

FUJITSU Storage
ETERNUS SF
Express V16.1 /
Storage Cruiser V16.1

Event Guide

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Preface

Purpose

This manual explains the events displayed on FUJITSU Storage ETERNUS SF Storage Cruiser or FUJITSU Storage ETERNUS SF Express of the following FUJITSU Storage ETERNUS SF products and these event types.

- FUJITSU Storage ETERNUS SF Express (hereafter referred to as "Express")
- FUJITSU Storage ETERNUS SF Storage Cruiser (hereafter referred to as "Storage Cruiser")
- FUJITSU Storage ETERNUS SF AdvancedCopy Manager (hereafter referred to as "AdvancedCopy Manager")

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:

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

This chapter describes the notes about common traps for devices.

[Chapter 2 Server Node Events](#)

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

[Chapter 3 Fibre Channel Switch Events](#)

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

[Chapter 4 Storage Device Events](#)

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

[Chapter 5 Tape Library Events](#)

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

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

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

[Chapter 7 Performance Management Traps](#)

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

[Chapter 8 Device Polling Event](#)

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

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	Windows Server 2003	Windows
Microsoft(R) Windows Server(R) 2003, Standard x64 Edition		
Microsoft(R) Windows Server(R) 2003, Enterprise Edition		

Formal Name	Abbreviation	
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		
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	
Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter	Windows Server 2012	
Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter	Windows Server 2012 R2	
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	
Windows(R) 8.1 Windows(R) 8.1 Pro	Windows 8.1	
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	

Formal Name	Abbreviation	
SUSE(R) Linux Enterprise Server 11 for x86 SUSE(R) Linux Enterprise Server 11 for EM64T	SUSE Linux Enterprise Server 11	
HP-UX 11i HP-UX 11i v2 HP-UX 11i v3	HP-UX	
AIX(R) V6.1 AIX(R) V7.1	AIX	
VMware vSphere(R) 4 Essentials Kit VMware vSphere(R) 4 Essentials Plus Kit VMware vSphere(R) 4 Standard Edition(TM) VMware vSphere(R) 4 Standard Plus Data Recovery VMware vSphere(R) 4 Advanced Edition(TM) VMware vSphere(R) 4 Enterprise Edition(TM) VMware vSphere(R) 4 Enterprise Plus Edition(TM)	VMware vSphere 4	VMware
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.

FUJITSU Storage ETERNUS

Formal Name	Abbreviation		
FUJITSU Storage ETERNUS DX60/DX60 S2 FUJITSU Storage ETERNUS DX80/DX80 S2 FUJITSU Storage ETERNUS DX90/DX90 S2	-		ETERNUS DX series or ETERNUS Disk storage system
FUJITSU Storage ETERNUS DX100 S3 FUJITSU Storage ETERNUS DX200 S3			
FUJITSU Storage ETERNUS DX410 FUJITSU Storage ETERNUS DX440	ETERNUS DX400 series	ETERNUS DX400/DX400 S2 series	
FUJITSU Storage ETERNUS DX410 S2 FUJITSU Storage ETERNUS DX440 S2	ETERNUS DX400 S2 series		
FUJITSU Storage ETERNUS DX500 S3 FUJITSU Storage ETERNUS DX600 S3	-		
FUJITSU Storage ETERNUS DX8100 FUJITSU Storage ETERNUS DX8400 FUJITSU Storage ETERNUS DX8700	ETERNUS DX8000 series	ETERNUS DX8000/DX8000 S2 series	
FUJITSU Storage ETERNUS DX8100 S2 FUJITSU Storage ETERNUS DX8700 S2	ETERNUS DX8000 S2 series		
FUJITSU Storage ETERNUS DX200F	-		

Each individual device name in this document is listed with "FUJITSU Storage" omitted from it.

Software Products

Formal Name	Abbreviation
Microsoft(R) Internet Explorer(R)	Internet Explorer
Mozilla(R) Firefox(R)	Firefox

Formal Name	Abbreviation
Microsoft(R) Cluster Service	MSCS
Microsoft(R) Windows Server(R) Failover Clustering	WSFC
Microsoft(R) Exchange Server	Exchange Server
Microsoft(R) SQL Server(R)	SQL Server
FUJITSU Software PRIMECLUSTER Global Disk Services	GDS
FUJITSU Software PRIMECLUSTER Global File Services	GFS

Manuals

Formal Name	Abbreviation
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Quick Reference	ETERNUS SF Quick Reference
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Release Notes	ETERNUS SF Release Notes
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Installation and Setup Guide	ETERNUS SF Installation and Setup Guide
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Migration Guide	ETERNUS SF Migration Guide
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Web Console Guide	ETERNUS SF Web Console Guide
FUJITSU Storage ETERNUS SF Storage Cruiser / AdvancedCopy Manager Cluster Environment Setup Guide	ETERNUS SF Cluster Environment Setup Guide
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Messages	ETERNUS SF Messages
FUJITSU Storage ETERNUS SF Express / Storage Cruiser Event Guide	ETERNUS SF Event Guide
FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Glossary	ETERNUS SF Glossary

Besides the above-mentioned, each individual manual name in this document is listed with "FUJITSU Storage" omitted from it.

Others

- In this document, "ETERNUS LT20/LT40/LT60" includes ETERNUS LT20 S2/LT40 S2/LT60 S2.
- In this document, unless there is a special explanatory note, ETERNUS DX200 S3 indicates ETERNUS DX200 S3 and ETERNUS DX200F. In addition, ETERNUS Disk storage system includes ETERNUS DX200F All Flash Arrays. However, the following functions are not supported in ETERNUS DX200F:
 - Energy saving operation for storage device
 - NAS operation for storage device
 - Automated Storage Tiering operation at multiple tiers (two or more)
 - Storage Cluster function

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Notes

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

Japan	Other Countries
PG-FCD202	S26361-D2865-A100
PW008FC2	PW008FC2U
PW008FC3	PW008FC3U
SE0X7F11F	SE0X7F11X
SE0X7F12F	SE0X7F12X
SE0X7F21F	SE0X7F21X
SE0X7F22F	SE0X7F22X
XSEFC401AF	XSEFC401AU, XSEFC401AX
XSEFC402AF	XSEFC402AU, XSEFC402AX

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

Copyright

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Update History

Content of Update	Updated Section	Revision
The information related to ETERNUS DX200F is described.	"Others" in Preface	1.1
The received event traps are added.	4.3	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 common for all products.
	Release Notes	Yes	Yes	Yes	This manual is common for all products.
	Overview	-	-	Yes	This manual is unique for the 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: <ul style="list-style-type: none"> - Express Operation Guide - Storage Cruiser Operation Guide

When to Read	Related Manuals (Abbreviated)	Related Products (*1)			Explanation
		EXP	SC	ACM	
					<ul style="list-style-type: none"> - Storage Cruiser Operation Guide for Optimization Function - 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 Operation Guide for Copy Control Module
	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	Manual	Main Contents	How to Read
Acquiring a product overview and basic operation knowledge	Quick Reference	<ul style="list-style-type: none"> - Product overview - Installation decision - Overview of the necessary tasks from installation to first use 	Please read if you want to acquire a fundamental knowledge of the product and its operation in order to decide to install it or not.
	AdvancedCopy Manager Overview	<ul style="list-style-type: none"> - Main functions - Linkable applications - Procedure overview for Advanced Copy of ETERNUS Disk storage system 	
Confirming the updated contents	Release Notes	<ul style="list-style-type: none"> - 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	Migration Guide	<ul style="list-style-type: none"> - Notes and cautions about version upgrade - Version upgrade procedure 	Please read if you want to upgrade from a previous version.
Installing and correctly	Installation and Setup Guide	<ul style="list-style-type: none"> - Operating environment 	Please read if you want to install and setup the product.

Purpose	Manual	Main Contents	How to Read
operating the product		<ul style="list-style-type: none"> - Installation procedure - Setup procedure - Uninstallation procedure 	
Setting up operating environment depending on purpose	Cluster Environment Setup Guide	<ul style="list-style-type: none"> - 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	Express Operation Guide	<ul style="list-style-type: none"> - 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.
	Storage Cruiser Operation Guide	<ul style="list-style-type: none"> - Starting and stopping the software - Device monitoring - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference 	
	Storage Cruiser Operation Guide for Optimization Function	<ul style="list-style-type: none"> - Operating environment construction - Operating status monitoring - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference 	
	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)	<ul style="list-style-type: none"> - 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 	

Purpose	Manual	Main Contents	How to Read
	AdvancedCopy Manager Operation Guide (for AIX) AdvancedCopy Manager Operation Guide for Copy Control Module		
	Web Console Guide	<ul style="list-style-type: none"> - Operating environment - Screen layout description 	Please read if you want to understand the ETERNUS SF Web Console.
Dealing with messages issued by the software	Messages	<ul style="list-style-type: none"> - Messages and their explanations - Parameter (variable information) description - System action - Countermeasures 	Please read if you want a practical way of investigating and dealing with messages issued by the software.
Dealing with events issued by the software	Event Guide	<ul style="list-style-type: none"> - Phenomenon of event - Countermeasures 	Please read if you need to find a practical way of investigating and dealing with events.
Researching the meaning of specific terms related to the products and other important terms	Glossary	<ul style="list-style-type: none"> - Product specific terminology explanation - Explanation of important terminology appearing in the manual - Synonyms and related terms - Proper form of abbreviated terms 	Please read if you want to learn the meaning of important terms, product specific terms or abbreviations used in the manuals.

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Chapter 1 Notes about Common Traps for Devices

When Express or Storage Cruiser receives an event notification such as a SNMP Trap from 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 trap reception	Information	EGP Neighbor Loss Trap

Chapter 2 Server Node Events

2.1 Windows Server Node

Fujitsu Multipath Disk Control Mechanism Asynchronous Events (SNMP Trap)

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

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

MPIO Asynchronous Events (SNMP Trap)

The events of msdsm (the multi path driver that is built into Windows operating system 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.

2.2 Solaris Server Node

Asynchronous Event by Monitoring Keywords

The system message file (/var/adm/messages) is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to 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 (PollingTime parameter in the Correlation.ini file), 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).

Monitoring Keyword	Level	Event Display	Troubleshooting
.*NOTICE: mphpd.*I/O path switchover succeed.*	Warning	One-line message including monitoring keywords	Refer to the multipath driver manual and take required actions. Generally, the

Monitoring Keyword	Level	Event Display	Troubleshooting
. *NOTICE: mplb.*I/O path failed, and standby.*			connection to storage devices and the cable connections must be checked.
. *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

".*" 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

".*" 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.
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		

Monitoring Keyword	Level	Event Display	Troubleshooting
ERROR: sfc HALT: sfd .*SDX:. *HALT:.* .*SDX:. *ERROR:.*			

- Sun MPxIO 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
.*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.*			

2.3 Linux Server Node

Asynchronous Event by Monitoring Keywords

The system message file (/var/adm/messages) is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to the 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 (PollingTime parameter in the Correlation.ini file), 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		

2.4 HP-UX Server Node

Asynchronous Event by Monitoring Keywords

The system message file (/var/adm/syslog/syslog.log) is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to 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 (PollingTime parameter in the Correlation.ini 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 or later)	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.

2.5 AIX Server Node

Asynchronous Event by Monitoring Keywords

The error log is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to 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 (PollingTime parameter in the Correlation.ini 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.

Chapter 3 Fibre Channel Switch Events

3.1 SN200 (Brocade)

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

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

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

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

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

The port where the trouble occurs cannot be specified from the event log, also the event linkage function does not operate. 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]

3.2 Brocade VDX series

Failure Event	Level	Event Display	Remarks
Port failure	Error	FC Port No. <i>number</i> FAULT	*1, *2, *3, and *4
Port Online	Information	FC Port No. <i>number</i> Online	

Failure Event	Level	Event Display	Remarks
Port Offline	Information	FC Port No. <i>number</i> Offline	
Event traps	Error, Warning, Information	The message notified from the device is output as is.	

*1

As for the Ethernet port and FC port number, the Index value output by "show fabric islports" command of 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
<i>XXYYZZ</i>	The explanation of <i>XX</i> , <i>YY</i> , and <i>ZZ</i> is as follows: <ul style="list-style-type: none"> - <i>XX</i>: VCS ID - <i>YY</i>: RBridgeID - <i>ZZ</i>: 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 Network OS 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.

3.3 PRIMERGY Fibre Channel Switch Blade

Refer to "[3.1 SN200 \(Brocade\)](#)".

3.4 PRIMERGY BX Ethernet Fabric Switch

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

Chapter 4 Storage Device Events

Information

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

4.1 ETERNUS DX60/DX60 S2/DX80/DX90

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

Notification of Component Blockage

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

Target	Level	Event Display	Remarks
CM BE Expander Port	Error	P 0A.SSMM0n Controller Module#m(zz xxHz) 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.SSMM00 Controller Module#m(zz xxHz) 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.SSMM00 Controller Module#m(zz xxHz) 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
CM NAND Controller	Error	P 0E.SSMM00 Controller Module#m(zz xxHz) 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.SSMM00 Controller Module#m(zz xxHz) 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 xxHz) 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)

Target	Level	Event Display	Remarks
			<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FE Expander	Error	P 12 <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz xx</i> Hz) FE Expander Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>m</i> : CM No. <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FE Expander Port	Error	P 13 <i>SSMM</i> 0 <i>n</i> Controller Module# <i>m</i> (<i>zz xx</i> Hz) FE Expander Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>nn</i> : Port No.(0-1) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>zz</i> : Model(FC/SAS/iSCSI) <i>yy</i> : Number of ports(1-2) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SFP Optical Shortwave	Error	P 1A00 <i>MM</i> 0 <i>n</i> FC SFP Controller Module# <i>m</i> Port# <i>n</i> Fault < <i>pp ss rr oo</i> >	<i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-1) <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
SFP+ Optical Shortwave	Error	P 1C00 <i>MM</i> 0 <i>n</i> FC SFP+ Controller Module# <i>m</i> Port# <i>n</i> Fault < <i>pp ss rr oo</i> >	<i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-1) <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information
3.5 Inch DISK	Error	P 80 <i>SSDD</i> <i>NW</i> Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NW</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
3.5 Inch Disk (Failed Usable)	Error	P 80 <i>SSDD</i> <i>NW</i> Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Failed Usable < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NW</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information

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

Target	Level	Event Display	Remarks
3.5 Inch Disk (Failed Usable)	Error	P 82.SSDNW Disk Drive DE# DD-Disk# n(SATA xxxGB cc) Failed Usable <pp ss rr>	SS: Parts subtype DD: DE-ID NW: 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 82.SSDNW Disk Drive DE# DD-Disk# n(SATA xxxGB cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NW: 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.SSDNW SSD 3.5 DE#dd-Slot# n(SAS xxxGB cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NW: 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.SSDNW SSD 3.5 DE#dd-Slot# n(SAS xxxGB cc) Failed Usable <pp ss rr>	SS: Parts subtype DD: DE-ID NW: Slot No.(00-0b) n: Slot No.(00-11) xxx: Disk capacity cc: Disk information pp: Parts No. ss: Serial No. rr: Revision
3.5 Inch SSD (Compare Error)	Error	P 84.SSDNW SSD 3.5 DE#dd-Slot# n(SAS xxxGB cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NW: 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.SSDNW SSD 2.5 DE#dd-Slot# n(SAS xxxGB cc) Fault <pp ss rr>	SS: Parts subtype DD: DE-ID NW: Slot No.(00-17) n: Slot No.(00-23) xxx: Disk capacity cc: Disk information pp: Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
2.5 Inch SSD (Failed Usable)	Error	P 85 <i>SSDDNW</i> SSD 2.5 DE# <i>dd</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Failed Usable < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NW</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
2.5 Inch SSD (Compare Error)	Error	P 88 <i>SSDDNW</i> SSD 2.5 DE# <i>dd</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>cc</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NW</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP	Error	P 9000 <i>DDN</i> Expander DE# <i>DD</i> /EXP# <i>N</i> Fault < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
EXP Port	Error	P 9100 <i>DDN</i> Expander Port DE# <i>DD</i> /EXP# <i>N</i> / Port# <i>n</i> Fault < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
PSU	Error	P D200 <i>DDN</i> Power Supply Unit DE# <i>DD</i> / PSU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>DD</i> : DE-ID <i>n</i> : Slot No.(0-1) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Warning (Temperature Alarm)

Target	Level	Event Display	Remarks
DE Abnormal exhaust gas temperature (FATAL)	Error	P DA0 <i>tDD</i> 00 DE Exhaust temperature DE# <i>DD</i> Fatal	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA0 <i>tDD</i> 00 DE Exhaust temperature sensor DE# <i>DD</i> Fault	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA0 <i>tDD</i> 00 DE Exhaust temperature DE# <i>DD</i> Warning	<i>t</i> : Type(1=1U, 2=2U) <i>DD</i> : DE-ID

Target	Level	Event Display	Remarks
DE Abnormal intake temperature (Sensor failure)	Error	P DB0tDD00 DE Intake temperature sensor DE#DD Fault	t: Type(1=1U, 2=2U) DD: DE-ID
DE Abnormal intake temperature (WARNING)	Warning	J DB0tDD00 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 C1MM0000 Controller Module#m(zz xxHz) 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 C301MM00 Controller Module#m(zz xxHz) 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 01SSMM00 Controller Module#m(zz xxHz) 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
CM BE Expander Warning	Warning	J 06SSMM00 Controller Module##m(zz xxHz) BE Expander Warning <pp ss rr>	SS: Parts subtype MM: Module ID(10-11) m: CM 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 09SSMM0n Controller Module#m(zz xxHz) 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.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
CM BE Expander Port Warning	Warning	J 0A <i>SSMM0n</i> Controller Module# <i>m</i> (<i>zz xxHz</i>) BE Expander Port# <i>n</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>n</i> : Port No.(0-2) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FLASH ROM	Warning	J 0C <i>SSMM00</i> Controller Module# <i>m</i> (<i>zz xxHz</i>) Flash ROM Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller	Warning	J 0E <i>SSMM00</i> Controller Module# <i>m</i> (<i>zz xxHz</i>) NAND Flash Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID(10-11) <i>zz</i> : Model(FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from Disk (3.5inch)	Warning	J 80 <i>SSDDNM</i> Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS <i>xxxGB yykrpm cc</i>) SMART < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NM</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
Disk preventative separation SMART (3.5inch)	Warning	J 80 <i>SSDDNM</i> Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS <i>xxxGB yykrpm cc</i>) Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NM</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from Disk (2.5inch)	Warning	J 81 <i>SSDDNM</i> Disk Drive DE# <i>DD</i> -Disk# <i>n</i> (SAS <i>xxxGB yykrpm cc</i>) SMART < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NM</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation

Target	Level	Event Display	Remarks
			<i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
Disk preventative separation SMART (2.5inch)	Warning	J 81.SSDDNV Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-17) <i>n</i> : Slot No.(00-23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SATA Disk notice from Disk (3.5inch)	Warning	J 82.SSDDNV Disk Drive DE#DD-Disk#n(SATA xxxGB cc) SMART <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SATA Disk preventative separation SMART (3.5inch)	Warning	J 82.SSDDNV Disk Drive DE#DD-Disk#n(SATA xxxGB cc) Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from SSD (3.5inch)	Warning	J 84.SSDDNVSSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) SMART <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SSD preventative separation SMART (3.5inch)	Warning	J 84.SSDDNVSSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Warning <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-0b) <i>n</i> : Slot No.(00-11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from SSD (2.5inch)	Warning	J 85.SSDDNVSSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) SMART <pp ss rr>	<i>SS</i> : Parts subtype <i>DD</i> : DE-ID <i>NV</i> : Slot No.(00-17)

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

Event Notification (M Messages)

Target	Level	Event Display	Remarks
Write Bad Data	Error	M E0050 <i>xxx</i> WRITE BAD DATA	<i>xxx</i> : RLU No.
PINNED Data	Error	M E10300 <i>MM</i> PINNED DATA	<i>MM</i> : CM module ID where PINNED occurred
NRDY (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)	

Target	Level	Event Display	Remarks
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 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx: RLU No.
End of rebuild to DV (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx: RLU No.
Disconnected intra-cabinet path	Error	M 0732xyyy Remote Copy Path (MID#xx PORT#yy) Not Available	xx: MID yy: Port
REC automatic HALT occurrence	Error	M 13CF11xx REC Automatic HALT or ERROR occurred.(xx)	xx: 00 - path error, 01 - heavy load, 02 - ERROR
Copy session [Active -> Error]	Error	M 13CE0001 Error session was detected. (Local:xxxxx Remote:xxxxx)	xxxxx: Number of copy sessions that status is Error
Copy session [Suspend -> Error]	Error	M 13CE0002 Foreseen error session was detected. (Local:xxxxx Remote:xxxxx)	xxxxx: Number of copy sessions that status changed from Suspend to Error
Copy session [Active -> Halt]	Error	M 13CE0003 Halt session was detected. (Remote:xxxxx)	xxxxx: Number of copy sessions that status is Halt
Copy session [Error -> Idle]	Error	M 13CE0004 Error session was cleared.	
Copy session [Suspend -> Error -> Idle]	Error	M 13CE0005 Foreseen error session was cleared.	
Copy session [Halt -> Active]	Error	M 13CE0006 Halt session was cleared.	

Recovery Notification

Target	Level	Event Display	Remarks
CM BE Expander Warning recovery	Information	R 06SSMM00 Controller Module#n(zz xxHz) BE Expander Normal <pp ss rr>	SS: Parts subtype MM: CM Mid(10-11) n: Port No.(0-1) zz: Model(FC/SAS/iSCSI) xx: Frequency (800MHz/1.2GHz) pp: Parts No. ss: Serial No. rr: Revision
EXP Warning recovery	Information	R 9000DDnn Expander DE#DD/EXP#nNormal <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 D200DD0N Power Supply Unit DE#DD/ PSU#NNormal <pp ss rr>	DD: DE-ID N: Side 0, side 1 pp: Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
DE exhaust temperature alarm recovery	Information	R DA0 <i>tDD00</i> DE OUT TEMP Normal	<i>DD</i> : DE-ID <i>t</i> : Type(1:3.5"DE / 2:2.5"DE)
DE intake air temperature alarm recovery	Information	R DB0 <i>tDD00</i> DE IN TEMP Normal	<i>DD</i> : DE-ID <i>t</i> : Type(1:3.5"DE / 2:2.5"DE)

4.2 ETERNUS DX80 S2/DX90 S2

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

Notification of Component Blockage

Target	Level	Event Display	Remarks
CM Unit	Error	P 01 <i>SSMM00</i> Controller Module# <i>m</i> (<i>zz</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DMA Port	Error	P 02 <i>SSMM0p</i> Controller Module# <i>m</i> (<i>zz</i>) DMA PORT# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BIOS	Error	P 03 <i>SSMM0v</i> Controller Module# <i>m</i> (<i>zz</i>) BIOS# <i>v</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM RTC	Error	P 04 <i>SSMM00</i> Controller Module# <i>m</i> (<i>zz</i>) RTC Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NVRAM	Error	P 05 <i>SSMM00</i> Controller Module# <i>m</i> (<i>zz</i>) NVRAM Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM MMC	Error	P 0600 <i>MM00</i> Controller Module# <i>m</i> (<i>zz</i>) MMC Fault < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander	Error	P 06 <i>SSMM</i> 0 <i>v</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DI PORT	Error	P 08 <i>SSMM</i> <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) DI Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander In Port	Error	P 09 <i>SSMM</i> <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> In Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander Out Port	Error	P 0A <i>SSMM</i> <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Out Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Memory	Error	P 0B <i>SSMM</i> <i>nn</i> Controller Module# <i>m</i> (<i>zz</i>) Cache(MEM # <i>x</i> GB) Slot# <i>nn</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>nn</i> : Slot No. <i>m</i> : CM No. <i>zz</i> : Model <i>x</i> : Capacity <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BUD	Error	P 0C <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) BUD(# <i>xx</i> GB) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
CM FAN	Error	P 0D <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) FAN Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller	Error	P 0E <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) NAND Controller Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM SCU	Error	P 0F <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) SCU Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA	Error	P 10 <i>SSMM</i> 00 CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Port	Error	P 11 <i>SSMM</i> 0 <i>p</i> CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SFP for FC-CA	Error	P 1A <i>SSMM</i> 0 <i>p</i> FC SFP CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Fault < <i>pp ss rr oo</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>oo</i> : Other Information

Target	Level	Event Display	Remarks
SFP for FCLink-CA	Error	P 1BSSMMO 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 1CSSMMO 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 1DSSMMO 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 1E00MMO 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 pp : Parts No. ss : Serial No. rr : Revision oo : Other Information
SFP+ Longwave for FC-CA	Error	P 1900MMO 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 1FSSMMO 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.

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

Target	Level	Event Display	Remarks
BRT In Port	Error	P 5200MMvPBRT#n InPort#PFault <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 5300MMvBRT#n EXP#vFault <pp ss rr>	MM: Module ID v: EXP No. n: BRT No. pp: Parts No. ss: Serial No. rr: Revision
BRT QSFP	Error	P 5A00MMPBRT#n QSFP#PFault <pp ss rr>	MM: Module ID n: BRT No. P: Port No. pp: Parts No. ss: Serial No. rr: Revision
SVC	Error	P 6000MM00 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 6100MM0PSVC#n LAN PORT#PFault <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 6200MM00 SVC#n PCIe SW Fault <pp ss rr>	MM: Module ID n: SVC No. pp: Parts No. ss: Serial No. rr: Revision
SVC RCI board	Error	P 6300MM00 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 71000n00 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 73000n00 Power Supply Unit/CPSU#n Fault <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision

Target	Level	Event Display	Remarks
SCCB	Error	P 74000n00 SCCB#n Fault <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
BBU	Error	P 75000n00 BBU#n Fault <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
BCU	Error	P 75000n00 BCU#n Fault <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
BTU	Error	P 76000n00 BTU#n Fault <pp ss rr>	n: Slot No. pp: Parts No. ss: Serial No. rr: Revision
3.5 Inch DISK	Error	P 80.SSUU0N/HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu>	SS: Parts subtype UU: DE-ID N: Slot 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.SSUU0N/HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr tt uu>	SS: Parts subtype UU: DE-ID N: Slot 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 (Disk abnormal performance)	Error	P 80.SSUU0N/HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Slow Down <pp ss rr tt uu>	SS: Parts subtype UU: DE-ID N: Slot 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
			<i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch DISK	Error	P 81 <i>SSUUWV</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch Disk (Failed Usable)	Error	P 81 <i>SSUUWV</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Failed Usable < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch Disk (Disk abnormal performance)	Error	P 81 <i>SSUUWV</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Slow Down < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD	Error	P 84 <i>SSUUWV</i> SSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code

Target	Level	Event Display	Remarks
3.5 Inch SSD (Failed Usable)	Error	P 84.SS UU N SSD 3.5 DE# UU-Slot# n(SAS xxxGB yykrpm 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.SS UU N SSD 2.5 DE# UU-Slot# n(SAS xxxGB yykrpm 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.SS UU N SSD 2.5 DE# UU-Slot# n(SAS xxxGB yykrpm 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
3.5 Inch DISK (Compare Error)	Error	P 88.SS UU N HDD 3.5 DE# UU-Disk# n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu>	SS: Parts subtype UU: DE-ID N: Slot 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.SS UU N HDD 2.5 DE# UU-Disk# n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu>	SS: Parts subtype UU: DE-ID

Target	Level	Event Display	Remarks
			<i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
3.5 Inch SSD (Compare Error)	Error	P 88 <i>SSUU</i> <i>N</i> SSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
2.5 Inch SSD (Compare Error)	Error	P 88 <i>SSUU</i> <i>WV</i> SSD 2.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Fault < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
IOM6	Error	P 90 <i>SSUU</i> <i>n</i> IOM6 DE# <i>UU</i> IOM# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 Port	Error	P 91 <i>SSUU</i> <i>np</i> IOM6 Port DE# <i>UU</i> IOM# <i>nl</i> Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 QSFP	Error	P 9A <i>SSUU</i> <i>np</i> IOM6 QSFP DE# <i>UU</i> IOM# <i>nl</i> Port# <i>p</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No.

Target	Level	Event Display	Remarks
			<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
PSU	Error	P D2 <i>SSUU</i> <i>n</i> Power Supply Unit DE# <i>UU</i> PSU# <i>n</i> Fault < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

Warning (Temperature Alarm)

Target	Level	Event Display	Remarks
CE Abnormal exhaust gas temperature (FATAL)	Error	P 7A000000 CE Exhaust temperature Fatal	
CE Abnormal exhaust gas temperature (Sensor failure)	Error	P 7A000000 CE Exhaust temperature sensor Fault	
CE Abnormal exhaust gas temperature (WARNING)	Warning	J 7A000000 CE Exhaust temperature Warning	
CE Abnormal intake temperature (Sensor failure)	Error	P 7B000000 CE Intake temperature sensor Fault	
CE Abnormal intake temperature (WARNING)	Warning	J 7B000000 CE Intake temperature Warning	
DE Abnormal exhaust gas temperature (FATAL)	Error	P DA <i>SSUU</i> <i>00</i> DE Exhaust temperature DE# <i>UU</i> Fatal	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID
DE Abnormal exhaust gas temperature (Sensor failure)	Error	P DA <i>SSUU</i> <i>00</i> DE Exhaust temperature sensor DE# <i>UU</i> Fault	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID
DE Abnormal exhaust gas temperature (WARNING)	Warning	J DA <i>SSUU</i> <i>00</i> DE Exhaust temperature DE# <i>UU</i> Warning	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID
DE Abnormal intake temperature (Sensor failure)	Error	P DB <i>SSUU</i> <i>00</i> DE Intake temperature sensor DE# <i>UU</i> Fault	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID
DE Abnormal intake temperature (WARNING)	Warning	J DB <i>SSUU</i> <i>00</i> DE Intake temperature DE# <i>UU</i> Warning	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID

Warning (Expiration)

Target	Level	Event Display	Remarks
Six months before battery life expiration	Warning	J 70060 <i>n</i> 00 BATTERY# <i>b</i> 6MONTH WARNING <i>YYYY/MM</i>	<i>n</i> : Slot No. <i>b</i> : BTU No.

Target	Level	Event Display	Remarks
			YYYY/MM: Term of validity (year/month)
One week before battery life expiration	Warning	J 70070n00 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 70070n00 BATTERY#b NDAY WARNING WARNING YYYY/MM	n: Slot No. b: BTU No. N: Days YYYY/MM: Term of validity (year/month)
Battery life expiration	Error	J 70FE0n00 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.SSMMM0 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.SSMMM0p 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.SSMMM0v Controller Module#m(zz) BIOS#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 RTC Warning	Warning	J 04.SSMMM0 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.SSMMM0 Controller Module#m(zz) NVRAM Warning <pp ss rr>	SS: Parts subtype MM: Module ID

Target	Level	Event Display	Remarks
			<i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM MMC Warning	Warning	J 0600 <i>MM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) MMC Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander Warning	Warning	J 06 <i>SSMM</i> 0 <i>v</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM DI PORT Warning	Warning	J 08 <i>SSMM</i> <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) DI Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander In Port Warning	Warning	J 09 <i>SSMM</i> <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> In Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Expander Out Port Warning	Warning	J 0A <i>SSMM</i> 0 <i>v</i> <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Out Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device No. <i>p</i> : Port No. <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM BUD Warning	Warning	J 0C <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) BUD(# <i>xx</i> GB) Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
CM FAN Warning	Warning	J 0D <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) FAN Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM NAND Controller Warning	Warning	J 0E <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) NAND Controller Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM SCU Warning	Warning	J 0F <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) SCU Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Warning	Warning	J 10 <i>SSMM</i> 00 CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Port Warning	Warning	J 11 <i>SSMM</i> 0 <i>p</i> CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model <i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM FPGA Warning	Warning	J 21 <i>SSMM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) FPGA Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM LAN Port Warning	Warning	J 22 <i>SSMM</i> 0 <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) LAN PORT# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port No. <i>m</i> : CM No.

Target	Level	Event Display	Remarks
			<i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM PCH Warning	Warning	J 2300 <i>MM</i> 00 Controller Module# <i>m</i> (<i>zz</i>) PCH Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
FRT Warning	Warning	J 4000 <i>MM</i> 00 FRT# <i>n</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : FRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT Warning	Warning	J 5000 <i>MM</i> 00 BRT# <i>n</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT Out Port Warning	Warning	J 5100 <i>MM</i> 0 <i>P</i> BRT# <i>n</i> Out Port# <i>P</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>P</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT In Port Warning	Warning	J 5200 <i>MM</i> <i>v</i> <i>P</i> BRT# <i>n</i> In Port# <i>P</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>v</i> : EXP No. <i>n</i> : BRT No. <i>P</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT EXP Warning	Warning	J 5300 <i>MM</i> 0 <i>v</i> BRT# <i>n</i> EXP# <i>v</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>v</i> : EXP No. <i>n</i> : BRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT QSFP Warning	Warning	J 5A00 <i>MM</i> 0 <i>P</i> BRT# <i>n</i> QSFP# <i>P</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>P</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SVC Warning	Warning	J 6000 <i>MM</i> 00 SVC# <i>n</i> Warning < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : SVC No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CE FAN UNIT	Warning	J 71000 <i>m</i> 00 CE FAN UNIT# <i>n</i> Warning < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision
PANEL UNIT	Warning	J 72000000 PANEL UNIT Warning < <i>pp ss rr</i> >	<i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CPSU Warning	Warning	J 73000 <i>n</i> 00 Power Supply Unit/CPSU# <i>n</i> Warning < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BBU Warning	Warning	J 75000 <i>n</i> 00 BBU# <i>n</i> Warning < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BCU Warning	Warning	J 75000 <i>n</i> 00 BCU# <i>n</i> Warning < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BTU Warning	Warning	J 76000 <i>n</i> 00 BTU# <i>n</i> Warning < <i>pp ss rr</i> >	<i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
SMART notice from Disk (3.5inch)	Warning	J 80 <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk preventative separation SMART (3.5inch)	Warning	J 80 <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance SMART (3.5inch)	Warning	J 80 <i>SSUU</i> 0 <i>N</i> HDD 3.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) WarnSlow < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation)

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

Target	Level	Event Display	Remarks
			<i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
Disk abnormal performance notice (2.5inch)	Warning	J 81 <i>SSUUNN</i> HDD 2.5 DE# <i>UU</i> -Disk# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SlowDown < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from SSD (3.5inch)	Warning	J 84 <i>SSUUUN</i> SSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SSD preventative separation SMART (3.5inch)	Warning	J 84 <i>SSUUUN</i> SSD 3.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SMART notice from SSD (2.5inch)	Warning	J 85 <i>SSUUNN</i> SSD 2.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) SMART < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No.

Target	Level	Event Display	Remarks
			<i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
SSD preventative separation SMART (2.5inch)	Warning	J 85 <i>SSUUNN</i> SSD 2.5 DE# <i>UU</i> -Slot# <i>n</i> (SAS <i>xxx</i> GB <i>yy</i> krpm <i>cc</i>) Warning < <i>pp ss rr tt uu</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>N</i> : Slot No.(hexadecimal notation) <i>n</i> : Slot No.(decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code
IOM6 Warning	Warning	J 90 <i>SSUUU</i> <i>n</i> IOM6 DE# <i>UU</i> /IOM# <i>n</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 Port Warning	Warning	J 91 <i>SSUUnp</i> IOM6 Port DE# <i>UU</i> /IOM# <i>n</i> /Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 QSFP Warning	Warning	J 9A <i>SSUUnp</i> IOM6 QSFP DE# <i>UU</i> /IOM# <i>n</i> / Port# <i>p</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
IOM6 Check1	Warning	J C190 <i>UUUnp</i> IOM6 DE# <i>UU</i> /IOM# <i>n</i> Reboot < <i>pp</i> <i>ss rr</i> >	<i>UU</i> : DE-ID <i>n</i> : EXP No. <i>p</i> : Port No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CM Check1	Warning	J C1 <i>MM</i> 0000 Controller Module# <i>m</i> (<i>zz</i>) Reboot < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
CA Check1	Warning	J C1 <i>MM</i> 0000 CA Slot# <i>n-v</i> (<i>zz</i>) (on CM# <i>m</i>) Reboot < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : Slot No. <i>v</i> : Device No. <i>zz</i> : Model

Target	Level	Event Display	Remarks
			<i>m</i> : CM No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
BRT Check1	Warning	J C1MM0000 BRT# <i>n</i> Reboot < <i>pp ss rr</i> >	<i>MM</i> : Module ID <i>n</i> : BRT No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
Multiple memory collectable error	Warning	J C3SSMM00 Controller Module# <i>m</i> (<i>zz</i>) Cache(MEM # <i>x</i> GB) Slot# <i>nn</i> Correctable Error < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM No. <i>zz</i> : Model <i>x</i> : Capacity <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision
PSU Warning	Warning	J D2SSUU0n Power Supply Unit DE# <i>UU</i> PSU# <i>n</i> Warning < <i>pp ss rr</i> >	<i>SS</i> : Parts subtype <i>UU</i> : DE-ID <i>n</i> : Slot No. <i>pp</i> : Parts No. <i>ss</i> : Serial No. <i>rr</i> : Revision

RAID Recovery Notification

Target	Level	Event Display	Remarks
Start failure of rebuild to HS (non HS)	Error	M A0110xxx RAID Group#0xxx start failure of Rebuild processing	<i>xxx</i> : RAID group No.
Start of rebuild to HS	Error	M A0410xxx RAID Group#0xxx start procedure of Rebuild processing	<i>xxx</i> : RAID group No.
End of rebuild to HS	Error	M A0810xxx RAID Group#0xxx normal end of Rebuild processing	<i>xxx</i> : RAID group No.
Abnormal end of rebuild to HS (source disk problem)	Error	M A0A10xxx RAID Group#0xxx abnormal end of Rebuild processing because of source disk problem	<i>xxx</i> : RAID group No.
Abnormal end of rebuild to HS	Error	M A0B10xxx RAID Group#0xxx abnormal end of Rebuild processing	<i>xxx</i> : RAID group No.
Retry of rebuild to HS	Error	M A0C10xxx RAID Group#0xxx retry procedure of Rebuild processing	<i>xxx</i> : RAID group No.
Start of rebuild to DV	Error	M A1410xxx RAID Group#0xxx start procedure of Rebuild processing	<i>xxx</i> : RAID group No.
End of rebuild to DV	Error	M A1810xxx RAID Group#0xxx normal end of Rebuild processing	<i>xxx</i> : RAID group No.
Abnormal end of rebuild to DV (source disk problem)	Error	M A1A10xxx RAID Group#0xxx abnormal end of Rebuild processing because of source disk problem	<i>xxx</i> : RAID group No.
Abnormal end of rebuild to DV	Error	M A1B10xxx RAID Group#0xxx abnormal end of Rebuild processing	<i>xxx</i> : RAID group No.

Target	Level	Event Display	Remarks
Retry of rebuild to DV	Error	M A1C10xxx RAID Group#0xxx retry procedure of Rebuild processing	xxx: RAID group No.
Start of Copyback	Error	M A3420xxx RAID Group#0xxx start procedure of Copyback processing	xxx: RAID group No.
End of Copyback	Error	M A3820xxx RAID Group#0xxx normal end of Copyback processing	xxx: RAID group No.
Abnormal end of Copyback (source disk problem)	Error	M A3A20xxx RAID Group#0xxx abnormal end of Copyback processing because of source disk problem	xxx: RAID group No.
Abnormal end of Copyback	Error	M A3B20xxx RAID Group#0xxx abnormal end of Copyback processing	xxx: RAID group No.
Retry of Copyback	Error	M A3C20xxx RAID Group#0xxx retry procedure of Copyback processing	xxx: RAID group No.
Start failure of Redundant Copy (non HS)	Error	M A4130xxx RAID Group#0xxx start failure of Redundant Copy processing	xxx: RAID group No.
Start of Redundant Copy	Error	M A4430xxx RAID Group#0xxx start procedure of Redundant Copy processing	xxx: RAID group No.
End of Redundant Copy (Disk)	Error	P 21830xxx Disk Drive DE#uu-Disk#nn(SAS xxGB yykrpm cc) Redundant Copy end <pp ss rr>	xxx: RAID group 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 21830xxxSSD 3.5 DE#uu-Slot#nn(SAS xxGB 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 21830xxxSSD 2.5 DE#uu-Slot#nn(SAS xxGB cc) Redundant Copy end <pp ss rr>	xxx: RAID group No. UU: DE-ID nn: Slot No. xx: Disk capacity cc: Disk information pp: Parts No. ss: Serial No. rr: Revision
Abnormal end of Redundant Copy (source disk problem)	Error	M A4A30xxx RAID Group#0xxx abnormal end of Redundant Copy processing because of source disk problem	xxx: RAID group No.
Abnormal end of Redundant Copy	Error	M A4B30xxx RAID Group#0xxx abnormal end of Redundant Copy processing	xxx: RAID group No.

Target	Level	Event Display	Remarks
Retry of Redundant Copy	Error	M A4C30xxx RAID Group#0xxx retry procedure of Redundant Copy processing	xxx: RAID group No.

Event Notification (M Messages)

Target	Level	Event Display	Remarks
Write Bad Data	Error	M E0050xxx WRITE BAD DATA	xxx: RLU No.
PINNED Data (Occurred)	Error	M E10300MM 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 E1FF00MM 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)	
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)	

Target	Level	Event Display	Remarks
NRDY (Factor 27)	Error	M E207001B NOT READY(27:TPV Table Restore Fail to BUD)	
End of rebuild to HS (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx: RLU No.
End of rebuild to DV (Bad Data)	Error	M 21810xxx RAID Group#0xxx recovered end of Rebuild processing	xxx: RLU No.
Disconnected intra-cabinet path	Error	M 0732MMpp Remote Copy Path (CM#xx CA#yy PORT#pp) Not Available	MM: Module ID pp: Port No. xx: CM No. yy: CA Slot No.
REC automatic HALT occurrence	Error	M 13CF11xx REC Buffer HALT occurred.(xx)	xx: 00 - path error, 01 - heavy load, 02 - ERROR
Use capacity of Pool has changed. NORMAL -> CAUTION	Information	M E8010xxx TPP#xxx turned to CAUTION(decrease of available capacity)	xxx: Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. NORMAL or CAUTION -> WARNING	Information	M E8020xxx TPP#xxx turned to WARNING(decrease of available capacity)	xxx: Thin Provisioning Pool No. (hexadecimal notation)
Lack of pool capacity	Information	M E8050xxx TPP#xxx was all allocated	xxx: Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL -> CAUTION	Information	M E8070xxx FTRP#xxx turned to CAUTION(decrease of available capacity)	xxx: FTRP No. (hexadecimal notation)
Use capacity of Ftier Pool has changed. NORMAL or CAUTION -> WARNING	Information	M E8080xxx FTRP#xxx turned to WARNING(decrease of available capacity)	xxx: FTRP No. (hexadecimal notation)
Lack of Ftier pool capacity	Information	M E8090xxx 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.	
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 E928xyyy Key Management Server communication Error (Key Server ID #xx)(Key Group ID#yy)	xx: Key server ID yy: Key group ID

Recovery Notification

Target	Level	Event Display	Remarks
CM Warning recovery	Information	R 01SSMM00 Controller Module#m(zz) Normal <pp ss rr>	SS: Parts subtype UU: Module ID m: CM No. zz: Model pp: Parts No. ss: Serial No. rr: Revision
CM Expander Warning recovery	Information	R 01SSMM0v Controller Module#m(zz) EXP#v Normal <pp ss rr>	SS: Parts subtype UU: Module ID v: Device No. m: CM No. zz: Model pp: Parts No. ss: Serial No. rr: Revision
IOM6 Warning recovery	Information	R 90SSUU0n IOM6 DE#UU/IOM#n Normal <pp ss rr>	SS: Parts subtype UU: DE-ID n: EXP No. pp: Parts No. ss: Serial No. rr: Revision
CPSU Alarm recovery (AC-Fail clear)	Information	R 73000r00 Power Supply Unit/CPSU#n Normal <pp ss rr>	N: Side 0, side 1 pp: Parts No. ss: Serial No. rr: Revision
PSU Alarm recovery (AC-Fail clear)	Information	R D2SSUU0n Power Supply Unit DE#UU PSU#n Normal <pp ss rr>	SS: Parts subtype UU: DE-ID N: Side 0, side 1 pp: Parts No. ss: Serial No. rr: Revision
CE exhaust temperature alarm recovery	Information	R 7A000000 CE Exhaust temperature Normal	
CE intake air temperature alarm recovery	Information	R 7B000000 CE Intake temperature Normal	
DE exhaust temperature alarm recovery	Information	R DASSUU00 DE Exhaust temperature DE#UU Normal	SS: Parts subtype UU: DE-ID
DE intake air temperature alarm recovery	Information	R DBSSUU00 DE Intake temperature DE#UU Normal	SS: Parts subtype UU: DE-ID

CA Port Link Status Notification

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

4.3 ETERNUS DX100 S3/DX200 S3

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

Express and Storage Cruiser receive event traps that are described in the hardware manual.

Specific Trap (Extended Trap)

Trap No.	Explanation
2	This Trap is sent to notify that a component fails or degrades.
5	This Trap is sent to notify that a component requires preventive maintenance.
6	This Trap is sent to notify that a temperature error is detected.
7	This Trap is sent to notify that an event requires maintenance or preventive maintenance.
10	This trap is sent to notify that the link status of a CA port is changed.
11	This Trap is sent to notify Error level events related to Storage Cluster.
12	This Trap is sent to notify Information level events related to Storage Cluster.
22	This Trap is sent to notify that an event notified by Trap No. 2 returns to normal state.
25	This Trap is sent to notify that an event notified by Trap No. 5 returns to normal state.
26	This Trap is sent to notify that an event notified by Trap No. 6 returns to normal state.
50	This Trap is sent to notify Error level events.
51	This Trap is sent to notify Warning level events.
60	This Trap is sent to notify that a resource exceeds its quota warning value.
61	This Trap is sent to notify that a resource has reached its quota limit value.
62	This Trap is sent to notify that a resource no longer exceeds its quota warning value.
63	This Trap is sent to notify that a NAS volume snapshot is successfully acquired.

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

4.4 ETERNUS DX400 series, DX8000 series

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

Notification of Component Blockage

Target	Level	Event Display	Remarks
CM Unit	Error	P 010 <i>tMM</i> 00 CM# <i>MM</i> Fault	<i>t</i> : Type(1-3) <i>MM</i> : Module ID(10-11)
CM Mantaray SP	Error	P 030 <i>tMMnn</i> CM# <i>MM</i> DMA PORT Alarm	<i>t</i> : Type(1-3) <i>MM</i> : Module ID(10-17) <i>nn</i> : Chip No.(0-1)
CM DI NP	Error	P 040 <i>tMMnn</i> CM# <i>MM</i> DI Alarm	<i>t</i> : Type(1-3) <i>MM</i> : Module ID(10-17) <i>nn</i> : Chip No.(0-1)
CM DI SP	Error	P 0500 <i>MMnn</i> CM# <i>MM</i> DI PORT Alarm	<i>MM</i> : Module ID(10-17) <i>nn</i> : Port No.(0-7)

Target	Level	Event Display	Remarks
CM SMC	Error	P 0600MM00 CM#MM SMC Alarm	MM: Module ID(10-11)
CM MMC	Error	P 0700MM00 CM#MM MMC Alarm	MM: Module ID(10-17)
CM DI SP/Path	Error	P 0A00MMnn CM#MM DI PORT/PATH Alarm	MM: Module ID(10-11) nn: Port No.(0-7)
CM Memory:512MB	Error	P 0B1tMMnn CM#MM MEMORY(512MB) Fault	t: Type(1-2) MM: Module ID(10-17) nn: Slot No.(0-3)
CM Memory:1GB	Error	P 0B2tMMnn CM#MM MEMORY(1024MB) Fault	t: Type(1-2) MM: Module ID(10-17) nn: Slot No.(0-3)
CM Memory:2GB	Error	P 0B4tMMnn CM#MM MEMORY(2048MB) Fault	t: Type(1-2) MM: Module ID(10-17) nn: Slot No.(0-3)
CM Memory:4GB	Error	P 0B8tMMnn CM#MM MEMORY(4096MB) Fault	t: Type(1-2) MM: Module ID(10-17) nn: Slot No.(0-3)
Compact Flash	Error	P 0C0tMM00 CM#MM COMPACT FLASH Fault	t: Type(1-3) MM: Module ID(10-17)
CM FAN UNIT	Error	P 0D00MM00 CM#MM FAN UNIT Fault	MM: Module ID(10-17)
CA	Error	P 10ttMM00 CA#MM (on CM#XX) CaType Fault	tt: Type(00-19) MM: CA Module ID(40-4F,,,70-7F) XX: CM Module ID(10-17)
CA Port	Error	P 11ttMMnn CA#MM (on CM#XX) CaType PORT Alarm	tt: Type(00-19) MM: CA Module ID(40-4F,,,70-7F) XX: CM Module ID(10-17) nn: Port No.(00-01)
SFP Optical Shortwave	Error	P 1AttMMnn 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)
SFP Optical Longwave	Error	P 1BttMMnn 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 1CttMMnn 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 1CttMMnn 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 1DttMMnn 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 1FttMMnn CA#MM (on CM#XX) SFP Type Unknown Fault	tt: Type(03-06) MM: CA Module ID(40-4F,,,70-7F)

Target	Level	Event Display	Remarks
			<i>XX</i> : CM Module ID(10-17) <i>nn</i> : Port No.(00-01)
FRT	Error	P 400 <i>tMM</i> 00 FRT Fault	<i>t</i> : Type(0,1) <i>MM</i> : Module ID(F0-F1)
BRT	Error	P 5000 <i>MM</i> 00 BRT Fault	<i>MM</i> : Module ID(B0-B7)
BRT Port/Path	Error	P 5100 <i>MMnn</i> BRT PORT/PATH Alarm	<i>MM</i> : Module ID(B0-B7) <i>nn</i> : Port No.(00-07)
SFP Optical Shortwave (BRT)	Error	P 5A00 <i>MMnn</i> BRT SFP OPTICAL SHORTWAVE Fault	<i>MM</i> : Module ID(B0-B7) <i>nn</i> : Port No.(00-07)
SVC	Error	P 6000 <i>MM</i> 00 SVC Fault	<i>MM</i> : Module ID(E0-E1)
CE FAN UNIT	Error	P 710 <i>tnn</i> 00 CE FAN UNIT Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
OPNL UNIT	Error	P 720 <i>0000</i> PANEL UNIT Fault	<i>t</i> : Type(1,2)
CPSU	Error	P 730 <i>tnn</i> 00 CPSU Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
SCCI	Error	P 740 <i>tnn</i> 00 SCCI CABLE Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
BCU	Error	P 7500 <i>nn</i> 00 BCU Fault	<i>nn</i> : Slot No.
BTU	Error	P 760 <i>tnn</i> 00 BTU Fault	<i>t</i> : Type(1,2) <i>nn</i> : Slot No.
BBU Signal CABLE	Error	P 7700 <i>MM</i> 00 BBU SIG CABLE Fault	<i>MM</i> : Module ID(10-11)
3.5 Inch DISK	Error	P 80 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch Disk (Failed Usable)	Error	P 80 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch Disk (DISK performance abnormal)	Error	P 80 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Slowdown	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch DISK (Compare Error)	Error	P 88 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
2.5 Inch DISK	Error	P 81 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)

Target	Level	Event Display	Remarks
			<i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
2.5 Inch Disk (Failed Usable)	Error	P 81 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
2.5 Inch DISK (Compare Error)	Error	P 88 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch SATA DISK	Error	P 82 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch SATA Disk (Failed Usable)	Error	P 82 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
3.5 Inch SATA Disk (Compare Error)	Error	P 88 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
Solid State Drive	Error	P 84 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
Solid State Drive (Failed Usable)	Error	P 84 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> FailedUse	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information
Solid State Drive (Compare Error)	Error	P 84 <i>ttDDnn PP xx</i> GB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Fault	<i>tt</i> : Type <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E) <i>PP</i> : Product ID(Disk) <i>xx</i> : Disk capacity <i>cccccc</i> : Disk information

Target	Level	Event Display	Remarks
PBC (15DE)	Error	P 9001 <i>DD</i> <i>N</i> PBC Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
PBC (30DE)	Error	P 9002 <i>DD</i> <i>N</i> PBC Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
PBC Port	Error	P 9100 <i>DD</i> <i>n</i> PBC PORT Alarm	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
SFP Optical Shortwave (PBC)	Error	P 9A00 <i>DD</i> <i>n</i> PBC SFP OPTICAL SHORTWAVE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
SFP Copper (PBC)	Error	P 9B00 <i>DD</i> <i>n</i> PBC SFP COPPER Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1 <i>n</i> : Port No.(0-3)
DEI CABLE	Error	P 9C00 <i>DD</i> <i>N</i> DEI CABLE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
30 DE FAN UNIT	Error	P D100 <i>DD</i> <i>00</i> DE FAN UNIT Fault	<i>DD</i> : DE-ID
DPSU (15DE)	Error	P D20 <i>t</i> <i>DD</i> <i>N</i> DPSU Fault	<i>t</i> : Type(1-3) <i>DD</i> : DE-ID <i>N</i> : Side 0, side 1
BBU CABLE	Error	P D300 <i>DD</i> <i>N</i> BBU CABLE Fault	<i>DD</i> : DE-ID <i>N</i> : Side 0, side 1

Warning (Temperature Alarm)

Target	Level	Event Display	Remarks
CE exhaust temperature alarm (FATAL)	Error	P 7A00 <i>EEEE</i> CE OUT TEMP	<i>EEEE</i> : Position information
CE exhaust temperature alarm (WARNING)	Warning	J 7A00 <i>EEEE</i> CE OUT TEMP	<i>EEEE</i> : Position information
CE intake air temperature alarm (WARNING)	Warning	J 7B00 <i>EEEE</i> CE IN TEMP	<i>EEEE</i> : Position information
DE exhaust temperature alarm (FATAL)	Error	P DA00 <i>EEEE</i> DE OUT TEMP	<i>EEEE</i> : Position information
DE exhaust temperature alarm (Sensor trouble)	Error	P DA00 <i>EEEE</i> DE OUT TEMP	<i>EEEE</i> : Position information
DE exhaust temperature alarm (WARNING)	Warning	J DA00 <i>EEEE</i> DE OUT TEMP	<i>EEEE</i> : Position information
DE intake air temperature alarm (Sensor trouble)	Error	P DB00 <i>EEEE</i> DE IN TEMP	<i>EEEE</i> : Position information
DE intake air temperature alarm (WARNING)	Warning	J DB00 <i>EEEE</i> DE IN TEMP	<i>EEEE</i> : Position information

Warning (Expiration)

Target	Level	Event Display	Remarks
Six months before battery life expiration	Warning	J 7006 <i>nn</i> <i>00</i> BATTERY <i>N</i> 6MONTH WARNING <i>YYYY/MM</i>	<i>nn</i> : Slot No. <i>N</i> : Battery No. (0 - 7)

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

Warning (Other)

Target	Level	Event Display	Remarks
CM Check1	Warning	J C1MM0000 CM#MM Check-1	MM: Module ID(10-17)
CA Check1	Warning	J C1MM0000 CA#MM Check-1	MM: Module ID(40-4F,,,70-7F)
Frequent occurrence of a correctable memory error: 512MB	Warning	J C31tMMnn CM#MM MEMORY(512MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 1GB	Warning	J C32tMMnn CM#MM MEMORY(1024MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 2GB	Warning	J C34tMMnn CM#MM MEMORY(2048MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
Frequent occurrence of a correctable memory error: 4GB	Warning	J C38tMMnn CM#MM MEMORY(4096MB) Correctable Error	t: Type(1,2) MM: CM Module ID(10-17) nn: Slot No.(0-7)
CM warning (statistics/other)	Warning	J 01tEEEE CM#MM Warning	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (MCE Correctable)	Warning	J 01tEEEE CM#MM MCE Correctable Error	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (FAN)	Warning	J 01tEEEE CM#MM FAN Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (IN TEMP ALARM)	Warning	J 01tEEEE CM#MM IN TEMP Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)
CM Warning (IN TEMP SENSOR)	Warning	J 01tEEEE CM#MM IN TEMP SENSOR Alarm	tt: Type EEEE: Position information MM: CM Module ID(10-17)

Target	Level	Event Display	Remarks
CM Warning (RTC ALARM)	Warning	J 01 <i>ttEEEE</i> CM# <i>MM</i> RTC Alarm	<i>tt</i> : Type <i>EEEE</i> : Position information <i>MM</i> : CM Module ID(10-17)
CF Warning	Warning	J 0C0 <i>ttMM00</i> CM# <i>MM</i> COMPACT FLASH Warning	<i>t</i> : Type(1-3) <i>MM</i> : CM Module ID(10-17)
CA Warning (Undefined)	Warning	J 10 <i>ttMM00</i> CA# <i>MM</i> (on CM# <i>XX</i>) <i>CaType</i> Warning	<i>tt</i> : Type(00-19) <i>MM</i> : CA Module ID(40-4F,,,70-7F) <i>XX</i> : CM Module ID(10-17)
FRT Warning	Warning	J 400 <i>ttMM00</i> FRT Warning	<i>t</i> : Type(1,2) <i>MM</i> : FRT Module ID(F0,F1)
BRT Warning	Warning	J 5000 <i>MM00</i> BRT Warning	<i>MM</i> : BRT Module ID(B0-B7)
SMART notification from a disk (3.5-inch)	Warning	J 80 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
SMART: Preventive disk disconnection (3.5-inch)	Warning	J 80 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Warning	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
SMART: Disk performance abnormal (3.5-inch)	Warning	J 80 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> WarnSlow	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
Detection notification of disk performance abnormal (3.5-inch)	Warning	J 80 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Slowdown	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-0E)
SMART notification from a disk (2.5-inch)	Warning	J 81 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SMART: Preventive disk disconnection (2.5-inch)	Warning	J 81 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> Warning	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information <i>DD</i> : DE-ID <i>nn</i> : Slot No.(00-1D)
SMART notification from a SATA disk (3.5-inch)	Warning	J 82 <i>ttEEEE</i> <i>PP</i> xxxGB DISK(<i>cccccc</i>) DE# <i>DDI</i> Slot# <i>nn</i> SMART	<i>tt</i> : Type <i>EEEE</i> : Position information <i>PP</i> : Product ID(Disk) <i>cccccc</i> : Disk information

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

Event Notification (M Messages)

Target	Level	Event Display	Remarks
Write Bad Data	Error	M E0050xxxWRITE BAD DATA	<i>xxx</i> : RLU No.
PINNED Data	Error	M E10300 <i>MM</i> PINNED DATA	<i>MM</i> : CM module ID where PINNED occurred
NRDY (cause 01)	Error	M E2070001 NOT READY(01:Configuration Error)	
NRDY (cause 02)	Error	M E2070002 NOT READY(02:CM F/W Version Error)	
NRDY (cause 04)	Error	M E2070004 NOT READY(04:Restore Fail)	
NRDY (cause 08)	Error	M E2070008 NOT READY(08:Basic Set Online(Normal) Error)	
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)	

Target	Level	Event Display	Remarks
Successful FC recovery	Error	M E406C0DD FC Loop Recovery Completed	DD: Lower DE No.
Unsuccessful FC loop recovery	Error	M E406F0DD FC Loop Recovery Failed	DD: Lower DE No.
Rebuilding to HS completed (bad data included)	Error	M 21810xxx RAID Group#0xxx REBUILD to HS (Recovered end)	xxx: RLU No.
Rebuilding to DV completed (bad data included)	Error	M 21810xxx RAID Group#0xxx REBUILD to DV (Recovered end)	xxx: RLU No.
Disconnected intra-cabinet path	Error	M 0732MMnn Remote Copy Path (MID#MM PORT#nn) Not Available	MM: Module ID nn: Port
REC automatic HALT occurrence	Error	M 13CF11xx REC Automatic HALT or ERROR occurred.(xx)	xx: 00 - path error, 01 - heavy load, 02 - ERROR
Use capacity of Pool has changed. NORMAL -> CAUTION	Information	M E8010xxx Pool#xxx turned to CAUTION (decrease of available capacity)	xxx: Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. NORMAL or CAUTION -> WARNING	Information	M E8020xxx Pool#xxx turned to WARNING (decrease of available capacity)	xxx: Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. WARNING -> CAUTION	Information	M E8010xxx Pool#xxx returned to CAUTION(decrease of available capacity)	xxx: Thin Provisioning Pool No. (hexadecimal notation)
Use capacity of Pool has changed. CAUTION or WARNING -> NORMAL	Information	M E8040xxx Pool#xxx returned to NORMAL(increase of available capacity)	xxx: Thin Provisioning Pool No. (hexadecimal notation)

4.5 ETERNUS DX400 S2 series, DX8000 S2 series

Refer to "4.2 ETERNUS DX80 S2/DX90 S2".

4.6 ETERNUS DX500 S3/DX600 S3

Refer to "4.3 ETERNUS DX100 S3/DX200 S3".

4.7 ETERNUS VS850

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

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

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

\$n	Information
\$1	Error code

\$n	Information
\$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* to change the Information level setting.

4.8 NetApp FAS Series and V-Series

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

Depending on the event level, the corresponding icon may turn red (**Error**) or yellow (**Warning**).

(In case of the level "Information", the icon color is not changed.)



Information

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

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

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

Failure Event	Level	Event Display
		Cluster monitor: giveback completed
Volume usage rate warning (98%)	Warning	The device trap message is output as is. Display example is as follows: /vol/voll is full (using or reserving 98% of space and 0% of inodes).
Volume usage rate warning (95%)	Warning	The device trap message is output as is. Display example is as follows: /vol/voll is nearly full (using or reserving 95% of space and 0% of inodes).
Volume usage rate recovery	Information	The device trap message is output as is. Display example is as follows: No volumes are full or nearly full.
Shutdown because of a system temperature error	Error	The device trap message is output as is.
System temperature warning	Warning	The device trap message is output as is.
System temperature recovery	Information	The device trap message is output as is.
Shelf failure	Error	The device trap message is output as is. Display example is as follows: Fault reported on disk storage shelf attached to slot 8. Please check fans, power and temperature.
Shelf recovery	Information	The device trap message is output as is. Display example is as follows: Fault previously reported on disk storage shelf attached to channel 7 has been corrected.
Shutdown because the global status is NonRecoverable	Error	The device trap message is output as is.
global Status Critical	Error	The device trap message is output as is. Display example is as follows: Disk shelf fault.
global Status NonCritical	Warning	The device trap message is output as is. Display example is as follows: Disk on adapter 8, shelf 1, bay 1, failed.
Global status normal	Information	The device trap message is output as is. Display example is as follows: The system's global status is normal.
"soft Quota" threshold exceeded	Warning	The device trap message is output as is. Display example is as follows: Threshold exceeded for user 1008, tree 0 on volume voll
"soft Quota" normal	Information	The device trap message is output as is. Display example is as follows: Soft block limit returned to normal for user 1008, tree 0 on volume voll
autosupport transfer error	Warning	The device trap message is output as is. Display example is as follows: Autosupport mail was not sent because the system cannot reach any of the mail hosts from the autosupport.mailhost option
autosupport configuration definition error	Warning	The device trap message is output as is. Display example is as follows:

Failure Event	Level	Event Display
		Autosupport cannot connect to host lavender (Unknown mhost)
autosupport transmission	Information	The device trap message is output as is. Display example is as follows: System Notification mail sent
UPS power being supplied	Warning	The device trap message is output as is. Display example is as follows: Input power to UPS at 192.168.1.10 has failed.
There is a state of emergency because the UPS power has almost reached a state of discharge	Warning	The device trap message is output as is.
Shutdown due to a fully discharged UPS	Error	The device trap message is output as is. Display example is as follows: The time left on battery is marginal for UPS at 192.168.1.10.
Low UPS power warning	Warning	The device trap message is output as is.
UPS power recovery	Information	The device trap message is output as is. Display example is as follows: Input power to UPS at 192.168.1.10 has been restored.
AppEmergency trap	Error	The device trap message is output as is.
AppAlert trap	Error	The device trap message is output as is.
AppCritical trap	Error	The device trap message is output as is.
AppError trap	Error	The device trap message is output as is.
AppWarning trap	Warning	The device trap message is output as is.
AppNotice trap	Information	The device trap message is output as is.
AppInfo trap	Information	The device trap message is output as is.
AppTrap trap	Information	The device trap message is output as is.
Audit log wrap enabled	Information	The device trap message is output as is.
Saving to audit log	Information	The device trap message is output as is.
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.

Failure Event	Level	Event Display
Maximum number of connections nearly reached	Information	The device trap message is output as is.
FCP linkDown	Error	The device trap message is output as is.
FCP partner path definition error	Error	The device trap message is output as is.
Slot-limit-related event	Information	The device trap message is output as is.
Primary interface failure	Warning	The device trap message is output as is. Display example is as follows: vif1 has failed over to the Backup interface e7a received trap from [192.168.1.10].
Failure of all interfaces	Error	The device trap message is output as is. Display example is as follows: All links for vif1 have failed
vfiler stop	Information	The device trap message is output as is.
vfiler start	Information	The device trap message is output as is.
Virus detected	Error	The device trap message is output as is.
vscan server disconnected	Warning	The device trap message is output as is.
vscan setting changed	Information	The device trap message is output as is.
vscan server connection	Information	The device trap message is output as is.
vsan server upgraded	Information	The device trap message is output as is.
Media error occurrence during reconstruction (wafiron 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.
waf_l_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.

Failure Event	Level	Event Display
Return to synchronous SnapMirror mode	Information	The device trap message is output as is.
Shutdown due to abnormal controller temperature	Error	The device trap message is output as is.
Abnormal controller temperature	Error	The device trap message is output as is.
Unknown controller temperature	Warning	The device trap message is output as is.
Normal controller temperature	Information	The device trap message is output as is.
Controller CPU fan stopped	Error	The device trap message is output as is.
Controller CPU fan operating at a low speed	Warning	The device trap message is output as is.
Controller CPU fan normal	Information	The device trap message is output as is.
Multiple redundant controller power supplies failed	Error	The device trap message is output as is.
Redundant controller power supply degraded	Error	The device trap message is output as is.
Redundant controller power supply failed	Error	The device trap message is output as is.
Redundant controller power supply removed	Warning	The device trap message is output as is.
Redundant controller power supply turned off	Warning	The device trap message is output as is.
All redundant controller power supply functions normal	Information	The device trap message is output as is.
Redundant controller power supplies normal	Information	The device trap message is output as is.
Redundant controller fan degraded	Error	The device trap message is output as is.
Redundant controller fan removed	Warning	The device trap message is output as is.
Redundant controller fan stopped	Warning	The device trap message is output as is.
Redundant controller fan warning	Warning	The device trap message is output as is.
Redundant controller fan normal	Information	The device trap message is output as is.
Failure in write-verification of a snapvalidator-enabled volume	Error	The device trap message is output as is.
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.

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

Failure Event	Level	Event Display
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.
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.

Failure Event	Level	Event Display
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.

Chapter 5 Tape Library Events

5.1 ETERNUS LT20/LT40/LT60

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

5.2 ETERNUS LT200

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

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

5.3 ETERNUS LT210/LT220/LT230

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

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

5.4 ETERNUS LT250

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

Failure Event	Level	Event Display
Library hardware error	Error	Library system failed. Use the Remote Panel to check the error contents(FSC=xx, Sensekey=xx).
Barcode reader error	Warning	Barcode reader failed.
CM reader error	Warning	CM reader failed.
CAS error	Warning	CAS unit#number failed.
Cell error	Warning	Cell unit failed (Barcode Label:xxxxx).

Failure Event	Level	Event Display
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).
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.

Failure Event	Level	Event Display
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.

5.5 ETERNUS LT270

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

Failure Event	Level	Event Display
Library hardware error	Error	Library system failed. Use the Remote Panel to check the error contents (FSC=xxxx, Sensekey=xxxx).
Barcode reader error	Warning	Barcode reader in robot#number failed.
CM error	Warning	An error occurred in media error(CM fail).(Barcode Label=xxxx)
CAS cell error	Warning	CAS unit number error occurred.
Cell error	Warning	Cell unit failed.(Barcode Label=xxxxx)
CIC sensor error	Warning	CIC sensor in robot #number failed.
Battery alarm	Warning	Battery unit in LCT#number failed.
Shelf 0 fan alarm	Warning	Shelf FAN in LCT#0 failed.
Shelf 1 fan alarm	Warning	Shelf FAN in LCT#1 failed.
CAS open error	Warning	An open error occurred in CAS unit number
FC/SCSI adapter card error	Warning	Adapter#number failed.
Firmware BOOTUP alarm	Warning	The LCT#number bootup alarm occurred.
EEPROM error	Warning	EEPROM failed.
ROBOT PSU alarm	Warning	PSU unit in robot robot#number failed.
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.

Failure Event	Level	Event Display
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.

5.6 ETERNUS LT270 S2

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

Failure Event	Level	Event Display
Library hardware error	Error	Library system failed. Use the remote panel to check the error contents(FSC=xxxx, Sensekey=xxxx,Cabinet Number= <i>number</i>).
Barcode reader error	Warning	Barcode reader in robot #number of cabinet #number failed.
CM error	Warning	An error occurred in media error (CM fail) (Barcode Label=xxxxx, cabinet #number).
CAS cell error	Warning	CAS unit #number of cabinet #number failed.
Cell error	Warning	Cell unit of cabinet #number failed (Barcode Label: xxxxx).
CIC sensor error	Warning	CIC sensor in robot #number of cabinet #number failed.
Battery alarm	Warning	Battery unit in LCT of cabinet #number failed.
Shelf 0 fan alarm	Warning	Shelf FAN 0 of cabinet #number failed.
Shelf 1 fan alarm	Warning	Shelf FAN 1 of cabinet #number failed.
Shelf 2 fan alarm	Warning	Shelf FAN 2 of cabinet #number failed.

Failure Event	Level	Event Display
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=xxx, Sensekey=xxxxxx).
Media error	Warning	An error occurred in media error (Barcode Label: xxxxx).
Fan alarm	Warning	A FAN alarm occurred in drive #number of cabinet #number.
Cleaning request	Warning	Drive #number of cabinet #number needs cleaning. Perform cleaning.
LCT/DCT IF failure	Warning	Interface between LCT and DCI (drive cluster #number of cabinet #number) failed.
DCI failure	Warning	DCI in drive cluster #number of cabinet #number failed.
Nearing Media Life	Warning	Media soon will be end of life (Barcode Label: xxxxx).
Reach Media Life	Warning	Media reached at the end of life (Barcode Label: xxxxx).
Nearing ROBOT Life	Warning	Robot #number of cabinet #number soon will be end of life.
Reach ROBOT life	Warning	Robot #number of cabinet #number reached at the end of life.
Nearing Drive Life	Warning	Drive #number of cabinet #number soon will be end of life.
Reach Drive Life	Warning	Drive #number of cabinet #number reached at the end of life.
Encryption key delivery abnormality over threshold	Warning	Key send retry threshold over.
Standby ROBOT patrol failure	Warning	Standby robot of cabinet #number patrol warning occurred.
Robot RPS over threshold	Warning	Robot of cabinet #number hang down warning occurred.

Failure Event	Level	Event Display
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.

5.7 ETERNUS CS800/CS800 S2/CS800 S3

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.

Chapter 6 Fibre Alliance MIB Support Device Events

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

Information

About words of Event display in the table:

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

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

Troubleshooting

When the level is **Error** or **Warning**, 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.

Chapter 7 Performance Management Traps

Failure Event of Performance Monitoring

Failure Event	Level	Event Display	Troubleshooting
Performance data collection failure	Error	Performance data collecting failure	Confirm the device and the status of the LAN with IP address shown in the event message.
Start of performance data re-collection	Information	Performance data re-collecting start	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= <i>reportNumber</i> / Threshold value exceed : LogicalVolumeXXXXResponse Time over <i>Y</i> ms	Check the configuration according to the contents of the event message.
Abnormal CM load	Warning	Report-ID= <i>reportNumber</i> / Threshold value exceed : CMXXBusy Rate over <i>Y</i> %	
Abnormal RAID group load	Warning	Report-ID= <i>reportNumber</i> / Threshold value exceed : RAIDGroupXXXXBusy Rate over <i>Y</i> %	
Abnormal Port Throughput load	Warning	Report-ID= <i>reportNumber</i> / Threshold value exceed : PortXThroughput over <i>Y</i> %	

Chapter 8 Device Polling Event

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



Note

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

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

Event	Level	Event Display	Troubleshooting
			<p>This event occurs when there is no XML definition file. Check for the file in the correct directory, which is specified by the directory path.</p> <p>- Other</p> <p>Collect the message and other information for an investigation, and contact your Fujitsu certified service engineer.</p>

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

- Device status polling method

In accordance with the most recent status, the event displayed is 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.