#MM (on CM#XX) CaType SFP OPTICAL SHORTWAVE Fault	tt : Type(00,18) MM : CA Module ID(40-4F,,,70-7F) XX : CM Module ID(10-17) nn : Port No.(00-01)
SFP Optical Longwave	Error	P 1B ttMMnn CA#MM (on CM#XX) CaType SFP OPTICAL LONGWAVE Fault	tt : Type(00,18) MM : CA Module ID(40-4F,,,70-7F) XX : CM Module ID(10-17) nn : Port No.(00-01)
XFP (UndefCA)	Error	P 1C ttMMnn CA#MM (on CM#XX) CaType XFP Fault	tt : Type(00-0F) MM : CA Module ID(40-4F,,,70-7F) XX : CM Module ID(10-17) nn : Port No.(00-01)
FRT	Error	P 4000MM00 FRT Fault	MM : Module ID(F0-F1)
BRT	Error	P 5000MM00 BRT Fault	MM : Module ID(B0-B7)
BRT Port/Path	Error	P 5100MMnn BRT PORT/PATH Alarm	MM : Module ID(B0-B7) nn : Port No.(00-07)
SFP Optical Shortwave (BRT)	Error	P 5A00MMnn BRT SFP OPTICAL SHORTWAVE Fault	MM : Module ID(B0-B7) nn : Port No.(00-07)
SVC	Error	P 6000MM00 SVC Fault	MM : Module ID(E0-E1)
CE FAN UNIT	Error	P 710ttn00 CE FAN UNIT Fault	t : Type(1,2) nn : Slot No.
OPNL UNIT	Error	P 720t0000 PANEL UNIT Fault	t : Type(1,2)
CPSU	Error	P 730ttn00 CPSU Fault	t : Type(1,2) nn : Slot No.
BCU	Error	P 75000000 BCU Fault	
BTU	Error	P 760t0000 BTU Fault	t : Type(1,2)
3.5 Inch DISK	Error	P 80tDDnn PP xxxGB DISK(cccccc) DE#DD/Slot#nn Fault	tt : Type DD : DE-ID nn : Slot No.(00-0E)

Target	Level	Event display	Remarks
			<i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80 <i>ttDDnn PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information
3.5 Inch DISK (Compare Error)	Error	P 88 <i>ttDDnn PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information
2.5 Inch DISK	Error	P 81 <i>ttDDnn PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information
2.5 Inch Disk (Failed Usable)	Error	P 81 <i>ttDDnn PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information
2.5 Inch DISK (Compare Error)	Error	P 88 <i>ttDDnn PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information
PBC (15DE)	Error	P 9001 <i>DD0N</i> PBC Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
PBC (30DE)	Error	P 9002 <i>DD0N</i> PBC Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
PBC Port	Error	P 9100 <i>DDNn</i> PBC PORT Alarm	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
SFP Optical Shortwave (PBC)	Error	P 9A00 <i>DDNn</i> PBC SFP OPTICAL SHORTWAVE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
SFP Copper (PBC)	Error	P 9B00 <i>DDNn</i> PBC SFP COPPER Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
DEI CABLE	Error	P 9C00 <i>DD0N</i> DEI CABLE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
30 DE FAN UNIT	Error	P D100 <i>DD00</i> DE FAN UNIT Fault	<i>DD</i> : DE-ID
DPSU (15DE)	Error	P D20 <i>DD0N</i> DPSU Fault	<i>t</i> : Type(1-3) <i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
BBU CABLE	Error	P D300 <i>DD0N</i> BBU CABLE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1

- Warning (temperature alarm)

Target	Level	Event display	Remarks
CE exhaust temperature alarm (FATAL)	Error	P 7B00EEEE CE OUT TEMP	EEEE: Position information
CE exhaust temperature alarm (WARNING)	Warning	J 7B00EEEE CE OUT TEMP	EEEE: Position information
CE intake air temperature alarm (WARNING)	Warning	J 7A00EEEE CE IN TEMP	EEEE: Position information
DE exhaust temperature alarm (FATAL)	Error	P DB00 EEEE DE OUT TEMP	EEEE: Position information
DE exhaust temperature alarm (WARNING)	Warning	J DB00 EEEE DE OUT TEMP	EEEE: Position information
DE intake air temperature alarm (WARNING)	Warning	J DA00 EEEE DE IN TEMP	EEEE: Position information

- Warning (expiration)

Target	Level	Event display	Remarks
Six months before battery life expiration	Warning	J 117000000 BATTERY <i>n</i> 6MONTH WARNING YYYY/MM	<i>n</i> : Battery No. (0 - 2) YYYY/MM: Term of validity (year/month)
One week before battery life expiration	Warning	J 117000000 BATTERY <i>n</i> 1WEEK WARNING YYYY/MM	<i>n</i> : Battery No. (0 - 2) YYYY/MM: Term of validity (year/month)
Battery life expiration	Warning	J 117000000 BATTERY <i>n</i> EXPIRATION ALARM YYYY/MM	<i>n</i> : Battery No. (0 - 2) YYYY/MM: Term of validity (year/month)

- Warning (other)

Target	Level	Event display	Remarks
CM Check 1	Warning	J C1MM0000 CM#MM Check-1	MM: Module ID(10-17)
CA Check 1	Warning	J C1MM0000 CA#MM Check-1	MM: Module ID(40-4F,,70-7F)
Frequent occurrence of a correctable memory error: 512MB	Warning	J C31tMMnn CM#MM MEMORY(512MB) Correctable Error	<i>t</i> : Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 1GB	Warning	J C32tMMnn CM#MM MEMORY(1024MB) Correctable Error	<i>t</i> : Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 2GB	Warning	J C34tMMnn CM#MM MEMORY(2048MB) Correctable Error	<i>t</i> : Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 4GB	Warning	J C38 tMMnn CM#MM MEMORY(4096MB) Correctable Error	<i>t</i> : Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
CM warning (statistics/ other)	Warning	J 01 ttEEEE CM#MM Warning	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (MCE Correctable)	Warning	J 01 ttEEEE CM#MM MCE Correctable Error	tt: Type EEEE: Position information MM: CM Module ID(10-17)

Target	Level	Event display	Remarks
CM Warning (FAN)	Warning	J 01 <i>ttEEEE</i> CM# <i>MM</i> FAN Alarm	<i>tt</i> : Type <i>EEEE</i> : Position information <i>MM</i> : CM Module ID(10-17)
CM Warning (IN TEMP ALARM)	Warning	J 01 <i>ttEEEE</i> CM# <i>MM</i> IN TEMP Alarm	<i>tt</i> : Type <i>EEEE</i> : Position information <i>MM</i> : CM Module ID(10-17)
CM Warning (IN TEMP SENSOR)	Warning	J 01 <i>ttEEEE</i> CM# <i>MM</i> IN TEMP SENSOR Alarm	<i>tt</i> : Type <i>EEEE</i> : Position information <i>MM</i> : CM Module ID(10-17)
CM Warning (RTC ALARM)	Warning	J 01 <i>ttEEEE</i> CM# <i>MM</i> RTC Alarm	<i>tt</i> : Type <i>EEEE</i> : Position information <i>MM</i> : CM Module ID(10-17)
CF Warning	Warning	J 0C0 <i>tMM00</i> CM# <i>MM</i> COMPACT FLASH Warning	<i>t</i> : Type(1-3) <i>MM</i> : CM Module ID(10-17)
CA Warning (Undefined)	Warning	J 10 <i>ttMM00</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> Warning	<i>tt</i> : Type(00-19) <i>MM</i> : CA Module ID(40-4F,,70-7F) <i>XX</i> : CM Module ID(10-17)
FRT Warning	Warning	J 4000 <i>MM00</i> FRT Warning	<i>MM</i> : FRT Module ID(F0,F1)
BRT Warning	Warning	J 5000 <i>MM00</i> BRT Warning	<i>MM</i> : BRT Module ID(B0-B7)
SMART notification from a disk (3.5-inch)	Warning	J 80 <i>ttEEEE PP xxxGB</i> DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
SMART: Preventive disk disconnection (3.5-inch)	Warning	J 80 <i>ttEEEE PP xxxGB</i> DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Warning	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
SMART notification from a disk (2.5-inch)	Warning	J 81 <i>ttEEEE PP xxxGB</i> DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SMART: Preventive disk disconnection (2.5-inch)	Warning	J 81 <i>ttEEEE PP xxxGB</i> DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Warning	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SVC Alarm (Warning Level)	Warning	J 6000 <i>MM00</i> SVC	<i>MM</i> : Module ID
PBC Alarm (Warning Level)	Warning	J 9001 <i>EEEE</i> PBC 15DE	<i>EEEE</i> : Position information
PBC Alarm (Warning Level)	Warning	J 9002 <i>EEEE</i> PBC 30DE	<i>EEEE</i> : Position information

- Event notification (M messages)

Target	Level	Event display	Remarks
Write Bad Data	Error	M E0050.xxx WRITE BAD DATA	xxx : RLU No.
PINNED Data	Error	M E10300MM PINNED DATA	MM : CM module ID where PINNED occurred
NRDY (cause 01)	Error	M E2070001 NOT READY(01:Configration Error)	
NRDY (cause 02)	Error	M E2070002 NOT READY(02:CM F/W Version Error)	
NRDY (cause 04)	Error	M E2070004 NOT READY(04:Restore Fail)	
NRDY (cause 08)	Error	M E2070008 NOT READY(08:Basic Set Online(Normal) Error)	
NRDY (cause 09)	Error	M E2070009 NOT READY(09:Maintenance Set Online Error)	
NRDY (cause 11)	Error	M E207000B NOT READY(11:Power Off/ Fail Incomplete)	
NRDY (cause 12)	Error	M E207000C NOT READY(12:Backup Fail)	
NRDY (cause 13)	Error	M E207000D NOT READY(13:Multi CM Down)	
NRDY (cause 14)	Error	M E207000E NOT READY(14:Machine Down Recovery End)	
NRDY (cause 15)	Error	M E207000F NOT READY(15:Machine Down Recovery Failed)	
NRDY (cause 16)	Error	M E2070010 NOT READY(16:DE Build Error)	
NRDY (cause 17)	Error	M E2070011 NOT READY(17:CM Memory Shortage)	
NRDY (cause 18)	Error	M E2070012 NOT READY(18:PBC Combination Error)	
NRDY (cause 19)	Error	M E2070013 NOT READY(19:FRT Fault)	
NRDY (cause 20)	Error	M E2070014 NOT READY(20:BRT Fault)	
Successful FC recovery	Error	M E406C0DD FC Loop Recovery Completed	DD : Lower DE No.
Unsuccessful FC loop recovery	Error	M E406F0DD FC Loop Recovery Failed	DD : Lower DE No.
Rebuilding to HS completed (bad data included)	Error	M 21810.xxx RAID Group#0xxx REBUILD to HS (Recovered end)	xxx : RLU No.
Rebuilding to DV completed (bad data included)	Error	M 21810.xxx RAID Group#0xxx REBUILD to DV (Recovered end)	xxx : RLU No.
Disconnected intra-cabinet path	Error	M 0732MMnn Remote Copy Path (MID#MMPORT#nn) Not Available	MM : Module ID nn : Port
REC automatic HALT occurrence	Error	M 13CF11.xx REC Automatic HALT or ERROR occurred.(xx)	xx : 00 - path error, 01 - heavy load, 02 - ERROR

2.3.2 ETERNUS DX400 series, ETERNUS DX8000 series, ETERNUS4000(models 400, 600), ETERNUS8000(models 800, 1200, 2200) Traps

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

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 010tMM00 CM#MM Fault	t : Type(1-3) MM : Module ID(10-11)
CM Mantaray SP	Error	P 030tMMnn CM#MMDMA PORT Alarm	t : Type(1-3) MM : Module ID(10-17) nn : Chip No.(0-1)
CM DI NP	Error	P 040tMMnn CM#MMDI Alarm	t : Type(1-3) MM : Module ID(10-17) nn : Chip No.(0-1)
CM DI SP	Error	P 0500MMnn CM#MMDI PORT Alarm	MM : Module ID(10-17) nn : Port No.(0-7)
CM SMC	Error	P 0600MM00 CM#MMSMC Alarm	MM : Module ID(10-11)
CM MMC	Error	P 0700MM00 CM#MMMMC Alarm	MM : Module ID(10-17)
CM DI SP/Path	Error	P 0A00MMnn CM#MMDI PORT/PATH Alarm	MM : Module ID(10-11) nn : Port No.(0-7)
CM Memory:512MB	Error	P 0B1tMMnn CM#MM MEMORY(512MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
CM Memory:1GB	Error	P 0B2tMMnn CM#MM MEMORY(1024MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
CM Memory:2GB	Error	P 0B4tMMnn CM#MM MEMORY(2048MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
CM Memory:4GB	Error	P 0B8tMMnn CM#MM MEMORY(4096MB) Fault	t : Type(1-2) MM : Module ID(10-17) nn : Slot No.(0-3)
Compact Flash	Error	P 0C0tMM00 CM#MM COMPACT FLASH Fault	t : Type(1-3) MM : Module ID(10-17)
CM FAN UNIT	Error	P 0D00MM00 CM#MM FAN UNIT Fault	MM : Module ID(10-17)
CA	Error	P 10ttMM00 CA#MM (on CM#XX) CaType Fault	tt : Type(00-19) MM : CA Module ID(40-4F,,70-7F) XX : CM Module ID(10-17)
CA Port	Error	P 11ttMMnn CA#MM (on CM#XX) CaType PORT Alarm	tt : Type(00-19) MM : CA Module ID(40-4F,,70-7F) XX : CM Module ID(10-17) nn : Port No.(00-01)

Target	Level	Event display	Remarks
SFP Optical Shortwave	Error	P 1A <i>ttMMnn</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> SFP OPTICAL SHORTWAVE Fault	<i>tt</i> : Type(00-1D) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
SFP Optical Longwave	Error	P 1B <i>ttMMnn</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> SFP OPTICAL LONGWAVE Fault	<i>tt</i> : Type(00,18) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
XFP (UndefCA)	Error	P 1C <i>ttMMnn</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> XFP Fault	<i>tt</i> : Type(00-0F) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
SFP+ Optical Shortwave	Error	P 1C <i>ttMMnn</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> SFP+ OPTICAL SHORTWAVE Fault	<i>tt</i> : Type(00-09) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
SFP Optical Longwave	Error	P 1D <i>ttMMnn</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> SFP OPTICAL LONGWAVE Fault	<i>tt</i> : Type(00-06) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
SFP Unknown	Error	P 1F <i>ttMMnn</i> CA# <i>MM</i> (on CM# <i>XX</i>) SFP Type Unknown Fault	<i>tt</i> : Type(03-06) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
FRT	Error	P 400 <i>tMM00</i> FRT Fault	<i>t</i> : Type(0,1) <i>MM</i> : Module ID(F0-F1)
BRT	Error	P 5000 <i>MM00</i> BRT Fault	<i>MM</i> : Module ID(B0-B7)
BRT Port/Path	Error	P 5100 <i>MMnn</i> BRT PORT/PATH Alarm	<i>MM</i> : Module ID(B0-B7) <i>nn</i> : Port No.(00-07)
SFP Optical Shortwave (BRT)	Error	P 5A00 <i>MMnn</i> BRT SFP OPTICAL SHORTWAVE Fault	<i>MM</i> : Module ID(B0-B7) <i>nn</i> : Port No.(00-07)
SVC	Error	P 6000 <i>MM00</i> SVC Fault	<i>MM</i> : Module ID(E0-E1)
CE FAN UNIT	Error	P 710 <i>ttn00</i> CE FAN UNIT Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
OPNL UNIT	Error	P 720 <i>t0000</i> PANEL UNIT Fault	<i>t</i> : Type(1,2)
CPSU	Error	P 730 <i>ttn00</i> CPSU Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
SCCI	Error	P 740 <i>ttn00</i> SCCI CABLE Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
BCU	Error	P 7500 <i>nn00</i> BCU Fault	<i>nn</i> : Slot No.
BTU	Error	P 760 <i>ttn00</i> BTU Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
BBU Signal CABLE	Error	P 7700 <i>MM00</i> BBU SIG CABLE Fault	<i>MM</i> : Module ID(10-11)
3.5 Inch DISK	Error	P 80 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk)

Target	Level	Event display	Remarks
			<i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch Disk (DISK performance abnormal)	Error	P 80 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Slowdown	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch DISK (Compare Error)	Error	P 88 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
2.5 Inch DISK	Error	P 81 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
2.5 Inch Disk (Failed Usable)	Error	P 81 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
2.5 Inch DISK (Compare Error)	Error	P 88 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch SATA DISK	Error	P 82 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch SATA Disk (Failed Usable)	Error	P 82 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> FaildUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch SATA Disk (Compare Error)	Error	P 88 <i>ttDDnn PP xxGB</i> DISK(<i>cccccc</i>) DE# <i>DD/Slot#nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)

Target	Level	Event display	Remarks
			<i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
Solid State Drive	Error	P 84 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
Solid State Drive (Failed Usable)	Error	P 84 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> FaildUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
Solid State Drive (Compare Error)	Error	P 84 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
PBC (15DE)	Error	P 9001 <i>DD0N</i> PBC Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
PBC (30DE)	Error	P 9002 <i>DD0N</i> PBC Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
PBC Port	Error	P 9100 <i>DDNn</i> PBC PORT Alarm	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
SFP Optical Shortwave (PBC)	Error	P 9A00 <i>DDNn</i> PBC SFP OPTICAL SHORTWAVE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
SFP Copper (PBC)	Error	P 9B00 <i>DDNn</i> PBC SFP COPPER Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
DEI CABLE	Error	P 9C00 <i>DD0N</i> DEI CABLE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
30 DE FAN UNIT	Error	P D100 <i>DD00</i> DE FAN UNIT Fault	<i>DD</i> : DE-ID
DPSU (15DE)	Error	P D20 <i>DD0N</i> DPSU Fault	<i>t</i> : Type(1-3) <i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
BBU CABLE	Error	P D300 <i>DD0N</i> BBU CABLE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1

- Warning (temperature alarm)

Target	Level	Event display	Remarks
CE exhaust temperature alarm (FATAL)	Error	P 7A00 <i>EEEE</i> CE OUT TEMP	<i>EEEE</i> : Position information
CE exhaust temperature alarm (WARNING)	Warning	J 7A00 <i>EEEE</i> CE OUT TEMP	<i>EEEE</i> : Position information

Target	Level	Event display	Remarks
CE intake air temperature alarm (WARNING)	Warning	J 7B00EEEE CE IN TEMP	EEEE: Position information
DE exhaust temperature alarm (FATAL)	Error	P DA00EEEE DE OUT TEMP	EEEE: Position information
DE exhaust temperature alarm (Sensor trouble)	Error	P DA00EEEE DE OUT TEMP	EEEE: Position information
DE exhaust temperature alarm (WARNING)	Warning	J DA00EEEE DE OUT TEMP	EEEE: Position information
DE intake air temperature alarm (Sensor trouble)	Error	P DB00EEEE DE IN TEMP	EEEE: Position information
DE intake air temperature alarm (WARNING)	Warning	J DB00EEEE DE IN TEMP	EEEE: Position information

- Warning (expiration)

Target	Level	Event display	Remarks
Six months before battery life expiration	Warning	J 7006nn00 BATTERY N6MONTH WARNING YYYY/MM	nn: Slot No. N: Battery No. (0 - 7) YYYY/MM: Term of validity (year/month)
One week before battery life expiration	Warning	J 7007nn00 BATTERY N1WEEK WARNING YYYY/MM	nn: Slot No. N: Battery No. (0 - 7) YYYY/MM: Term of validity (year/month)
N day before battery life expiration	Warning	J 7007nn00 BATTERY NzDAY WARNING YYYY/MM	nn: Slot No. N: Battery No. (0 - 7) z: Days (1 - 6) YYYY/MM: Term of validity (year/month)
Battery life expiration	Warning	J 70FEnn00 BATTERY NEXPIRATION ALARM YYYY/MM	nn: Slot No. N: Battery No. (0 - 2) YYYY/MM: Term of validity (year/month)

- Warning (other)

Target	Level	Event display	Remarks
CM Check1	Warning	J C1MM0000 CM#MMCheck-1	MM: Module ID(10-17)
CA Check1	Warning	J C1MM0000 CA#MMCheck-1	MM: Module ID(40-4F,,70-7F)
Frequent occurrence of a correctable memory error: 512MB	Warning	J C31tMMnn CM#MM MEMORY(512MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 1GB	Warning	J C32tMMnn CM#MM MEMORY(1024MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 2GB	Warning	J C34tMMnn CM#MM MEMORY(2048MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)

Target	Level	Event display	Remarks
Frequent occurrence of a correctable memory error: 4GB	Warning	J C38tMMnn CM#MM MEMORY(4096MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
CM warning (statistics/ other)	Warning	J 01 ttEEEE CM#MM Warning	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (MCE Correctable)	Warning	J 01 ttEEEE CM#MM MCE Correctable Error	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (FAN)	Warning	J 01 ttEEEE CM#MM FAN Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (IN TEMP ALARM)	Warning	J 01 ttEEEE CM#MM IN TEMP Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (IN TEMP SENSOR)	Warning	J 01 ttEEEE CM#MM IN TEMP SENSOR Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (RTC ALARM)	Warning	J 01 ttEEEE CM#MM RTC Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CF Warning	Warning	J 0C0tMM00 CM#MM COMPACT FLASH Warning	t: Type(1-3) MM: CM Module ID(10-17)
CA Warning (Undefined)	Warning	J 10ttMM00 CA#MM (on CM#XX) CaType Warning	tt: Type(00-19) MM: CA Module ID(40-4F,,,70-7F) XX: CM Module ID(10-17)
FRT Warning	Warning	J 400tMM00 FRT Warning	t: Type(1,2) MM: FRT Module ID(F0,F1)
BRT Warning	Warning	J 5000MM00 BRT Warning	MM: BRT Module ID(B0-B7)
SMART notification from a disk (3.5-inch)	Warning	J 80ttEEEE PP xxxGB DISK(ccccccc) DE#DD/Slot#nn SMART	tt: Type EEEE: Position information PP: Product ID(Disk) ccccccc: Disk information DD: DE-ID nn: Slot No.(00-0E)
SMART: Preventive disk disconnection (3.5-inch)	Warning	J 80ttEEEE PP xxxGB DISK(ccccccc) DE#DD/Slot#nn Warning	tt: Type EEEE: Position information PP: Product ID(Disk) ccccccc: Disk information DD: DE-ID nn: Slot No.(00-0E)
SMART: Disk performance abnormal (3.5-inch)	Warning	J 80ttEEEE PP xxxGB DISK(ccccccc) DE#DD/Slot#nn WarnSlow	tt: Type EEEE: Position information PP: Product ID(Disk) ccccccc: Disk information DD: DE-ID nn: Slot No.(00-0E)
Detection notification of disk performance abnormal (3.5-inch)	Warning	J 80ttEEEE PP xxxGB DISK(ccccccc) DE#DD/Slot#nn Slowdown	tt: Type EEEE: Position information PP: Product ID(Disk)

Target	Level	Event display	Remarks
			<i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
SMART notification from a disk (2.5-inch)	Warning	J 81 <i>ttEEEE PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SMART: Preventive disk disconnection (2.5-inch)	Warning	J 81 <i>ttEEEE PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Warning	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SMART notification from a SATA disk (3.5-inch)	Warning	J 82 <i>ttEEEE PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SMART: Preventive SATA disk disconnection (3.5-inch)	Warning	J 82 <i>ttEEEE PP xxx</i> GB DISK(<i>cccccc</i>) DE# <i>DD</i> /Slot# <i>nn</i> Warning	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SVC Alarm (Warning Level)	Warning	J 6000 <i>MM</i> 00 SVC	<i>MM</i> : Module ID
SMC Alarm (Warning Level)	Warning	J 0600 <i>MM</i> 00 CM SMC	<i>MM</i> : Module ID
PBC Alarm (Warning Level)	Warning	J 9001 <i>EEEE</i> PBC 15DE	<i>EEEE</i> : Position information
PBC Alarm (Warning Level)	Warning	J 9002 <i>EEEE</i> PBC 30DE	<i>EEEE</i> : Position information

- Event notification (M messages)

Target	Level	Event display	Remarks
Write Bad Data	Error	M E0050 <i>xxx</i> WRITE BAD DATA	<i>xxx</i> : RLU No.
PINNED Data	Error	M E10300 <i>MM</i> PINNED DATA	<i>MM</i> : CM module ID where PINNED occurred
NRDY (cause 01)	Error	M E2070001 NOT READY(01:Configuration Error)	
NRDY (cause 02)	Error	M E2070002 NOT READY(02:CM F/W Version Error)	
NRDY (cause 04)	Error	M E2070004 NOT READY(04:Restore Fail)	
NRDY (cause 08)	Error	M E2070008 NOT READY(08:Basic Set Online(Normal) Error)	

Target	Level	Event display	Remarks
NRDY (cause 09)	Error	M E2070009 NOT READY(09:Maintenance Set Online Error)	
NRDY (cause 11)	Error	M E207000B NOT READY(11:Power Off/Fail Incomplete)	
NRDY (cause 12)	Error	M E207000C NOT READY(12:Backup Fail)	
NRDY (cause 13)	Error	M E207000D NOT READY(13:Multi CM Down)	
NRDY (cause 14)	Error	M E207000E NOT READY(14:Machine Down Recovery End)	
NRDY (cause 15)	Error	M E207000F NOT READY(15:Machine Down Recovery Failed)	
NRDY (cause 16)	Error	M E2070010 NOT READY(16:DE Build Error)	
NRDY (cause 17)	Error	M E2070011 NOT READY(17:CM Memory Shortage)	
NRDY (cause 18)	Error	M E2070012 NOT READY(18:PBC Combination Error)	
NRDY (cause 19)	Error	M E2070013 NOT READY(19:FRT Fault)	
NRDY (cause 20)	Error	M E2070014 NOT READY(20:BRT Fault)	
Successful FC recovery	Error	M E406C0DDFC Loop Recovery Completed	DD : Lower DE No.
Unsuccessful FC loop recovery	Error	M E406F0DDFC Loop Recovery Failed	DD : Lower DE No.
Rebuilding to HS completed (bad data included)	Error	M 21810xxx RAID Group#0xxx REBUILD to HS (Recovered end)	xxx : RLU No.
Rebuilding to DV completed (bad data included)	Error	M 21810xxx RAID Group#0xxx REBUILD to DV (Recovered end)	xxx : RLU No.
Disconnected intra-cabinet path	Error	M 0732MMnn Remote Copy Path (MID#MMPORT#nn) Not Available	MM : Module ID nn : Port
REC automatic HALT occurrence	Error	M 13CF11xx REC Automatic HALT or ERROR occurred.(xx)	xx : 00 - path error, 01 - heavy load, 02 - ERROR
Use capacity of Pool has changed. NORMAL -> CAUTION	Information	M E8010xxx Pool#xxx turned to CAUTION (decrease of available capacity)	xxx : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. NORMAL or CAUTION -> WARNING	Information	M E8020xxx Pool#xxx turned to WARNING (decrease of available capacity)	xxx : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. WARNING -> CAUTION	Information	M E8010xxx Pool#xxx returned to CAUTION(decrease of available capacity)	xxx : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed.	Information	M E8040xxx Pool#xxx returned to NORMAL(increase of available capacity)	xxx : Thin Provisioning Pool No. (hexadecimal notation)

Target	Level	Event display	Remarks
CAUTION or WARNING -> NORMAL			

2.3.3 ETERNUS2000 Traps

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

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 01.SSMM00 Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> Fault	SS: Parts subtype MM: Module ID(10-11) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
CM BE Expander	Error	P 06.SSMM00 Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> BE Expander Fault	SS: Parts subtype MM: Module ID(10-11) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
CM SAS Port	Error	P 09.SSMMnn Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> SAS Port Fault	SS: Parts subtype MM: Module ID(10-11) nn: Port No.(0-1) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
CM BE Expander Port	Error	P 0A.SSMMnn Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> BE Expander Port#nn Fault	SS: Parts subtype MM: Module ID(10-11) nn: Port No.(0-2) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
CM Memory:512MB	Error	P 0B01MM00 Controller Cache(MEM-512MB)#MM<pp ss rr> Fault	MM: Module ID(10-11) pp: Parts No. ss: Serial No. rr: Revision
CM Memory:1GB	Error	P 0B02MM00 Controller Cache(MEM-1GB)#MM<pp ss rr> Fault	MM: Module ID(10-11) pp: Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
CM Memory:2GB	Error	P 0B04MM00 Controller Cache(MEM-2GB)#MM< <i>pp ss rr</i> > Fault	<i>MM</i> : Module ID(10-11) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Flash ROM	Error	P 0C.SSMM00 Controller Module(CM <i>xxHz zz yy</i> Port)#MM< <i>pp ss rr</i> > Flash ROM Fault	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <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 No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FAN Unit	Error	P 0D00MM00 Cooling Fan(BLOWER FAN)#MM< <i>pp</i> > Fault	<i>MM</i> : Module ID(10-11) <i>pp</i> : Parts No.
CA Port	Error	P 11.SSMMnn Controller Module(CM <i>xxHz zz yy</i> Port)#MM< <i>pp ss rr</i> > Host Port# <i>nn</i> Fault	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>nn</i> : Port No.(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 No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FE Expander	Error	P 12.SSMM00 Controller Module(CM <i>xxHz zz yy</i> Port)#MM< <i>pp ss rr</i> > FE Expander Fault	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <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 No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FE Expander Port	Error	P 13.SSMMnn Controller Module(CM <i>xxHz zz yy</i> Port)#MM< <i>pp ss rr</i> > FE Expander Port# <i>nn</i> Fault	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>nn</i> : Port No.(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 No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SFP Optical Shortwave	Error	P 1A00MMnn FC SFP CM#MM Port# <i>nn</i> < <i>pp ss rr oo</i> > Fault	<i>MM</i> : Module ID(10-11) <i>nn</i> : Port No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
BBU	Error	P 750000nn Battery Unit(BBU) Slot# <i>nn</i> < <i>pp ss rr</i> > Fault	<i>nn</i> : Slot No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
3.5 Inch DISK	Error	P 80.SSDDnn Disk Drive(HDD-xxxGB-yykrpm) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-0b) xxx: Disk capacity yy: Disk rotation pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80.SSDDnn Disk Drive(HDD-xxxGB-yykrpm) DE#DD/Slot#nn<pp ss rr cc> FailedUse	SS: Parts subtype DD: DE-ID nn: Slot No.(00-0b) xxx: Disk capacity yy: Disk rotation pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
3.5 Inch DISK (Compare Error)	Error	P 88.SSDDnn Disk Drive(HDD-xxxGB-yykrpm) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-0b) xxx: Disk capacity yy: Disk rotation pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
2.5 Inch DISK	Error	P 81.SSDDnn Disk Drive(HDD-xxxGB-yykrpm) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-09) xxx: Disk capacity yy: Disk rotation pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
2.5 Inch Disk (Failed Usable)	Error	P 81.SSDDnn Disk Drive(HDD-xxxGB-yykrpm) DE#DD/Slot#nn<pp ss rr cc> FailedUse	SS: Parts subtype DD: DE-ID nn: Slot No.(00-09) xxx: Disk capacity yy: Disk rotation pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
2.5 Inch DISK (Compare Error)	Error	P 88.SSDDnn Disk Drive(HDD-xxxGB-yykrpm) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-09) xxx: Disk capacity yy: Disk rotation pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information

Target	Level	Event display	Remarks
3.5 Inch DISK	Error	P 82.SSDDnn Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-0b) xxx: Disk capacity pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
3.5 Inch Disk (Failed Usable)	Error	P 82.SSDDnn Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> FailedUse	SS: Parts subtype DD: DE-ID nn: Slot No.(00-0b) xxx: Disk capacity pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
3.5 Inch DISK (Compare Error)	Error	P 88.SSDDnn Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-0b) xxx: Disk capacity pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
2.5 Inch DISK	Error	P 83.SSDDnn Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-09) xxx: Disk capacity pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
2.5 Inch Disk (Failed Usable)	Error	P 83.SSDDnn Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> FailedUse	SS: Parts subtype DD: DE-ID nn: Slot No.(00-09) xxx: Disk capacity pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
2.5 Inch DISK (Compare Error)	Error	P 88.SSDDnn Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> Fault	SS: Parts subtype DD: DE-ID nn: Slot No.(00-09) xxx: Disk capacity pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
EXP	Error	P 9001DD0NExpander(EXP) DE#DD/ Group#nn<pp ss rr> Fault	DD: DE-ID N: Side 0, side 1 nn: Slot No.(0-1) pp: Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
EXP Port	Error	P 9100 <i>DDNn</i> Expander(EXP) DE# <i>DD</i> / Group# <i>N</i> /Port# <i>m</i> < <i>pp ss rr</i> > Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Slot No.(0-1) <i>m</i> : Port No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP FAN	Error	P 9200 <i>DDN</i> Cooling Fan(BLOWER FAN) DE# <i>DD</i> /Group# <i>nn</i> < <i>pp</i> > Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>nn</i> : Slot No.(0-1) <i>pp</i> : Parts No.
DE FANU	Error	P D100 <i>DDN</i> Cooling Fan(ENC FAN) DE# <i>DD</i> /Slot# <i>nn</i> < <i>pp</i> > Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>nn</i> : Slot No.(0-1) <i>pp</i> : Parts No.
PSU	Error	P D200 <i>DDN</i> Power Supply(PSU) DE# <i>DD</i> /Slot# <i>nn</i> < <i>pp ss rr</i> > Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>nn</i> : Slot No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

- Warning (temperature alarm)

Target	Level	Event display	Remarks
DE Abnormal exhaust gas temperature (FATAL)	Error	P DA0 <i>tDD</i> 00 DE OUT TEMP	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA0 <i>tDD</i> 00 DE OUT TEMP	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA0 <i>tDD</i> 00 DE OUT TEMP	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal intake temperature (Sensor failure)	Error	P DB0 <i>tDD</i> 00 DE IN TEMP	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal intake temperature (WARNING)	Warning	J DB0 <i>tDD</i> 00 DE IN TEMP	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID

- Warning (expiration)

Target	Level	Event display	Remarks
BATTERY six months prior to expiry	Warning	J 700600 <i>nn</i> BATTERY <i>n</i> 6MONTH WARNING <i>YYYY/MM</i>	<i>nn</i> : Slot No. <i>n</i> : Battery No.(0-1) <i>YYYY/MM</i> : Term of validity (year/ month)
BATTERY one week prior to expiry	Warning	J 700700 <i>nn</i> BATTERY <i>n</i> 1WEEK WARNING <i>YYYY/MM</i>	<i>nn</i> : Slot No. <i>n</i> : Battery No.(0-1)

Target	Level	Event display	Remarks
			YYYY/MM: Term of validity (year/month)
BATTERY n day(s) prior to expiry	Warning	J 700700nn BATTERY n dDAY WARNING YYYY/MM	nn: Slot No. n: Battery No.(0-1) d: Days(1-6) YYYY/MM: Term of validity (year/month)
BATTERY expiry	Warning	J 70FE00nn BATTERY n EXPIRATION ALARM YYYY/MM	nn: Slot No. n: Battery No.(0-1) YYYY/MM: Term of validity (year/month)

- Warning (other)

Target	Level	Event display	Remarks
CM Check1	Warning	J C1MM0000 Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> Check-1	MM: Module ID(10-11) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
Multiple memory collectable error:512MB	Warning	J C301MM00 Controller Cache(MEM-512MB)#MM<pp ss rr> Correctable Error	MM: Module ID(10-11) pp: Parts No. ss: Serial No. rr: Revision
Multiple memory collectable error:1GB	Warning	J C302MM00 Controller Cache(MEM-1GB)#MM<pp ss rr> Correctable Error	MM: Module ID(10-11) pp: Parts No. ss: Serial No. rr: Revision
Multiple memory collectable error:2GB	Warning	J C304MM00 Controller Cache(MEM-2GB)#MM<pp ss rr> Correctable Error	MM: Module ID(10-11) pp: Parts No. ss: Serial No. rr: Revision
CM-Warning	Warning	J 01.SSMM00 Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> Warning FACTOR(ww)	SS: Parts subtype MM: Module ID(10-11) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision ww: Factor Code
CM BE Expander Warning	Warning	J 06.SSMM00 Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> BE Expander Warning	SS: Parts subtype MM: Module ID(10-11) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision

Target	Level	Event display	Remarks
CM SAS Port Warning	Warning	J 09.SSMMnn Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> SAS Port#nn Warning	SS: Parts subtype MM: Module ID(10-11) nn: Port No.(0-1) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
CM BE Expander Port Warning	Warning	J 0A.SSMMnn Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> BE Expander Port#nn Warning	SS: Parts subtype MM: Module ID(10-11) nn: Port No.(0-2) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
SMART notice from Disk (3.5inch)	Warning	J 80.SSEEEE Disk Drive(HDD-xxxGB-yyKrpm) DE#DD/Slot#nn<pp ss rr cc> SMART	SS: Parts subtype EEEE: Position information xxx: Disk capacity yy: Disk rotation DD: DE-ID nn: Slot No.(00-0E) pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
Disk preventative separation SMART (3.5inch)	Warning	J 80.SSEEEE Disk Drive(HDD-xxxGB-yyKrpm) DE#DD/Slot#nn<pp ss rr cc> Warning	SS: Parts subtype EEEE: Position information xxx: Disk capacity yy: Disk rotation DD: DE-ID nn: Slot No.(00-0E) pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
SMART notice from Disk (2.5inch)	Warning	J 81.SSEEEE Disk Drive(HDD-xxxGB-yyKrpm) DE#DD/Slot#nn<pp ss rr cc> SMART	SS: Parts subtype EEEE: Position information xxx: Disk capacity yy: Disk rotation DD: DE-ID nn: Slot No.(00-1D) pp: Product ID(Disk) ss: Serial No. rr: Revision cc: Disk information
Disk preventative separation SMART (2.5inch)	Warning	J 81.SSEEEE Disk Drive(HDD-xxxGB-yyKrpm) DE#DD/Slot#nn<pp ss rr cc> Warning	SS: Parts subtype EEEE: Position information xxx: Disk capacity yy: Disk rotation DD: DE-ID nn: Slot No.(00-1D)

Target	Level	Event display	Remarks
			<i>pp</i> : Product ID(Disk) <i>ss</i> : Serial No. <i>rr</i> : Revision <i>cc</i> : Disk information
SATA Disk notice from Disk (3.5inch)	Warning	J 82.SSEEEE Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> SMART	<i>SS</i> : Parts subtype <i>EEEE</i> : Position information <i>xxx</i> : Disk capacity <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>pp</i> : Product ID(Disk) <i>ss</i> : Serial No. <i>rr</i> : Revision <i>cc</i> : Disk information
SATA Disk preventative separation SMART (3.5inch)	Warning	J 82.SSEEEE Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> Warning	<i>SS</i> : Parts subtype <i>EEEE</i> : Position information <i>xxx</i> : Disk capacity <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>pp</i> : Product ID(Disk) <i>ss</i> : Serial No. <i>rr</i> : Revision <i>cc</i> : Disk information
SMAR notice from SATA Disk (2.5inch)	Warning	J 83.SSEEEE Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> SMART	<i>SS</i> : Parts subtype <i>EEEE</i> : Position information <i>xxx</i> : Disk capacity <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>pp</i> : Product ID(Disk) <i>ss</i> : Serial No. <i>rr</i> : Revision <i>cc</i> : Disk information
SATA Disk preventative separation SMART (2.5inch)	Warning	J 83.SSEEEE Disk Drive(HDD-xxxGB-SATA) DE#DD/Slot#nn<pp ss rr cc> Warning	<i>SS</i> : Parts subtype <i>EEEE</i> : Position information <i>xxx</i> : Disk capacity <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>pp</i> : Product ID(Disk) <i>ss</i> : Serial No. <i>rr</i> : Revision <i>cc</i> : Disk information
EXP Alarm (Warning Level)	Warning	J 9002EEEE Expander(EXP) DE#DD/ Group#nn<pp ss rr> Warning	<i>SS</i> : Parts subtype <i>EEEE</i> : Position information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP Port (Warning Level)	Warning	J 9002EEEE Expander(EXP) DE#DD/ Group#N/Port#nn<pp ss rr> Warning	<i>SS</i> : Parts subtype <i>EEEE</i> : Position information <i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>nn</i> : Port No.(0-1) <i>pp</i> : Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision

- Event notification (M messages)

Target	Level	Event display	Remarks
Write Bad Data	Error	M E0050 _{xxx} WRITE BAD DATA	<i>xxx</i> : RLU No.
PINNED Data	Error	M E10300 _{MM} PINNED DATA	<i>MM</i> : 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 03)	Error	M E2070003 NOT READY(03:NVRAM Parity Error)	
NRDY (Factor 04)	Error	M E2070004 NOT READY(04:Restore Fail)	
NRDY (Factor 05)	Error	M E2070005 NOT READY(05:RSP/SVC Degrade)	
NRDY (Factor 06)	Error	M E2070006 NOT READY(06:Basic Set Online(Pre) Error)	
NRDY (Factor 07)	Error	M E2070007 NOT READY(07:Basic Set Online(Recovery) Error)	
NRDY (Factor 08)	Error	M E2070008 NOT READY(08:Basic Set Online(Normal) Error)	
NRDY (Factor 09)	Error	M E2070009 NOT READY(09:Maintenance Set Online Error)	
NRDY (Factor 10)	Error	M E207000A NOT READY(10:Basic Restore Error)	
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 18)	Error	M E2070012 NOT READY(18:PBC Combination Error)	
NRDY (Factor 19)	Error	M E2070013 NOT READY(19:RT Type Error)	

Target	Level	Event display	Remarks
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)	
FC loop recovery success	Error	M E406C0DDFC Loop Recovery Completed	DD: Young number DE No.
FC loop recovery failure	Error	M E406F0DDFC Loop Recovery Failed	DD: Young number DE No.
End of rebuild to HS (Bad Data)	Error	M 21810xxx RAID Group#0xxx REBUILD to HS (Recovered end)	xxx: RLU No.
End of rebuild to DV (Bad Data)	Error	M 21810xxx RAID Group#0xxx REBUILD to DV (Recovered end)	xxx: RLU No.
Disconnected intra-cabinet path	Error	M 38040C0732xxyy Remote Copy Path (MID#xx PORT#yy) Not Available	xx: MID yy: Port

- Recovery notification

Target	Level	Event display	Remarks
CM BE Expander Warning recovery	Information	R 06.SSMM00 Controller Module(CM xxHz zz yyPort)#MM<pp ss rr> BE Expander Normal	SS: Parts subtype MM: Module ID(10-11) xx: Frequency(800MHz/1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
EXP Warning recovery	Information	R 9002EEEE Expander(EXP) DE#DD/ Group#nn<pp ss rr> Normal	EEEE: Position information DD: DE-ID N: Side 0, side 1 nn: Port No.(00-01) pp: Parts No. ss: Serial No. rr: Revision
PSU Alarm recovery (AC-Fail clear)	Information	R D200DD0N Power Supply(PSU) DE#DD/Slot#nn<pp ss rr> Normal	DD: DE-ID N: Side 0, side 1 nn: Port No.(00-01) pp: Parts No. ss: Serial No. rr: Revision
DE exhaust temperature alarm recovery	Information	R DA0tDD00 DE OUT TEMP Normal	DD: DE-ID t: Type(1=1U, 2=2U)
DE intake air temperature alarm recovery	Information	R DB0tDD00 DE IN TEMP Normal	DD: DE-ID t: Type(1=1U, 2=2U)

2.3.4 ETERNUS DX60/DX60 S2/DX80/DX90 Traps

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

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 01.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BE Expander	Error	P 06.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) BE Expander Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DI PORT	Error	P 08.SSMM0 <i>n</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) DI Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-1) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM SAS Port	Error	P 09.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) SAS Port Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BE Expander Port	Error	P 0A.SSMM0 <i>n</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) BE Expander Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-2) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Memory	Error	P 0B.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) Cache(<i>MEM</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>MEM</i> : Memory capacity

Target	Level	Event display	Remarks
			<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Flash ROM	Error	P 0C.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) Flash ROM Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller	Error	P 0E.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) NAND Controller Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SCU	Error	P 0F.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) Super Capacitor Unit Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Port	Error	P 11.SSMM0 <i>n</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-1) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FE Expander	Error	P 12.SSMM00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) FE Expander Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FE Expander Port	Error	P 13.SSMM0 <i>n</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) 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 No.(0-1) <i>xx</i> : Frequency (800MHz/

Target	Level	Event display	Remarks
			1.2GHz) zz: Model(FC/SAS/iSCSI) yy: Number of ports(1-2) pp: Parts No. ss: Serial No. rr: Revision
SFP Optical Shortwave	Error	P 1A00MM0n FC SFP Controller Module#m Port#n Fault <pp ss rr oo>	MM: Module ID(10-11) n: Port No.(0-1) m: CM No. pp: Parts No. ss: Serial No. rr: Revision oo: Other Information
SFP+ Optical Shortware	Error	P 1C00MM0n FC SFP+ Controller Module#m Port#n Fault <pp ss rr oo>	MM: Module ID(10-11) n: Port No.(0-1) m: CM No. pp: Parts No. ss: Serial No. rr: Revision oo: Other Information
3.5 Inch DISK	Error	P 80.SSDDNNDisk Drive DE#DD- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NV: Slot No.(00-0b) n: Slot No.(00-11) xxx: Disk capacity yy: Disk rotation cc: Disk information pp: Parts No. ss: Serial No. rr: Revision
3.5 Inch Disk (Failed Usable)	Error	P 80.SSDDNNDisk Drive DE#DD- Disk#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr>	SS: Parts subtype DD: DE-ID NV: Slot No.(00-0b) n: Slot No.(00-11) xxx: Disk capacity yy: Disk rotation cc: Disk information pp: Parts No. ss: Serial No. rr: Revision
3.5 Inch DISK (Compare Error)	Error	P 88.SSDDNNDisk Drive DE# DD- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NV: Slot No.(00-0b) n: Slot No.(00-11) xxx: Disk capacity yy: Disk rotation cc: Disk information pp: Parts No. ss: Serial No. rr: Revision
2.5 Inch DISK	Error	P 81.SSDDNNDisk Drive DE#DD- Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NV: Slot No.(00-17) n: Slot No.(00-23)

Target	Level	Event display	Remarks
			<i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
2.5 Inch Disk (Failed Usable)	Error	P 81. <i>SSDDNN</i> Disk Drive DE# <i>DD</i> - Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Failed Usable < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
2.5 Inch DISK (Compare Error)	Error	P 88. <i>SSDDNN</i> Disk Drive DE# <i>DD</i> - Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss</i> <i>rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
3.5 Inch DISK	Error	P 82. <i>SSDDNN</i> Disk Drive DE# <i>DD</i> - 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 No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
3.5 Inch Disk (Failed Usable)	Error	P 82. <i>SSDDNN</i> Disk Drive DE# <i>DD</i> - Disk# <i>n</i> (SATA <i>xxx</i> GB <i>cc</i>) Failed Usable < <i>pp ss</i> <i>rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
3.5 Inch DISK (Compare Error)	Error	P 88. <i>SSDDNN</i> Disk Drive DE# <i>DD</i> - 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 No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
3.5 Inch SSD	Error	P 84.SSDDNNSSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Fault <pp ss rr>	SS : Parts subtype DD : DE-ID NV : Slot No.(00-0b) n : Slot No.(00-11) xxx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
3.5 Inch SSD (Failed Usable)	Error	P 84.SSDDNNSSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Failed Usable <pp ss rr>	SS : Parts subtype DD : DE-ID NV : Slot No.(00-0b) n : Slot No.(00-11) xxx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
3.5 Inch SSD (Compare Error)	Error	P 88.SSDDNNSSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Fault <pp ss rr>	SS : Parts subtype DD : DE-ID NV : Slot No.(00-0b) n : Slot No.(00-11) xxx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
2.5 Inch SSD	Error	P 85.SSDDNNSSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) Fault <pp ss rr>	SS : Parts subtype DD : DE-ID NV : Slot No.(00-17) n : Slot No.(00-23) xxx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
2.5 Inch SSD (Failed Usable)	Error	P 85.SSDDNNSSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) Failed Usable <pp ss rr>	SS : Parts subtype DD : DE-ID NV : Slot No.(00-17) n : Slot No.(00-23) xxx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
2.5 Inch SSD (Compare Error)	Error	P 88.SSDDNNSSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) Fault <pp ss rr>	SS : Parts subtype DD : DE-ID NV : Slot No.(00-17) n : Slot No.(00-23) xxx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision

Target	Level	Event display	Remarks
EXP	Error	P 9000 <i>DD0N</i> Expander DE# <i>DD</i> /EXP# <i>N</i> Fault < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP Port	Error	P 9100 <i>DDNn</i> Expander Port DE# <i>DD</i> /EXP# <i>N</i> / Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
PSU	Error	P D200 <i>DD0n</i> Power Supply Unit DE# <i>DD</i> / PSU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>n</i> : Slot No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

- Warning (temperature alarm)

Target	Level	Event display	Remarks
DE Abnormal exhaust gas temperature (FATAL)	Error	P DA0 <i>tDD00</i> DE Exhaust temperature DE# <i>DD</i> Fatal	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA0 <i>tDD00</i> DE Exhaust temperature sensor DE# <i>DD</i> Fault	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA0 <i>tDD00</i> DE Exhaust temperature DE# <i>DD</i> Warning	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal intake temperature (Sensor failure)	Error	P DB0 <i>tDD00</i> DE Intake temperature sensor DE# <i>DD</i> Fault	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal intake temperature (WARNING)	Warning	J DB0 <i>tDD00</i> DE Intake temperature DE# <i>DD</i> Warning	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID

- Warning (other)

Target	Level	Event display	Remarks
CM Check1	Warning	J C1 <i>MM0000</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) Reboot < <i>pp ss rr</i> >	<i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
Multiple memory collectable error	Warning	J C301 <i>MM00</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) Cache(<i>MEM</i>) Correctable Error < <i>pp ss rr</i> >	<i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/1.2GHz) <i>MEM</i> : Memory capacity

Target	Level	Event display	Remarks
			<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Warning	Warning	J 01. <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz xxHz</i>) Warning factor(<i>ww</i>) < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>ww</i> : Factor Code <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BE Expander Warning	Warning	J 06. <i>SSMM</i> 00 Controller Module## <i>m</i> (<i>zz xxHz</i>) BE Expander Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM SAS Port Warning	Warning	J 09. <i>SSMM</i> 0 <i>n</i> Controller Module# <i>m</i> (<i>zz xxHz</i>) SAS Port# <i>n</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-1) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BE Expander Port Warning	Warning	J 0A. <i>SSMM</i> 0 <i>n</i> Controller Module# <i>m</i> (<i>zz xxHz</i>) BE Expander Port# <i>n</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-2) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FLASH ROM	Warning	J 0C. <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz xxHz</i>) Flash ROM Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller	Warning	J 0E. <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz xxHz</i>) NAND Flash Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from Disk (3.5inch)	Warning	J 80.SSDDNNDisk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
Disk preventative separation SMART (3.5inch)	Warning	J 80.SSDDNNDisk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from Disk (2.5inch)	Warning	J 81.SSDDNNDisk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
Disk preventative separation SMART (2.5inch)	Warning	J 81.SSDDNNDisk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SATA Disk notice from Disk (3.5inch)	Warning	J 82.SSDDNNDisk Drive DE#DD-Disk#n(SATA xxxGB cc) SMART <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SATA Disk preventative separation SMART (3.5inch)	Warning	J 82.SSDDNNDisk Drive DE#DD-Disk#n(SATA xxxGB cc) Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b)

Target	Level	Event display	Remarks
			<i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from SSD (3.5inch)	Warning	J 84.SSDNNSSD 3.5 DE#dd-Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) SMART < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SSD preventative separation SMART (3.5inch)	Warning	J 84.SSDNNSSD 3.5 DE#dd-Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from SSD (2.5inch)	Warning	J 85.SSDNNSSD 2.5 DE#dd-Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) SMART < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SSD preventative separation SMART (2.5inch)	Warning	J 85.SSDNNSSD 2.5 DE#dd-Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Warning < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>NN</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP Alarm (Warning Level)	Warning	J 9000DDN Expander DE# <i>DD</i> /EXP# <i>n</i> Warning < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP Port (Warning Level)	Warning	J 9100DDN Expander Port DE# <i>DD</i> /EXP# <i>N</i> /Port# <i>n</i> Warning < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

- Event notification (M messages)

Target	Level	Event display	Remarks
Write Bad Data	Error	M E0050 xxx WRITE BAD DATA	xxx : RLU No.
PINNED Data	Error	M E10300 MM 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)	
End of rebuild to HS (Bad Data)	Error	M 21810 xxx RAID Group#0 xxx recovered end of Rebuild processing	xxx : RLU No.
End of rebuild to DV (Bad Data)	Error	M 21810 xxx RAID Group#0 xxx recovered end of Rebuild processing	xxx : RLU No.
Disconnected intra-cabinet path	Error	M 0732 $xxyy$ Remote Copy Path (MID# xx PORT# yy) Not Available	xx : MID yy : Port
REC automatic HALT occurrence	Error	M 13CF11 xx REC Automatic HALT or ERROR occurred.(xx)	xx : 00 - path error, 01 - heavy load, 02 - ERROR

- Recovery notification

Target	Level	Event display	Remarks
CM BE Expander Warning recovery	Information	R 06. $SSMM$ 00 Controller Module# n (zz xx Hz) BE Expander Normal < pp ss rr >	SS : Parts subtype MM : CM Mid(10-11) n : Port No.(0-1) zz : Model(FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts No. ss : Serial No. rr : Revision

Target	Level	Event display	Remarks
EXP Warning recovery	Information	R 9000 $DDnn$ Expander DE# DD /EXP# n Normal < $pp ss rr$ >	DD : DE-ID nn : Port No.(00-01) n : Port No.(0-1) pp : Parts No. ss : Serial No. rr : Revision
PSU Alarm recovery (AC-Fail clear)	Information	R D200 $DD0N$ Power Supply Unit DE# DD / PSU# N Normal < $pp ss rr$ >	DD : DE-ID N : Side 0, side 1 pp : Parts No. ss : Serial No. rr : Revision
DE exhaust temperature alarm recovery	Information	R DA0 $tDD00$ 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 DB0 $tDD00$ DE IN TEMP Normal	DD : DE-ID t : Type(1:3.5"DE / 2:2.5"DE)

2.3.5 ETERNUS DX80 S2/DX90 S2, ETERNUS DX400 S2 series, ETERNUS DX8000 S2 series Traps

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

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 01. $SSMM00$ Controller Module# m (zz) Fault < $pp ss rr$ >	SS : Parts subtype MM : Module ID m : CM No. zz : Model pp : Parts No. ss : Serial No. rr : Revision
CM DMA Port	Error	P 02. $SSMM0p$ Controller Module# m (zz) DMA PORT# p Fault < $pp ss rr$ >	SS : Parts subtype MM : Module ID p : Port No. zz : Model pp : Parts No. ss : Serial No. rr : Revision
CM BIOS	Error	P 03. $SSMM0v$ Controller Module# m (zz) BIOS# v Fault < $pp ss rr$ >	SS : Parts subtype MM : Module ID v : Device No. zz : Model pp : Parts No. ss : Serial No. rr : Revision
CM RTC	Error	P 04. $SSMM00$ Controller Module# m (zz) RTC Fault < $pp ss rr$ >	SS : Parts subtype MM : Module ID zz : Model pp : Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
CM NVRAM	Error	P 05. <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) NVRAM Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM MMC	Error	P 0600 <i>MM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) MMC Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander	Error	P 06. <i>SSMM</i> 0 <i>v</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DI PORT	Error	P 08. <i>SSMM</i> <i>vp</i> Controller Module# <i>m</i> (<i>zz</i>) DI Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander In Port	Error	P 09. <i>SSMM</i> <i>vp</i> 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 No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander Out Port	Error	P 0A. <i>SSMM</i> <i>vp</i> 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 No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Memory	Error	P 0B. <i>SSMM</i> <i>mn</i> 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 No. <i>m</i> : CM No.

Target	Level	Event display	Remarks
			<i>zz</i> : Model <i>x</i> : Capacity <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BUD	Error	P 0C.SSMM00 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 No. <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FAN	Error	P 0D.SSMM00 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 No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller	Error	P 0E.SSMM00 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 No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM SCU	Error	P 0F.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) SCU Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA	Error	P 10.SSMM00 CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Port	Error	P 11.SSMM00 CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
SFP for FC-CA	Error	P 1A. <i>SSMM</i> 0 <i>p</i> 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> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
SFP for FCLink-CA	Error	P 1B. <i>SSMM</i> 0 <i>p</i> 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> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ for FC-CA	Error	P 1C. <i>SSMM</i> 0 <i>p</i> 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> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ for 10G-iSCSI-CA SFP+ for FCoE-CA	Error	P 1D. <i>SSMM</i> 0 <i>p</i> iSCSI FCoE 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> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
SFP Type Unknown	Error	P 1F. <i>SSMM</i> 0 <i>p</i> SFP(Type Unknown) 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> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No.

Target	Level	Event display	Remarks
			<i>rr</i> : Revision <i>oo</i> : Other Information
CM FPGA	Error	P 21. <i>SSMM</i> 00 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 No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM LAN Port	Error	P 22. <i>SSMM</i> 0 <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 No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM PCH	Error	P 2300 <i>MM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) PCH Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM QSFP	Error	P 2A. <i>SSMM</i> <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) QSFP# <i>v</i> # <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
FRT	Error	P 4000 <i>MM</i> 00 FRT# <i>n</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : FRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT	Error	P 5000 <i>MM</i> 00 BRT# <i>n</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT Out Port	Error	P 5100 <i>MM</i> 0 <i>P</i> BRT# <i>n</i> Out Port# <i>P</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT In Port	Error	P 5200 <i>MM</i> <i>v</i> <i>P</i> BRT# <i>n</i> InPort# <i>P</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>v</i> : EXP No. <i>p</i> : Port No. <i>n</i> : BRT No. <i>pp</i> : Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
BRT EXP	Error	P 5300 <i>MM0v</i> BRT# <i>n</i> EXP# <i>v</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>v</i> : EXP No. <i>n</i> : BRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT QSFP	Error	P 5A00 <i>MM0P</i> BRT# <i>n</i> QSFP# <i>P</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>P</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SVC	Error	P 6000 <i>MM00</i> SVC# <i>n</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : SVC No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SVC LAN Port	Error	P 6100 <i>MM0P</i> SVC# <i>n</i> LAN PORT# <i>P</i> Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>P</i> : Port No. <i>n</i> : SVC No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SVC PCIe SW	Error	P 6200 <i>MM00</i> SVC# <i>n</i> PCIe SW Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : SVC No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SVC RCI board	Error	P 6300 <i>MM00</i> SVC# <i>n</i> RCI board Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : SVC No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CE FAN UNIT	Error	P 71000 <i>n00</i> CE FAN UNIT# <i>n</i> Fault < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
PANEL UNIT	Error	P 72000000 PANEL UNIT Fault < <i>pp ss rr</i> >	<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CPSU	Error	P 73000 <i>n00</i> Power Supply Unit/CPSU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SCCB	Error	P 74000 <i>n00</i> SCCB# <i>n</i> Fault < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BBU	Error	P 75000 <i>n00</i> BBU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
BCU	Error	P 75000 <i>n</i> 00 BCU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BTU	Error	P 76000 <i>n</i> 00 BTU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
3.5 Inch DISK	Error	P 80. <i>SSUU</i> <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch Disk (Failed Usable)	Error	P 80. <i>SSUU</i> <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch Disk (Disk abnormal performance)	Error	P 80. <i>SSUU</i> <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Slow Down < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch DISK	Error	P 81. <i>SSUUN</i> NHDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation)

Target	Level	Event display	Remarks
			<i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch Disk (Failed Usable)	Error	P 81. <i>SSUUNN</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch Disk (Disk abnormal performance)	Error	P 81. <i>SSUUNN</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Slow Down < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD	Error	P 84. <i>SSUU0N</i> SSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD (Failed Usable)	Error	P 84. <i>SSUU0N</i> SSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information

Target	Level	Event display	Remarks
			<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD	Error	P 85. <i>SSUUNN</i> SSD 2.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD (Failed Usable)	Error	P 85. <i>SSUUNN</i> SSD 2.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch DISK (Compare Error)	Error	P 88. <i>SSUU0N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch DISK (Compare Error)	Error	P 88. <i>SSUUNN</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yykrpm cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
			<i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD (Compare Error)	Error	P 88. <i>SSUU</i> NSSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD (Compare Error)	Error	P 88. <i>SSUU</i> NNSSD 2.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
IOM6	Error	P 90. <i>SSUU</i> <i>n</i> IOM6 DE# <i>UU</i> /IOM# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 Port	Error	P 91. <i>SSUU</i> <i>np</i> IOM6 Port DE# <i>UU</i> /IOM# <i>n</i> / Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 QSFP	Error	P 9A. <i>SSUU</i> <i>np</i> IOM6 QSFP DE# <i>UU</i> /IOM# <i>n</i> / Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
PSU	Error	P D2. <i>SSUU</i> <i>n</i> Power Supply Unit DE# <i>UU</i> / PSU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <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 70060#00 BATTERY#b 6MONTH WARNING YYYY/MM	n : Slot No. b : BTU No. YYYY/MM : Term of validity (year/month)
One week before battery life expiration	Warning	J 70070#00 BATTERY#b 1WEEK WARNING WARNING YYYY/MM	n : Slot No. b : BTU No. YYYY/MM : Term of validity (year/month)
N days before battery life expiration	Warning	J 70070#00 BATTERY#b NDAY WARNING WARNING YYYY/MM	n : Slot No. b : BTU No. N : Days YYYY/MM : Term of validity (year/month)
Battery life expiration	Warning	J 70FE0#00 BATTERY#b EXPIRATION ALARM YYYY/MM	n : Slot No. b : BTU No.

Target	Level	Event display	Remarks
			YYYY/MM: Term of validity (year/month)

- Warning (other)

Target	Level	Event display	Remarks
CM Warning	Warning	J 01.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) Warning factor(<i>ww</i>) < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>ww</i> : Factor Code <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DMA Port Warning	Warning	J 02.SSMM0 <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) DMA PORT# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BIOS Warning	Warning	J 03.SSMM0 <i>v</i> Controller Module# <i>m</i> (<i>zz</i>) BIOS# <i>v</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM RTC Warning	Warning	J 04.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) RTC Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NVRAM Warning	Warning	J 05.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) NVRAM Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM MMC Warning	Warning	J 0600MM00 Controller Module# <i>m</i> (<i>zz</i>) MMC Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander Warning	Warning	J 06.SSMM0 <i>v</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>m</i> : CM No.

Target	Level	Event display	Remarks
			<i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DI PORT Warning	Warning	J 08.SSMMvp Controller Module# <i>m</i> (<i>zz</i>) DI Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander In Port Warning	Warning	J 09.SSMMvp Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> In Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander Out Port Warning	Warning	J 0A.SSMMvp Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Out Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BUD Warning	Warning	J 0C.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) BUD(# <i>xx</i> GB) Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FAN Warning	Warning	J 0D.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) FAN Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller Warning	Warning	J 0E.SSMM00 Controller Module# <i>m</i> (<i>zz</i>) NAND Controller Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
CM SCU Warning	Warning	J 0FSSMM00 Controller Module# <i>m</i> (<i>zz</i>) SCU Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Warning	Warning	J 10SSMM00 CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Port Warning	Warning	J 11SSMM0 <i>p</i> CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FPGA Warning	Warning	J 21SSMM00 Controller Module# <i>m</i> (<i>zz</i>) FPGA Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM LAN Port Warning	Warning	J 22SSMM0 <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) LAN PORT# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM PCH Warning	Warning	J 2300MM00 Controller Module# <i>m</i> (<i>zz</i>) PCH Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
FRT Warning	Warning	J 4000MM00 FRT# <i>n</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : FRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
BRT Warning	Warning	J 5000MM00 BRT#n Warning <pp ss rr>	MM: Module ID n: BRT No. pp: Parts No. ss: Serial No. rr: Revision
BRT Out Port Warning	Warning	J 5100MM0P BRT#n Out Port#P Warning <pp ss rr>	MM: Module ID n: BRT No. P: Port No. pp: Parts No. ss: Serial No. rr: Revision
BRT In Port Warning	Warning	J 5200MMvP BRT#n In Port#P Warning <pp ss rr>	MM: Module ID v: EXP No. n: BRT No. P: Port No. pp: Parts No. ss: Serial No. rr: Revision
BRT EXP Warning	Warning	J 5300MM0v BRT#n EXP#v Warning <pp ss rr>	MM: Module ID v: EXP No. n: BRT No. pp: Parts No. ss: Serial No. rr: Revision
BRT QSFP Warning	Warning	J 5A00MM0P BRT#n QSFP#P Warning <pp ss rr>	MM: Module ID n: BRT No. P: Port No. pp: Parts No. ss: Serial No. rr: Revision
SVC Warning	Warning	J 6000MM00 SVC#n Warning <pp ss rr>	MM: Module ID n: SVC No. pp: Parts No. ss: Serial No. rr: Revision
CE FAN UNIT	Warning	J 7100n00 CE FAN UNIT#n Warning <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
PANEL UNIT	Warning	J 72000000 PANEL UNIT Warning <pp ss rr>	pp: Parts No. ss: Serial No. rr: Revision
CPSU Warning	Warning	J 7300n00 Power Supply Unit/CPSU#n Warning <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
BBU Warning	Warning	J 7500n00 BBU#n Warning <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
BCU Warning	Warning	J 7500n00 BCU#n Warning <pp ss rr>	n: Slot No. pp: Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
BTU Warning	Warning	J 76000 <i>n</i> 00 BTU# <i>n</i> Warning < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from Disk (3.5inch)	Warning	J 80. <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk preventative separation SMART (3.5inch)	Warning	J 80. <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance SMART (3.5inch)	Warning	J 80. <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) WarnSlow < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance notice (3.5inch)	Warning	J 80. <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SlowDown < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No.

Target	Level	Event display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from Disk (2.5inch)	Warning	J 81.SSUUNNHDD 2.5 DE#UU- Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk preventative separation SMART (2.5inch)	Warning	J 81.SSUUNNHDD 2.5 DE#UU- Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance SMART (2.5inch)	Warning	J 81.SSUUNNHDD 2.5 DE#UU- Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) WarnSlow < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance notice (2.5inch)	Warning	J 81.SSUUNNHDD 2.5 DE#UU- Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SlowDown < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Target	Level	Event display	Remarks
			<i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from SSD (3.5inch)	Warning	J 84.SSUU0NSSD 3.5 DE#UU-Slot#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 No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SSD preventative separation SMART (3.5inch)	Warning	J 84.SSUU0NSSD 3.5 DE#UU-Slot#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 No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from SSD (2.5inch)	Warning	J 85.SSUUNNSSD 2.5 DE#UU-Slot#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 No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SSD preventative separation SMART (2.5inch)	Warning	J 85.SSUUNNSSD 2.5 DE#UU-Slot#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 No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code

Target	Level	Event display	Remarks
IOM6 Warning	Warning	J 90SSUU0n IOM6 DE#UU/IOM#n Warning <pp ss rr>	SS: Parts subtype UU: DE-ID n: EXP No. pp: Parts No. ss: Serial No. rr: Revision
IOM6 Port Warning	Warning	J 91SSUU0np IOM6 Port DE#UU/IOM#n/ Port#p Warning <pp ss rr>	SS: Parts subtype UU: DE-ID n: EXP No. p: Port No. pp: Parts No. ss: Serial No. rr: Revision
IOM6 QSFP Warning	Warning	J 9ASSUU0np IOM6 QSFP DE#UU/IOM#n/ Port#p Warning <pp ss rr>	SS: Parts subtype UU: DE-ID n: EXP No. p: Port No. pp: Parts No. ss: Serial No. rr: Revision
IOM6 Check1	Warning	J C190UU0np IOM6 DE#UU/IOM#n Reboot <pp ss rr>	UU: DE-ID n: EXP No. p: Port No. pp: Parts No. ss: Serial No. rr: Revision
CM Check1	Warning	J C1MM0000 Controller Module#m(zz) Reboot <pp ss rr>	MM: Module ID m: CM No. zz: Model pp: Parts No. ss: Serial No. rr: Revision
CA Check1	Warning	J C1MM0000 CA Slot#n-v(zz) (on CM#m) Reboot <pp ss rr>	MM: Module ID n: Slot No. v: Device No. zz: Model m: CM No. pp: Parts No. ss: Serial No. rr: Revision
BRT Check1	Warning	J C1MM0000 BRT#n Reboot <pp ss rr>	MM: Module ID n: BRT No. pp: Parts No. ss: Serial No. 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 No. zz: Model x: Capacity pp: Parts No. ss: Serial No. rr: Revision

Target	Level	Event display	Remarks
PSU Warning	Warning	J D2SSUU0n Power Supply Unit DE#UU/ PSU#n Warning <pp ss rr>	SS : Parts subtype UU : DE-ID n : Slot No. pp : Parts No. ss : Serial No. 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 No.
Start of rebuild to HS	Error	M A0410xxx RAID Group#0xxx start procedure of Rebuild processing	xxx : RAID group No.
End of rebuild to HS	Error	M A0810xxx RAID Group#0xxx normal end of Rebuild processing	xxx : RAID group No.
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 No.
Abnormal end of rebuild to HS	Error	M A0B10xxx RAID Group#0xxx abnormal end of Rebuild processing	xxx : RAID group No.
Retry of rebuild to HS	Error	M A0C10xxx RAID Group#0xxx retry procedure of Rebuild processing	xxx : RAID group No.
Start of rebuild to DV	Error	M A1410xxx RAID Group#0xxx start procedure of Rebuild processing	xxx : RAID group No.
End of rebuild to DV	Error	M A1810xxx RAID Group#0xxx normal end of Rebuild processing	xxx : RAID group No.
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 No.
Abnormal end of rebuild to DV	Error	M A1B10xxx RAID Group#0xxx abnormal end of Rebuild processing	xxx : RAID group No.
Retry of rebuild to DV	Error	M A1C10xxx RAID Group#0xxx retry procedure of Rebuild processing	xxx : RAID group No.
Start of Copyback	Error	M A3420xxx RAID Group#0xxx start procedure of Copyback processing	xxx : RAID group No.
End of Copyback	Error	M A3820xxx RAID Group#0xxx normal end of Copyback processing	xxx : RAID group No.
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 No.
Abnormal end of Copyback	Error	M A3B20xxx RAID Group#0xxx abnormal end of Copyback processing	xxx : RAID group No.
Retry of Copyback	Error	M A3C20xxx RAID Group#0xxx retry procedure of Copyback processing	xxx : RAID group No.
Start failure of Redundant Copy (non HS)	Error	M A4130xxx RAID Group#0xxx start failure of Redundant Copy processing	xxx : RAID group No.

Target	Level	Event display	Remarks
Start of Redundant Copy	Error	M A4430 xxx RAID Group#0 xxx start procedure of Redundant Copy processing	xxx : RAID group No.
End of Redundant Copy (Disk)	Error	P 21830 xxx Disk Drive DE# uu -Disk# nn (SAS xx GB yy krpm cc) Redundant Copy end < pp ss rr >	xxx : RAID group No. UU : DE-ID nn : Slot No. xx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
End of Redundant Copy (SSD 3.5inch)	Error	P 21830 xxx SSD 3.5 DE# uu -Slot# nn (SAS xx GB cc) Redundant Copy end < pp ss rr >	xxx : RAID group No. UU : DE-ID nn : Slot No. xx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
End of Redundant Copy (SSD 2.5inch)	Error	P 21830 xxx SSD 2.5 DE# uu -Slot# nn (SAS xx GB cc) Redundant Copy end < pp ss rr >	xxx : RAID group No. UU : DE-ID nn : Slot No. xx : Disk capacity cc : Disk information pp : Parts No. ss : Serial No. rr : Revision
Abnormal end of Redundant Copy (source disk problem)	Error	M A4A30 xxx RAID Group#0 xxx abnormal end of Redundant Copy processing because of source disk problem	xxx : RAID group No.
Abnormal end of Redundant Copy	Error	M A4B30 xxx RAID Group#0 xxx abnormal end of Redundant Copy processing	xxx : RAID group No.
Retry of Redundant Copy	Error	M A4C30 xxx RAID Group#0 xxx retry procedure of Redundant Copy processing	xxx : RAID group No.

- Event notification (M messages)

Target	Level	Event display	Remarks
Write Bad Data	Error	M E0050 xxx WRITE BAD DATA	xxx : RLU No.
PINNED Data	Error	M E10300 MM PINNED DATA was created CM# m -CPU# v	MM : CM module ID where PINNED occurred m : CM No. v : CM CPU No.
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)	

Target	Level	Event display	Remarks
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)	
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)	
End of rebuild to HS (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx : RLU No.
End of rebuild to DV (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx : RLU No.
Disconnected intra-cabinet path	Error	M 0732MMpp Remote Copy Path (CM#xx CA#yy PORT#pp) Not Available	MM : Module ID pp : Port No. xx : CM No. yy : CA Slot No.
REC automatic HALT occurrence	Error	M 13CF11xx REC Buffer HALT occurred. (xx)	xx : 00 - path error, 01 - heavy load, 02 - ERROR
Use capacity of Pool has changed. NORMAL -> CAUTION	Information	M E8010xxx TPP#xxx turned to CAUTION(decrease of available capacity)	xxx : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. NORMAL or CAUTION -> WARNING	Information	M E8020xxx TPP#xxx turned to WARNING(decrease of available capacity)	xxx : Thin Provisioning Pool No. (hexadecimal notation)
Lack of pool capacity	Information	M E8050xxx TPP#xxx was all allocated	xxx : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL -> CAUTION	Information	M E8070xxx FTRP#xxx turned to CAUTION(decrease of available capacity)	xxx : FTRP No. (hexadecimal notation)
Use capacity of Ftier Pool has changed.	Information	M E8080xxx FTRP#xxx turned to WARNING(decrease of available capacity)	xxx : FTRP No. (hexadecimal notation)

Target	Level	Event display	Remarks
NORMAL or CAUTION -> WARNING			
Lack of Ftier pool capacity	Information	M E8090xxx FTRP#xxx was all allocated	xxx : FTRP No. (hexadecimal notation)

- 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 No. zz : Model pp : Parts No. ss : Serial No. 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 No. m : CM No. zz : Model pp : Parts No. ss : Serial No. 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 No. pp : Parts No. ss : Serial No. 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 No. ss : Serial No. 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 No. ss : Serial No. 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 DA.SSUU00 DE Exhaust temperature DE#UU Normal	SS : Parts subtype UU : DE-ID
DE intake air temperature alarm recovery	Information	R DB.SSUU00 DE Intake temperature DE#UU Normal	SS : Parts subtype UU : DE-ID

2.3.6 HDS SANRISE2000 Series Storage Traps

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

Failure event	Level	Event display
Entire subsystem stop error	Error	"Acute Event (REFCODE=xxxxx Parts=yyyyy)"
Faulty part operation stop error	Error	"Serious Event (REFCODE=xxxxx Parts=yyyyy)"
Partial error	Error	"Moderate Event (REFCODE=xxxxx Parts=yyyyy)"
Minor error	Error	"Service Event (REFCODE=xxxxx Parts=yyyyy)"

Table 2.2 Explanation of HDS SANRISE2000 series storage traps

Displayed character strings	Region/parts name
"DKCHWProcessor"	DKC processor
"DKCHWC SW"	DKC Starnet
"DKCHWCACHE"	DKC cache
"DKCHW SM"	DKC shared memory
"DKCHW PS"	DKC power supply
"DKCHW Battery"	DKC battery
"DKCHW Fan"	DKC fan
"DKCHW Environment"	DKC environment system
"DKUHW PS"	DKU power supply
"DKUHW Fan"	DKU fan
"DKUHW Environment"	DKU environment system
"DKUHW Drive"	DKU drive

2.3.7 HDS SANRISE1000 Series Storage Traps

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

Failure event	Level	Event display
Local control failure	Error	System down occurred.
Drive disabled (data drive)	Error	Drive blocking occurred.
Fan alarm	Error	Fan failure occurred.
DC power supply failure	Error	Power supply failure occurred.
Battery alarm	Error	Battery failure occurred.
Partial disabling of cache	Error	Cache memory failure occurred.
UPS alarm	Error	UPS failure occurred.
InboxFailure	Error	AC line or inbox failure occurred.
Battery charger circuit alarm	Error	Cache backup circuit failure occurred.
Remote controller disabled	Error	Other controller failure occurred.
Array unit warning state	Warning	Warning occurred.

Failure event	Level	Event display
Drive disabled (spare drive)	Error	Spare drive failure occurred.
ENC alarm	Error	Enclosure controller failure occurred.
Loop alarm	Error	Loop failure occurred.

2.3.8 EMC Symmetrix Series Traps

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

Failure event	Level	Event display
Device status	Error	Decode and display the DISPLAY STRING part of SNMP Trap
Symmetrix status	Error	Decode and display the DISPLAY STRING part of SNMP Trap
ECC discoveryTableChange	Information	EMC ControlCenter Agent, IP xx.xx.xx.xx Discovery Table Change at xxxxx (event log only)
Symmetrix event	Information	Decode and display the DISPLAY STRING part of SNMP Trap (event log only)

2.4 Tape Library

2.4.1 ETERNUS LT270 Traps

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the instruction manual for hardware 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).
Barcode reader error	Warning	Barcode reader in robot#number failed.
CM error	Warning	An error occurred in media error(CM fail).(Barcode Label=xxxx)
CAS cell error	Warning	CAS unit number error occurred.
Cell error	Warning	Cell unit failed.(Barcode Label=xxxxx)
CIC sensor error	Warning	CIC sensor in robot #number failed.
Battery alarm	Warning	Battery unit in LCT#number failed.
Shelf 0 fan alarm	Warning	Shelf FAN in LCT#0 failed.
Shelf 1 fan alarm	Warning	Shelf FAN in LCT#1 failed.
CAS open error	Warning	An open error occurred in CAS unit number
FC/SCSI adapter card error	Warning	Adapter#number failed.
Firmware BOOTUP alarm	Warning	The LCT#number bootup alarm occurred.
EEPROM error	Warning	EEPROM failed.
ROBOT PSU alarm	Warning	PSU unit in robot robot#number failed.

Failure event	Level	Event display
ROBOT PSU power off alarm	Warning	Power-off occurred in PSU unit in robot#number.
ROBOT PSU FAN alarm	Warning	PSU unit FAN in robot#number failed.
Temperature alarm	Warning	The temperature in the library is abnormal.(temperature degree C).
Temperature abnormality error	Error	Tape library temperature increased abnormally (temperature degrees C), leading to a library system fail.
Vibration alarm	Warning	Library system detected an abnormal vibration.
Humidity alarm	Warning	Tape library humidity (humidity %) is abnormal.
LCT failover alarm	Warning	Failover occurred in LCT#number.
LCT cutoff alarm	Warning	Cutoff occurred in LCT#number.
ROBOT Down alarm	Warning	Robot#number failed.
Front door open (during operation)	Warning	Front door of the library system was opened.
Nearing no cleaning tape	Warning	The installed cleaning cartridges will reach a limit soon.
Expired deadline for cleaning	Warning	Maximum number of uses of cleaning cell#number (barcode label: xxxx) was reached.
Cleaning cartridge none	Warning	Cleaning cartridge is not available.
ROBOT Serdes alarm	Warning	Serdes in robot#number failed.
Power control card alarm	Warning	Power control card in LCT#number failed.
LCD power off alarm	Warning	Power-off occurred in operation panel.
Drive hardware error	Error	An error occurred in drive#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:xxxxxx).
Fan alarm	Warning	A FAN alarm occurred in drive #number.
Cleaning request	Warning	Drive#number needs cleaning. Perform cleaning.
Cluster PSU0 power off alarm	Warning	Power-off occurred in PSU0 in drive cluster#number.
Cluster PSU1 power off alarm	Warning	Power-off occurred in PSU1 in drive cluster#number.
Cluster PSU0 alarm	Warning	PSU0 in drive cluster#number failed.
Cluster PSU1 alarm	Warning	PSU1 in drive cluster#number failed.
LCT/DCT0 IF failure	Warning	Interface between LCT#number and DCI#0 (drive cluster#number) failed.
LCT/DCT1 IF failure	Warning	Interface between LCT#number and DCI#1 (drive cluster#number) failed.
DCT0 failure	Warning	DCI#number in drive cluster#number failed.
DCT1 failure	Warning	DCI#number in drive cluster#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).
Reach ROBOT life	Warning	Robot#number reached at the end of life.
Reach Drive Life	Warning	Drive#number reached at the end of life.

2.4.2 ETERNUS LT250 Traps

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the instruction manual for hardware 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=xx, Sensekey=xx).
Barcode reader error	Warning	Barcode reader failed.
CM reader error	Warning	CM reader failed.
CAS error	Warning	CAS unit#number failed.
Cell error	Warning	Cell unit failed (Barcode Label:xxxxx).
CIC sensor error	Warning	CIC sensor failed.
Battery alarm	Warning	Battery unit failed.
Shelf FAN0 alarm	Warning	Shelf FAN#0 failed.
Shelf FAN1 alarm	Warning	Shelf FAN#1 failed.
Library FAN0 alarm	Warning	Library FAN#0 failed.
Library FAN1 alarm	Warning	Library FAN#1 failed.
Library FAN2 alarm	Warning	Library FAN#2 failed.
CAS unlock error	Warning	An Unlock error occurred in CAS unit#number.
FC/SCSI error	Warning	Adapter#number failed.
Boot up alarm	Warning	Bootup alarm occurred.
MAC address alarm	Warning	EEPROM failed.
Shelf PSU alarm	Warning	Shelf PSU#number unit failed.
Shelf PSU not installed	Warning	Shelf PSU#number is not installed.
Thermal alarm	Warning	Tape library temperature increased (temperature degree C), leading to an alarm.
Thermal error	Error	Tape library temperature increased abnormally (temperature degree C), leading to a library system fail.
Humidity alarm	Warning	Tape library humidity (humidity %) is abnormal.
Front door open (during operation)	Warning	Front door of the library system was opened.
Nearing no cleaning tape	Warning	The installed cleaning cartridges will reach a limit soon.
Cleaning tape limit	Warning	Maximum number of uses of cleaning cell#number (Barcode Label:xxxxx) was reached.
No cleaning tape	Warning	Cleaning cartridge is not available.
ROBOT Serdes alarm	Warning	Robot serdes failed.
Power control card alarm	Warning	Power control card failed.
Operator Panel P-Off alarm	Warning	Power-off occurred in operation panel.
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)
Reach ROBOT life	Warning	Robot reached at the end of life.
Magazine set sensor error	Warning	Magazine set sensor in CAS#number failed.
No magazine	Warning	Magazine in CAS#number is not installed.
Trash cell full	Warning	There is a media in the Trash cell. (Barcode label:xxxxx)
Media error (CM)	Warning	An error occurred in media error(CM fail).(Barcode Label:xxxxx)
Drive hardware error	Error	An error occurred in drive#number. Use the Remote Panel to check the error contents (FSC=xx, Sensekey=xx).

Failure event	Level	Event display
Media error	Warning	An Error occurred in media error (Barcode Label:xxxxx).
Drive FAN alarm	Warning	A FAN alarm occurred in drive#number.
Drive cleaning request	Warning	Drive#number needs cleaning. Perform cleaning.
Reach Drive Life	Warning	Drive#number reached at the end of life.
Drive PSU power off alarm	Warning	Power-off occurred in drive PSU#number unit.
Drive PSU alarm	Warning	Drive PSU#number unit failed.
Drive LCT/DC IF alarm	Warning	Interface between LCT and DC failed.
Grease is necessary	Warning	Need Greasing.

2.4.3 ETERNUS LT210/LT220/LT230 Traps

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

Failure event	Level	Event display
Library error (Fatal error)	Error	emergency: controller: ROBOT01 Broken CHK=XXXX
Library error (Others)	Warning	warning: controller: ROBOT01 Warning CHK=XXXX
Drive#1 error (Fatal error)	Error	emergency: drive1: DRIVE01 Broken CHK=XXXX
Drive#1 error (Others)	Warning	warning: drive1: DRIVE01 Warning CHK=XXXX
Drive#2 error (Fatal error)	Error	emergency: drive2: DRIVE02 Broken CHK=XXXX
Drive#2 error (Others)	Warning	warning: drive2: DRIVE02 Warning CHK=XXXX
Request for replacement of Cleaning Cartridge	Warning	warning: controller: ROBOT01 Exchange Cleaning Cartridge
Library Maintenance	Warning	warning: controller: ROBOT01 Library Maintenance
Reception of a Cleaning request from drive#1	Warning	warning: drive1: DRIVE01 CleaningRequest
Reception of a Cleaning request from drive#2	Warning	warning: drive2: DRIVE02 CleaningRequest
Start of Inventory	Information	info: controller: ROBOT01 Inventory
Change of library operation mode	Information	info: controller: ROBOT01 ModeChange to RANDOM or info: controller: ROBOT01 ModeChange to SEQUENTIAL
Start of medium transfer	Information	info: controller: ROBOT01 MoveStart XXXX to YYYY
Completion of medium transfer	Information	info: controller: ROBOT01 MoveComplete XXXX to YYYY
The library enters Not Ready state.	Information	info: controller: ROBOT01 NotReady
The drive#1 enters Not Ready state.	Information	info: drive1: DRIVE01 NotReady
The drive#2 enters Not Ready state.	Information	info: drive2: DRIVE01 NotReady
The library enters online state.	Information	info: controller: ROBOT01 Online
The drive#1 enters online state.	Information	info: drive1: DRIVE01 Online
The drive#2 enters online state.	Information	info: drive2: DRIVE02 Online
Unlock magazine	Information	info: controller: ROBOT01 MagazineUnlock

Failure event	Level	Event display
Unlock mailbox	Information	info: controller: ROBOT01 MailboxUnlock
Request of Bus Device Reset	Information	info: controller: ROBOT01 BusDeviceReset

2.4.4 ETERNUS LT200 Traps

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

Failure event	Level	Event display
Autoloader error (Fatal error)	Error	emergency: controller: ACCESSOR Broken CHK=XXXX
Autoloader error (Others)	Warning	warning: controller: ACCESSOR Warning CHK=XXXX
Drive error (Fatal error)	Error	emergency: drive1: DRIVE01 Broken CHK=XXXX
Drive error (Others)	Warning	warning: drive1: DRIVE01 Warning CHK=XXXX
Request for replacement of Cleaning Cartridge	Warning	warning: controller: ACCESSOR Exchange Cleaning Cartridge
Request for maintenance of autoloader	Warning	warning: controller: ACCESSOR Library Maintenance
Reception of a Cleaning request from drive	Warning	warning: drive1: DRIVE01 CleaningRequest
Start of Inventory	Information	info: controller: ACCESSOR Inventory
Change of autoloader operation mode	Information	info: controller: ACCESSOR ModeChange to RANDOM in logical library 1 or info: controller: ACCESSOR ModeChange to SEQUENTIAL in logical library 1
Start of tape transfer	Information	info: controller: ACCESSOR MoveStart XXXX to YYYY
Completion of tape transfer	Information	info: controller: ACCESSOR MoveComplete XXXX to YYYY
The autoloader enters Not Ready state.	Information	info: controller: ACCESSOR NotReady
The drive enters Not Ready state.	Information	info: drive1: DRIVE01 NotReady
The autoloader enters online state.	Information	info: controller: ACCESSOR Online
The drive enters online state.	Information	info: drive1: DRIVE01 Online
Unlock magazine	Information	info: controller: ACCESSOR MagazineUnlock
Unlock I/O Station	Information	info: controller: ACCESSOR I/O StationUnlock
Start of auto cleaning	Information	info: controller: Auto Cleaning Start
Completion of auto cleaning	Information	info: controller: Auto Cleaning Complete

2.4.5 ETERNUS LT20/LT40/LT60 Traps

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

2.4.6 ETERNUS CS800 Traps

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

2.5 Other Devices

2.5.1 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:

- %STATUS% is replaced with any of the following words:
Unknown, Online, Offline, Bypassed, 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/%STATUS%
The status of the unit has changed to warning.	Warning	The status of the unit has changed to Warning/%STATUS%
The status of the unit has changed to unknown.	Warning	The status of the unit has changed to Unknown/%STATUS%
The status of the unit has changed to error.	Error	The status of the unit has changed to FAILED/%STATUS%
The status of the power supply, fan, or temperature sensor has changed to normal.	Information	The status of the sensor has changed to OK/%STATUS%
The status of the power supply, fan, or temperature sensor has changed to warning.	Warning	The status of the sensor has changed to Warning %STATUS%
The status of the power supply, fan, or temperature sensor has changed to unknown.	Warning	The status of the sensor has changed to Unknown/ %STATUS%
The status of the power supply, fan, or temperature sensor has changed to error.	Error	The status of the sensor has changed to FAILED/ %STATUS%
The status of the Fibre Channel port has changed to normal.	Information	The status of the port has changed to Ready/%STATUS%
The status of the Fibre Channel port has changed to warning.	Warning	The status of the port has changed to Warning/%STATUS%
The status of the Fibre Channel port has changed to unknown.	Warning	The status of the port has changed to Unknown/%STATUS%
The status of the Fibre Channel port has changed to error.	Error	The status of the port has changed to FAILURE/ %STATUS%
Event trap	Error, Warning, Information	The message of the device trap is output as it is.

Troubleshooting

- When the level is **Error** or **Warning**, hardware maintenance is required.
- For the event trap, hardware maintenance may also be required when the level is Information. If the contents of the message are unknown, contact your hardware maintenance engineer (CE).
- For other events, no action is required when the level is Information.

2.5.2 NetApp FAS Series and V-Series Events

Event traps are messages reported from a device. If you have any questions about the message contents, refer to the instruction manual for hardware 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.

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. 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 /vol1/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 /vol1/plex0/rg0 is broken.
Disk recovery	Information	The device trap message is output as is.

Failure event	Level	Event display
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 1/2Fans 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
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/vol1 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/vol1 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 vol1
"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 vol1
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.
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.

Failure event	Level	Event display
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. 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.
vsan 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.

Failure event	Level	Event display
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.
wafI_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.
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.

Failure event	Level	Event display
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.
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.

Failure event	Level	Event display
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.
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 failur	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.

2.6 Performance Management Traps

- Failure event of performance monitoring

Failure event	Level	Event display	Troubleshooting
Performance data collection failure	Error	Performance data collecting failure	Please confirm the device and the state of the LAN with IP address shown in the event message.
Start of performance data re-collection	Information	Performance data re-collecting start	None.
Success of performance data re-collection	Information	Performance data re-collecting success	

- Failure event of performance threshold monitoring

Failure event	Level	Event display	Troubleshooting
Logical volume response time failure	Warning	Report-ID=reportnumber / Threshold value exceed : <i>LogicalVolume-number</i> Response Time over <i>times</i>	Check the configuration according to the contents of the event message.
Abnormal CM load	Warning	Report-ID=reportnumber / Threshold value exceed : <i>CMnumber</i> Busy Rate over <i>XX%</i>	
Abnormal RAID group load	Warning	Report-ID=reportnumber / Threshold value exceed : <i>Raidgroup-number</i> Busy Rate over <i>XX%</i>	
Abnormal Port Throughput load	Warning	Report-ID=reportnumber / Threshold value exceed : <i>PortX</i> Throughout over <i>XX%</i>	

Chapter 3 Device Polling Event

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



Note

When the state change of device is detected by executing [Reload Conf.] operation, the following events are not displayed.

Event	Level	Event display	Troubleshooting
When the state changes into error	Error	Unit status changed: Error	Please confirm the state of the device.
When the state has changed warning	Warning	Unit status changed: Warning	Please confirm the state of the device.
When the state has changed normal	Information	Unit status changed: OK	None.
When the State has changed unmonitored	Warning	Connection Timeout	<p>Please confirm whether the LAN between Manager and the device is operating normally. Please confirm whether the state of each device is proper, processes for network communication such as SNMP are operating, and when the device contains the server node Agent then the Agent is operating normally.</p> <p>If the community name of a device that uses SNMP for communication is changed, perform either of the following methods to reconfigure the system.</p> <ul style="list-style-type: none"> - If you use the ETERNUS SF Web Console: Change the SNMP community name. For details, refer to "Change ETERNUS Disk storage system information" in the "ETERNUS SF Web Console Guide". - If you edit the configuration file directly: This method can be performed only when Storage Cruiser is operated. For details, refer to "sanma.conf Parameter" in the "ETERNUS SF Storage Cruiser Operation Guide". <ol style="list-style-type: none"> 1. Set the "SNMP_COMMUNITY_NAME_FOR_IP" parameter in the sanma.conf file. 2. Reflect the contents of the file on the system.
When communication has been recovered	Information	Connection OK	None.
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: <command name> This event occurs when command processing fails to start because of a resource shortage on the Management Server. If it is a temporary event, no special action need be taken. If it occurs regularly, however, check whether

Event	Level	Event display	Troubleshooting
			<p>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: <file name> <p>This event occurs when reading of the XML definition file fails. Check for an error in the definition contents.</p> <ul style="list-style-type: none"> - XML File not found: <file name> <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 your Fujitsu certified service engineer.</p>

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, the event displayed is either Unit status changed: OK, Unit status changed: Warning, or Unit status changed: Error.

- Communication status polling method

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



See

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 For information about polling methods, refer to the "ETERNUS SF Storage Cruiser Operation Guide", section "Function Outline" > "Device Polling".
