

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

Event Guide

B1FW-6002-10ENZO(00)
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Preface

Purpose of This Manual

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

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

Intended Readers

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

Structure of This Manual

The structure of this manual is as follows.

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

This chapter describes the notes about common traps for devices.

[Chapter 2 Server Node Events](#)

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

[Chapter 3 Fibre Channel Switch Events](#)

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

[Chapter 4 Storage Device Events](#)

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

[Chapter 5 Tape Library Events](#)

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

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

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

[Chapter 7 Performance Management Traps](#)

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

[Chapter 8 Device Polling Event](#)

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

Conventions

This manual abides by the conventions listed in "Conventions" in the *FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Documentation Road Map*.

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Notes

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- 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, 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 |

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

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

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Update History

| Content of Update | Updated Section | Revision |
|--|-----------------|----------|
| Information related to the following device has been added. - ETERNUS CS800 M1 Information related to the following devices has been deleted. - ETERNUS VS850 S2 - ETERNUS CS800 S5/CS800 S4 - NetApp V-Series - Tintri VMstore series | General | 10 |
| Information related to the following devices has been added. - ETERNUS AX/HX series - ETERNUS AB/HB series | 4.6, 4.7 | 9.2 |
| The device name "NetApp AFF A series" has been changed to "NetApp AFF series". | 4.8 | |

| Content of Update | Updated Section | Revision |
|--|---|----------|
| Event messages have been improved. | Chapter 7 | 9.1 |
| Information related to the following devices has been added. <ul style="list-style-type: none"> - ETERNUS DX S5 series - ETERNUS AF S3 series Information related to the following devices has been deleted. <ul style="list-style-type: none"> - ETERNUS DX60, DX400 series, DX8000 series - ETERNUS VS850 - ETERNUS SN200 series - ETERNUS LT20, LT40, LT60, LT200, LT210, LT220, LT230, LT250, LT270 - ETERNUS CS800 S3/CS800 S2/CS800 | General | 9 |
| The description for Conventions has been changed so that the <i>FUJITSU Storage ETERNUS SF Express / Storage Cruiser / AdvancedCopy Manager Documentation Road Map</i> is referenced. | "Conventions" in Preface | |
| The "Manual Organization and Reading Suggestions" section has been deleted from Preface. | Preface | |
| Information related to Microsoft Windows Server 2016 has been added. | "Notation" in Preface | 8.1 |
| Information related to the ETERNUS LT140 has been added. | "Notation" in Preface, 5.2 | |
| Information related to the ETERNUS CS800 S7/CS800 S6/CS800 S5/CS800 S4 has been added. | 5.9 | |
| Information related to the ETERNUS DX8900 S4 has been added. | "Notation" in Preface | 8 |
| Notation related to VDX has been modified. | "Others" in Preface, 3.2 | |
| Information related to Solaris 9 has been deleted. | "Notation" in Preface | 7 |
| Information related to the ETERNUS DX500 S4/DX600 S4 has been added. | "Notation" in Preface | |
| Information related to the ETERNUS AF250 S2/AF650 S2 has been added. | "Notation" in Preface, 4.5 | |
| Information related to Microsoft Windows Server 2016 has been added. | "Notation" in Preface | 6 |
| Information related to Windows Vista has been deleted. | "Notation" in Preface | |
| Information related to SUSE Linux Enterprise Server 11 has been deleted and information related to SUSE Linux Enterprise Server 12 for AMD64 & Intel64 has been added. | "Notation" in Preface | |
| Information related to the ETERNUS DX60 S4/DX100 S4/DX200 S4 has been added. | "Notation" in Preface, 4.4 | |
| The subtitle "Multipath Asynchronous Events" has been changed to "ETERNUS Multipath Driver Asynchronous Events". | 2.2 | |
| Monitoring keywords have been added to the ETERNUS Multipath Driver asynchronous events. | 2.2 | |
| Information related to HP-UX 11i v1/v2 has been deleted. | "Notation" in Preface, 2.4 | 5 |
| Information related to VMware vSphere 4 has been deleted. | "Notation" in Preface | |
| Information related to the ETERNUS DX80/DX90 has been deleted. | "Notation" in Preface, 4.1 | |
| Information related to the ETERNUS AF250/AF650 has been added. | "Notation" and "Others" in Preface, 4.5 | |

| Content of Update | Updated Section | Revision |
|---|----------------------------|----------|
| Information related to the ETERNUS LT60 has been deleted. | "Notation" in Preface, 5.1 | |
| The trap number 3, 13, 14, and 15 have been added in "Specific Trap (Extended Trap)". | 4.4, 4.5 | |
| Event traps that are not reported from a device have been deleted. | 4.4 | |
| An event has been added. | Chapter 8 | |
| Information related to Microsoft Windows Server 2003 has been deleted. | "Notation" in Preface | 4 |
| Information related to Windows 10 has been added. | "Notation" in Preface | |
| The level of the following events in the "Event Notification (M Messages)" has been modified: <ul style="list-style-type: none"> - Use capacity of Pool has changed. (NORMAL -> CAUTION) - Use capacity of Pool has changed. (NORMAL or CAUTION -> WARNING) - Use capacity of Pool has changed. (WARNING -> CAUTION) | 4.2 | |
| The level of the following events in the "Event Notification (M Messages)" has been modified: <ul style="list-style-type: none"> - Use capacity of Pool has changed. (NORMAL -> CAUTION) - Use capacity of Pool has changed. (NORMAL or CAUTION -> WARNING) - Lack of pool capacity - Use capacity of Ftier Pool has changed. (NORMAL -> CAUTION) - Use capacity of Ftier Pool has changed. (NORMAL or CAUTION -> WARNING) - Lack of Ftier pool capacity | 4.3 | |
| Information related to Tintri VMstore series has been added. | 4.8 | |
| The troubleshooting when the status has changed to unmonitored has been modified. | Chapter 8 | |
| Information related to the ETERNUS DX8700 S3/DX8900 S3 has been added. | "Notation" in Preface | 3.2 |
| Information related to the NetApp FAS Series and V-Series has been added. | "Notation" in Preface, 4.7 | |
| An event has been added. | Chapter 8 | |
| The term "VMware Virtual Volumes" has been changed to "VMware vSphere Virtual Volumes" according to the terms used by VMware, Inc. | Throughout this manual | 3.1 |
| Information related to VMware vSphere(R) 6 has been added. | "Notation" in Preface | |
| Information related to the ETERNUS DX200F has been modified or added. | "Others" in Preface, 4.6 | 3 |
| Information related to the ETERNUS DX60 S3 has been added. | "Notation" in Preface | |
| Information related to the ETERNUS LT260 has been added. | "Notation" in Preface, 5.5 | |
| [Information] has been added. | Chapter 3 | |
| The composition of the chapter has been changed. | Chapter 4 | |
| The received event traps have been added. | 4.4 | |
| The description for the values that are displayed has been added. | Chapter 7 | |
| The received event traps have been added. | 4.3 | 2 |
| Information related to the ETERNUS DX200F has been added. | "Others" in Preface | |
| | | 1.1 |

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Chapter 1 Notes about Common Traps for Devices

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

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

Table 1.1 Common Traps for Devices

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

Chapter 2 Server Node Events

2.1 Windows Server Node

Fujitsu Multipath Disk Control Mechanism Asynchronous Events (SNMP Trap)

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

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

MPIO Asynchronous Events (SNMP Trap)

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

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

2.2 Solaris Server Node

Asynchronous Event by Monitoring Keywords

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

Information

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

- ETERNUS Multipath Driver Asynchronous Events

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

- EMC PowerPath Asynchronous Events

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

- HITACHI JP1/HiCommand Dynamic Link Manager Asynchronous Events

| Monitoring Keyword | Level | Event Display | Troubleshooting |
|-----------------------------|---------|--|--|
| . *All paths to.*are dead.* | Warning | One-line message including monitoring keywords | Refer to the manuals for the corresponding middleware and take required actions. Generally, the connection to storage devices and the cable connections must be checked. |
| . *KAPLO8. *-E.* | | | |

- PRIMECLUSTER GD, PRIMECLUSTER GFS series Asynchronous Events

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

| Monitoring Keyword | Level | Event Display | Troubleshooting |
|--|-------|---------------|---|
| WARNING: sfd .*SDX:.*WARNING:.* | Error | | 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:.* | | | |

- Sun MPxIO Asynchronous Events

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

2.3 Linux Server Node

Asynchronous Event by Monitoring Keywords

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

Information

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

- Multipath Asynchronous Events

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

- Device-Mapper Multipath Asynchronous Events

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

- PRIMECLUSTER GD and PRIMECLUSTER GFS series Asynchronous Events

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

2.4 HP-UX Server Node

Asynchronous Event by Monitoring Keywords

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

Information

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

- PV-LINK (LVM function) Asynchronous Events

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

- HBA Driver Asynchronous Events

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

2.5 AIX Server Node

Asynchronous Event by Monitoring Keywords

The error log is monitored with monitoring keywords. When a message that includes monitoring keywords is output, an asynchronous event is sent to the Storage Cruiser's manager according to the level corresponding to the monitoring keywords. In this case, the

message containing the detected monitoring keywords is sent to the Storage Cruiser's manager as is. If asynchronous events corresponding to the same message are detected multiple times within the message monitoring period (**PollingTime** parameter in the "Correlation.ini" file), these events are reported to the Storage Cruiser's manager only once.

 **Information**

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

- MPIO Asynchronous Events

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

Chapter 3 Fibre Channel Switch Events

Information

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

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

3.1 Brocade series

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

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

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

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

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

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

Also following event logs are displayed with above event log.

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

3.2 VDX series

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

*1

As for the Ethernet port and FC port number, the Index value output by "show fabric islports" command of VDX series is displayed. In the case of the FCoE connection port, a displayed port number is the total value of followings.

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

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

FCOE IF is displayed with the following format:

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

*2

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

*3

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

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

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

*4

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

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

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

3.3 PRIMERGY Fibre Channel Switch Blade

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

3.4 PRIMERGY BX Ethernet Fabric Switch

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

Chapter 4 Storage Device Events

Information

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

4.1 ETERNUS DX S5/S4/S3 series

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

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

Specific Trap (Extended Trap)

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

| Trap Number | Explanation | Remarks |
|-------------|--|---------|
| 63 | This Trap is sent to notify that a NAS volume snapshot has been successfully acquired. | - |

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

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

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

Notification of Component Blockage

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

| Target | Level | Event Display | Remarks |
|----------------------|-------|--|--|
| | | | <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM Expander | Error | P 06SSMM0v 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 number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM DI PORT | Error | P 08SSMMvp 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 number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM Expander In Port | Error | P 09SSMMvp Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> In Port# <i>p</i> Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM Expander Out Port | Error | P 0ASSMMvp Controller Module# <i>m</i> (<i>zz</i>) EXP# <i>v</i> Out Port# <i>p</i> Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>v</i> : Device number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM Memory | Error | P 0BSSMMnn Controller Module# <i>m</i> (<i>zz</i>) Cache(MEM # <i>x</i> GB) Slot# <i>nn</i> Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>nn</i> : Slot number <i>m</i> : CM number <i>zz</i> : Model <i>x</i> : Capacity <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM BUD | Error | P 0CSSMM00 Controller Module# <i>m</i> (<i>zz</i>) BUD(# <i>xx</i> GB) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts number |

| Target | Level | Event Display | Remarks |
|--------------------|-------|--|---|
| | | | <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM FAN | Error | P 0DSSMM00 Controller Module# <i>m</i> (<i>zz</i>) FAN Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM NAND Controller | Error | P 0E5SMM00 Controller Module# <i>m</i> (<i>zz</i>) NAND Controller Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM SCU | Error | P 0F5SMM00 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 number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CA | Error | P 10SSMM00 CA Slot# <i>n-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 number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CA Port | Error | P 11SSMM0p CA Slot# <i>n-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 number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SFP for FC-CA | Error | P 1A5SMM0p 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 number <i>n</i> : Slot number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information |

| Target | Level | Event Display | Remarks |
|--|-------|---|--|
| SFP for FCLink-CA | Error | P 1BSSMM0p 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 number n : Slot number v : Device number zz : Model m : CM number pp : Parts number ss : Serial number rr : Revision oo : Other Information |
| SFP+ for FC-CA | Error | P 1CSSMM0p 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 number n : Slot number v : Device number zz : Model m : CM number pp : Parts number ss : Serial number rr : Revision oo : Other Information |
| SFP+ for 10G-iSCSI-CA SFP+ for FCoE-CA | Error | P 1DSSMM0p 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 number n : Slot number v : Device number zz : Model m : CM number pp : Parts number ss : Serial number rr : Revision oo : Other Information |
| SFP+ Copper for 10G-iSCSI-CA SFP+ for FCoE-CA | Error | P 1E00MM0p iSCSI FCoE SFP+Cp CA Slot#S(zz) (on CM#m) Port#p Fault <pp ss rr oo> | MM : Module ID p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision oo : Other Information |
| SFP+ Longwave for FC-CA | Error | P 1900MM0p FC SFP+ Longwave CA Slot#S(zz) (on CM#m) Port#p Fault <pp ss rr oo> | MM : Module ID p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision oo : Other Information |
| SFP Type Unknown | Error | P 1FSSMM0p 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 number n : Slot number v : Device number |

| Target | Level | Event Display | Remarks |
|--------------|-------|--|--|
| | | | <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information |
| CM FPGA | Error | P 21SSMM00 Controller Module# <i>m</i> (<i>zz</i>) FPGA Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM LAN Port | Error | P 22SSMM0 <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) LAN PORT# <i>p</i> Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM PCH | Error | P 2300MM00 Controller Module# <i>m</i> (<i>zz</i>) PCH Fault < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM QSFP | Error | P 2ASSMM <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 number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| FRT | Error | P 4000MM00 FRT# <i>n</i> Fault < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : FRT number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT | Error | P 5000MM00 BRT# <i>n</i> Fault < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : BRT number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT Out Port | Error | P 5100MM0 <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 number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |

| Target | Level | Event Display | Remarks |
|---------------|-------|---|---|
| BRT In Port | Error | P 5200MMvP BRT#n InPort#P Fault <pp ss rr> | MM : Module ID v : EXP number p : Port number n : BRT number pp : Parts number ss : Serial number rr : Revision |
| BRT EXP | Error | P 5300MM0v BRT#n EXP#v Fault <pp ss rr> | MM : Module ID v : EXP number n : BRT number pp : Parts number ss : Serial number rr : Revision |
| BRT QSFP | Error | P 5A00MM0P BRT#n QSFP#P Fault <pp ss rr> | MM : Module ID n : BRT number P : Port number pp : Parts number ss : Serial number rr : Revision |
| SVC | Error | P 6000MM00 SVC#n Fault <pp ss rr> | MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision |
| SVC LAN Port | Error | P 6100MM0P SVC#n LAN PORT#P Fault <pp ss rr> | MM : Module ID P : Port number n : SVC number pp : Parts number ss : Serial number rr : Revision |
| SVC PCIe SW | Error | P 6200MM00 SVC#n PCIe SW Fault <pp ss rr> | MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision |
| SVC RCI board | Error | P 6300MM00 SVC#n RCI board Fault <pp ss rr> | MM : Module ID n : SVC number pp : Parts number ss : Serial number rr : Revision |
| CE FAN UNIT | Error | P 7100n00 CE FAN UNIT#n Fault <pp ss rr> | n : Slot number pp : Parts number ss : Serial number rr : Revision |
| PANEL UNIT | Error | P 72000000 PANEL UNIT Fault <pp ss rr> | pp : Parts number ss : Serial number rr : Revision |
| CPSU | Error | P 7300n00 Power Supply Unit/CPSU#n Fault <pp ss rr> | n : Slot number pp : Parts number ss : Serial number rr : Revision |

| Target | Level | Event Display | Remarks |
|---|-------|---|--|
| SCCB | Error | P 74000n00 SCCB#n Fault <pp ss rr> | n : Slot number pp : Parts number ss : Serial number rr : Revision |
| BBU | Error | P 75000n00 BBU#n Fault <pp ss rr> | n : Slot number pp : Parts number ss : Serial number rr : Revision |
| BCU | Error | P 75000n00 BCU#n Fault <pp ss rr> | n : Slot number pp : Parts number ss : Serial number rr : Revision |
| BTU | Error | P 76000n00 BTU#n Fault <pp ss rr> | n : Slot number pp : Parts number ss : Serial number rr : Revision |
| 3.5 Inch DISK | Error | P 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu> | SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code |
| 3.5 Inch Disk (Failed Usable) | Error | P 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr tt uu> | SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code |
| 3.5 Inch Disk (Disk abnormal performance) | Error | P 80SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Slow Down <pp ss rr tt uu> | SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information |

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

| Target | Level | Event Display | Remarks |
|----------------------------------|-------|---|--|
| | | | <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| 3.5 Inch SSD (Failed Usable) | Error | P 84SSUU0N SSD 3.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| 2.5 Inch SSD | Error | P 85SSUUNN SSD 2.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| 2.5 Inch SSD (Failed Usable) | Error | P 85SSUUNN SSD 2.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) Failed Usable <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| 3.5 Inch DISK (Compare Error) | Error | P 88SSUU0N HDD 3.5 DE#UU-Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal |

| Target | Level | Event Display | Remarks |
|----------------------------------|-------|---|--|
| | | | notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code |
| 2.5 Inch DISK (Compare Error) | Error | P 88SSUU N HDD 2.5 DE#UU-Disk# n (SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu> | SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code |
| 3.5 Inch SSD (Compare Error) | Error | P 88SSUU $0N$ SSD 3.5 DE#UU-Slot# n (SAS xxxGB yykrpm cc) Fault <pp ss rr tt uu> | SS : Parts subtype UU : DE ID N : Slot number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code |
| 2.5 Inch SSD (Compare Error) | Error | P 88SSUU NN 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 number (hexadecimal notation) n : Slot number (decimal notation) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision tt : Date Code uu : Config Code |
| IOM6 | Error | P 90SSUU $0n$ IOM6 DE#UU/IOM# n Fault <pp ss rr> | SS : Parts subtype UU : DE ID n : EXP number |

| Target | Level | Event Display | Remarks |
|-----------|-------|--|--|
| | | | <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| IOM6 Port | Error | P 91SSUUnp IOM6 Port DE#UU/IOM#n/Port#p Fault <pp ss rr> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| IOM6 QSFP | Error | P 9ASSUUnp IOM6 QSFP DE#UU/IOM#n/ Port#p Fault <pp ss rr> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| PSU | Error | P D2SSUUOn Power Supply Unit DE#UU/PSU#n Fault <pp ss rr> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : Slot number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |

Warning (Temperature Alarm)

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

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

Warning (Expiration)

| Target | Level | Event Display | Remarks |
|---|---------|--|--|
| Six months before battery life expiration | Warning | J 70060n00 BATTERY#b 6MONTH WARNING YYYY/MM | n : Slot number b : BTU number YYYY/MM : Term of validity (year/month) |
| One week before battery life expiration | Warning | J 70070n00 BATTERY#b 1WEEK WARNING WARNING YYYY/MM | n : Slot number b : BTU number 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 number b : BTU number N : Days YYYY/MM : Term of validity (year/month) |
| Battery life expiration | Error | J 70FE0n00 BATTERY#b EXPIRATION ALARM YYYY/MM | n : Slot number b : BTU number YYYY/MM : Term of validity (year/month) |

Warning (Other)

| Target | Level | Event Display | Remarks |
|---------------------|---------|--|---|
| CM Warning | Warning | J 01SSMM00 Controller Module#m(zz) Warning factor(ww) <pp ss rr> | SS : Parts subtype MM : Module ID m : CM number zz : Model ww : Factor Code pp : Parts number ss : Serial number rr : Revision |
| CM DMA Port Warning | Warning | J 02SSMM0p Controller Module#m(zz) DMA PORT#p Warning <pp ss rr> | SS : Parts subtype MM : Module ID p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |

| Target | Level | Event Display | Remarks |
|--------------------------------|---------|--|---|
| CM BIOS Warning | Warning | J 03SSMM0v Controller Module#m(zz) BIOS#v Warning <pp ss rr> | SS : Parts subtype MM : Module ID v : Device number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |
| CM RTC Warning | Warning | J 04SSMM00 Controller Module#m(zz) RTC Warning <pp ss rr> | SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |
| CM NVRAM Warning | Warning | J 05SSMM00 Controller Module#m(zz) NVRAM Warning <pp ss rr> | SS : Parts subtype MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |
| CM MMC Warning | Warning | J 0600MM00 Controller Module#m(zz) MMC Warning <pp ss rr> | MM : Module ID m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |
| CM Expander Warning | Warning | J 06SSMM0v Controller Module#m(zz) EXP#v Warning <pp ss rr> | SS : Parts subtype MM : Module ID v : Device number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |
| CM DI PORT Warning | Warning | J 08SSMMvp Controller Module#m(zz) DI Port#p Warning <pp ss rr> | SS : Parts subtype MM : Module ID v : Device number p : Port number m : CM number zz : Model pp : Parts number ss : Serial number rr : Revision |
| CM Expander In Port Warning | Warning | J 09SSMMvp Controller Module#m(zz) EXP#v In Port#p Warning <pp ss rr> | SS : Parts subtype MM : Module ID v : Device number p : Port number m : CM number zz : Model pp : Parts number |

| Target | Level | Event Display | Remarks |
|------------------------------|---------|--|--|
| | | | <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM Expander Out Port Warning | Warning | J 0A5SMMvp 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 number <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM BUD Warning | Warning | J 0C5SMM00 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 number <i>zz</i> : Model <i>xx</i> : Capacity <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM FAN Warning | Warning | J 0D5SMM00 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 number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM NAND Controller Warning | Warning | J 0E5SMM00 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 number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM SCU Warning | Warning | J 0F5SMM00 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 number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CA Warning | Warning | J 105SMM00 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 number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CA Port Warning | Warning | J 115SMM0p 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 number <i>n</i> : Slot number |

| Target | Level | Event Display | Remarks |
|----------------------|---------|---|--|
| | | | <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM FPGA Warning | Warning | J 21SSMM00 Controller Module# <i>m</i> (<i>zz</i>) FPGA Warning < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM LAN Port Warning | Warning | J 22SSMM0 <i>p</i> Controller Module# <i>m</i> (<i>zz</i>) LAN PORT# <i>p</i> Warning < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID <i>p</i> : Port number <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM PCH Warning | Warning | J 2300MM00 Controller Module# <i>m</i> (<i>zz</i>) PCH Warning < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| FRT Warning | Warning | J 4000MM00 FRT# <i>n</i> Warning < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : FRT number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT Warning | Warning | J 5000MM00 BRT# <i>n</i> Warning < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : BRT number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT Out Port Warning | Warning | J 5100MM0 <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 number <i>P</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT In Port Warning | Warning | J 5200MM <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 number <i>n</i> : BRT number <i>P</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT EXP Warning | Warning | J 5300MM0 <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 number |

| Target | Level | Event Display | Remarks |
|----------------------------------|---------|---|--|
| | | | <i>n</i> : BRT number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT QSFP Warning | Warning | J 5A00MM0P BRT# <i>n</i> QSFP# <i>P</i> Warning < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : BRT number <i>P</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SVC Warning | Warning | J 6000MM00 SVC# <i>n</i> Warning < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : SVC number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CE FAN UNIT | Warning | J 71000 <i>n</i> 00 CE FAN UNIT# <i>n</i> Warning < <i>pp ss rr</i> > | <i>n</i> : Slot number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| PANEL UNIT | Warning | J 72000000 PANEL UNIT Warning < <i>pp ss rr</i> > | <i>pp</i> : Parts number <i>ss</i> : Serial number <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 number <i>pp</i> : Parts number <i>ss</i> : Serial number <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 number <i>pp</i> : Parts number <i>ss</i> : Serial number <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 number <i>pp</i> : Parts number <i>ss</i> : Serial number <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 number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SMART notice from Disk (3.5inch) | Warning | J 80SSUU0N HDD 3.5 DE#UU-Disk# <i>n</i> (SAS xxxGB yykrpm cc) SMART < <i>pp ss rr tt uu</i> > | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |

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

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

| Target | Level | Event Display | Remarks |
|---|---------|---|--|
| | | | <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| SSD preventative separation SMART (3.5inch) | Warning | J 84SSUU0N SSD 3.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) Warning <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| SMART notice from SSD (2.5inch) | Warning | J 85SSUUNN SSD 2.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) SMART <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| SSD preventative separation SMART (2.5inch) | Warning | J 85SSUUNN SSD 2.5 DE#UU-Slot#n(SAS xxxGB yykrpm cc) Warning <pp ss rr tt uu> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>N</i> : Slot number (hexadecimal notation) <i>n</i> : Slot number (decimal notation) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>tt</i> : Date Code <i>uu</i> : Config Code |
| IOM6 Warning | Warning | J 90SSUU0n IOM6 DE#UU/IOM#n Warning <pp ss rr> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : EXP number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| IOM6 Port Warning | Warning | J 91SSUUnp IOM6 Port DE#UU/IOM#n/Port#p Warning <pp ss rr> | <i>SS</i> : Parts subtype <i>UU</i> : DE ID |

| Target | Level | Event Display | Remarks |
|-----------------------------------|---------|---|---|
| | | | <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| IOM6 QSFP Warning | Warning | J 9ASSUU <i>n</i> <i>p</i> IOM6 QSFP DE#UU/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 number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| IOM6 Check1 | Warning | J C190UU <i>n</i> <i>p</i> IOM6 DE#UU/IOM# <i>n</i> Reboot < <i>pp ss rr</i> > | <i>UU</i> : DE ID <i>n</i> : EXP number <i>p</i> : Port number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM Check1 | Warning | J C1MM0000 Controller Module# <i>m</i> (<i>zz</i>) Reboot < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>m</i> : CM number <i>zz</i> : Model <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CA Check1 | Warning | J C1MM0000 CA Slot# <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 number <i>v</i> : Device number <i>zz</i> : Model <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| BRT Check1 | Warning | J C1MM0000 BRT# <i>n</i> Reboot < <i>pp ss rr</i> > | <i>MM</i> : Module ID <i>n</i> : BRT number <i>pp</i> : Parts number <i>ss</i> : Serial number <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 number <i>zz</i> : Model <i>x</i> : Capacity <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| PSU Warning | Warning | J D2SSUU0 <i>n</i> Power Supply Unit DE#UU/PSU# <i>n</i> Warning < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>UU</i> : DE ID <i>n</i> : Slot number <i>pp</i> : Parts number <i>ss</i> : Serial number <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 | xxx : RAID group number |
| Start of rebuild to HS | Error | MA0410xxx RAID Group#0xxx start procedure of Rebuild processing | xxx : RAID group number |
| End of rebuild to HS | Error | M A0810xxx RAID Group#0xxx normal end of Rebuild processing | xxx : RAID group number |
| Abnormal end of rebuild to HS (source disk problem) | Error | M A0A10xxx RAID Group#0xxx abnormal end of Rebuild processing because of source disk problem | xxx : RAID group number |
| Abnormal end of rebuild to HS | Error | M A0B10xxx RAID Group#0xxx abnormal end of Rebuild processing | xxx : RAID group number |
| Retry of rebuild to HS | Error | MA0C10xxx RAID Group#0xxx retry procedure of Rebuild processing | xxx : RAID group number |
| Start of rebuild to DV | Error | MA1410xxx RAID Group#0xxx start procedure of Rebuild processing | xxx : RAID group number |
| End of rebuild to DV | Error | M A1810xxx RAID Group#0xxx normal end of Rebuild processing | xxx : RAID group number |
| Abnormal end of rebuild to DV (source disk problem) | Error | M A1A10xxx RAID Group#0xxx abnormal end of Rebuild processing because of source disk problem | xxx : RAID group number |
| Abnormal end of rebuild to DV | Error | M A1B10xxx RAID Group#0xxx abnormal end of Rebuild processing | xxx : RAID group number |
| Retry of rebuild to DV | Error | MA1C10xxx RAID Group#0xxx retry procedure of Rebuild processing | xxx : RAID group number |
| Start of Copyback | Error | MA3420xxx RAID Group#0xxx start procedure of Copyback processing | xxx : RAID group number |
| End of Copyback | Error | M A3820xxx RAID Group#0xxx normal end of Copyback processing | xxx : RAID group number |
| Abnormal end of Copyback (source disk problem) | Error | M A3A20xxx RAID Group#0xxx abnormal end of Copyback processing because of source disk problem | xxx : RAID group number |
| Abnormal end of Copyback | Error | M A3B20xxx RAID Group#0xxx abnormal end of Copyback processing | xxx : RAID group number |
| Retry of Copyback | Error | MA3C20xxx RAID Group#0xxx retry procedure of Copyback processing | xxx : RAID group number |
| Start failure of Redundant Copy (non HS) | Error | M A4130xxx RAID Group#0xxx start failure of Redundant Copy processing | xxx : RAID group number |
| Start of Redundant Copy | Error | MA4430xxx RAID Group#0xxx start procedure of Redundant Copy processing | xxx : RAID group number |
| End of Redundant Copy (Disk) | Error | P 21830xxx Disk Drive DE#uu-Disk#nn(SAS xxGB yykrpm cc) Redundant Copy end <pp ss rr> | xxx : RAID group number UU : DE ID nn : Slot number xx : Disk capacity yy : Disk rotation cc : Disk information |

| Target | Level | Event Display | Remarks |
|--|-------|--|--|
| | | | <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| End of Redundant Copy (SSD 3.5inch) | Error | P 21830xxx SSD 3.5 DE# <i>uu</i> -Slot# <i>nn</i> (SAS <i>xx</i> GB <i>cc</i>) Redundant Copy end < <i>pp ss rr</i> > | <i>xxx</i> : RAID group number <i>UU</i> : DE ID <i>nn</i> : Slot number <i>xx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| End of Redundant Copy (SSD 2.5inch) | Error | P 21830xxx SSD 2.5 DE# <i>uu</i> -Slot# <i>nn</i> (SAS <i>xx</i> GB <i>cc</i>) Redundant Copy end < <i>pp ss rr</i> > | <i>xxx</i> : RAID group number <i>UU</i> : DE ID <i>nn</i> : Slot number <i>xx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : 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 | <i>xxx</i> : RAID group number |
| Abnormal end of Redundant Copy | Error | M A4B30xxx RAID Group#0xxx abnormal end of Redundant Copy processing | <i>xxx</i> : RAID group number |
| Retry of Redundant Copy | Error | MA4C30xxx RAID Group#0xxx retry procedure of Redundant Copy processing | <i>xxx</i> : RAID group number |

Event Notification (M Messages)

| Target | Level | Event Display | Remarks |
|------------------------|-------|--|--|
| Write Bad Data | Error | M E0050xxx WRITE BAD DATA | <i>xxx</i> : RLU number |
| PINNED Data (Occurred) | Error | M E10300MM PINNED DATA was created CM# <i>m</i> -CPU# <i>v</i> | <i>MM</i> : CM Module ID where PINNED occurred <i>m</i> : CM number <i>v</i> : CM CPU number |
| PINNED Data (Cleared) | Error | M E1FF00MM PINNED DATA was cleared CM# <i>m</i> -CPU# <i>v</i> | <i>MM</i> : CM Module ID where PINNED cleared <i>m</i> : CM number <i>v</i> : CM CPU number |
| NRDY (Factor 01) | Error | M E2070001 NOT READY(01:Configuration Error) | - |
| NRDY (Factor 02) | Error | M E2070002 NOT READY(02:CM F/W Version Error) | - |
| NRDY (Factor 04) | Error | M E2070004 NOT READY(04:Restore Fail) | - |
| NRDY (Factor 11) | Error | M E207000B NOT READY(11:Power Off/Fail Incomplete) | - |
| NRDY (Factor 12) | Error | M E207000C NOT READY(12:Backup Fail) | - |
| NRDY (Factor 13) | Error | M E207000D NOT READY(13:Multi CM Down) | - |

| Target | Level | Event Display | Remarks |
|---|---------|---|---|
| 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) | - |
| NRDY (Factor 27) | Error | M E207001B NOT READY(27:TPV Table Restore Fail to BUD) | - |
| End of rebuild to HS (Bad Data) | Error | M 21810xxx RAID Group#0xxx recovered end of Rebuild processing | xxx : RLU number |
| End of rebuild to DV (Bad Data) | Error | M 21810xxx RAID Group#0xxx recovered end of Rebuild processing | xxx : RLU number |
| Disconnected intra-cabinet path | Error | M 0732MMpp Remote Copy Path (CM#xx CA#yy PORT#pp) Not Available | MM : Module ID pp : Port number xx : CM number yy : CA Slot number |
| REC automatic HALT occurrence | Error | M 13CF11xx REC Buffer HALT occurred.(xx) | xx : 00 is path error, 01 heavy load, 02 ERROR |
| Use capacity of Pool has changed. NORMAL -> CAUTION | Warning | M E8010xxx TPP#xxx turned to CAUTION(decrease of available capacity) | xxx : Thin Provisioning Pool number (hexadecimal notation) |
| Use capacity of Pool has changed. NORMAL or CAUTION -> WARNING | Warning | M E8020xxx TPP#xxx turned to WARNING(decrease of available capacity) | xxx : Thin Provisioning Pool number (hexadecimal notation) |
| Lack of pool capacity | Error | M E8050xxx TPP#xxx was all allocated | xxx : Thin Provisioning Pool number (hexadecimal notation) |
| Use capacity of Ftier Pool has changed. NORMAL -> CAUTION | Warning | M E8070xxx FTRP#xxx turned to CAUTION(decrease of available capacity) | xxx : FTRP number (hexadecimal notation) |
| Use capacity of Ftier Pool has changed. | Warning | M E8080xxx FTRP#xxx turned to WARNING(decrease of available capacity) | xxx : FTRP number (hexadecimal notation) |

| Target | Level | Event Display | Remarks |
|---|-------|--|---|
| NORMAL or CAUTION -> WARNING | | | |
| Lack of Ftier pool capacity | Error | M E8090xxx FTRP#xxx was all allocated | xxx : FTRP number (hexadecimal notation) |
| Copy session [Active -> Error] | Error | M 13CE0001 Error session was detected. (Local:xxxxx Remote:xxxxx) | xxxxx : Number of copy sessions that status is Error |
| Copy session [Suspend -> Error] | Error | M 13CE0002 Foreseen error session was detected. (Local:xxxxx Remote:xxxxx) | xxxxx : Number of copy sessions that status changed from Suspend to Error |
| Copy session [Active -> Halt] | Error | M 13CE0003 Halt session was detected. (Remote:xxxxx) | xxxxx : Number of copy sessions that status is Halt |
| Copy session [Error -> Idle] | Error | M 13CE0004 Error session was cleared. | - |
| Copy session [Suspend -> Error -> Idle] | Error | M 13CE0005 Foreseen error session was cleared. | - |
| Copy session [Halt -> Active] | Error | M 13CE0006 Halt session was cleared. | - |
| Key Management Server communication Error | Error | M E928xyy Key Management Server communication Error (Key Server ID #xx)(Key Group ID#yy) | xx : Key server ID yy : Key group ID |

Recovery Notification

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

| Target | Level | Event Display | Remarks |
|--|-------------|---|--|
| PSU Alarm recovery (AC-Fail clear) | Information | R D2SSUU0n Power Supply Unit DE#UU/PSU#n Normal <pp ss rr> | SS : Parts subtype UU : DE ID N : Side 0, side 1 pp : Parts number ss : Serial number rr : Revision |
| CE exhaust temperature alarm recovery | Information | R 7A000000 CE Exhaust temperature Normal | - |
| CE intake air temperature alarm recovery | Information | R 7B000000 CE Intake temperature Normal | - |
| DE exhaust temperature alarm recovery | Information | R DASSUU00 DE Exhaust temperature DE#UU Normal | SS : Parts subtype UU : DE ID |
| DE intake air temperature alarm recovery | Information | R DBSSUU00 DE Intake temperature DE#UU Normal | SS : Parts subtype UU : DE ID |

CA Port Link Status Notification

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

4.3 ETERNUS DX60 S2

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

Notification of Component Blockage

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

| Target | Level | Event Display | Remarks |
|---------------------|-------|---|---|
| CM DI PORT | Error | P 08SSMM0n Controller Module#m(zz xxHz) DI Port#n Fault <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 1) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM SAS Port | Error | P 09SSMM00 Controller Module#m(zz xxHz) SAS Port Fault <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM BE Expander Port | Error | P 0A5SSMM0n Controller Module#m(zz xxHz) BE Expander Port#n Fault <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 2) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM Memory | Error | P 0B5SSMM00 Controller Module#m(zz xxHz) Cache(MEM) Fault <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) MEM: Memory capacity pp : Parts number ss : Serial number rr : Revision |
| CM Flash ROM | Error | P 0C5SSMM00 Controller Module#m(zz xxHz) Flash ROM Fault <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM NAND Controller | Error | P 0E5SSMM00 Controller Module#m(zz xxHz) NAND Controller Fault <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) |

| Target | Level | Event Display | Remarks |
|------------------------|-------|---|--|
| | | | <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SCU | Error | P 0FSSMM00 Controller Module# <i>m</i> (<i>zz xxHz</i>) Super Capacitor Unit Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID (10 - 11) <i>m</i> : CM number <i>zz</i> : Model (FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CA Port | Error | P 11SSMM0n Controller Module# <i>m</i> (<i>zz xxHz</i>) 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 number (0 - 1) <i>m</i> : CM number <i>zz</i> : Model (FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM FE Expander | Error | P 12SSMM00 Controller Module# <i>m</i> (<i>zz xxHz</i>) FE Expander Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID (10 - 11) <i>m</i> : CM number <i>zz</i> : Model (FC/SAS/iSCSI) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| CM FE Expander Port | Error | P 13SSMM0n Controller Module# <i>m</i> (<i>zz xxHz</i>) FE Expander Port# <i>n</i> Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>MM</i> : Module ID (10 - 11) <i>nn</i> : Port number (0 - 1) <i>xx</i> : Frequency (800MHz/ 1.2GHz) <i>zz</i> : Model (FC/SAS/iSCSI) <i>yy</i> : Number of ports (1 - 2) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SFP Optical Shortwave | Error | P 1A00MM0n FC SFP Controller Module# <i>m</i> Port# <i>n</i> Fault < <i>pp ss rr oo</i> > | <i>MM</i> : Module ID (10 - 11) <i>n</i> : Port number (0 - 1) <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision <i>oo</i> : Other Information |
| SFP+ Optical Shortwave | Error | P 1C00MM0n FC SFP+ Controller Module# <i>m</i> Port# <i>n</i> Fault < <i>pp ss rr oo</i> > | <i>MM</i> : Module ID (10 - 11) <i>n</i> : Port number (0 - 1) <i>m</i> : CM number <i>pp</i> : Parts number <i>ss</i> : Serial number |

| Target | Level | Event Display | Remarks |
|-------------------------------|-------|---|---|
| | | | <i>rr</i> : Revision <i>oo</i> : Other Information |
| 3.5 Inch DISK | Error | P 80SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 3.5 Inch Disk (Failed Usable) | Error | P 80SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Failed Usable < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 3.5 Inch DISK (Compare Error) | Error | P 88SSDDNN Disk Drive DE# DD-Disk#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 2.5 Inch DISK | Error | P 81SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 2.5 Inch Disk (Failed Usable) | Error | P 81SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Failed Usable < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>yy</i> : Disk rotation <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |

| Target | Level | Event Display | Remarks |
|----------------------------------|-------|---|---|
| 2.5 Inch DISK (Compare Error) | Error | P 88SSDDNN Disk Drive DE# DD-Disk#n(SAS xxxGB yykrpm cc) Fault <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| 3.5 Inch DISK | Error | P 82SSDDNN Disk Drive DE#DD-Disk#n(SATA xxxGB cc) Fault <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| 3.5 Inch Disk (Failed Usable) | Error | P 82SSDDNN Disk Drive DE#DD-Disk#n(SATA xxxGB cc) Failed Usable <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| 3.5 Inch DISK (Compare Error) | Error | P 88SSDDNN Disk Drive DE# DD-Disk#n(SATA xxxGB cc) Fault <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| 3.5 Inch SSD | Error | P 84SSDDNN SSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Fault <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| 3.5 Inch SSD (Failed Usable) | Error | P 84SSDDNN SSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Failed Usable <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number |

| Target | Level | Event Display | Remarks |
|---------------------------------|-------|---|--|
| | | | <i>ss</i> : Serial number <i>rr</i> : Revision |
| 3.5 Inch SSD (Compare Error) | Error | P 88SSDDNN SSD 3.5 DE#dd-Slot# <i>n</i> (SAS xxxGB cc) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 2.5 Inch SSD | Error | P 85SSDDNN SSD 2.5 DE#dd-Slot# <i>n</i> (SAS xxxGB cc) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 2.5 Inch SSD (Failed Usable) | Error | P 85SSDDNN SSD 2.5 DE#dd-Slot# <i>n</i> (SAS xxxGB cc) Failed Usable < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| 2.5 Inch SSD (Compare Error) | Error | P 88SSDDNN SSD 2.5 DE#dd-Slot# <i>n</i> (SAS xxxGB cc) Fault < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| EXP | Error | P 900DDON Expander DE#DD/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 number <i>ss</i> : Serial number <i>rr</i> : Revision |
| EXP Port | Error | P 910DDNn Expander Port DE#DD/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 number (0 - 1) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| PSU | Error | P D200DDOn Power Supply Unit DE#DD/ PSU# <i>n</i> Fault < <i>pp ss rr</i> > | <i>DD</i> : DE ID <i>n</i> : Slot number (0 - 1) <i>pp</i> : Parts number |

| Target | Level | Event Display | Remarks |
|--------|-------|---------------|---|
| | | | <i>ss</i> : Serial number <i>rr</i> : Revision |

Warning (Temperature Alarm)

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

Warning (Other)

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

| Target | Level | Event Display | Remarks |
|----------------------------------|---------|--|---|
| CM BE Expander Warning | Warning | J 06SSMM00 Controller Module#m(zz xxHz) BE Expander Warning <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) m : CM number zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM SAS Port Warning | Warning | J 09SSMM0n Controller Module#m(zz xxHz) SAS Port#n Warning <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 1) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM BE Expander Port Warning | Warning | J 0ASSMM0n Controller Module#m(zz xxHz) BE Expander Port#n Warning <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) n : Port number (0 - 2) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM FLASH ROM | Warning | J 0CSSMM00 Controller Module#m(zz xxHz) Flash ROM Warning <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| CM NAND Controller | Warning | J 0ESSMM00 Controller Module#m(zz xxHz) NAND Flash Warning <pp ss rr> | SS : Parts subtype MM : Module ID (10 - 11) zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| SMART notice from Disk (3.5inch) | Warning | J 80SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision |

| Target | Level | Event Display | Remarks |
|---|---------|--|---|
| Disk preventative separation SMART (3.5inch) | Warning | J 80SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| SMART notice from Disk (2.5inch) | Warning | J 81SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) SMART <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| Disk preventative separation SMART (2.5inch) | Warning | J 81SSDDNN Disk Drive DE#DD-Disk#n(SAS xxxGB yykrpm cc) Warning <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 17) n : Slot number (00 - 23) xxx : Disk capacity yy : Disk rotation cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| SATA Disk notice from Disk (3.5inch) | Warning | J 82SSDDNN Disk Drive DE#DD-Disk#n(SATA xxxGB cc) SMART <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| SATA Disk preventative separation SMART (3.5inch) | Warning | J 82SSDDNN Disk Drive DE#DD-Disk#n(SATA xxxGB cc) Warning <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information pp : Parts number ss : Serial number rr : Revision |
| SMART notice from SSD (3.5inch) | Warning | J 84SSDDNN SSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) SMART <pp ss rr> | SS : Parts subtype DD : DE ID NN : Slot number (00 - 0b) n : Slot number (00 - 11) xxx : Disk capacity cc : Disk information |

| Target | Level | Event Display | Remarks |
|---|---------|---|--|
| | | | <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SSD preventative separation SMART (3.5inch) | Warning | J 84SSDDNN SSD 3.5 DE#dd-Slot#n(SAS xxxGB cc) Warning < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 0b) <i>n</i> : Slot number (00 - 11) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SMART notice from SSD (2.5inch) | Warning | J 85SSDDNN SSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) SMART < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| SSD preventative separation SMART (2.5inch) | Warning | J 85SSDDNN SSD 2.5 DE#dd-Slot#n(SAS xxxGB cc) Warning < <i>pp ss rr</i> > | <i>SS</i> : Parts subtype <i>DD</i> : DE ID <i>NN</i> : Slot number (00 - 17) <i>n</i> : Slot number (00 - 23) <i>xxx</i> : Disk capacity <i>cc</i> : Disk information <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| EXP Alarm (Warning Level) | Warning | J 900DDON Expander DE#DD/EXP#n Warning < <i>pp ss rr</i> > | <i>DD</i> : DE ID <i>N</i> : Side 0, side 1 <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |
| EXP Port (Warning Level) | Warning | J 910DDNn Expander Port DE#DD/EXP#N/Port#n Warning < <i>pp ss rr</i> > | <i>DD</i> : DE ID <i>N</i> : Side 0, side 1 <i>n</i> : Port number (0 - 1) <i>pp</i> : Parts number <i>ss</i> : Serial number <i>rr</i> : Revision |

Event Notification (M Messages)

| Target | Level | Event Display | Remarks |
|------------------|-------|--|--|
| Write Bad Data | Error | M E0050xxx WRITE BAD DATA | <i>xxx</i> : RLU number |
| PINNED Data | Error | M E10300MM PINNED DATA | <i>MM</i> : CM Module ID where PINNED occurred |
| NRDY (Factor 01) | Error | M E2070001 NOT READY(01:Configuration Error) | - |

| Target | Level | Event Display | Remarks |
|---|-------|--|---|
| NRDY (Factor 02) | Error | M E2070002 NOT READY(02:CM F/W Version Error) | - |
| NRDY (Factor 04) | Error | M E2070004 NOT READY(04:Restore Fail) | - |
| NRDY (Factor 11) | Error | M E207000B NOT READY(11:Power Off/Fail Incomplete) | - |
| NRDY (Factor 12) | Error | M E207000C NOT READY(12:Backup Fail) | - |
| NRDY (Factor 13) | Error | M E207000D NOT READY(13:Multi CM Down) | - |
| NRDY (Factor 14) | Error | M E207000E NOT READY(14:Machine Down Recovery End) | - |
| NRDY (Factor 15) | Error | M E207000F NOT READY(15:Machine Down Recovery Failed) | - |
| NRDY (Factor 16) | Error | M E2070010 NOT READY(16:DE Build Error) | - |
| NRDY (Factor 17) | Error | M E2070011 NOT READY(17:CM Memory Shortage) | - |
| NRDY (Factor 21) | Error | M E2070015 NOT READY(21:Configuration Data restored from System Disk) | - |
| NRDY (Factor 22) | Error | M E2070016 NOT READY(22:No Version) | - |
| End of rebuild to HS (Bad Data) | Error | M 21810xxx RAID Group#0xxx recovered end of Rebuild processing | xxx : RLU number |
| End of rebuild to DV (Bad Data) | Error | M 21810xxx RAID Group#0xxx recovered end of Rebuild processing | xxx : RLU number |
| Disconnected intra-cabinet path | Error | M 0732xyyy Remote Copy Path (MID#xx PORT#yy) Not Available | xx : MID yy : Port |
| REC automatic HALT occurrence | Error | M 13CF11xx REC Automatic HALT or ERROR occurred.(xx) | xx : 00 is path error, 01 heavy load, 02 ERROR |
| Copy session [Active -> Error] | Error | M 13CE0001 Error session was detected. (Local:xxxxx Remote:xxxxx) | xxxxx : Number of copy sessions that status is Error |
| Copy session [Suspend -> Error] | Error | M 13CE0002 Foreseen error session was detected. (Local:xxxxx Remote:xxxxx) | xxxxx : Number of copy sessions that status changed from Suspend to Error |
| Copy session [Active -> Halt] | Error | M 13CE0003 Halt session was detected. (Remote:xxxxx) | xxxxx : Number of copy sessions that status is Halt |
| Copy session [Error -> Idle] | Error | M 13CE0004 Error session was cleared. | - |
| Copy session [Suspend -> Error -> Idle] | Error | M 13CE0005 Foreseen error session was cleared. | - |
| Copy session [Halt -> Active] | Error | M 13CE0006 Halt session was cleared. | - |

Recovery Notification

| Target | Level | Event Display | Remarks |
|---------------------------------|-------------|--|--|
| CM BE Expander Warning recovery | Information | R 06SSMM00 Controller Module#n(zz xxHz) BE Expander Normal <pp ss rr> | SS : Parts subtype MM : CM MID (10 - 11) n : Port number (0 - 1) |

| Target | Level | Event Display | Remarks |
|--|-------------|---|---|
| | | | zz : Model (FC/SAS/iSCSI) xx : Frequency (800MHz/ 1.2GHz) pp : Parts number ss : Serial number rr : Revision |
| EXP Warning recovery | Information | R 900DDnn Expander DE#DD/EXP#n Normal <pp ss rr> | DD : DE ID nn : Port number (00 - 01) n : Port number (0 - 1) pp : Parts number ss : Serial number rr : Revision |
| PSU Alarm recovery (AC-Fail clear) | Information | R D200DD0N Power Supply Unit DE#DD / PSU#N Normal <pp ss rr> | DD : DE ID N : Side 0, side 1 pp : Parts number ss : Serial number rr : Revision |
| DE exhaust temperature alarm recovery | Information | R DA0tDD00 DE OUT TEMP Normal | DD : DE ID t : Type(1: 3.5"DE / 2: 2.5"DE) |
| DE intake air temperature alarm recovery | Information | R DB0tDD00 DE IN TEMP Normal | DD : DE ID t : Type(1: 3.5"DE / 2: 2.5"DE) |

4.4 ETERNUS AF All-Flash Arrays, ETERNUS DX200F

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

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

Specific Trap (Extended Trap)

| Trap Number | Explanation | Remarks |
|-------------|--|---|
| 2 | This Trap is sent to notify that a component has failed or has been degraded. | - |
| 3 | This Trap is sent to notify that a battery life has expired. | - |
| 5 | This Trap is sent to notify that a component requires preventive maintenance. | - |
| 6 | This Trap is sent to notify that a temperature error has been detected. | - |
| 7 | This Trap is sent to notify that an event requires maintenance or preventive maintenance. | - |
| 10 | This trap is sent to notify that the link status of a CA port has been changed. | - |
| 11 | This Trap is sent to notify the Error level events related to Storage Cluster. | - |
| 12 | This Trap is sent to notify the Information level events related to Storage Cluster. | - |
| 13 | This Trap is sent to notify the Information level events related to Deduplication/Compression. | The same message may be notified several times from one device. |
| 14 | This Trap is sent to notify the Error level events related to Automated Storage Tiering. | ETERNUS AF All-Flash Arrays only. |
| 15 | This Trap is sent to notify the Information level events related to Automated Storage Tiering. | ETERNUS AF All-Flash Arrays only. |

| Trap Number | Explanation | Remarks |
|-------------|---|---------|
| 22 | This Trap is sent to notify that an event notified by Trap number 2 has returned to normal state. | - |
| 25 | This Trap is sent to notify that an event notified by Trap number 5 has returned to normal state. | - |
| 26 | This Trap is sent to notify that an event notified by Trap number 6 has returned to normal state. | - |
| 50 | This Trap is sent to notify the Error level events. | - |
| 51 | This Trap is sent to notify the Warning level events. | - |

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

4.5 ETERNUS VS850 S3

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

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

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

| \$n | Information |
|-----|--|
| \$1 | Error code |
| \$2 | Error ID |
| \$3 | Node number identified by the event notification |
| \$4 | FRU information identified by the event notification |
| \$5 | Message |

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

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

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



Note

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

4.6 ETERNUS AX/HX series

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

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

Information

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

Point

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

| Failure Event | Level | Event Display |
|--|-------------|--|
| User definition error | Information | The device trap message is output as is. |
| DHM Disk Degrade-I/O | Warning | The device trap message is output as is. |
| DHM Disk Predictive Failure | Warning | The device trap message is output as is. |
| User definition (urgent) | Error | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (caution) | Error | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (important) | Error | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (error) | Error | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (warning) | Warning | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (notice) | Information | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (information) | Information | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| User definition (debug) | Information | The device trap message is output as is. Display example is as follows: userDefined == 20670538 priority == informational |
| Shutdown because of an exceeded time limit in degrade mode | Error | The device trap message is output as is. Display example is as follows: data disk in RAID group /voll/plex0/rg0 is broken. Halting system now. |
| Disk failure | Error | The device trap message is output as is. Display example is as follows: data disk in RAID group /voll/plex0/rg0 is broken. |
| Disk recovery | Information | The device trap message is output as is. |
| Shutdown because of a fan failure | Error | The device trap message is output as is. Display example is as follows: |

| Failure Event | Level | Event Display |
|--|-------------|---|
| | | Multiple chassis fan enclosures have failed: Fans 1/2 Fans 3/4 |
| Fan failure | Error | The device trap message is output as is. |
| Fan failure (warning) | Warning | The device trap message is output as is. Display example is as follows: Fans 1/2 are bad or missing; Replace quickly |
| Fan recovery | Information | The device trap message is output as is. Display example is as follows: Backplane_Fan_5 spinning at or above normal speed |
| Shutdown because of a power supply failure | Error | The device trap message is output as is. |
| Power supply failure | Error | The device trap message is output as is. Display example is as follows: Power supply is in degraded mode: Power Supply #1 is off |
| Power supply failure (warning) | Warning | The device trap message is output as is. Display example is as follows: Power supply 2 is powered off |
| Power supply recovery | Information | The device trap message is output as is. Display example is as follows: Power supply 1 is powered on |
| CPU usage rate warning | Warning | The device trap message is output as is. |
| CPU usage rate recovery | Information | The device trap message is output as is. |
| NVRAM battery completely discharged | Error | The device trap message is output as is. |
| NVRAM battery power low | Warning | The device trap message is output as is. |
| Cluster node error | Error | The device trap message is output as is. Display example is as follows: Cluster monitor: takeover started |
| Cluster node takeover | Information | The device trap message is output as is. Display example is as follows: Cluster monitor: takeover completed |
| Cluster recovery notification | Information | The device trap message is output as is. Display example is as follows: Cluster monitor: giveback completed |
| Volume usage rate warning (98%) | Warning | The device trap message is output as is. Display example is as follows: /vol/vol1 is full (using or reserving 98% of space and 0% of inodes). |
| Volume usage rate warning (95%) | Warning | The device trap message is output as is. Display example is as follows: /vol/vol1 is nearly full (using or reserving 95% of space and 0% of inodes). |
| Volume usage rate recovery | Information | The device trap message is output as is. Display example is as follows: No volumes are full or nearly full. |
| Shutdown because of a system temperature error | Error | The device trap message is output as is. |

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

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

| Failure Event | Level | Event Display |
|---|-------------|--|
| Virus detected | Error | The device trap message is output as is. |
| vscan server disconnected | Warning | The device trap message is output as is. |
| vscan setting changed | Information | The device trap message is output as is. |
| vscan server connection | Information | The device trap message is output as is. |
| vscan server upgraded | Information | The device trap message is output as is. |
| Media error occurrence during reconstruction (wafliron failure) | Error | The device trap message is output as is. |
| No matching volume | Error | The device trap message is output as is. |
| Volume status changed (offline or restricted) | Information | The device trap message is output as is. |
| Volume online | Information | The device trap message is output as is. |
| RMC card replacement required | Error | The device trap message is output as is. |
| RMC card cable connection error | Error | The device trap message is output as is. |
| Remote volume connection failed | Warning | The device trap message is output as is. |
| Remote volume connection restored | Information | The device trap message is output as is. |
| Remote volume recovery complete | Information | The device trap message is output as is. |
| Remote volume recovery started | Information | The device trap message is output as is. |
| Root volume conflict | Error | The device trap message is output as is. |
| Physical volume size limit exceeded | Error | The device trap message is output as is. |
| Volume offline | Information | The device trap message is output as is. |
| Volume made restricted | Information | The device trap message is output as is. |
| wafI_check execution required because of degraded volume and dirty parity | Error | The device trap message is output as is. |
| Volume error resulting in inability to place the volume online | Warning | The device trap message is output as is. |
| Synchronous SnapMirror error (transition to asynchronous mode) | Warning | The device trap message is output as is. |
| Return to synchronous SnapMirror mode | Information | The device trap message is output as is. |
| Shutdown due to abnormal controller temperature | Error | The device trap message is output as is. |
| Abnormal controller temperature | Error | The device trap message is output as is. |
| Unknown controller temperature | Warning | The device trap message is output as is. |
| Normal controller temperature | Information | The device trap message is output as is. |
| Controller CPU fan stopped | Error | The device trap message is output as is. |
| Controller CPU fan operating at a low speed | Warning | The device trap message is output as is. |
| Controller CPU fan normal | Information | The device trap message is output as is. |
| Multiple redundant controller power supplies failed | Error | The device trap message is output as is. |

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

| Failure Event | Level | Event Display |
|---|-------------|--|
| A power unit in the system has connected to an incompatible external power source | Error | The device trap message is output as is. |
| At least one volume usage rate recovery | Information | The device trap message is output as is. |
| Directory size limit nearly reached | Warning | The device trap message is output as is. |
| Domain controller connected | Information | The device trap message is output as is. |
| Module warning in the shelf | Warning | The device trap message is output as is. |
| Multiple power supply fan failure | Error | The device trap message is output as is. |
| System down detection by system remote management | Error | The device trap message is output as is. |
| System down detection by system remote management | Warning | The device trap message is output as is. |
| System down instruction by system remote management | Warning | The device trap message is output as is. |
| Periodic trap from system remote management | Information | The device trap message is output as is. |
| Test trap from system remote management | Information | The device trap message is output as is. |
| Multipath disk connected to one switch | Warning | The device trap message is output as is. |
| Multipath disk not detected for the partner | Warning | The device trap message is output as is. |
| Multipath disk not multipathed | Warning | The device trap message is output as is. |
| Disk disable | Error | The device trap message is output as is. |
| HBA offline | Warning | The device trap message is output as is. |
| LUN Snap restore notice | Information | The device trap message is output as is. |
| LUN clone created | Information | The device trap message is output as is. |
| LUN Clone Split started | Information | The device trap message is output as is. |
| LUN Clone Split completed | Information | The device trap message is output as is. |
| Flex Clone Split started | Information | The device trap message is output as is. |
| Flex Clone Split completed | Information | The device trap message is output as is. |
| Created a Volume Clone | Information | The device trap message is output as is. |
| 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. |

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

| Failure Event | Level | Event Display |
|---|-------------|--|
| The anti-virus service enabling failed in the clustered system. | Error | The device trap message is output as is. |
| The anti-virus software cannot be rolled back. | Error | The device trap message is output as is. |
| The anti-virus software is rolled back. | Information | The device trap message is output as is. |
| The anti-virus software is updated. | Information | The device trap message is output as is. |

4.7 ETERNUS AB/HB series

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

Point

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

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

Refer to "4.6 ETERNUS AX/HX series".

Chapter 5 Tape Library Events

5.1 ETERNUS LT20 S2/LT40 S2/LT60 S2

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

5.2 ETERNUS LT140

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

5.3 ETERNUS LT260

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

5.4 ETERNUS LT270 S2

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

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

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

| Failure Event | Level | Event Display |
|--------------------------|---------|--|
| I2C connection error | Warning | I2C connection error has occurred. |
| Cabinet connection error | Warning | Cabinet connection error has occurred. |

5.5 ETERNUS CS800 M1/CS800 S7/CS800 S6

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

Chapter 6 Fibre Alliance MIB Support Device Events

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

Information

About words of Event display in the table:

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

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

Troubleshooting

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

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

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

Chapter 7 Performance Management Traps

Failure Event of Performance Monitoring

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

Failure Event of Performance Threshold Monitoring

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

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

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

| Failure Event | Level | Event Display | Explanation | Troubleshooting |
|---------------|-------|---------------|---|-----------------|
| | | | YY: Threshold value (Decimal notation) | |

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

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

Chapter 8 Device Polling Event

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



Note

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

| Event | Level | Event Display | Troubleshooting |
|---|-------------|---------------------------------|--|
| When the status changes into error | Error | Unit status changed: Error | Check the device status. |
| When the status has changed warning | Warning | Unit status changed: Warning | Check the device status. |
| When the status has changed normal | Information | Unit status changed: OK | No action is required. |
| When the status has changed unmonitored | Warning | Connection Timeout | <p>Check whether the LAN between the Management Server and the device is operating normally. Check whether the status of each device is proper, processes for network communication such as SNMP are operating, and when the device contains the server node then the Storage Cruiser's agent is operating normally on the device.</p> <p>If the SNMP settings of a device that uses SNMP for communication is changed, perform the following method to reconfigure the system:</p> <ul style="list-style-type: none"> - Refer to "Change ETERNUS Disk Storage System Information" in the <i>Web Console Guide</i> to change the SNMP settings. |
| When communication has been recovered | Information | Connection OK | No action is required. |
| When error occurs in the polling function | Error | [Polling] (Error event) | <p>Take appropriate action for each event message as follows:</p> <ul style="list-style-type: none"> - Command could not be executed: <i>commandName</i> <p>This event occurs when command processing fails to start because of a resource shortage on the Management Server. 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 Fujitsu Technical Support.</p> |
| When the access status data failed to evaluate | Error | esast5050:Failed to evaluate performance data of Tier pool (<i>tierPoolName</i>). | The total number of used capacity of Tier pools that can be simultaneously evaluated by the Storage Cruiser's manager may possibly be exceeded. Refer to the <i>Messages</i> and take appropriate action according to the esast5050 message. |
| When the number of layers of Tier pool has changed by deleting a RAID group that configures the Tier pool | Warning | esast5055:Manager did not restart Automated Storage Tiering. Tier Pool Name= <i>tierPoolName</i> | Deleting a RAID group may cause Tiering policy to become unset. Refer to the <i>Messages</i> and take appropriate action according to the esast5055 message. |

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

- Device status polling method

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

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

- Communication status polling method

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



See

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