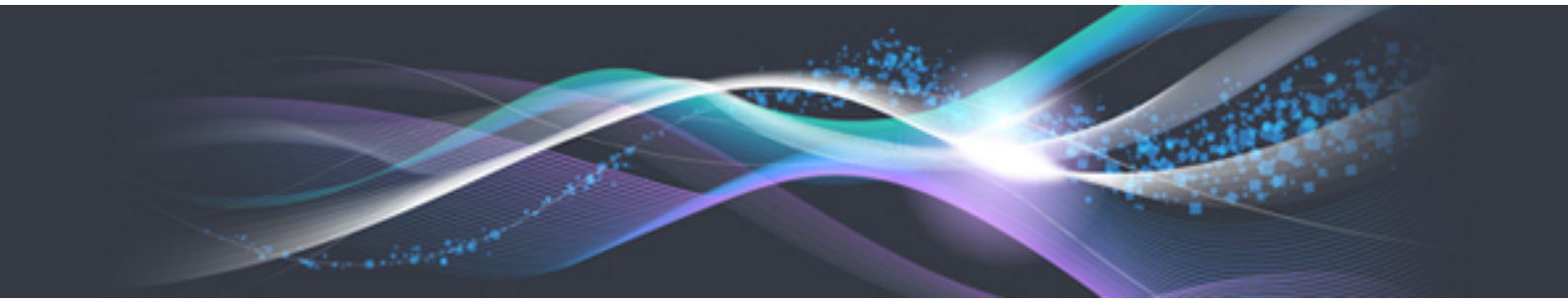
ETERNUS SF

FUJITSU

ETERNUS SF
Express V15.3/
Storage Cruiser V15.3



Event Guide

B1FW-5960-05ENZ0(00)
June 2013

Preface

Purpose

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

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

Intended Readers

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

Organization

This manual is composed as follows:

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	
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	

Formal name	Abbreviation	
Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter	Windows Server 2012	
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	
Windows(R) 8 Windows(R) 8 Pro	Windows 8	
Solaris(TM) 9 Operating System	Solaris 9	Solaris or Solaris OS
Oracle Solaris 10	Solaris 10	
Oracle Solaris 11	Solaris 11	
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	SUSE Linux Enterprise Server 11	
HP-UX 11.0 HP-UX 11i HP-UX 11i v2 HP-UX 11i v3	HP-UX	
AIX 5L(TM) V5.1 AIX 5L(TM) V5.2 AIX 5L(TM) V5.3 AIX(R) V6.1 AIX(R) V7.1	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	

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

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

<table>
<tr><th>Formal name</th><th colspan="3">Abbreviation</th></tr>
<tr><td>ETERNUS DX60/DX60 S2
ETERNUS DX80/DX80 S2
ETERNUS DX90/DX90 S2</td><td colspan="2">-</td><td>ETERNUS DX series</td><td>ETERNUS Disk storage system</td></tr>
<tr><td>ETERNUS DX410
ETERNUS DX440</td><td>ETERNUS DX400 series</td><td rowspan="2">ETERNUS DX400/DX400 S2 series</td><td rowspan="5">ETERNUS DX series</td><td rowspan="6">ETERNUS Disk storage system</td></tr>
<tr><td>ETERNUS DX410 S2
ETERNUS DX440 S2</td><td>ETERNUS DX400 S2 series</td></tr>
<tr><td>ETERNUS DX8100
ETERNUS DX8400
ETERNUS DX8700</td><td>ETERNUS DX8000 series</td><td rowspan="2">ETERNUS DX8000/DX8000 S2 series</td></tr>
<tr><td>ETERNUS DX8100 S2
ETERNUS DX8700 S2</td><td>ETERNUS DX8000 S2 series</td></tr>
<tr><td>ETERNUS2000
ETERNUS4000
ETERNUS8000</td><td colspan="2">-</td></tr>
<tr><td>Web GUI of ETERNUS DX series</td><td colspan="3" rowspan="2">ETERNUS Web GUI</td></tr>
<tr><td>ETERNUSmgr</td></tr>
<tr><td>ETERNUS LT20/LT20 S2
ETERNUS LT40/LT40 S2
ETERNUS LT60/LT60 S2
ETERNUS LT200
ETERNUS LT210
ETERNUS LT220
ETERNUS LT230
ETERNUS LT250
ETERNUS LT270/LT270 S2</td><td colspan="3">ETERNUS Tape library</td></tr>
</table>

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

Formal name	Abbreviation
Symfoware Server Enterprise Extended Edition Symfoware Server Enterprise Edition	Symfoware

Manuals

Formal name	Abbreviation
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Release Notes	ETERNUS SF Release Notes
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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Shipment date and revision history

Shipment date	Revision	Manual code
January 2012	1	B1FW-5960-01ENZ0(00) / B1FW-5960-01ENZ2(00)
January 2012	1.1	B1FW-5960-01ENZ0(01) / B1FW-5960-01ENZ2(01)
February 2012	1.2	B1FW-5960-01ENZ0(02) / B1FW-5960-01ENZ2(02)
March 2012	1.3	B1FW-5960-01ENZ0(03) / B1FW-5960-01ENZ2(03)
April 2012	2	B1FW-5960-02ENZ0(00) / B1FW-5960-02ENZ2(00)
August 2012	3	B1FW-5960-03ENZ0(00) / B1FW-5960-03ENZ2(00)
December 2012	4	B1FW-5960-04ENZ0(00) / B1FW-5960-04ENZ2(00)
February 2013	4.1	B1FW-5960-04ENZ0(01) / B1FW-5960-04ENZ2(01)
June 2013	5	B1FW-5960-05ENZ0(00) / B1FW-5960-05ENZ2(00)

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 also referring to the model number of the other countries.

Japan	Other countries
GP7B8FC1	GP7B8FC1U
PG-FC102	SNP:SY-F2244E2-P, SNP:SY-F2244E2-A, SNP:SY-F2244L2-P
PG-FC105	S26361-F2624-E1
PG-FC106	S26361-F2843-E1
PG-FC107	S26361-F3141-E10, S26361-F3141-E210
PG-FC201	S26361-F3141-E1
PG-FC202/202L	S26361-F3306-E1, S26361-F3306-E201
PG-FC203/203L	S26361-F3961-E1, S26361-F3961-E201
PG-FC204/204L	S26361-F3961-E2
PG-FCD101	S26361-F3023-E1
PG-FCD201	S26361-F3306-E601
PG-FCD202	S26361-D2865-A100
PW008FC2	PW008FC2U
PW008FC3	PW008FC3U
SE0X7F11F	SE0X7F11X

Japan	Other countries
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.

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Update history

Content of update	Updated section	Revision
Added Oracle Solaris 11, AIX V6.1 and AIX V7.1 in the operating systems.	Notation in Preface	3
Added the explanation for events of AIX server node (Host).	2.1.5	
Added some events.	2.3.5, 2.5.2	
Added Windows Server 2012 and Windows 8 in the operating systems.	Notation in Preface	4
Deleted a chapter "Events Related to Operation of This Product".	Chapter 1	
Added the note when the firmware version is NOS v3.0.0 or later.	1.2.4	4.1
Added information for PRIMERGY BX Ethernet Fabric Switch.	1.2.5	
Added the key management server communication error event in "Event notification (M messages)".	1.3.5	
Added the CA port link status notification event.	1.3.5	
Changed a glossary from "Te port" to "Ethernet port".	1.2.4	5
Added the copy session event in "Event notification (M messages)".	1.3.4	
Added "PINNED Data (Cleared)" event in "Event notification (M messages)".	1.3.5	
Added the explanation for ETERNUS LT270 S2 traps.	1.4.1	
Added the Data ONTAP(R) 8.1.2 event information.	1.5.2	

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 (*1)			Explanation
		EXP	SC	ACM	
Before installation	Quick Reference	Yes	Yes	Yes	This manual is unique for each product. The following manuals are available:

When to read	Related manuals (abbreviated)	Related products (*1)			Explanation
		EXP	SC	ACM	
					- Express Quick Reference - Storage Cruiser Quick Reference - AdvancedCopy Manager Quick Reference
	Release Notes	Yes	Yes	Yes	This manual is common for all products.
	Overview	-	-	Yes	This manual is unique for each product.
During installation	Installation and Setup Guide	Yes	Yes	Yes	This manual is common for all products.
	Cluster Environment Setup Guide	-	Yes	Yes	This manual is common for Storage Cruiser and AdvancedCopy Manager.
	Migration Guide	Yes	Yes	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: - 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) - AdvancedCopy Manager for Exchange Server Operation Guide
	Operation Guide for Copy Control Module	Yes	-	Yes	This manual is common for Express and AdvancedCopy Manager.
	Web Console Guide	Yes	Yes	Yes	This manual is common for all products.
Anytime	Event Guide	Yes	Yes	-	This manual is common for Express and Storage Cruiser.
	Messages	Yes	Yes	Yes	This manual is common for all products.
	Glossary	Yes	Yes	Yes	This manual is common for all products.

*1: "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 (*1)	Manual	Main contents	How to read
Acquiring a product overview and	EXP	- Express Quick Reference	- Product overview - Installation decision	Please read if you want to acquire a fundamental knowledge of the product
	SC	- Storage Cruiser Quick Reference		

Purpose	Related products (*1)	Manual	Main contents	How to read
basic operation knowledge	ACM	- AdvancedCopy Manager Quick Reference	- Overview of the necessary tasks from installation to first use	and its operation in order to decide to install it or not.
		- AdvancedCopy Manager Overview	- Main functions - Linkable applications - Procedure overview for Advanced Copy of ETERNUS Disk storage system	
Confirming the updated contents	common	- ETERNUS SF Release Notes	- New function overview - Incompatibilities with previous version - Fixed bugs	Please read if you want to know the updated contents from a previous version and if you perform the upgrade.
Deciding if a version upgrade is required	common	- ETERNUS SF Migration Guide	- 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 - Necessary tasks after an architectural modification of the system as well as product maintenance	

Purpose	Related products (*1)	Manual	Main contents	How to read
			- Command reference	
		- Storage Cruiser Operation Guide for Optimization Option	- Operating environment construction - Operating status monitoring - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference	
	EXP, ACM	- ETERNUS SF Operation Guide for Copy Control Module	- Starting and stopping the software - Data backup/restore inside the storage system - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference	
	ACM	- 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)		
		- AdvancedCopy Manager for Exchange Server Operation Guide	- Restoring the Exchange Server database using the Restore Wizard	
	common	- ETERNUS SF Web Console Guide	- Operating environment - Screen layout description	Please read if you want to understand the ETERNUS SF Web Console.
Dealing with messages issued by the software	common	- ETERNUS SF Messages	- 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	- ETERNUS SF Event Guide	- 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	- ETERNUS SF Glossary	- 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 abbreviations used in the manuals.

Purpose	Related products (*1)	Manual	Main contents	How to read
other important terms			- Synonyms and related terms - Proper form of abbreviated terms	

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

Contents

Chapter 1 Events in Notifications Sent from Monitored Devices

When Express or Storage Cruiser receives an event notification such as a 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 1.1 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

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

1.1.1 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 (*1)	Troubleshooting
One path blocked	Error	*mpType* access path(*pathName*) 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	*mpType* access path(*pathName*) 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(Controller *number*) fault	Search the server node related to the asynchronous event (SNMP trap).

*1: The *mpType* displays "MPLB" or "MPHD". The *pathName* displays "c1t1" etc. The *number* displays "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 character 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 character 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 character 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 character 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.

Monitoring keyword	Level	Event display	Troubleshooting
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		

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

  ".*" in the monitoring keywords is a regular expression (which indicates that any character 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 (*1)	Troubleshooting
The host name of a server node has changed	Warning	hostname of server node (*ipAddress*) has been changed from *server-A* to *server-B*	The hostname for the server having the IP address indicated in the event display has been changed to *server-B*. Reset the hostname to *server-A*. To do so, edit /etc/inet/hosts file, which contains the definitions of the hostnames.

*1: The *ipAddress* displays the IP address of the corresponding server node. The *server-A* displays the name set to which the corresponding server node was originally set. The *server-B* displays the name to which the corresponding server node is currently set.

1.1.2 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 (*1)	Troubleshooting
One path blocked	Error	*mpType* access path(*pathName*) fault	Refer to the manual for the multipath driver and take required actions. Generally, the connection

Failure event	Level	Event display (*1)	Troubleshooting
Failure in detecting a part of paths on server node startup (failure in starting multipath operation)	Warning	Some paths could not be detected	to storage devices and the cable connections must be checked.
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(Controller *port* Target *target*) fault	Search the server node related to the asynchronous event (SNMP trap).

*1: The *mpType* displays "MP". The *pathName* displays "p2b0t0" etc. The *port* displays "No.2" etc (SCSI port number). The *target* displays "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 (*1)	Troubleshooting
One path inhibition	Warning	[*mpType*: 403] "Access path (p*P*b*B*t*T*) 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.
		[*mpType*: 1010] "Access path (p*P*b*B*t*T*) fault	
Some paths could not be detected at a server node startup. (Multipath operation could not be started.)	Warning	[*mpType*: 301] "Access path (p*P*b*B*t*T*) could not be detected.	

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

MPIO asynchronous events (SNMP trap)

The events of msdsm (the multi path driver that is built into Windows operating system 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 problem is connection (cable disconnected, switch problem, etc) or in the storage device.
Path switching was failed	Warning	[MPIO:32] Fail-over failed.	Path switching has occurred, but it has been failed. Check whether the problem is connection (cable disconnected, switch problem, etc) or in the storage device.

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 (*1)	Troubleshooting
The host name of a server node has changed	Warning	hostname of server node (*ipAddress*) has been changed from *server-A* to *server-B*	The hostname for the server having the IP address indicated in the event display has been changed to *server-B*. Reset the hostname to *server-A*. To do so, edit %SystemRoot%system32\drivers \etc\hosts file, which contains the definitions of the hostnames.

*1: The *ipAddress* displays the IP address of the corresponding server node. The *server-A* displays the name set to which the corresponding server node was originally set. The *server-B* displays the name to which the corresponding server node is currently set.

1.1.3 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 the 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 character 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	Refer to 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 character 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 character 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.

Failure event	Level	Event display	Troubleshooting
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		

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

*1: The *ipAddress* displays the IP address of the corresponding server node. The *server-A* displays the name set to which the corresponding server node was originally set. The *server-B* displays the name to which the corresponding server node is currently set.

1.1.4 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 character 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 character 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.

1.1.5 AIX server node (Host)

Asynchronous event monitoring by keywords

The error 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.

- MPIO asynchronous events

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

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

1.1.6 VS850 server node (host)

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

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

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

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

1.2 Fibre Channel Switch

1.2.1 SN200 (Brocade) Events

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

	Failure event	Level	Event display
	System failure	Error	Central Memory FAULT
	System failure	Error	Embedded Port FAULT
	FC port failure	Error	FC Port No.*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 does not 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]

1.2.2 PRIMERGY Fibre Channel Switch Blade Events

Refer to "1.2.1 SN200 (Brocade) Events".

1.2.3 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 VSAN *number*	Check the domain ID setting and set the appropriate ID.
The principal switch was selected.	Warning	Principal switch is selected on a VSAN *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.
A fabric was built or reconfigured.	Warning	Fabric is built or reconfigured on a VSAN *number*	
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.

Failure event	Level	Event display	Troubleshooting
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.
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	
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	
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,

Failure event	Level	Event display	Troubleshooting
			check the SFP, cable, and the connection destination switch. 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*slotNumber*/*portNumberInsidePort*(*portNumber*) (*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*slotNumber*/*portNumberInsidePort*(*portNumber*) (*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*slotNumber*/*portNumberInsidePort*(*portNumber*) (*1)	
The status of the Fibre Channel port has changed to error.	Error	The status of the port has changed to FAILURE/*status* fc*slotNumber*/*portNumberInsidePort*(*portNumber*) (*1)	

*1: Any of "Unknown", "Online", "Offline", "Bypassed", or "Diagnostics" is inserted in *status*.

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

1.2.4 Brocade VDX series Events

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

*1

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

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

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

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

FCOE IF is displayed with the following format:

Displayed format	Explanation
XX/*YY*/*ZZ*	The explanation of *XX*, *YY*, and *ZZ* is as follows: - *XX*: VCS ID - *YY*: RBridgeID - *ZZ*: Port number

*2

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

*3

For the Ge port, the following events of "Table 1.1 Trap common to devices" are displayed.

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

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

*4

When the firmware version is NOS v3.0.1 or later, the following events of "Table 1.1 Trap common to devices" are displayed for all the ports.

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

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

1.2.5 PRIMERGY BX Ethernet Fabric Switch Events

Refer to "1.2.4 Brocade VDX series Events".

1.2.6 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.
The status of the FRU has changed to unknown.	Warning	The status of the unit has changed to Unknown FRU(*name*) *number* (*1)	Replace modules that are deemed to be defective.

Failure event	Level	Event display	Troubleshooting
The status of the FRU has changed to normal.	Information	The status of the unit has changed to Active 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(*name*) *number* (*1)	
The status of the FRU has changed to update/busy.	Information	The status of the unit has changed to Update-busy FRU(*name*) *number* (*1)	
The status of the FRU has changed to error.	Error	The status of the unit has changed to failed 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(*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(*name*) *number* transitions to an active status. (*1)	None.
The status of the FRU has changed to backup.	Information	The FRU(*name*) *number* transitions to a backup status. (*1)	
The status of the FRU has changed to update/busy.	Information	The FRU(*name*) *number* transitions to an update/busy status. (*1)	
The status of the FRU has changed to error.	Error	The 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.
The Fibre Channel port connection was lost.	Warning	Lost of signal or sync in port *number*	
An abnormal sequence was received.	Error	Not operational primitive sequence was received in Port No.*number*	
The sequence timed out.	Error	Primitive sequence timeout occurred in Port No.*number*	
An invalid sequence was detected.	Error	Invalid primitive sequence was detected in Port No.*number*	
A new connection was detected.	Information	The firmware detects that a new connection has been established on a Port No.*number*	None.

*1: The *name* may contain any of "BKPLNE", "CTP", "SBR", "Center FAN", "FAN", "POWER", "GLSL", "GSML", "GXXL", "FPM", "UPM", "GLSR", "GSMR", "GXXR", "FINT1", or "XPM".

Also refer to "1.5.1 Fibre Alliance MIB Support Device Events".

1.3 Storage device

Information

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

1.3.1 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 relevant hardware instruction manual and then take corrective actions.

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 010*tMM*00 CM#*MM* Fault	*t* : Type(1-3) *MM* : Module ID(10-11)
CM Mantaray SP	Error	P 030*tMMnn* CM#*MM* DMA PORT Alarm	*t* : Type(1-3) *MM* : Module ID(10-17) *nn* : Chip No.(0-1)
CM DI NP	Error	P 040*tMMnn* CM#*MM* DI Alarm	*t* : Type(1-3) *MM* : Module ID(10-17) *nn* : Chip No.(0-1)
CM DI SP	Error	P 0500*MMnn* CM#*MM* DI PORT Alarm	*MM* : Module ID(10-17) *nn* : Port No.(0-7)
CM SMC	Error	P 0600*MM*00 CM#*MM* SMC Alarm	*MM* : Module ID(10-11)
CM MMC	Error	P 0700*MM*00 CM#*MM* MMC Alarm	*MM* : Module ID(10-11)
CM DI SP/Path	Error	P 0A00*MMnn* CM#*MM* DI PORT/PATH Alarm	*MM* : Module ID(10-11) *nn* : Port No.(0-7)
CM Memory:512MB	Error	P 0B1*tMMnn* CM#*MM* MEMORY(512MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
CM Memory:1GB	Error	P 0B2*tMMnn* CM#*MM* MEMORY(1024MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
CM Memory:2GB	Error	P 0B4*tMMnn* CM#*MM* MEMORY(2048MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
CM Memory:4GB	Error	P 0B8*tMMnn* CM#*MM* MEMORY(4096MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
Compact Flash	Error	P 0C0*tMM*00 CM#*MM* COMPACT FLASH Fault	*t* : Type(1-3) *MM* : Module ID(10-17)

Target	Level	Event display	Remarks
CM FAN UNIT	Error	P 0D00*MM*00 CM#*MM* FAN UNIT Fault	*MM* : Module ID(10-17)
CA	Error	P 10*ttMM*00 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 11*ttMMnn* 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 4000*MM*00 FRT Fault	*MM* : Module ID(F0-F1)
BRT	Error	P 5000*MM*00 BRT Fault	*MM* : Module ID(B0-B7)
BRT Port/Path	Error	P 5100*MMnn* BRT PORT/PATH Alarm	*MM* : Module ID(B0-B7) *nn* : Port No.(00-07)
SFP Optical Shortwave (BRT)	Error	P 5A00*MMnn* BRT SFP OPTICAL SHORTWAVE Fault	*MM* : Module ID(B0-B7) *nn* : Port No.(00-07)
SVC	Error	P 6000*MM*00 SVC Fault	*MM* : Module ID(E0-E1)
CE FAN UNIT	Error	P 710*tnn*00 CE FAN UNIT Fault	*t* : Type(1,2) *nn* : Slot No.
OPNL UNIT	Error	P 720*t*0000 PANEL UNIT Fault	*t* : Type(1,2)
CPSU	Error	P 730*tnn*00 CPSU Fault	*t* : Type(1,2) *nn* : Slot No.
BCU	Error	P 75000000 BCU Fault	
BTU	Error	P 760*t*0000 BTU Fault	*t* : Type(1,2)
3.5 Inch DISK	Error	P 80*ttDDnn PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E) *PP* : Product ID(Disk) *ccccccc* : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80*ttDDnn PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* FailedUse	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E) *PP* : Product ID(Disk) *ccccccc* : Disk information
3.5 Inch DISK (Compare Error)	Error	P 88*ttDDnn PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E)

Target	Level	Event display	Remarks
			PP : Product ID(Disk) *ccccccc* : Disk information
2.5 Inch DISK	Error	P 81*ttDDnn PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-1D) *PP* : Product ID(Disk) *ccccccc* : Disk information
2.5 Inch Disk (Failed Usable)	Error	P 81*ttDDnn PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* FailedUse	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-1D) *PP* : Product ID(Disk) *ccccccc* : Disk information
2.5 Inch DISK (Compare Error)	Error	P 88*ttDDnn PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-1D) *PP* : Product ID(Disk) *ccccccc* : Disk information
PBC (15DE)	Error	P 9001*DD*0*N* PBC Fault	*DD* : DE-ID *N* : Side 0, side 1
PBC (30DE)	Error	P 9002*DD*0*N* PBC Fault	*DD* : DE-ID *N* : Side 0, side 1
PBC Port	Error	P 9100*DDNn* PBC PORT Alarm	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-3)
SFP Optical Shortwave (PBC)	Error	P 9A00*DDNn* PBC SFP OPTICAL SHORTWAVE Fault	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-3)
SFP Copper (PBC)	Error	P 9B00*DDNn* PBC SFP COPPER Fault	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-3)
DEI CABLE	Error	P 9C00*DD*0*N* DEI CABLE Fault	*DD* : DE-ID *N* : Side 0, side 1
30 DE FAN UNIT	Error	P D100*DD*00 DE FAN UNIT Fault	DD : DE-ID
DPSU (15DE)	Error	P D20*t*DD0*N* DPSU Fault	*t* : Type(1-3) *DD* : DE-ID *N* : Side 0, side 1
BBU CABLE	Error	P D300*DD*0*N* BBU CABLE Fault	*DD* : DE-ID *N* : Side 0, side 1

- Warning (temperature alarm)

Target	Level	Event display	Remarks
CE exhaust temperature alarm (FATAL)	Error	P 7B00*EEEE* CE OUT TEMP	*EEEE* : Position information
CE exhaust temperature alarm (WARNING)	Warning	J 7B00*EEEE* CE OUT TEMP	*EEEE* : Position information
CE intake air temperature alarm (WARNING)	Warning	J 7A00*EEEE* CE IN TEMP	*EEEE* : Position information

Target	Level	Event display	Remarks
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 1170000000 BATTERY *n* 6MONTH WARNING *YYYY/MM*	*n* : Battery No. (0 - 2) *YYYY/MM* : Term of validity (year/ month)
One week before battery life expiration	Warning	J 1170000000 BATTERY *n* 1WEEK WARNING *YYYY/MM*	*n* : Battery No. (0 - 2) *YYYY/MM* : Term of validity (year/ month)
Battery life expiration	Error	J 1170000000 BATTERY *n* EXPIRATION ALARM *YYYY/MM*	*n* : Battery No. (0 - 2) *YYYY/MM* : Term of validity (year/ month)

- Warning (other)

Target	Level	Event display	Remarks
CM Check1	Warning	J C1*MM*0000 CM#*MM* Check-1	*MM* : Module ID(10-17)
CA Check1	Warning	J C1*MM*0000 CA#*MM* Check-1	*MM* : Module ID(40-4F,,,70-7F)
Frequent occurrence of a correctable memory error:512MB	Warning	J C31*tMMnn* 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 C32*tMMnn* 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 C34*tMMnn* CM#*MM* MEMORY(2048MB) Correctable Error	*t* : 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	*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)

Target	Level	Event display	Remarks
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 0C0*tMM*00 CM#*MM* COMPACT FLASH Warning	*t* : Type(1-3) *MM* : CM Module ID(10-17)
CA Warning (Undefined)	Warning	J 10*ttMM*00 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 4000*MM*00 FRT Warning	*MM* : FRT Module ID(F0,F1)
BRT Warning	Warning	J 5000*MM*00 BRT Warning	*MM* : BRT Module ID(B0-B7)
SMART notification from a disk (3.5-inch)	Warning	J 80*ttEEEE PP xxx*GB 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 80*ttEEEE PP xxx*GB 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 notification from a disk (2.5-inch)	Warning	J 81*ttEEEE PP xxx*GB 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.(00-1D)
SMART: Preventive disk disconnection (2.5-inch)	Warning	J 81*ttEEEE PP xxx*GB 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.(00-1D)
SVC Alarm (Warning Level)	Warning	J 6000*MM*00 SVC	*MM* : Module ID
PBC Alarm (Warning Level)	Warning	J 9001*EEEE* PBC 15DE	*EEEE* : Position information
PBC Alarm (Warning Level)	Warning	J 9002*EEEE* PBC 30DE	*EEEE* : 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 E10300*MM* PINNED DATA	*MM* : CM module ID where PINNED occurred

Target	Level	Event display	Remarks
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)	
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 E406C0*DD* FC Loop Recovery Completed	*DD* : Lower DE No.
Unsuccessful FC loop recovery	Error	M E406F0*DD* 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 0732*MMnn* Remote Copy Path (MID#*MM* PORT#*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

1.3.2 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 relevant hardware instruction manual and then take corrective actions.

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 010*tMM*00 CM#*MM* Fault	*t* : Type(1-3) *MM* : Module ID(10-11)
CM Mantaray SP	Error	P 030*tMMnn* CM#*MM* DMA PORT Alarm	*t* : Type(1-3) *MM* : Module ID(10-17) *nn* : Chip No.(0-1)
CM DI NP	Error	P 040*tMMnn* CM#*MM* DI Alarm	*t* : Type(1-3) *MM* : Module ID(10-17) *nn* : Chip No.(0-1)
CM DI SP	Error	P 0500*MMnn* CM#*MM* DI PORT Alarm	*MM* : Module ID(10-17) *nn* : Port No.(0-7)
CM SMC	Error	P 0600*MM*00 CM#*MM* SMC Alarm	*MM* : Module ID(10-11)
CM MMC	Error	P 0700*MM*00 CM#*MM* MMC Alarm	*MM* : Module ID(10-17)
CM DI SP/Path	Error	P 0A00*MMnn* CM#*MM* DI PORT/PATH Alarm	*MM* : Module ID(10-11) *nn* : Port No.(0-7)
CM Memory:512MB	Error	P 0B1*tMMnn* CM#*MM* MEMORY(512MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
CM Memory:1GB	Error	P 0B2*tMMnn* CM#*MM* MEMORY(1024MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
CM Memory:2GB	Error	P 0B4*tMMnn* CM#*MM* MEMORY(2048MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
CM Memory:4GB	Error	P 0B8*tMMnn* CM#*MM* MEMORY(4096MB) Fault	*t* : Type(1-2) *MM* : Module ID(10-17) *nn* : Slot No.(0-3)
Compact Flash	Error	P 0C0*tMM*00 CM#*MM* COMPACT FLASH Fault	*t* : Type(1-3) *MM* : Module ID(10-17)
CM FAN UNIT	Error	P 0D00*MM*00 CM#*MM* FAN UNIT Fault	*MM* : Module ID(10-17)
CA	Error	P 10*ttMM*00 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 11*ttMMnn* 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(00-1D) *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 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)
SFP+ Optical Shortwave	Error	P 1C*ttMMnn* CA#*MM* (on CM#*XX*) *CaType* SFP+ OPTICAL SHORTWAVE Fault	*tt* : Type(00-09) *MM* : CA Module ID(40-4F,,,70-7F) *XX* : CM Module ID(10-17) *nn* : Port No.(00-01)
SFP Optical Longwave	Error	P 1D*ttMMnn* CA#*MM* (on CM#*XX*) *CaType* SFP OPTICAL LONGWAVE Fault	*tt* : Type(00-06) *MM* : CA Module ID(40-4F,,,70-7F) *XX* : CM Module ID(10-17) *nn* : Port No.(00-01)
SFP Unknown	Error	P 1F*ttMMnn* CA#*MM* (on CM#*XX*) SFP Type Unknown Fault	*tt* : Type(03-06) *MM* : CA Module ID(40-4F,,,70-7F) *XX* : CM Module ID(10-17) *nn* : Port No.(00-01)
FRT	Error	P 400*tMM*00 FRT Fault	*t* : Type(0,1) *MM* : Module ID(F0-F1)
BRT	Error	P 5000*MM*00 BRT Fault	*MM* : Module ID(B0-B7)
BRT Port/Path	Error	P 5100*MMnn* BRT PORT/PATH Alarm	*MM* : Module ID(B0-B7) *nn* : Port No.(00-07)
SFP Optical Shortwave (BRT)	Error	P 5A00*MMnn* BRT SFP OPTICAL SHORTWAVE Fault	*MM* : Module ID(B0-B7) *nn* : Port No.(00-07)
SVC	Error	P 6000*MM*00 SVC Fault	*MM* : Module ID(E0-E1)
CE FAN UNIT	Error	P 710*tnn*00 CE FAN UNIT Fault	*t* : Type(1,2) *nn* : Slot No.
OPNL UNIT	Error	P 720*t*0000 PANEL UNIT Fault	*t* : Type(1,2)
CPSU	Error	P 730*tnn*00 CPSU Fault	*t* : Type(1,2) *nn* : Slot No.
SCCI	Error	P 740*tnn*00 SCCI CABLE Fault	*t* : Type(1,2) *nn* : Slot No.
BCU	Error	P 7500*nn*00 BCU Fault	*nn* : Slot No.
BTU	Error	P 760*tnn*00 BTU Fault	*t* : Type(1,2) *nn* : Slot No.
BBU Signal CABLE	Error	P 7700*MM*00 BBU SIG CABLE Fault	*MM* : Module ID(10-11)
3.5 Inch DISK	Error	P 80*ttDDnn PP xx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E) *PP* : Product ID(Disk) *xx* : Disk capacity *ccccccc* : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80*ttDDnn PP xx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* FailedUse	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E)

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

Target	Level	Event display	Remarks
Solid State Drive	Error	P 84*ttDDnn PP xx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E) *PP* : Product ID(Disk) *xx* : Disk capacity *ccccccc* : Disk information
Solid State Drive (Failed Usable)	Error	P 84*ttDDnn PP xx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* FailedUse	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E) *PP* : Product ID(Disk) *xx* : Disk capacity *ccccccc* : Disk information
Solid State Drive (Compare Error)	Error	P 84*ttDDnn PP xx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Fault	*tt* : Type *DD* : DE-ID *nn* : Slot No.(00-0E) *PP* : Product ID(Disk) *xx* : Disk capacity *ccccccc* : Disk information
PBC (15DE)	Error	P 9001*DD*0*N* PBC Fault	*DD* : DE-ID *N* : Side 0, side 1
PBC (30DE)	Error	P 9002*DD*0*N* PBC Fault	*DD* : DE-ID *N* : Side 0, side 1
PBC Port	Error	P 9100*DDNn* PBC PORT Alarm	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-3)
SFP Optical Shortwave (PBC)	Error	P 9A00*DDNn* PBC SFP OPTICAL SHORTWAVE Fault	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-3)
SFP Copper (PBC)	Error	P 9B00*DDNn* PBC SFP COPPER Fault	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-3)
DEI CABLE	Error	P 9C00*DD*0*N* DEI CABLE Fault	*DD* : DE-ID *N* : Side 0, side 1
30 DE FAN UNIT	Error	P D100*DD*00 DE FAN UNIT Fault	DD : DE-ID
DPSU (15DE)	Error	P D20*t*DD0*N* DPSU Fault	*t* : Type(1-3) *DD* : DE-ID *N* : Side 0, side 1
BBU CABLE	Error	P D300*DD*0*N* BBU CABLE Fault	*DD* : DE-ID *N* : Side 0, side 1

- Warning (temperature alarm)

Target	Level	Event display	Remarks
CE exhaust temperature alarm (FATAL)	Error	P 7A00*EEEE* CE OUT TEMP	*EEEE* : Position information
CE exhaust temperature alarm (WARNING)	Warning	J 7A00*EEEE* CE OUT TEMP	*EEEE* : Position information
CE intake air temperature alarm (WARNING)	Warning	J 7B00*EEEE* CE IN TEMP	*EEEE* : Position information

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

- Warning (expiration)

Target	Level	Event display	Remarks
Six months before battery life expiration	Warning	J 7006*nn*00 BATTERY *N* 6MONTH 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 7007*nn*00 BATTERY *N* 1WEEK 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 7007*nn*00 BATTERY *N* zDAY 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	Error	J 70FE*nn*00 BATTERY *N* EXPIRATION 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 C1*MM*0000 CM#*MM* Check-1	*MM* : Module ID(10-17)
CA Check1	Warning	J C1*MM*0000 CA#*MM* Check-1	*MM* : Module ID(40-4F,,,70-7F)
Frequent occurrence of a correctable memory error:512MB	Warning	J C31*tMMnn* 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 C32*tMMnn* 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 C34*tMMnn* CM#*MM* MEMORY(2048MB) Correctable Error	*t* : 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	*t* : Type(1,2) *MM* : CM Module ID(10-17) *nn* : Slot No.(0-7)

Target	Level	Event display	Remarks
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 0C0*tMM*00 CM#*MM* COMPACT FLASH Warning	*t* : Type(1-3) *MM* : CM Module ID(10-17)
CA Warning (Undefined)	Warning	J 10*ttMM*00 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 400*tMM*00 FRT Warning	*t* : Type(1,2) *MM* : FRT Module ID(F0,F1)
BRT Warning	Warning	J 5000*MM*00 BRT Warning	*MM* : BRT Module ID(B0-B7)
SMART notification from a disk (3.5-inch)	Warning	J 80*ttEEEE PP xxx*GB 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 80*ttEEEE PP xxx*GB 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 80*ttEEEE PP xxx*GB 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 80*ttEEEE PP xxx*GB DISK(*ccccccc*) DE#*DD*/Slot#*nn* Slowdown	*tt* : Type *EEEE* : Position information *PP* : Product ID(Disk) *ccccccc* : Disk information *DD* : DE-ID *nn* : Slot No.(00-0E)

Target	Level	Event display	Remarks
SMART notification from a disk (2.5-inch)	Warning	J 81*ttEEEE PP xxx*GB 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.(00-1D)
SMART: Preventive disk disconnection (2.5-inch)	Warning	J 81*ttEEEE PP xxx*GB 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.(00-1D)
SMART notification from a SATA disk (3.5-inch)	Warning	J 82*ttEEEE PP xxx*GB 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.(00-1D)
SMART: Preventive SATA disk disconnection (3.5-inch)	Warning	J 82*ttEEEE PP xxx*GB 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.(00-1D)
SVC Alarm (Warning Level)	Warning	J 6000*MM*00 SVC	*MM* : Module ID
SMC Alarm (Warning Level)	Warning	J 0600*MM*00 CM SMC	*MM* : Module ID
PBC Alarm (Warning Level)	Warning	J 9001*EEEE* PBC 15DE	*EEEE* : Position information
PBC Alarm (Warning Level)	Warning	J 9002*EEEE* PBC 30DE	*EEEE* : 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 E10300*MM* PINNED DATA	*MM* : 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)	
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)	

Target	Level	Event display	Remarks
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 E406C0*DD* FC Loop Recovery Completed	*DD* : Lower DE No.
Unsuccessful FC loop recovery	Error	M E406F0*DD* 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 0732*MMnn* Remote Copy Path (MID#*MM* PORT#*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
Use capacity of Pool has changed. NORMAL -> CAUTION	Information	M E8010*xxx* 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 E8020*xxx* 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 E8010*xxx* Pool#*xxx* returned to CAUTION(decrease of available capacity)	*xxx* : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. CAUTION or WARNING -> NORMAL	Information	M E8040*xxx* Pool#*xxx* returned to NORMAL(increase of available capacity)	*xxx* : Thin Provisioning Pool No. (hexadecimal notation)

1.3.3 ETERNUS2000 Traps

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

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 01*SSMM*00 Controller Module(CM *xx*Hz *zz yy*Port)#*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*SSMM*00 Controller Module(CM *xx*Hz *zz yy*Port)#*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 *xx*Hz *zz yy*Port)#*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 *xx*Hz *zz yy*Port)#*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 0B01*MM*00 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 0B02*MM*00 Controller Cache(MEM-1GB)#*MM*<*pp ss rr*> Fault	*MM* : Module ID(10-11) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Memory:2GB	Error	P 0B04*MM*00 Controller Cache(MEM-2GB)#*MM*<*pp ss rr*> Fault	*MM* : Module ID(10-11) *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
CM Flash ROM	Error	P 0C*SSMM*00 Controller Module(CM *xx*Hz *zz yy*Port)#*MM*<*pp ss rr*> Flash ROM 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 FAN Unit	Error	P 0D00*MM*00 Cooling Fan(BLOWER FAN)#*MM*<*pp*> Fault	*MM* : Module ID(10-11) *pp* : Parts No.
CA Port	Error	P 11*SSMMnn* Controller Module(CM *xx*Hz *zz yy*Port)#*MM*<*pp ss rr*> Host Port#*nn* 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 FE Expander	Error	P 12*SSMM*00 Controller Module(CM *xx*Hz *zz yy*Port)#*MM*<*pp ss rr*> FE 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 FE Expander Port	Error	P 13*SSMMnn* Controller Module(CM *xx*Hz *zz yy*Port)#*MM*<*pp ss rr*> FE Expander Port#*nn* 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
SFP Optical Shortwave	Error	P 1A00*MMnn* FC SFP CM#*MM* Port#*nn*<*pp ss rr oo*> Fault	*MM* : Module ID(10-11) *nn* : Port No.(0-1) *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
BBU	Error	P 750000*nn* Battery Unit(BBU) Slot#*nn*<*pp ss rr*> Fault	*nn* : Slot No.(0-1) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
3.5 Inch DISK	Error	P 80*SSDDnn* Disk Drive(HDD-*xxx*GB-*yy*krpm) 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.

Target	Level	Event display	Remarks
			rr : Revision *cc* : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80*SSDDnn* Disk Drive(HDD-*xxx*GB-*yy*krpm) 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-*xxx*GB-*yy*krpm) 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-*xxx*GB-*yy*krpm) 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-*xxx*GB-*yy*krpm) 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-*xxx*GB-*yy*Krpm) 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
3.5 Inch DISK	Error	P 82*SSDDnn* Disk Drive(HDD-*xxx*GB-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.

Target	Level	Event display	Remarks
			rr : Revision *cc* : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 82*SSDDnn* Disk Drive(HDD-*xxx*GB-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-*xxx*GB-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-*xxx*GB-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-*xxx*GB-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-*xxx*GB-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 9001*DD*0*N* Expander(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. *ss* : Serial No. *rr* : Revision
EXP Port	Error	P 9100*DDNn* Expander(EXP) DE#*DD*/Group#*N*/Port#*m*<*pp ss rr*> Fault	*DD* : DE-ID *N* : Side 0, side 1 *n* : Slot No.(0-1) *m* : Port No.(0-1) *pp* : Parts No.

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

- Warning (temperature alarm)

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

- Warning (expiration)

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

Target	Level	Event display	Remarks
BATTERY expiry	Error	J 70FE00*nn* 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 C1*MM*0000 Controller Module(CM *xx*Hz *zz* *yy*Port)#*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 C301*MM*00 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 C302*MM*00 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 C304*MM*00 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*SSMM*00 Controller Module(CM *xx*Hz *zz* *yy*Port)#*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*SSMM*00 Controller Module(CM *xx*Hz *zz* *yy*Port)#*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
CM SAS Port Warning	Warning	J 09*SSMMnn* Controller Module(CM *xx*Hz *zz* *yy*Port)#*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

Target	Level	Event display	Remarks
CM BE Expander Port Warning	Warning	J 0A*SSMMnn* Controller Module(CM *xx*Hz *zz yy*Port)#*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-*xxx*GB-*yy*Krpm) 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-*xxx*GB-*yy*Krpm) 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-*xxx*GB-*yy*Krpm) 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-*xxx*GB-*yy*Krpm) 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) *pp* : Product ID(Disk) *ss* : Serial No. *rr* : Revision *cc* : Disk information
SATA Disk notice from Disk (3.5inch)	Warning	J 82*SSEEEE* Disk Drive(HDD-*xxx*GB-SATA) DE#*DD*/Slot#*nn*<*pp ss rr cc*> SMART	*SS* : Parts subtype *EEEE* : Position information *xxx* : Disk capacity *DD* : DE-ID *nn* : Slot No.(00-0E)

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

Target	Level	Event display	Remarks
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)	
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 E406C0*DD* FC Loop Recovery Completed	*DD* : Young number DE No.
FC loop recovery failure	Error	M E406F0*DD* FC Loop Recovery Failed	*DD* : Young number DE No.
End of rebuild to HS (Bad Data)	Error	M 21810*xxx* RAID Group#0xxx REBUILD to HS (Recovered end)	*xxx* : RLU No.
End of rebuild to DV (Bad Data)	Error	M 21810*xxx* RAID Group#0xxx REBUILD to DV (Recovered end)	*xxx* : RLU No.

Target	Level	Event display	Remarks
Disconnected intra-cabinet path	Error	M 38040C0732*xxyy* 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*SSMM*00 Controller Module(CM *xx*Hz *zz yy*Port)#*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 9002*EEEE* 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 D200*DD*0*N* 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 DA0*tDD*00 DE OUT TEMP Normal	*DD* : DE-ID *t* : Type(1=1U, 2=2U)
DE intake air temperature alarm recovery	Information	R DB0*tDD*00 DE IN TEMP Normal	*DD* : DE-ID *t* : Type(1=1U, 2=2U)

1.3.4 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 relevant hardware instruction manual and then take corrective actions.

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 01*SSMM*00 Controller Module#*m*(*zz xx*Hz) Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM BE Expander	Error	P 06*SSMM*00 Controller Module#*m*(*zz xx*Hz) BE Expander Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI)

Target	Level	Event display	Remarks
			xx : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM DI PORT	Error	P 08*SSMM0n* Controller Module#*m*(*zz xx*Hz) DI Port#*n* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *n* : Port No.(0-1) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM SAS Port	Error	P 09*SSMM*00 Controller Module#*m*(*zz xx*Hz) SAS Port Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM BE Expander Port	Error	P 0A*SSMM0n* Controller Module#*m*(*zz xx*Hz) BE Expander Port#*n* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *n* : Port No.(0-2) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Memory	Error	P 0B*SSMM*00 Controller Module#*m*(*zz xx*Hz) Cache(*MEM*) Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *MEM*: Memory capacity *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Flash ROM	Error	P 0C*SSMM*00 Controller Module#*m*(*zz xx*Hz) Flash ROM Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
CM NAND Controller	Error	P 0E*SSMM*00 Controller Module#*m*(*zz xx*Hz) NAND Controller Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SCU	Error	P 0F*SSMM*00 Controller Module#*m*(*zz xx*Hz) Super Capacitor Unit Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CA Port	Error	P 11*SSMM0n* Controller Module#*m*(*zz xx*Hz) Port#*n* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *n* : Port No.(0-1) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM FE Expander	Error	P 12*SSMM*00 Controller Module#*m*(*zz xx*Hz) FE Expander Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM FE Expander Port	Error	P 13*SSMM0n* Controller Module#*m*(*zz xx*Hz) FE Expander Port#*n* Fault <*pp ss rr*>	*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
SFP Optical Shortwave	Error	P 1A00*MM0n* 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

Target	Level	Event display	Remarks
SFP+ Optical Shortwave	Error	P 1C00*MM0n* 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*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Failed Usable <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* Disk Drive DE# *DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-17) *n* : Slot No.(00-23) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
2.5 Inch Disk (Failed Usable)	Error	P 81*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Failed Usable <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-17) *n* : Slot No.(00-23) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information

Target	Level	Event display	Remarks
			pp : Parts No. *ss* : Serial No. *rr* : Revision
2.5 Inch DISK (Compare Error)	Error	P 88*SSDDNN* Disk Drive DE# *DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-17) *n* : Slot No.(00-23) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
3.5 Inch DISK	Error	P 82*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SATA *xxx*GB *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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 Disk (Failed Usable)	Error	P 82*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SATA *xxx*GB *cc*) Failed Usable <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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 DISK (Compare Error)	Error	P 88*SSDDNN* Disk Drive DE# *DD*-Disk#*n*(SATA *xxx*GB *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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	Error	P 84*SSDDNN* SSD 3.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* SSD 3.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) Failed Usable <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-0b) *n* : Slot No.(00-11) *xxx* : Disk capacity

Target	Level	Event display	Remarks
			cc : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
3.5 Inch SSD (Compare Error)	Error	P 88*SSDDNN* SSD 3.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* SSD 2.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* SSD 2.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) Failed Usable <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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*SSDDNN* SSD 2.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) Fault <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-17) *n* : Slot No.(00-23) *xxx* : Disk capacity *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
EXP	Error	P 9000*DD*0*N* Expander DE#*DD*/EXP#*N* Fault <*pp ss rr*>	*DD* : DE-ID *N* : Side 0, side 1 *pp* : Parts No. *ss* : Serial No. *rr* : Revision
EXP Port	Error	P 9100*DDNn* Expander Port DE#*DD*/EXP#*N*/Port#*n* Fault <*pp ss rr*>	*DD* : DE-ID *N* : Side 0, side 1 *n* : Port No.(0-1) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
PSU	Error	P D200*DD*0*n* Power Supply Unit DE#*DD*/PSU#*n* Fault <*pp ss rr*>	*DD* : DE-ID *n* : Slot No.(0-1)

Target	Level	Event display	Remarks
			pp : Parts No. *ss* : Serial No. *rr* : Revision

- Warning (temperature alarm)

Target	Level	Event display	Remarks
DE Abnormal exhaust gas temperature (FATAL)	Error	P DA0*tDD*00 DE Exhaust temperature DE#*DD* Fatal	*t* : Type(1=1U, 2=2U) *DD* : DE-ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA0*tDD*00 DE Exhaust temperature sensor DE#*DD* Fault	*t* : Type(1=1U, 2=2U) *DD* : DE-ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA0*tDD*00 DE Exhaust temperature DE#*DD* Warning	*t* : Type(1=1U, 2=2U) *DD* : DE-ID
DE Abnormal intake temperature (Sensor failure)	Error	P DB0*tDD*00 DE Intake temperature sensor DE#*DD* Fault	*t* : Type(1=1U, 2=2U) *DD* : DE-ID
DE Abnormal intake temperature (WARNING)	Warning	J DB0*tDD*00 DE Intake temperature DE#*DD* Warning	*t* : Type(1=1U, 2=2U) *DD* : DE-ID

- Warning (other)

Target	Level	Event display	Remarks
CM Check1	Warning	J C1*MM*0000 Controller Module#*m*(*zz xx*Hz) Reboot <*pp ss rr*>	*MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
Multiple memory collectable error	Warning	J C301*MM*00 Controller Module#*m*(*zz xx*Hz) Cache(*MEM*) Correctable Error <*pp ss rr*>	*MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *MEM*: Memory capacity *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Warning	Warning	J 01*SSMM*00 Controller Module#*m*(*zz xx*Hz) Warning factor(*ww*) <*pp ss rr*>	*SS* : Parts subtype *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *ww* : Factor Code *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
CM BE Expander Warning	Warning	J 06*SSMM*00 Controller Module##*m*(*zz xx*Hz) BE Expander Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *m* : CM No. *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM SAS Port Warning	Warning	J 09*SSMM0n* Controller Module#*m*(*zz xx*Hz) SAS Port#*n* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(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
CM BE Expander Port Warning	Warning	J 0A*SSMM0n* Controller Module#*m*(*zz xx*Hz) BE Expander Port#*n* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *n* : Port No.(0-2) *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM FLASH ROM	Warning	J 0C*SSMM*00 Controller Module#*m*(*zz xx*Hz) Flash ROM Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM NAND Controller	Warning	J 0E*SSMM*00 Controller Module#*m*(*zz xx*Hz) NAND Flash Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID(10-11) *zz* : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SMART notice from Disk (3.5inch)	Warning	J 80*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) SMART <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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

Target	Level	Event display	Remarks
Disk preventative separation SMART (3.5inch)	Warning	J 80*SSDDNN* Disk Drive DE#DD-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Warning <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : 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
SMART notice from Disk (2.5inch)	Warning	J 81*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) SMART <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-17) *n* : Slot No.(00-23) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
Disk preventative separation SMART (2.5inch)	Warning	J 81*SSDDNN* Disk Drive DE#DD-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Warning <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-17) *n* : Slot No.(00-23) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SATA Disk notice from Disk (3.5inch)	Warning	J 82*SSDDNN* Disk Drive DE#*DD*-Disk#*n*(SATA *xxx*GB *cc*) SMART <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-0b) *n* : Slot No.(00-11) *xxx* : Disk capacity *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SATA Disk preventative separation SMART (3.5inch)	Warning	J 82*SSDDNN* Disk Drive DE#DD-Disk#*n*(SATA *xxx*GB *cc*) Warning <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-0b) *n* : Slot No.(00-11) *xxx* : Disk capacity *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SMART notice from SSD (3.5inch)	Warning	J 84*SSDDNN* SSD 3.5 DE#dd-Slot#*n*(SAS *xxx*GB *cc*) SMART <*pp ss rr*>	*SS* : Parts subtype *DD* : DE-ID *NN* : Slot No.(00-0b) *n* : Slot No.(00-11) *xxx* : Disk capacity *cc* : Disk information

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

Target	Level	Event display	Remarks
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
Copy session [Active -> Error]	Error	M 13CE0001 Error session was detected. (Local:*xxxxx* Remote:*xxxxx*)	*xxxxx* : Number of copy sessions that status is Error
Copy session [Suspend -> Error]	Error	M 13CE0002 Foreseen error session was detected. (Local:*xxxxx* Remote:*xxxxx*)	*xxxxx* : Number of copy sessions that status changed from Suspend to Error
Copy session [Active -> Halt]	Error	M 13CE0003 Halt session was detected. (Remote:*xxxxx*)	*xxxxx* : Number of copy sessions that status is Halt
Copy session [Error -> Idle]	Error	M 13CE0004 Error session was cleared.	
Copy session [Suspend -> Error -> Idle]	Error	M 13CE0005 Foreseen error session was cleared.	
Copy session [Halt -> Active]	Error	M 13CE0006 Halt session was cleared.	

- Recovery notification

Target	Level	Event display	Remarks
CM BE Expander Warning recovery	Information	R 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)

Target	Level	Event display	Remarks
			zz : Model(FC/SAS/iSCSI) *xx* : Frequency (800MHz/ 1.2GHz) *pp* : Parts No. *ss* : Serial No. *rr* : Revision
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*DD*0*N* 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*tDD*00 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*tDD*00 DE IN TEMP Normal	*DD* : DE-ID *t* : Type(1:3.5"DE / 2:2.5"DE)

1.3.5 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 relevant hardware instruction manual and then take corrective actions.

- Notification of component blockage

Target	Level	Event display	Remarks
CM Unit	Error	P 01*SSMM*00 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*SSMM*0*v* Controller Module#*m*(*zz*) BIOS#*v* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *zz* : Model *pp* : Parts No.

Target	Level	Event display	Remarks
			ss : Serial No. *rr* : Revision
CM RTC	Error	P 04*SSMM*00 Controller Module#*m*(*zz*) RTC Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM NVRAM	Error	P 05*SSMM*00 Controller Module#*m*(*zz*) NVRAM Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM MMC	Error	P 0600*MM*00 Controller Module#*m*(*zz*) MMC Fault <*pp ss rr*>	*MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Expander	Error	P 06*SSMM*0*v* Controller Module#*m*(*zz*) EXP#*v* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM DI PORT	Error	P 08*SSMMvp* Controller Module#*m*(*zz*) DI Port#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Expander In Port	Error	P 09*SSMMvp* Controller Module#*m*(*zz*) EXP#*v* In Port#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Expander Out Port	Error	P 0A*SSMMvp* Controller Module#*m*(*zz*) EXP#*v* Out Port#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No.

Target	Level	Event display	Remarks
			ss : Serial No. *rr* : Revision
CM Memory	Error	P 0B*SSMMnn* Controller Module#*m*(*zz*) Cache(MEM #*x*GB) Slot#*nn* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *nn* : Slot No. *m* : CM No. *zz* : Model *x* : Capacity *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM BUD	Error	P 0C*SSMM*00 Controller Module#*m*(*zz*) BUD(#*xx*GB) Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *xx* : Capacity *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM FAN	Error	P 0D*SSMM*00 Controller Module#*m*(*zz*) FAN Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM NAND Controller	Error	P 0E*SSMM*00 Controller Module#*m*(*zz*) NAND Controller Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM SCU	Error	P 0F*SSMM*00 Controller Module#*m*(*zz*) SCU Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CA	Error	P 10*SSMM*00 CA Slot#*n*-*v*(*zz*) (on CM#*m*) Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CA Port	Error	P 11*SSMM0p* CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No.

Target	Level	Event display	Remarks
			v : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SFP for FC-CA	Error	P 1A*SSMM*0*p* FC SFP CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
SFP for FCLink-CA	Error	P 1B*SSMM*0*p* FCLink SFP CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
SFP+ for FC-CA	Error	P 1C*SSMM*0*p* FC SFP+ CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
SFP+ for 10G-iSCSI-CA SFP+ for FCoE-CA	Error	P 1D*SSMM*0*p* iSCSI FCoE SFP+ CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
SFP+ Copper for 10G-iSCSI-CA SFP+ for FCoE-CA	Error	P 1E00*MM*0*p* iSCSI FCoE SFP+Cp CA Slot#S(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*MM* : Module ID *p* : Port No. *m* : CM No. *zz* : Model

Target	Level	Event display	Remarks
			pp : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
SFP+ Longwave for FC-CA	Error	P 1900*MM*0*p* FC SFP+ Longwave CA Slot#S(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*MM* : Module ID *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
SFP Type Unknown	Error	P 1F*SSMM*0*p* SFP(Type Unknown) CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Fault <*pp ss rr oo*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision *oo* : Other Information
CM FPGA	Error	P 21*SSMM*00 Controller Module#*m*(*zz*) FPGA Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM LAN Port	Error	P 22*SSMM*0*p* Controller Module#*m*(*zz*) LAN PORT#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM PCH	Error	P 2300*MM*00 Controller Module#*m*(*zz*) PCH Fault <*pp ss rr*>	*MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM QSFP	Error	P 2A*SSMMvp* Controller Module#*m*(*zz*) QSFP#*v*#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
FRT	Error	P 4000*MM*00 FRT#*n* Fault <*pp ss rr*>	*MM* : Module ID *n* : FRT No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BRT	Error	P 5000*MM*00 BRT#*n* Fault <*pp ss rr*>	*MM* : Module ID *n* : BRT No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BRT Out Port	Error	P 5100*MM*0*P* BRT#*n* Out Port#*P* Fault <*pp ss rr*>	*MM* : Module ID *n* : BRT No. *p* : Port No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BRT In Port	Error	P 5200*MM*v*P* BRT#*n* InPort#*P* Fault <*pp ss rr*>	*MM* : Module ID *v* : EXP No. *p* : Port No. *n* : BRT No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BRT EXP	Error	P 5300*MM*0*v* BRT#*n* EXP#*v* Fault <*pp ss rr*>	*MM* : Module ID *v* : EXP No. *n* : BRT No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BRT QSFP	Error	P 5A00*MM*0*P* BRT#*n* QSFP#*P* Fault <*pp ss rr*>	*MM* : Module ID *n* : BRT No. *P* : Port No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SVC	Error	P 6000*MM*00 SVC#*n* Fault <*pp ss rr*>	*MM* : Module ID *n* : SVC No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SVC LAN Port	Error	P 6100*MM*0*P* SVC#*n* LAN PORT#*P* Fault <*pp ss rr*>	*MM* : Module ID *P* : Port No. *n* : SVC No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SVC PCIe SW	Error	P 6200*MM*00 SVC#*n* PCIe SW Fault <*pp ss rr*>	*MM* : Module ID *n* : SVC No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
SVC RCI board	Error	P 6300*MM*00 SVC#*n* RCI board Fault <*pp ss rr*>	*MM* : Module ID *n* : SVC No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CE FAN UNIT	Error	P 71000*n*00 CE FAN UNIT#*n* Fault <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
PANEL UNIT	Error	P 72000000 PANEL UNIT Fault <*pp ss rr*>	*pp* : Parts No. *ss* : Serial No. *rr* : Revision
CPSU	Error	P 73000*n*00 Power Supply Unit/CPSU#*n* Fault <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SCCB	Error	P 74000*n*00 SCCB#*n* Fault <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BBU	Error	P 75000*n*00 BBU#*n* Fault <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BCU	Error	P 75000*n*00 BCU#*n* Fault <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BTU	Error	P 76000*n*00 BTU#*n* Fault <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
3.5 Inch DISK	Error	P 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
3.5 Inch Disk (Failed Usable)	Error	P 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Failed Usable <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation

Target	Level	Event display	Remarks
			cc : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
3.5 Inch Disk (Disk abnormal performance)	Error	P 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Slow Down <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch DISK	Error	P 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch Disk (Failed Usable)	Error	P 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Failed Usable <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch Disk (Disk abnormal performance)	Error	P 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Slow Down <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No.

Target	Level	Event display	Remarks
			rr : Revision *tt* : Date Code *uu* : Config Code
3.5 Inch SSD	Error	P 84*SSUU*0*N* SSD 3.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
3.5 Inch SSD (Failed Usable)	Error	P 84*SSUU*0*N* SSD 3.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Failed Usable <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch SSD	Error	P 85*SSUUNN* SSD 2.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch SSD (Failed Usable)	Error	P 85*SSUUNN* SSD 2.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Failed Usable <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
			tt : Date Code *uu* : Config Code
3.5 Inch DISK (Compare Error)	Error	P 88*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch DISK (Compare Error)	Error	P 88*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
3.5 Inch SSD (Compare Error)	Error	P 88*SSUU*0*N* SSD 3.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
2.5 Inch SSD (Compare Error)	Error	P 88*SSUUNN* SSD 2.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Fault <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code

Target	Level	Event display	Remarks
IOM6	Error	P 90*SSUU*0*n* IOM6 DE#*UU*/IOM#*n* Fault <*pp ss rr*>	*SS* : Parts subtype *UU* : DE-ID *n* : EXP No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
IOM6 Port	Error	P 91*SSUUnp* IOM6 Port DE#*UU*/IOM#*n*/ Port#*p* Fault <*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	Error	P 9A*SSUUnp* IOM6 QSFP DE#*UU*/IOM#*n*/ Port#*p* Fault <*pp ss rr*>	*SS* : Parts subtype *UU* : DE-ID *n* : EXP No. *p* : Port No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
PSU	Error	P D2*SSUU*0*n* Power Supply Unit DE#*UU*/ PSU#*n* Fault <*pp ss rr*>	*SS* : Parts subtype *UU* : DE-ID *n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : 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 DA*SSUU*00 DE Exhaust temperature DE#*UU* Fatal	*SS* : Parts subtype *UU* : DE-ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA*SSUU*00 DE Exhaust temperature sensor DE#*UU* Fault	*SS* : Parts subtype *UU* : DE-ID

Target	Level	Event display	Remarks
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA*SSUU*00 DE Exhaust temperature DE#*UU* Warning	*SS* : Parts subtype *UU* : DE-ID
DE Abnormal intake temperature (Sensor failure)	Error	P DB*SSUU*00 DE Intake temperature sensor DE#*UU* Fault	*SS* : Parts subtype *UU* : DE-ID
DE Abnormal intake temperature (WARNING)	Warning	J DB*SSUU*00 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*n*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*n*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*n*00 BATTERY#*b N*DAY WARNING WARNING *YYYY/MM*	*n* : Slot No. *b* : BTU No. *N* : Days *YYYY/MM* : Term of validity (year/month)
Battery life expiration	Error	J 70FE0*n*00 BATTERY#*b* EXPIRATION ALARM *YYYY/MM*	*n* : Slot No. *b* : BTU No. *YYYY/MM* : Term of validity (year/month)

- Warning (other)

Target	Level	Event display	Remarks
CM Warning	Warning	J 01*SSMM*00 Controller Module#*m*(*zz*) Warning factor(*ww*) <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *ww* : Factor Code *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM DMA Port Warning	Warning	J 02*SSMM*0*p* Controller Module#*m*(*zz*) DMA PORT#*p* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM BIOS Warning	Warning	J 03*SSMM*0*v* Controller Module#*m*(*zz*) BIOS#*v* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No.

Target	Level	Event display	Remarks
			m : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM RTC Warning	Warning	J 04*SSMM*00 Controller Module#*m*(*zz*) RTC Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM NVRAM Warning	Warning	J 05*SSMM*00 Controller Module#*m*(*zz*) NVRAM Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM MMC Warning	Warning	J 0600*MM*00 Controller Module#*m*(*zz*) MMC Warning <*pp ss rr*>	*MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Expander Warning	Warning	J 06*SSMM*0*v* Controller Module#*m*(*zz*) EXP#*v* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM DI PORT Warning	Warning	J 08*SSMMvp* Controller Module#*m*(*zz*) DI Port#*p* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Expander In Port Warning	Warning	J 09*SSMMvp* Controller Module#*m*(*zz*) EXP#*v* In Port#*p* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *v* : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM Expander Out Port Warning	Warning	J 0A*SSMMvp* Controller Module#*m*(*zz*) EXP#*v* Out Port#*p* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID

Target	Level	Event display	Remarks
			v : Device No. *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM BUD Warning	Warning	J 0C*SSMM*00 Controller Module#*m*(*zz*) BUD(#xxGB) Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *xx* : Capacity *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM FAN Warning	Warning	J 0D*SSMM*00 Controller Module#*m*(*zz*) FAN Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM NAND Controller Warning	Warning	J 0E*SSMM*00 Controller Module#*m*(*zz*) NAND Controller Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM SCU Warning	Warning	J 0F*SSMM*00 Controller Module#*m*(*zz*) SCU Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CA Warning	Warning	J 10*SSMM*00 CA Slot#*n*-*v*(*zz*) (on CM#*m*) Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CA Port Warning	Warning	J 11*SSMM*0*p* CA Slot#*n*-*v*(*zz*) (on CM#*m*) Port#*p* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *n* : Slot No. *v* : Device No. *zz* : Model *m* : CM No. *pp* : Parts No.

Target	Level	Event display	Remarks
			ss : Serial No. *rr* : Revision
CM FPGA Warning	Warning	J 21*SSMM*00 Controller Module#*m*(*zz*) FPGA Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM LAN Port Warning	Warning	J 22*SSMM*0*p* Controller Module#*m*(*zz*) LAN PORT#*p* Warning <*pp ss rr*>	*SS* : Parts subtype *MM* : Module ID *p* : Port No. *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
CM PCH Warning	Warning	J 2300*MM*00 Controller Module#*m*(*zz*) PCH Warning <*pp ss rr*>	*MM* : Module ID *m* : CM No. *zz* : Model *pp* : Parts No. *ss* : Serial No. *rr* : Revision
FRT Warning	Warning	J 4000*MM*00 FRT#*n* Warning <*pp ss rr*>	*MM* : Module ID *n* : FRT No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BRT Warning	Warning	J 5000*MM*00 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 5100*MM*0*P* 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 5200*MMvP* 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 5300*MM*0*v* 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

Target	Level	Event display	Remarks
BRT QSFP Warning	Warning	J 5A00*MM*0*P* 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 6000*MM*00 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 71000*n*00 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 73000*n*00 Power Supply Unit/CPSU#*n* Warning <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BBU Warning	Warning	J 75000*n*00 BBU#*n* Warning <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BCU Warning	Warning	J 75000*n*00 BCU#*n* Warning <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
BTU Warning	Warning	J 76000*n*00 BTU#*n* Warning <*pp ss rr*>	*n* : Slot No. *pp* : Parts No. *ss* : Serial No. *rr* : Revision
SMART notice from Disk (3.5inch)	Warning	J 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) SMART <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
Disk preventative separation SMART (3.5inch)	Warning	J 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Warning <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation)

Target	Level	Event display	Remarks
			xxx : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
Disk abnormal performance SMART (3.5inch)	Warning	J 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) WarnSlow <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
Disk abnormal performance notice (3.5inch)	Warning	J 80*SSUU*0*N* HDD 3.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) SlowDown <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
SMART notice from Disk (2.5inch)	Warning	J 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) SMART <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
Disk preventative separation SMART (2.5inch)	Warning	J 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) Warning <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information

Target	Level	Event display	Remarks
			pp : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
Disk abnormal performance SMART (2.5inch)	Warning	J 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) WarnSlow <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
Disk abnormal performance notice (2.5inch)	Warning	J 81*SSUUNN* HDD 2.5 DE#*UU*-Disk#*n*(SAS *xxx*GB *yy*krpm *cc*) SlowDown <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
SMART notice from SSD (3.5inch)	Warning	J 84*SSUU*0*N* SSD 3.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) SMART <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
SSD preventative separation SMART (3.5inch)	Warning	J 84*SSUU*0*N* SSD 3.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Warning <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision

Target	Level	Event display	Remarks
			tt : Date Code *uu* : Config Code
SMART notice from SSD (2.5inch)	Warning	J 85*SSUUNN* SSD 2.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) SMART <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
SSD preventative separation SMART (2.5inch)	Warning	J 85*SSUUNN* SSD 2.5 DE#*UU*-Slot#*n*(SAS *xxx*GB *yy*krpm *cc*) Warning <*pp ss rr tt uu*>	*SS* : Parts subtype *UU* : DE-ID *N* : Slot No.(hexadecimal notation) *n* : Slot No.(decimal notation) *xxx* : Disk capacity *yy* : Disk rotation *cc* : Disk information *pp* : Parts No. *ss* : Serial No. *rr* : Revision *tt* : Date Code *uu* : Config Code
IOM6 Warning	Warning	J 90*SSUU0n* 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 91*SSUUnp* 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 9A*SSUUnp* 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 C190*UUnp* 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

Target	Level	Event display	Remarks
CM Check1	Warning	J C1*MM*0000 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 C1*MM*0000 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 C1*MM*0000 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 C3*SSMM*00 Controller Module#*m*(*zz*) Cache(MEM #*x*GB) 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
PSU Warning	Warning	J D2*SSUU*0*n* 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 A0110*xxx* RAID Group#0*xxx* start failure of Rebuild processing	*xxx* : RAID group No.
Start of rebuild to HS	Error	M A0410*xxx* RAID Group#0*xxx* start procedure of Rebuild processing	*xxx* : RAID group No.
End of rebuild to HS	Error	M A0810*xxx* RAID Group#0*xxx* normal end of Rebuild processing	*xxx* : RAID group No.
Abnormal end of rebuild to HS (source disk problem)	Error	M A0A10*xxx* RAID Group#0*xxx* abnormal end of Rebuild processing because of source disk problem	*xxx* : RAID group No.
Abnormal end of rebuild to HS	Error	M A0B10*xxx* RAID Group#0*xxx* abnormal end of Rebuild processing	*xxx* : RAID group No.
Retry of rebuild to HS	Error	M A0C10*xxx* RAID Group#0*xxx* retry procedure of Rebuild processing	*xxx* : RAID group No.

Target	Level	Event display	Remarks
Start of rebuild to DV	Error	M A1410*xxx* RAID Group#0*xxx* start procedure of Rebuild processing	*xxx* : RAID group No.
End of rebuild to DV	Error	M A1810*xxx* RAID Group#0*xxx* normal end of Rebuild processing	*xxx* : RAID group No.
Abnormal end of rebuild to DV (source disk problem)	Error	M A1A10*xxx* RAID Group#0*xxx* abnormal end of Rebuild processing because of source disk problem	*xxx* : RAID group No.
Abnormal end of rebuild to DV	Error	M A1B10*xxx* RAID Group#0*xxx* abnormal end of Rebuild processing	*xxx* : RAID group No.
Retry of rebuild to DV	Error	M A1C10*xxx* RAID Group#0*xxx* retry procedure of Rebuild processing	*xxx* : RAID group No.
Start of Copyback	Error	M A3420*xxx* RAID Group#0*xxx* start procedure of Copyback processing	*xxx* : RAID group No.
End of Copyback	Error	M A3820*xxx* RAID Group#0*xxx* normal end of Copyback processing	*xxx* : RAID group No.
Abnormal end of Copyback (source disk problem)	Error	M A3A20*xxx* RAID Group#0*xxx* abnormal end of Copyback processing because of source disk problem	*xxx* : RAID group No.
Abnormal end of Copyback	Error	M A3B20*xxx* RAID Group#0*xxx* abnormal end of Copyback processing	*xxx* : RAID group No.
Retry of Copyback	Error	M A3C20*xxx* RAID Group#0*xxx* retry procedure of Copyback processing	*xxx* : RAID group No.
Start failure of Redundant Copy (non HS)	Error	M A4130*xxx* RAID Group#0*xxx* start failure of Redundant Copy processing	*xxx* : RAID group No.
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.

Target	Level	Event display	Remarks
			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 (Occurred)	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.
PINNED Data (Cleared)	Error	M E1FF00*MM* PINNED DATA was cleared CM#*m*-CPU#*v*	*MM* : CM module ID where PINNED cleared *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)	
NRDY (Factor 12)	Error	M E207000C NOT READY(12:Backup Fail)	
NRDY (Factor 13)	Error	M E207000D NOT READY(13:Multi CM Down)	
NRDY (Factor 14)	Error	M E207000E NOT READY(14:Machine Down Recovery End)	
NRDY (Factor 15)	Error	M E207000F NOT READY(15:Machine Down Recovery Failed)	
NRDY (Factor 16)	Error	M E2070010 NOT READY(16:DE Build Error)	
NRDY (Factor 17)	Error	M E2070011 NOT READY(17:CM Memory Shortage)	
NRDY (Factor 19)	Error	M E2070013 NOT READY(19:FRT Fault)	
NRDY (Factor 20)	Error	M E2070014 NOT READY(20:BRT Fault)	
NRDY (Factor 21)	Error	M E2070015 NOT READY(21:Auto CFD)	
NRDY (Factor 22)	Error	M E2070016 NOT READY(22:No Version)	
NRDY (Factor 23)	Error	M E2070017 NOT READY(23:AC Input Shortage)	

Target	Level	Event display	Remarks
NRDY (Factor 24)	Error	M E2070018 NOT READY(24:Configuration Data restored from System Disk)	
NRDY (Factor 25)	Error	M E2070019 NOT READY(25:BUD Capacity Shortage)	
NRDY (Factor 26)	Error	M E207001A NOT READY(26:TPV Table Restore Fail from System Area)	
NRDY (Factor 27)	Error	M E207001B NOT READY(27:TPV Table Restore Fail to BUD)	
End of rebuild to HS (Bad Data)	Error	M 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*MMpp* 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 13CF11*xx* REC Buffer HALT occurred.(*xx*)	*xx* : 00 - path error, 01 - heavy load, 02 - ERROR
Use capacity of Pool has changed. NORMAL -> CAUTION	Information	M E8010*xxx* 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 E8020*xxx* TPP#*xxx* turned to WARNING(decrease of available capacity)	*xxx* : Thin Provisioning Pool No. (hexadecimal notation)
Lack of pool capacity	Information	M E8050*xxx* TPP#*xxx* was all allocated	*xxx* : Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL -> CAUTION	Information	M E8070*xxx* FTRP#*xxx* turned to CAUTION(decrease of available capacity)	*xxx* : FTRP No. (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL or CAUTION -> WARNING	Information	M E8080*xxx* FTRP#*xxx* turned to WARNING(decrease of available capacity)	*xxx* : FTRP No. (hexadecimal notation)
Lack of Ftier pool capacity	Information	M E8090*xxx* FTRP#*xxx* was all allocated	*xxx* : FTRP No. (hexadecimal notation)
Copy session [Active -> Error]	Error	M 13CE0001 Error session was detected. (Local:*xxxxx* Remote:*xxxxx*)	*xxxxx* : Number of copy sessions that status is Error
Copy session [Suspend -> Error]	Error	M 13CE0002 Foreseen error session was detected. (Local:*xxxxx* Remote:*xxxxx*)	*xxxxx* : Number of copy sessions that status changed from Suspend to Error
Copy session [Active -> Halt]	Error	M 13CE0003 Halt session was detected. (Remote:*xxxxx*)	*xxxxx* : Number of copy sessions that status is Halt
Copy session [Error -> Idle]	Error	M 13CE0004 Error session was cleared.	

Target	Level	Event display	Remarks
Copy session [Suspend -> Error -> Idle]	Error	M 13CE0005 Foreseen error session was cleared.	
Copy session [Halt -> Active]	Error	M 13CE0006 Halt session was cleared.	
Key Management Server communication Error	Error	M E928*xxyy* Key Management Server communication Error (Key Server ID #*xx*)(Key Group ID#*yy*)	*xx* : Key server ID *yy* : Key group ID

- Recovery notification

Target	Level	Event display	Remarks
CM Warning recovery	Information	R 01*SSMM*00 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 01*SSMM*0*v* 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 90*SSUU*0*n* 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 73000*n*00 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 D2*SSUU*0*n* 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*SSUU*00 DE Exhaust temperature DE#*UU* Normal	*SS* : Parts subtype *UU* : DE-ID

Target	Level	Event display	Remarks
DE intake air temperature alarm recovery	Information	R DB*SSUU*00 DE Intake temperature DE#*UU* Normal	*SS* : Parts subtype *UU* : DE-ID

- CA port link status notification

Target	Level	Event display	Remarks
CA port link status	Information	I 03000001 The status of Link became *$a* in CM#*$b* CA#*$c* Port#*$d*.	*$a* : Link Status (LinkUp, LinkDown) *$b* : CM No. (0-7) *$c* : CA No. (0-3) *$d* : Port No. (0-3)

1.3.6 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 relevant hardware instruction manual and then 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 1.2 Explanation of HDS SANRISE2000 series storage traps

Displayed character strings	Region/parts name
"DKCHWProcessor"	DKC processor
"DKCHWCSW"	DKC Starnet
"DKCHWCache"	DKC cache
"DKCHWSM"	DKC shared memory
"DKCHWPS"	DKC power supply
"DKCHWBattery"	DKC battery
"DKCHWFan"	DKC fan
"DKCHWEnvironment"	DKC environment system
"DKUHWPS"	DKU power supply
"DKUHWFan"	DKU fan
"DKUHWEnvironment"	DKU environment system
"DKUHWDrive"	DKU drive

1.3.7 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 relevant hardware instruction manual and then 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.
Drive disabled (spare drive)	Error	Spare drive failure occurred.
ENC alarm	Error	Enclosure controller failure occurred.
Loop alarm	Error	Loop failure occurred.

1.3.8 EMC Symmetrix Series Traps

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

1.4 Tape Library

1.4.1 ETERNUS LT270 S2 Traps

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

Failure event	Level	Event display
Library hardware error	Error	Library system failed. Use the remote panel to check the error contents(FSC=*xxxx*, Sensekey=*xxxx*,Cabinet Number=*number*).
Barcode reader error	Warning	Barcode reader in robot #number of cabinet #number failed.

Failure event	Level	Event display
CM error	Warning	An error occurred in media error (CM fail) (Barcode Label=*xxxxx*, cabinet #number).
CAS cell error	Warning	CAS unit #number of cabinet #number failed.
Cell error	Warning	Cell unit of cabinet #number failed (Barcode Label: *xxxxx*).
CIC sensor error	Warning	CIC sensor in robot #number of cabinet #number failed.
Battery alarm	Warning	Battery unit in LCT of cabinet #number failed.
Shelf 0 fan alarm	Warning	Shelf FAN 0 of cabinet #number failed.
Shelf 1 fan alarm	Warning	Shelf FAN 1 of cabinet #number failed.
Shelf 2 fan alarm	Warning	Shelf FAN 2 of cabinet #number failed.
CAS open error	Warning	An open error occurred in CAS unit #number of cabinet #number.
FC/SCSI adapter card error	Warning	Adapter #number failed.
Firmware BOOTUP alarm	Warning	The LCT of cabinet #number bootup alarm occurred.
EEPROM error	Warning	EEPROM failed.
PSU alarm	Warning	PSU unit #number of cabinet #number failed.
PSU power off alarm	Warning	Power-off occurred in PSU unit #number of cabinet #number.
PSU FAN alarm	Warning	PSU unit #number of cabinet #number FAN failed.
Temperature alarm	Warning	Cabinet #number temperature increased (temperature degree C), leading to an alarm.
Temperature abnormality error	Error	Cabinet #number temperature increased abnormally (temperature degree C), leading to a library system fail.
Humidity alarm	Warning	Cabinet #number humidity (humidity %) is abnormal.
ROBOT Down alarm	Warning	Robot #number of cabinet #number failed.
Front door open (during operation)	Warning	Front door of cabinet #number was opened.
Nearing no cleaning tape	Warning	The installed cleaning cartridges of cabinet #number will reach a limit soon.
Expired deadline for cleaning	Warning	Maximum number of uses of cleaning cell #number of cabinet #number (Barcode Label: *xxxxx*) was reached.
Cleaning cartridge none	Warning	Cleaning cartridge of cabinet #number is not available.
ROBOT Serdes alarm	Warning	Serdes in robot #number of cabinet #number failed.
Power control card alarm	Warning	Power control card failed.
LCD power off alarm	Warning	Power-off occurred in operation panel of cabinet #number.
Drive hardware error	Error	An error occurred in drive #number of cabinet #number. Use the remote panel to check the error contents (FSC=*xxxx*, Sensekey=*xxxxxx*).
Media error	Warning	An error occurred in media error (Barcode Label: *xxxxx*).
Fan alarm	Warning	A FAN alarm occurred in drive #number of cabinet #number.
Cleaning request	Warning	Drive #number of cabinet #number needs cleaning. Perform cleaning.
LCT/DCT IF failure	Warning	Interface between LCT and DCI (drive cluster #number of cabinet #number) failed.
DCI failure	Warning	DCI in drive cluster #number of cabinet #number failed.
Nearing Media Life	Warning	Media soon will be end of life (Barcode Label: *xxxxx*).
Reach Media Life	Warning	Media reached at the end of life (Barcode Label: *xxxxx*).
Nearing ROBOT Life	Warning	Robot #number of cabinet #number soon will be end of life.

Failure event	Level	Event display
Reach ROBOT life	Warning	Robot #number of cabinet #number reached at the end of life.
Nearing Drive Life	Warning	Drive #number of cabinet #number soon will be end of life.
Reach Drive Life	Warning	Drive #number of cabinet #number reached at the end of life.
Encription key delivery abnormality over threshold	Warning	Key send retry threshold over.
Standby ROBOT patrol failure	Warning	Standby robot of cabinet #number patrol warning occurred.
Robot RPS over threshold	Warning	Robot of cabinet #number hang down warning occurred.
Cabinet through has reached end of life	Warning	Cabinet through #number reached at the end of life.
Cabinet through stopped because the front door is open	Warning	Cabinet through stopped because of front door opened.
Cabinet through down alarm	Warning	Cabinet through #number failed.
Standby cabinet through down alarm	Warning	Standby cabinet through #number failed.
LAN HUB0 error	Warning	LAN HUB0 of cabinet #number failed.
LAN HUB1 error	Warning	LAN HUB1 of cabinet #number failed.
Library firmware mismatch	Warning	Library firmware unmatch occurred in cabinet #number.
Library cabinet down	Warning	Cabinet fail occurred in cabinet #number.
I2C connection error	Warning	I2C connection error has occurred.
Cabinet connection error	Warning	Cabinet connection error has occurred.

1.4.2 ETERNUS LT270 Traps

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

1.4.3 ETERNUS LT250 Traps

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

1.4.4 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 relevant hardware instruction manual and then 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

1.4.5 ETERNUS LT200 Traps

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

1.4.6 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 relevant hardware instruction manual and then take corrective actions.

1.4.7 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.

1.5 Other Devices

1.5.1 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).

About words of Event display in the table:

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

Failure event	Level	Event display
The status of the unit has changed to normal.	Information	The status of the unit has changed to OK/*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.

1.5.2 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 relevant hardware instruction manual and then 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.`

Failure event	Level	Event display
Disk recovery	Information	The device trap message is output as is.
Shutdown because of a fan failure	Error	The device trap message is output as is. Display example is as follows: `Multiple chassis fan enclosures have failed: Fans 1/2 Fans 3/4`
Fan failure	Error	The device trap message is output as is.
Fan failure (warning)	Warning	The device trap message is output as is. Display example is as follows: `Fans 1/2 are bad or missing; Replace quickly`
Fan recovery	Information	The device trap message is output as is. Display example is as follows: `Backplane_Fan_5 spinning at or above normal speed`
Shutdown because of a power supply failure	Error	The device trap message is output as is.
Power supply failure	Error	The device trap message is output as is. Display example is as follows: `Power supply is in degraded mode: Power Supply #1 is off`
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.

Failure event	Level	Event display
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: `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.

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

Failure event	Level	Event display
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.
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.
wafl_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.

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

Failure event	Level	Event display
Module warning in the shelf	Warning	The device trap message is output as is.
Multiple power supply fan failure	Error	The device trap message is output as is.
System down detection by system remote management	Error	The device trap message is output as is.
System down detection by system remote management	Warning	The device trap message is output as is.
System down instruction by system remote management	Warning	The device trap message is output as is.
Periodic trap from system remote management	Information	The device trap message is output as is.
Test trap from system remote management	Information	The device trap message is output as is.
Multipath disk connected to one switch	Warning	The device trap message is output as is.
Multipath disk not detected for the partner	Warning	The device trap message is output as is.
Multipath disk not multipathed	Warning	The device trap message is output as is.
Disk disable	Error	The device trap message is output as is.
HBA offline	Warning	The device trap message is output as is.
LUN Snap restore notice	Information	The device trap message is output as is.
LUN clone created	Information	The device trap message is output as is.
LUN Clone Split started	Information	The device trap message is output as is.
LUN Clone Split completed	Information	The device trap message is output as is.
Flex Clone Split started	Information	The device trap message is output as is.
Flex Clone Split completed	Information	The device trap message is output as is.
Created a Volume Clone	Information	The device trap message is output as is.
Snapshot Autodeleted	Information	The device trap message is output as is.
Volume is Autogrown	Information	The device trap message is output as is.
All connections to domain controllers in the preferred domain controllers list have been lost	Error	The device trap message is output as is.
External cache card failure	Information	The device trap message is output as is.
External cache is taken offline	Information	The device trap message is output as is.
The remaining number of Snapshot copies for a backup schedule is below warning limit specified	Warning	The device trap message is output as is.
NTP Time Daemon lost contact with the configured target	Error	The device trap message is output as is.
Trend Micro antivirus license has expired	Warning	The device trap message is output as is.
Trend Micro antivirus license is about to expire	Information	The device trap message is output as is.
Cutover phase of volume move job has been deferred	Warning	The device trap message is output as is.

Failure event	Level	Event display
Cutover phase of volume move job attempt resulted in failure	Error	The device trap message is output as is.
A volume move job completed successfully	Information	The device trap message is output as is.
A volume move is waiting for the user to trigger cutover	Information	The device trap message is output as is.
The anti-virus software update failed.	Error	The device trap message is output as is.
The anti-virus software license validation failed.	Error	The device trap message is output as is.
McAfee product has expired.	Error	The device trap message is output as is.
Remedy action taken. The file has been repaired, deleted or quarantined.	Information	The device trap message is output as is.
License validation was successful.	Information	The device trap message is output as is.
Remedy action failed. The file was not repaired, deleted or quarantined.	Error	The device trap message is output as is.
McAfee engine has expired.	Error	The device trap message is output as is.
McAfee product is expiring.	Warning	The device trap message is output as is.
A file larger than 2GB is not scanned and marked as clean.	Warning	The device trap message is output as is.
McAfee engine is expiring.	Warning	The device trap message is output as is.
Virus found while scanning.	Warning	The device trap message is output as is.
McAfee anti-virus license activation failed.	Error	The device trap message is output as is.
The anti-virus service disabling failed in the clustered system.	Error	The device trap message is output as is.
The anti-virus service is disabled in the clustered system.	Information	The device trap message is output as is.
McAfee anti-virus license is about to expire.	Warning	The device trap message is output as is.
The anti-virus service is enabled in the clustered system.	Information	The device trap message is output as is.
Spyware found while scanning.	Warning	The device trap message is output as is.
The anti-virus service enabling failed in the clustered system.	Error	The device trap message is output as is.
The anti-virus software cannot be rolled back.	Error	The device trap message is output as is.
The anti-virus software is rolled back.	Information	The device trap message is output as is.
The anti-virus software is updated.	Information	The device trap message is output as is.

1.6 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 : *logicalVolumeNumber* Response Time over *times*	Check the configuration according to the contents of the event message.
Abnormal CM load	Warning	Report-ID=*reportNumber* / Threshold value exceed : *cmNumber* Busy Rate over *XX*%	
Abnormal RAID group load	Warning	Report-ID=*reportNumber* / Threshold value exceed : *raidGroupNumber* Busy Rate over *XX*%	
Abnormal Port Throughput load	Warning	Report-ID=*reportNumber* / Threshold value exceed : Port*X* Throughout over *XX*%	

Chapter 2 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	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. If the community name of a device that uses SNMP for communication is changed, perform either of the following methods to reconfigure the system. - If you use the ETERNUS SF Web Console: Change the SNMP community name. Refer to "Change ETERNUS Disk storage system information" in the *ETERNUS SF Web Console Guide* for details. - If you edit the configuration file directly: This method can be performed only when Storage Cruiser is operated. Refer to "sanma.conf Parameter" in the *ETERNUS SF Storage Cruiser Operation Guide* for details. 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)	Take appropriate action for each event message as follows: - Command could not be executed: *commandName* 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
			system resources (memory and file descriptors) on the Management Server have been depleted. - XML File can not read: *fileName* This event occurs when reading of the XML definition file fails. Check for an error in the definition contents. - XML File not found: *fileName* 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. - Other Collect the message and other information for an investigation, and contact your Fujitsu certified service engineer.

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 any of "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

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