

# **Storage Automated Diagnostic Environment Event Advisor Dictionary**

Event Count: 1573

**Event: a3500fc.ValueChangeEvent**

Component: healthck

EventCode: 2.3.221

**Severity: Info**  
**Action\_required: No****Sample Description**

HealthCheck on 'A3500FC-05' changed from 'Optimal,' to 'Degraded'

**Probable Cause:**

The output from the command 'healthck' has changed.

**Recommended Action:**

Use healthck to verify the status of the A3500FC.

**Event: a3500fc.ValueChangeEvent-**

Component: battery

EventCode: 2.5.5

**Severity: Warning**  
**Action\_required: Yes**

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### Sample Description

The state of 'device\_info.battery.status' on crash7\_001 is 'Failed'

### Probable Cause:

A battery can fail either because it is bad or has exceeded its life span. Batteries have a 2 year life span and will report errors when they are about to exceed that life span.

### Recommended Action:

Use `raidutil -c <controller> -B` to verify battery age.

2. Use Recovery Guru to walk through the steps to replace the battery.

3. After replacing the battery, reset the battery age using `raidutil -c <controller> -R` against each controller.

\* You must have a LUN on the controller when you execute the command for the battery age to be retained.

4. Use `raidutil -c <controller> -B` to verify age.

**Event: a3500fc.AuditEvent**

Component:

EventCode: 2.10.16

**Severity: Info**  
**Action\_required: No**

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**Sample Description**

Auditing a new a3500fc with ID:a3500fc.[Array\_Name]

**Probable Cause:**

Audit events occur weekly to gather statistical data and current state of all devices.

**Recommended Action:**

1. No action required.

**Event: a3500fc.CommunicationEstablishedEvent**

Component: ib

EventCode: 2.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained with A3500fc called a3500fc.[Array\_Name]

**Probable Cause:**

In-Band (Fibre Channel or SCSI) access to the device has been re-established to the device.

**Recommended Action:**

1. No action required.

**Event: a3500fc.CommunicationLostEvent**

Component: ib

EventCode: 2.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication with A3500FC called a3500fc.[Array\_Name]

**Probable Cause:**

This event is always done inband using rm6 commands (lad, raidutil, rdacutil,drivutil)

**Recommended Action:**

1. Check SAN Topology to identify failing segment of data path
2. Verify cables, GBICs and HBAs and Power Cables.
- \* If problem FRU is on A3500 continue on to step 3 for A3500 specific procedures.
3. Run '/usr/sbin/osa/healthck -a' from command line to see status
4. Run Healthcheck and Recovery Guru from Raid Manager GUI. Follow service procedures given

**Event: a3500fc.DiagnosticTest-**

Component: a3500fctest

EventCode: 2.13.302

**Severity: Error**  
**Action\_required: No****Sample Description**

a3500fctest ([Host\_Name]) on a3500fc.[Array\_Name] failed

**Probable Cause:**

A Diagnostic Test has failed on the array.

**Recommended Action:**

1. Check the Diagnostic Test Manager for the results of the test.

**Event: a3500fc.DiscoveryEvent**

Component:

EventCode: 2.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new a3500fc with ID:a3500fc.[Array\_Name]

**Probable Cause:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

1. No action required.

**Event: a3500fc.LocationChangeEvent**

Component:

EventCode: 2.19.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Location of a3500fc called [Array\_Name] was changed

**Probable Cause:**

This event is generated when the Customer Information page is updated.  
This is the result of Administrator action.

**Recommended Action:**

1. No action required.

**Event: a3500fc.QuiesceEndEvent**

Component:

EventCode: 2.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: a3500fc.QuiesceStartEvent**

Component:

EventCode: 2.23.16

**Severity: Info**  
**Action\_required: No**

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**Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: a3500fc.StateChangeEvent+**

Component: disk

EventCode: 2.25.13

**Severity: Info**  
**Action\_required: No**

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**Sample Description**

disk.0 (SEAGATE.LT04183900) in A3500FC 'Array\_Name' a3500fc.[Array\_Name] is now Available (status-state changed from 'Degraded' to 'Optimal')

**Probable Cause:**

The disk has returned to a normal operating mode.

**Recommended Action:**

1. No action required.

**Event: a3500fc.StateChangeEvent-**

Component: controller

EventCode: 2.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

controller.a (Symbios.1T93200466) in A3500FC 'Array\_Name' a3500fc.[Array\_Name] is now Not-Available (status-state changed from 'Active' to 'Error')

**Probable Cause:**

This state of a controller in the a3500fc enclosure changed (rm6)

**Recommended Action:**

1. Check the Raid Manager GUI message log for any errors.  
\* /usr/lib/osa/rmlog.log can be sent to Sun Support for decoding.
2. Run '/usr/sbin/osa/lad' to obtain list of controllers
3. Run '/usr/sbin/osa/healthck -a' from command line to see status
4. Run Healthcheck and Recovery Guru from Raid Manager GUI. Follow service procedures given
5. Replace controller if necessary

**Event: a3500fc.StateChangeEvent-**

Component: disk

EventCode: 2.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.0 (SEAGATE.LT04183900) in A3500FC 'Array\_Name' a3500fc.[Array\_Name] is now Not-Available (status-state changed from 'Optimal' to 'Degraded')

**Probable Cause:**

A disk in the A3500 enclosure is reporting a failing condition.

**Recommended Action:**

1. Check HealthCheck and Recovery Guru in Raid Manager GUI. Follow service procedures given

**Event: a3500fc.ComponentInsertEvent**

Component: controller

EventCode: 2.40.12

**Severity: Info**  
**Action\_required: No****Sample Description**

Component 'controller.b:XX' was added to [Array\_Name] 'a3500fc.[Array\_Name]

**Probable Cause:**

A new controller, identified by it's serial number, has been installed into the device.  
This is usually the result of Administrator action.

**Recommended Action:**

No action required.

**Event: a3500fc.ComponentInsertEvent**

Component: disk

EventCode: 2.40.13

**Severity: Info**  
**Action\_required: No****Sample Description**

Component 'disk.1:SEAGATE.LT02926900' was added to Array\_Name 'a3500fc.[Array\_Name]

**Probable Cause:**

A new disk, identified by its serial number, has been installed into the device.

This is usually the result of Administrator action.

**Recommended Action:**

No action required.

**Event: a3500fc.ComponentRemoveEvent**

Component: disk

EventCode: 2.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Component 'disk.1:SEAGATE.LT02926900' was removed from Array\_Name 'a3500fc.[Array\_Name]

**Probable Cause:**

- 1.The A3500 is reporting a disk has been removed. This could be due to a failure or a service replacement action.
2. Power has been lost to a tray.

**Recommended Action:**

1. Replace disk
2. Check for loss of power.
3. Check the event log for a service replacement action(CompnetInsertEvent entry)

**Event: a3500fc.ComponentRemoveEvent**

Component: controller

EventCode: 2.41.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Component 'controller.b:XX' was removed from Array\_Name 'a3500fc.[Array\_Name]

**Probable Cause:**

The A3500 is reporting a controller has been removed. This could be due to failure or service replacement actions

**Recommended Action:**

1. Replace controller using Recovery Guru from Raid Manager GUI

**Event: a3500fc.LinkEvent\_CRC**

Component:

EventCode: 2.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: a3500fc.LinkEvent\_SIG**

Component:

EventCode: 2.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: a3500fc.ComponentReplaceEvent**

Component: disk

EventCode: 2.57.13

**Severity: Warning**  
**Action\_required: No**

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**Sample Description**

disk.u1d1 in [device] was replace from [old\_serial] to [new\_serial]

**Information:**

A disk was replaced with a new one.

**Event: a5k.ValueChangeEvent-**

Component: interface.iboard

EventCode: 3.5.23

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of interface\_board.A.mpx.state on [Array\_Name] (wwn=[WWN]) is 'Not OK'

**Probable Cause:**

1. An intermittent or bad GBIC Port in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Reroute/replace cable as needed.

**Event: a5k.ValueChangeEvent-**

Component: backplane.fan

EventCode: 3.5.4

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Fan 0 status changed from OK to [undefined] on [Array\_Name] (wwn=[WWN])

**Probable Cause:**

The command luxadm has reported a non-optimal condition on the A5k Fan

**Recommended Action:**

1. Check Front Panel Module of A5k for any errors
2. Replace Fan if necessary

**Event: a5k.ValueChangeEvent-**

Component: interface.mpx

EventCode: 3.5.151

**Severity: Error**  
**Action\_required: Yes**

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Sample Description

**Event: a5k.ValueChangeEvent-**

Component: disk

EventCode: 3.5.13

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

'disk\_front.10' in A5K [Array\_Name] (wwn=[WWN]) is now Not-Available (status- state changed from 'unknown' to 'No\_path\_found-On')

**Information:**

Storage A.D.E uses luxadm to display the current status of each drive the [Array\_Name]. In the example Storage A.D.

**Probable Cause:**

Storage A.D.E detected a pattern from the output of luxadm as described in the Info above.

**Recommended Action:**

1. Check the front panel display for an obvious failed disk indication.
2. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
3. Use the Storage A.D.E GUI Monitor Devices functions for complete status on the array.
4. Use the Storage A.D.E GUI Diagnostic functions to isolate the failed component.
5. Check volume integrity associated with the component in question.
6. Refer to the Array's Service Guide for additional information describing the message in more detail.
7. Replace the component called out in the event message.

**Event: a5k.ValueChangeEvent-**

Component: interface.gbic

EventCode: 3.5.22

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of interface\_board.A.gbic.state on [Array\_Name] (wwn=[WWN]) is 'Not OK'

**Probable Cause:**

1. An intermittent or bad GBIC Port in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Reroute/replace cable as needed.

**Event: a5k.ValueChangeEvent-**

Component: backplane

EventCode: 3.5.3

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

backplane.rear status changed from '[undefined]' to OK on [Array\_Name] (wwn=[WWN])

**Information:**

The command luxadm has reported a non-optimal condition for a A5k Backplane or Midplane

**Probable Cause:**

1. Air flow in and around the unit may be obstructed.
2. Inoperable fan assembly(s)
3. Bad backplane.

**Recommended Action:**

1. Verify status of the array using the Storage A.D.E.
2. Check Front Panel Module for errors or alerts
3. Replace Affected FRU (fan, front backplane, rear backplane, midplane)

**Event: a5k.AuditEvent**

Component:

EventCode: 3.10.16

**Severity: Info**  
**Action\_required: No**

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**Sample Description**

Auditing a new A5K called [Array\_Name] (wwn=[WWN])

**Information:**

An audit of all the device information is done each week.

**Recommended Action:**

No Action is Required.

**Event: a5k.CommunicationEstablishedEvent**

Component: ib

EventCode: 3.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with A5K called [Array\_Name]

**Event: a5k.CommunicationLostEvent**

Component: ib

EventCode: 3.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication with A5K called [Array\_Name]

**Information:**

This check is always done inband using luxadm

**Probable Cause:**Possibly administration activity or defective HBA on server.  
Defective GBIC, Cable, IB Card, Enclosure, HUB**Recommended Action:**

1. Check Power on enclosure.
2. Check Fibre connectivity to enclosure.
3. Verify HUB functionality (if applicable)
4. Check cable routing.
5. Verify GBICs in the data path.
6. Replace HBA.
6. Replace IB card.
7. Contact support provider for additional assistance.

**Event: a5k.DiagnosticTest-**

Component: a5ktest

EventCode: 3.13.304

**Severity: Error**  
**Action\_required: No**

---

Sample Description

a5ktest ([Host\_Name]) on [Array\_Name] wwn=[WWN] failed

**Event: a5k.DiagnosticTest-**

Component: a5ksestest

EventCode: 3.13.303

**Severity: Error**  
**Action\_required: No**

---

Sample Description

a5ksestest ([Host\_Name]) on [Array\_Name] (wwn=[WWN]) failed

**Event: a5k.DiscoveryEvent**

Component:

EventCode: 3.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new A5K called [Array\_Name] (wwn=[WWN])

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: a5k.LocationChangeEvent**

Component:

EventCode: 3.19.16

**Severity: Info**  
**Action\_required: No**

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**Sample Description**

Location of a5k called [Array\_Name] was changed

**Event: a5k.LogEvent**

Component: driver

EventCode: 3.20.15

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found 5 'driver.SSD\_WARN' warnings(s) in logfile: /var/adm/messages on  
a5k:508002000001e618

**Event: a5k.QuiesceEndEvent**

Component:

EventCode: 3.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: a5k.QuiesceStartEvent**

Component:

EventCode: 3.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: a5k.StateChangeEvent+**

Component: power

EventCode: 3.25.37

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'power.2' in A5K [Array\_Name] (wwn=[WWN]) is now Available, status-state changed from [undefined] to 'OK'

**Event: a5k.StateChangeEvent+**

Component: interface.iboard

EventCode: 3.25.23

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'interface\_board.B' in A5K [Array\_Name] (wwn=[WWN]) is now Available, status-state changed from [undefined] to OK

**Event: a5k.StateChangeEvent+**

Component: disk

EventCode: 3.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk\_front.0'(200000203718ac0) in A5K [Array\_Name] (wwn=[WWN]) is now Available,  
status-state changed from 'Bypassed-On' to 'Ok-On'

**Event: a5k.StateChangeEvent-**

Component: power

EventCode: 3.26.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'power.2' in A5K [Array\_Name] (wwn=[WWN]) is now Not-Available, status-state changed from 'OK' to 'undefined'

**Information:**

The command luxadm has reported a non-optimal condition on the A5k power supply. When the status change to 'Not

**Recommended Action:**

1. Check Front Panel Module of A5k for any errors
2. Reseat Power Supply
3. Replace Power Supply if necessary

**Event: a5k.StateChangeEvent-**

Component: disk

EventCode: 3.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'disk\_front.0'(200000203718ac0) in A5K [Array\_Name] (wwn=[WWN]) is now Not-Available, status-state changed from 'OK-On' to 'Bypassed\_BP:\_A-On'

**Probable Cause:**

The state of a disk in the a5k enclosure experienced a negative change.

**Recommended Action:**

1. Check /var/adm/messages on the host server for failure indications.
2. Enable disk via:
  - o Front Panel Module (FPM) on the A5200
  - o CLI Usage: luxadm -e enable (-F) -(a | b) (encl\_name,disk)
3. Replace disk if necessary

**Event: a5k.StateChangeEvent-**

Component: interface.iboard

EventCode: 3.26.23

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'interface\_board.B' in A5K [Array\_Name] (wwn=[WWN]) is now Not-Available, status-state changed from 'OK' to 'Unavailable'

**Information:**

The command luxadm has reported a non-optimal condition on the A5k Interface Board

**Recommended Action:**

1. Check Front Panel Module of A5k for any errors
2. Reseat Interface Board
3. Replace Interface Board if necessary

**Event: a5k.ConnectivityLostEvent**

Component:

EventCode: 3.36.16

**Severity: Error**  
**Action\_required: Yes**

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**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: a5k.ComponentInsertEvent**

Component: disk

EventCode: 3.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk\_front.0'(200000203718ac0) was added to A5K [Array\_Name]

**Event: a5k.ComponentRemoveEvent**

Component: disk

EventCode: 3.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'disk\_front.0'(200000203718ac0) was removed from A5K [Array\_Name]

**Information:**

Luxadm cannot see the wwn of a disk, it may have been removed.

**Recommended Action:**

1. Check Front Panel Module of A5k and /var/adm/messages for any errors
2. Check for minimum disk configuration
  - \* A5000 (Front: 3,6 Back: 0,3,6)
  - \* A5100 (Front: 3,6 Back:0,3,6)
  - \* A5200 (Front: 0,5,10 Back: 0,3,6,10)
3. Reseat disk in enclosure
4. Replace Disk if necessary

**Event: a5k.LinkEvent\_CRC**

Component:

EventCode: 3.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: a5k.LinkEvent\_SIG**

Component:

EventCode: 3.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: a5k.LoopCableDisconnect**

Component:

EventCode: 3.50.16

**Severity: Error**  
**Action\_required: Yes**

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**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: agent.AgentDeinstallEvent**

Component:

EventCode: 4.1.16

**Severity: Info**  
**Action\_required: No**

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### Sample Description

Agent on host '[Host\_Name]' was deleted from the Config File

### Information:

This event is generated when an administrator at a customer site decides to delete a host from the agent configuration, thereby ending the monitoring that was done from that host.

**Event: agent.AgentInstallEvent**

Component:

EventCode: 4.2.16

**Severity: Info**  
**Action\_required: No**

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**Sample Description**

Agent on host '[Host\_Name]' was Added to the Config File

**Probable Cause:**

Agent was installed and activated by running ras\_install.

**Recommended Action:**

1. Check the Storage Automated Diagnostic Environment UI to be sure new agent is operating as expected.

**Event: agent.ValueChangeEvent**

Component: system\_errors

EventCode: 4.3.99

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E agent system errors.

**Information:**

Errors were encountered when the agent was attempting to run.

There are commands and applications that are called by the agent.

**Probable Cause:**

Applications and commands, as described in the Information, occasionally fail due to a timeout or access problem to hosts, devices and/or individual applications.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: agent.ValueChangeEvent**

Component: system\_warnings

EventCode: 4.3.142

**Severity: Warning**  
**Action\_required: No****Sample Description**

Storage A.D.E agent system errors.

**Information:**

Errors were encountered when the agent was attempting to run.

There are commands and applications that are called by the agent.

**Probable Cause:**

Applications described in the Information, occasionally fail due to a timeout or access problems to hosts, devices and/or the application itself.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: agent.CommunicationEstablishedEvent**

Component: oob

EventCode: 4.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Access to '[Host\_Name]' at [IP\_Address] regained

**Information:**

Storage A.D.E checks communication from the Master to all of its Slaves at the beginning of execution and will genera

**Probable Cause:**

Each run of the master agent pings every slave and reports this event when ping fails. Root cause is that there is som

**Recommended Action:**

1. Check to see that the slave's operating environment may have been rebooted and that this was a planned outage.
2. Ensure that the cause of the ethernet failure is well understood for future troubleshooting.

**Event: agent.CommunicationLostEvent**

Component: oob

EventCode: 4.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Cannot access '[Host\_Name]' at [IP\_Address]

**Information:**

Storage A.D.E checks communication from the Master to all of its Slaves at the beginning of execution and will generate this event if communication fails.

NOTE: This message will be repeated every 8 hours if the condition is not fixed.

**Probable Cause:**

1. Each run of the master agent pings every slave and reports this event when ping fails.
2. An attempt to transfer data between the master and slave using http failed.

**Recommended Action:**

1. Check Ethernet connectivity between Master and Slave hosts.
2. Verify that the Slave operating environment is fully operational.
3. Where a hub/router is used, check the power and connectivity of the unit.
4. Check the ethernet connectivity between other systems.
5. Run ras\_install on the slave.
6. Run 'rasagent -d2 -r' on the slave.

**Event: agent.CommunicationLostEvent**

Component: ntc

EventCode: 4.12.30

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost Communication(oob) with Terminal concentrator

**Information:**

This event can only happen in a Storage Solution System (3900/6900/6320) and means that the modem is not access

**Probable Cause:**

The NTC is connected to the SP Lan and communication is no longer possible between the Service Processor and the

**Recommended Action:**

1. Ensure the NTC unit is powered on and fully operational.
  - a. 3 left most LED's should be illuminated on the front panel.
2. Check ethernet communication to another Storage Solution System if one exists on the same SP Lan.
3. Use the following command to check to see if any phonehomes are queued to be sent.  
# /usr/bin/uustat -a
4. Contact remote solution center to remedy.

**Event: agent.HeartbeatEvent**

Component:

EventCode: 4.15.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Heartbeat

**Information:**

Heartbeat events are generated every day unless there was already a transmission from this agent.

**Probable Cause:**

Storage A.D.E has not sent an event to the configured provider(s) in the time interval specified by the provider configuration.

**Recommended Action:**

1. Typically no action is required.

**Event: agent.ConfigureEvent**

Component:

EventCode: 4.46.16

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Configure device [device\_name] on Sun Solution

**Event: agent.ConfigureEvent**

Component: revision\_maintenance\_cron\_list

EventCode: 4.46.220

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Automatic Revision Maintenance report of patches required on the system was run.

**Event: agent.ProviderEvent**

Component:

EventCode: 4.47.16

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Provider 'sae' was turned on a the request of '171.20.20.10'

**Event: agent.AlternateMaster**

Component: release

EventCode: 4.53.183

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

Master on '[Host\_Name]' is back, Alternate-master '[Host\_Name]' releasing

### Information:

When the host configured as the Alternate Master fails to ping the current host configured as the Master, it will take over. The Alternate Master turned master continues to monitor the Original Master and will release its role once communication is reestablished.

### Probable Cause:

Ethernet communication has been reestablished.

### Recommended Action:

1. Find out why the original master went down.
2. Ensure all Slaves have been redirected to respond to the Original Master by pointing your browser to the slave(s), if applicable.

**Event: agent.AlternateMaster**

Component: start

EventCode: 4.53.184

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Master on '[Host\_Name]' is down, Alternate-master on '[Host\_Name]' taking over

### Information:

When the host configured as the Alternate Master does not get a successful reply to a ping from the host configured as the Master, it will take over the duties of a master and redirect all slaves to forward their information to it.

The Alternate Master turned master continues to monitor the Original Master and will release its role once communications are re-established.

WARNING: The devices that were being monitored by the master will not be monitored until the master is functioning again.

### Probable Cause:

This event would be a result of a failure to communicate with the Master over the ethernet connection.

### Recommended Action:

1. Check the Original Master operating environment to be fully operational.
2. Check the ethernet connectivity between systems.
3. Check the ethernet connectivity between another system and the Original Master.
4. Check the ethernet connectivity between the Alternate-master (now master) and another system.

**Event: agent.SystemRelease**

Component:

EventCode: 4.54.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

This 6920 system was released by admin-20 at 2004-01-01

**Event: agent.SystemReserve**

Component:

EventCode: 4.55.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

This 6920 system was reserved by admin-20 at 2004-01-01 for maintenance

**Event: brocade.ValueChangeEvent**

Component: port.statistics

EventCode: 5.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch [Switch\_Name] ([IP\_Address]), port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193037062 )

**Information:**

The Fibre Channel counter values retrieved from the switch exceeded a threshold value warranting notification.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for events about the switch named in the event.
2. Run the link test to isolate the GBIC, cable, switch, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: brocade.ValueChangeEvent**

Component: system\_reboot

EventCode: 5.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch reboot date changed on [Switch\_Name] ([IP\_Address]) from Thu Feb 6 10:57:15 2003 to Thu Feb 6 11:21:58 2003

**Information:**

The Date and Time stamp of the switch recorded by Storage A.D.E was less than than the previous Date and Time stamp recorded by Storage A.D.E.

**Probable Cause:**

This could indicate that the switch has been reset either by a user or loss of power.

**Recommended Action:**

1. Check Storage A.D.E GUI event logs for additional information supporting the event.
2. Verify with the onsite administrator if in fact the switch has been reset.
3. Check the power going to the switch.
4. If persistent, replace the switch.

**Event: brocade.ValueChangeEvent+**

Component: sensor.fan

EventCode: 5.4.43

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'sensor.fan.5.status' on [Switch\_Name] ([IP\_Address]) changed from 'fault' to 'nominal'

**Information:**

Fan in back to normal

**Event: brocade.ValueChangeEvent+**

Component: sensor.power

EventCode: 5.4.97

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'sensor.power-supply.5.status' on [Switch\_Name] ([IP\_Address]) changed from 'fault' to 'nominal'

**Information:**

The power is back to normal

**Event: brocade.ValueChangeEvent+**

Component: sensor.temperature

EventCode: 5.4.45

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'sensor.temperature.5.status' on [Switch\_Name] ([IP\_Address]) changed from 'fault' to 'nominal'

**Information:**

The temperature is back to normal

**Event: brocade.ValueChangeEvent-**

Component: sensor.fan

EventCode: 5.5.43

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.fan.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

**Information:**

The switch is reporting a problem with the cooling fans.

**Probable Cause:**

1. The air flow has been blocked to the switch.
2. The fan has failed

**Recommended Action:**

1. Ensure air flow is not blocked to the switch.
- 2 Replace the entire switch as a FRU.

**Event: brocade.ValueChangeEvent-**

Component: sensor.temperature

EventCode: 5.5.45

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'sensor.temperature.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

**Information:**

The switch is reporting a temperature alarm problem.

**Probable Cause:**

- 1 FAN may have stopped functioning.
2. Physical placement of switch may be impeding heat dissipation.

**Recommended Action:**

The switch is reporting a temperature alarm problem.

**Event: brocade.ValueChangeEvent-**

Component: sensor.power

EventCode: 5.5.97

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

The state of 'sensor.power-supply.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

### Information:

The switch is reporting a problem with the Power Supply.

### Probable Cause:

1. The fan in the power supply may be bad.
2. The power supply may be bad.

### Recommended Action:

1. Check power supply fan and replace it if possible.
2. Check switch Power Supply and replace power supply if possible.
3. Replace switch as an entire FRU if necessary.

**Event: brocade.AuditEvent**

Component:

EventCode: 5.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new switch called [Switch\_Name] ([IP\_Address]) WWN

**Information:**

The attributes of all monitored switches are collected once a week.

**Event: brocade.CommunicationEstablishedEvent**

Component: oob

EventCode: 5.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained with [Switch\_Name] ([IP\_Address])

**Information:**

oob means OutOfBand. This is specific to describing the Ethernet access to the device.

**Probable Cause:**

A previous CommunicationLostEvent (OOB) must have occurred and now the Ethernet problem has been corrected or the device has been repaired.

**Event: brocade.CommunicationLostEvent**

Component: oob

EventCode: 5.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with [Switch\_Name] ([IP\_Address])

**Probable Cause:**

This could indicate the loss of a network path component.

**Recommended Action:**

1. Check Power on switch
2. Check Ethernet connectivity to switch
3. Verify switch is booted correctly with no POST errors.
4. Verify switch Test Mode is set for normal operations
5. Verify TCP/IP settings on switch via Forced Prom Mode access
6. Replace switch if needed

**Event: brocade.DiagnosticTest-**

Component: switchtest

EventCode: 5.13.339

**Severity: Error**  
**Action\_required: No**

---

Sample Description

switchtest (switch) on [Switch\_Name] ([IP\_Address]) WWN

**Event: brocade.DiscoveryEvent**

Component:

EventCode: 5.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new switch called [Switch\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: brocade.LocationChangeEvent**

Component:

EventCode: 5.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of switch [Switch\_Name] ([IP\_Address]) was changed

**Event: brocade.LogEvent**

Component: port.statistics

EventCode: 5.20.36

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Change in Port Statistics on switch [Switch\_Name] ([IP\_Address]):

### Information:

The switch has reported a change in an error counter. This could indicate a failing component in the link.

### Recommended Action:

1. Check the Topology GUI for any link errors.
2. Run linktest on the link to isolate the failing FRU. Quiesce IO on the link 'before running linktest.

**Event: brocade.LogEvent**

Component: PhysState

EventCode: 5.20.2

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

PhysicalState of port 4 changed from 'on to 'off

**Information:**

Monitors the PhysicalState attribute of the switch

**Event: brocade.QuiesceEndEvent**

Component:

EventCode: 5.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: brocade.QuiesceStartEvent**

Component:

EventCode: 5.23.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: brocade.StateChangeEvent+**

Component: port

EventCode: 5.25.35

**Severity: Info**  
**Action\_required: No****Sample Description**

'port.1' in switch [Switch\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

The port state on the switch has changed.

**Probable Cause:**

1. The admin state of the port has been changed. This will generate an informational message only.
2. The physical state of the port has changed.

**Event: brocade.StateChangeEvent-**

Component: port

EventCode: 5.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in switch [Switch\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'Online' to 'Offline')

**Probable Cause:**

A port on the switch has logged out of the fabric and gone offline

**Recommended Action:**

1. Verify cables, GBICs and connections along Fibre Channel path
2. Check SAN Topology GUI to identify failing segment of the data path
3. Verify correct FC switch configuration
4. Verify port is enabled

**Event: brocade.Statistics**

Component:

EventCode: 5.27.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Statistics about switch [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Port Statistics

**Event: brocade.ConnectivityLostEvent**

Component:

EventCode: 5.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: brocade.ConnectivityLostEvent**

Component: aggregate

EventCode: 5.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between brocade [Switch\_Name] port-2 and t3 [Array\_Name] ctrl-1

**Information:**

This event is generated when switch-ports go offline and other events are confirming it. This can be a link host <-> switch, switch <-> switch or switch <-> device.

**Event: brocade.LinkEvent\_CRC**

Component:

EventCode: 5.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: brocade.LinkEvent\_SIG**

Component:

EventCode: 5.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: brocade.LoopCableDisconnect**

Component:

EventCode: 5.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: d2.ValueChangeEvent**

Component: midplane.revision

EventCode: 6.3.96

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The revisionDate of midplane changed from 06/2001 to 07/2001

**Event: d2.ValueChangeEvent**

Component: temperature

EventCode: 6.3.51

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

'temperature' on D2 [Array\_Name] with serial:/dev/es/ses1 changed from '[undefined]' to Normal

**Event: d2.ValueChangeEvent**

Component: esm.revision

EventCode: 6.3.95

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

The revisionDate of esm.0 changed from 06/2001 to 07/2001

**Event: d2.ValueChangeEvent**

Component: slot\_count

EventCode: 6.3.46

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

The number of slots changed from 12 to 6

**Event: d2.ValueChangeEvent+**

Component: fan

EventCode: 6.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'fan.0.status' on [Array\_Name] with serial:/dev/es/ses1 changed from 'error' to 'operational'

**Information:**

Fan is back in server.

**Event: d2.ValueChangeEvent-**

Component: fan

EventCode: 6.5.19

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

The state of 'fan.0.status' on [Array\_Name] with serial:/dev/es/ses1 changed from 'operational' to '[Undefined]'

### Information:

A problem with the fan has been noted

### Recommended Action:

1. Check Fan Canister LEDs
2. Replace Fan Canister if needed.

Fan LED Status

State Description

Green The fan is operating properly

Amber The fan has failed

Off The fan canister is not inserted or power is not supplied to system

**Event: d2.ValueChangeEvent-**

Component: power

EventCode: 6.5.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'power.0.status' on [Array\_Name] with serial:XXXXX changed from 'operational\_and\_on' to 'malfunctioning\_and\_commanded\_on'

**Information:**

Storage A.D.E queries each Array to get the current status of each component. In the example Storage A.D.E has de

**Probable Cause:**

Storage A.D.E detected a negative state change in one of the power supplies of the Array called out in the description

**Recommended Action:**

1. Check the power source for the unit to ensure proper voltage is being applied to the unit.
2. Check the units power supply to ensure it is switched on.
3. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
4. Use the Storage A.D.E GUI Monitor Devices functions for complete status on the array.
5. Refer to the Array's Service Guide for additional information describing the message in more detail.
6. Replace the faulted component called out in the description.

**Event: d2.AuditEvent**

Component:

EventCode: 6.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new d2 with ID:d2.da106\_004

**Information:**

Audits occur every week.

**Event: d2.CommunicationEstablishedEvent**

Component: ib

EventCode: 6.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with D2fc called [Array\_Name]

**Information:**

Communications was established to a D2 unit.

**Event: d2.CommunicationLostEvent**

Component: ib

EventCode: 6.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with d2 [Array\_Name] (/dev/es/ses1) ( last reboot was 2002-04-23 18:37:00): No such device or address - /dev/es/ses1.

**Information:**

InBand communication is done via utilities on the host.

**Probable Cause:**

1. Bad or loose cable.
2. Improper SCSI termination.
3. Unit lost power.

**Recommended Action:**

1. Verify cables and HBAs along data path.
2. Check for proper SCSI Termination LED on back of D2.
3. Check that the unit is powered on.

**Event: d2.DiagnosticTest-**

Component: d2test

EventCode: 6.13.305

**Severity: Error**  
**Action\_required: No****Sample Description**

d2test ([Host-Name]) on d2.da106\_004 failed

**Recommended Action:**

1. Check Test Manager for details on why test failed.

**Event: d2.DiscoveryEvent**

Component:

EventCode: 6.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new d2 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: d2.LocationChangeEvent**

Component:

EventCode: 6.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of d2 called [Array\_Name] was changed

**Event: d2.QuiesceEndEvent**

Component:

EventCode: 6.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: d2.QuiesceStartEvent**

Component:

EventCode: 6.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: d2.StateChangeEvent+**

Component: esm

EventCode: 6.25.18

**Severity: Info**  
**Action\_required: No****Sample Description**

'slot.0.5'(013203.slot.0.5) in D2 [Array\_Name] (/dev/es/ses9) is now Available (state changed from 'drive\_failed' to 'drive\_inserted')

**Information:**

Storage A.D.E queries each Array to get the current status of each drive. In the example Storage A.D.E has most like

**Probable Cause:**

Storage A.D.E detected a state change in the device as described in the Information as a result of polling the Array for

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Use the Storage A.D.E GUI Monitor Devices functions for complete status on the array.
3. Check volume integrity associated with the component in question.
4. Refer to the Array's Service Guide for additional information describing the message in more detail.

**Event: d2.StateChangeEvent+**

Component: disk

EventCode: 6.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

disk.0 (SEAGATE.LT04183900) in D2 '[Array\_Name]' (d2.da106\_004) is now Available  
(status-state changed from 'Degraded' to 'Optimal')

**Event: d2.StateChangeEvent-**

Component: esm

EventCode: 6.26.18

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

'slot.0.5'(013203.slot.0.5) in D2 [device\_id] (/dev/es/ses9) is now Not-Available (state changed from 'drive\_inserted' to 'drive\_removed\_after\_power\_up')

**Information:**

A slot in the D2 array has been placed in an Error State

**Recommended Action:**

1. Check /var/adm/messages for hardware indicators.

2. Check for drive status LED on D2 enclosure

Drive LED Status

State Description

Unlit No disk drive is in the slot

Green A disk drive is present but not active

Flashing Green A disk drive in the slot is active

Amber An application running on the host identified an error and used the SAF-TE commands to display this LED solid amber.

Blinking amber/green An application running on the host used SAF-TE commands to instruct this LED to identify the disk drive.

**Event: d2.StateChangeEvent-**

Component: disk

EventCode: 6.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

controller.a (Symbios.1T93200466) in D2 '[Array\_Name]' (d2.da106\_004) is now Not-Available (status-state changed from 'Active' to 'Error')

**Information:**

A disk in the D2 array has been placed in an Error State

**Recommended Action:**

1. Check /var/adm/messages for hardware indicators.

2. Check for drive status LED on D2 enclosure

Drive LED Status

State Description

Unlit No disk drive is in the slot

Green A disk drive is present but not active

Flashing Green A disk drive in the slot is active

Amber An application running on the host identified an error and used the SAF-TE commands to display this LED solid amber.

Blinking amber/green An application running on the host used SAF-TE commands to instruct this LED to identify the disk drive.

**Event: d2.ConnectivityLostEvent**

Component:

EventCode: 6.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: d2.ComponentRemoveEvent**

Component: midplane

EventCode: 6.41.29

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

midplane( 9999001000) was removed from [Array\_Name] (/dev/es/ses1)

**Event: d2.ComponentRemoveEvent**

Component: esm

EventCode: 6.41.18

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

esm.0(1T11824264) was removed from [Array\_Name] (/dev/es/ses1)

**Information:**

The D2 is reporting a controller has been removed.

**Probable Cause:**

This could be due to failure or service replacement actions

**Recommended Action:**

1. Check LED status on D2 unit.

**Event: d2.LinkEvent\_CRC**

Component:

EventCode: 6.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: d2.LinkEvent\_SIG**

Component:

EventCode: 6.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: d2.LoopCableDisconnect**

Component:

EventCode: 6.50.16

**Severity: Error**  
**Action\_required: Yes**

---

Sample Description

Loop Interconnect Cable [device-port] was disconnected on [device]

Information:

fault event

**Event: host.ValueChangeEvent**

Component: firmware

EventCode: 7.3.371

**Severity: Warning**  
**Action\_required: No****Sample Description**

Firmware version of fcport.9(WWN) in host [Host\_Name] changed from 'ISP2200 FC-AL Host Adapter Driver: 1.8 00/04/11' to 'ISP2200 FC-AL Host Adapter Driver: 1.10 00/07/26'

**Probable Cause:**

The firmware version of a HBA has changed.  
This is usually the result of administrator action.

**Recommended Action:**

No action required.

**Event: host.ValueChangeEvent**

Component: disk\_capacity\_okay

EventCode: 7.3.61

**Severity: Info**  
**Action\_required: No****Sample Description**

Detected SUNWstade back to 82% capacity

**Information:**Detected that /var/opt/SUNWstade is now below 98% capacity by doing:  
/usr/sbin/df -k /var/opt/SUNWstade**Recommended Action:**

1. No action is required.

**Event: host.ValueChangeEvent**

Component: disk\_capacity

EventCode: 7.3.6

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Detected SUNWstade at 100% capacity

**Information:**Detected that /var/opt/SUNWstade is at or above 98% capacity by doing:  
/usr/sbin/df -k /var/opt/SUNWstade**Recommended Action:**

1. Remove unused files/directories to free up space
2. Use a larger disk for /var/opt/SUNWstade

**Event: host.ValueChangeEvent+**

Component: lun.T300

EventCode: 7.4.27

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'lun.T300.[dev\_name].statusA' on [array] changed from 'ONLINE' to 'STANDBY'

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output.  
Storage A.D.E then tries to find which enclosure this path corresponds to  
by reviewing it's database of T3's and VE's.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC in VE.

**Event: host.ValueChangeEvent+**

Component: lun.Storage\_3510

EventCode: 7.4.217

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'lun.Storage\_3510.[dev\_name].statusA' on '[array]' changed from 'ONLINE' to 'STANDBY'

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output.  
Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC.

**Event: host.ValueChangeEvent+**

Component: lun.SE6920

EventCode: 7.4.196

**Severity: Info**  
**Action\_required: No****Sample Description**

The 'State' of 'lun.SE6920.[dev\_name].statusA' on [Host\_Name] is '[ONLINE]' (previous 'State' was 'Undefined')

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output. Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check for proper access to lun.

**Event: host.ValueChangeEvent+**

Component: lun.T4

EventCode: 7.4.121

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'lun.T4.[dev\_name].statusA' on [array] changed from 'ONLINE' to 'STANDBY'

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output.  
Storage A.D.E then tries to find which enclosure this path corresponds to  
by reviewing it's database of 6120's and VE's.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC in VE.

**Event: host.ValueChangeEvent+**

Component: hba

EventCode: 7.4.20

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

status of hba /devices/sbus@9,0/SUNW,qlc@0,30000/fp@0,0:devctl on [Host\_Name] changed from NOT CONNECTED to CONNECTED

**Information:**

Storage A.D.E uses the luxadm command to monitor the status of the HBA in the host being monitored.

**Probable Cause:**

The command `luxadm -e port' returned a change in the status of an HBA port(s) previously recorded by Storage A.D.E.

**Recommended Action:**

Verify with the administrator onsite that this was the expected results of whatever previous action was done, and that it is now working to their satisfaction.

**Event: host.ValueChangeEvent+**  
Component: lun.StorageA3500FCd  
EventCode: 7.4.216

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

The state of 'lun.StorageA3500FCd.[dev\_name].statusA' on '[array]' changed from 'ONLINE' to 'STANDBY'

### Information:

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output.  
Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database

### Probable Cause:

Storage A.D.E found a change in the port-status of one of the paths of this device.

### Recommended Action:

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC.

**Event: host.ValueChangeEvent-**

Component: lun.Storage\_3511

EventCode: 7.5.269

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of lun.Storage\_3511.[dev\_name].statusA on [Host\_Name from 'O.K.' to 'ERROR'  
(target=[Array\_Name] ([IP\_Address])

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anom  
Storage A.D.E then tries to find which enclosure this path corresponds to  
by reviewing it's database.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of thi

- This could indicate a hardware problem
- This could be the result of administrator actions

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indicatio
2. Check the Storage A.D.E FRU status on this device for possible partner pair
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC.

**Event: host.ValueChangeEvent-**

Component: lun.SE6920

EventCode: 7.5.196

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'State' of 'lun.SE6920.[dev\_name].statusA' on [Host\_Name] is '[Undefined]' (previous 'State' was 'ONLINE')

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output.

Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Use the Storage A.D.E BUI to get the FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.

**Event: host.ValueChangeEvent-**

Component: lun.SE6320

EventCode: 7.5.195

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'lun.SE6320.[dev\_name].statusA' on [Host\_Name] changed from 'ONLINE' to 'Undefined'

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output. Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database of 6020's.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.

**Event: host.ValueChangeEvent-**

Component: lun.T4

EventCode: 7.5.121

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of lun.T4.[dev\_name].statusA on [Host\_Name] changed from 'O.K.' to 'ERROR' (target=[Array\_Name] ([IP\_Address])

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output. Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database of 6120's and VE's.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC in VE.

**Event: host.ValueChangeEvent-**

Component: hba

EventCode: 7.5.20

**Severity: Error**  
**Action\_required: Yes****Sample Description**

status of hba /devices/sbus@9,0/SUNW,qlc@0,30000/fp@0,0:devctl on [Host\_Name] changed from CONNECTED to NOT CONNECTED

**Information:**

monitors changes in the output of luxadm -e port

The command `luxadm -e port' returned a change in the status of an HBA port(s)

**Probable Cause:**

Likely Causes are: GBIC, FC Cable and device optical connections.

**Recommended Action:**

1. Use 'luxadm -e port' to confirm HBA status and verify if all paths are working.

2. Use the Storage A.D.E UI (Monitor -> Topology) for attached devices to the HBA.

Replace the component most likely to have caused this message.

1. Cable
2. GBIC/SFP
3. Array Interface
4. HBA

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: host.ValueChangeEvent-**  
Component: lun.StorageA3500FCd  
EventCode: 7.5.216

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

The state of lun.StorageA3500FCd.[dev\_name].statusA on [Host\_Name] changed from 'O.K.' to 'ERROR' (target=[Array\_Name] ([IP\_Address]))

### Information:

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output.  
Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database.

### Probable Cause:

Storage A.D.E found a change in the port-status of one of the paths of this device.

### Recommended Action:

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC.

**Event: host.ValueChangeEvent-**

Component: lun.T300

EventCode: 7.5.27

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of lun.T300.[dev\_name].statusA on [Host\_Name] changed from 'O.K.' to 'ERROR' (target=t3:[Array\_Name] ([IP\_Address])

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output. Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database of T3's and VE's.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC in VE.

**Event: host.ValueChangeEvent-**

Component: lun.VE

EventCode: 7.5.28

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

The state of lun.VE.[dev\_name].statusA on [Host\_Name] changed from 'O.K.' to 'ERROR'  
(target=ve:[Array\_Name] ([IP\_Address]))

### Information:

luxadm display reported a change in the port-status of one of it's paths. The agent then tries to find which enclosure this path corresponds to by reviewing it's database of T3's and VE's.

**Event: host.ValueChangeEvent-**

Component: power\_sequencer

EventCode: 7.5.110

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The The state of 'power\_sequencer' on 6120 [Array\_Name] changed from 'ON' to 'OFF'

**Event: host.ValueChangeEvent-**

Component: lun.Storage\_3510

EventCode: 7.5.217

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of lun.Storage\_3510.[dev\_name].statusA on [Host\_Name] changed from 'O.K.' to 'ERROR' (target=[Array\_Name] ([IP\_Address]))

**Information:**

Storage A.D.E executes 'luxadm display [WWN]' on the host in search of anomalies in the output. Storage A.D.E then tries to find which enclosure this path corresponds to by reviewing it's database.

**Probable Cause:**

Storage A.D.E found a change in the port-status of one of the paths of this device.

**Recommended Action:**

1. Check the LED indicators on the ports to ensure proper light indications.
2. Check the Storage A.D.E FRU status on this device for possible partner pair controller failover.
3. Replace the component at point of origin for the light source.
4. Replace the controller in the Array and/or GBIC.

**Event: host.DiagnosticTest-**

Component: socaltest

EventCode: 7.13.337

**Severity: Error**  
**Action\_required: No**

---

Sample Description

socaltest ([Host\_Name] on host failed

**Event: host.DiagnosticTest-**

Component: ifptest

EventCode: 7.13.335

**Severity: Error**  
**Action\_required: No**

---

Sample Description

ifptest ([Host\_Name] on host failed

**Event: host.DiagnosticTest-**

Component: qlctest

EventCode: 7.13.336

**Severity: Error**  
**Action\_required: No**

---

Sample Description

qlctest ([Host\_Name] on host failed

**Event: host.LogEvent**

Component: driver.LINK\_UP

EventCode: 7.20.351

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.LINK\_UP' errors(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Found Link Up message.

This could indicate that a new fiber channel loop has been added.

This could indicate troubles with a fiber channel loop.

**Recommended Action:**

1. Check for fiber channel errors.

**Event: host.LogEvent**

Component: driver.QLC\_LOOP\_OFFLINE

EventCode: 7.20.315

**Severity: Warning**  
**Action\_required: No****Sample Description**

Found 1 'driver.LOOP\_OFFLINE' errors(s) in logfile: /var/adm/messages on [Host\_Name]  
(id=hostid)

**Probable Cause:**

1. This could indicate that a fiber channel cable has been removed.
2. This could indicate troubles with a fiber channel loop.
3. This could also be caused by running the qlctest.
4. This could be caused by an array maintenance/service action.

**Recommended Action:**

1. Check to see if a fiber channel cable has been removed.
2. Check for fiber channel errors.
3. Check to see if the qlctest was running at time of the failure.
4. Check for array maintenance/service activity.

**Event: host.LogEvent**

Component: driver.QLC\_LOOP\_ONLINE

EventCode: 7.20.316

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.LOOP\_ONLINE' errors(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Found Loop ONLINE message.

This could indicate that a new fiber channel loop has been added.

This could indicate troubles with a fiber channel loop.

This could also be caused by running the qlctest.

**Event: host.LogEvent**

Component: driver.SCSI\_ASC

EventCode: 7.20.317

**Severity: Warning**  
**Action\_required: No****Sample Description**

Found 1 'driver.SCSI\_ASC' warnings(s) in logfile: /var/adm/messages on [Host\_Name]  
(id=[host\_id]):

**Information:**

Storage A.D.E monitors the system log file for specific patterns. The SCSI\_ASC is indicating an Additional Sense Code

**Probable Cause:**

The unit called out in the message had a problem completing a requested task. The description of the ASC in the message

**Recommended Action:**

1. Check the Storage A.D.E GUI for additional event information pertaining to the array in question and or the host.
2. Refer to the Array Service Guide for additional information describing the message in more detail.
3. Replace suspect FRU.
4. Check the kernel settings for mpxio support if the array is configured to use it.  
# vi /kernel/drv/scsi\_vhci.conf  
mpxio-disable="[yes|no]";

**Event: host.LogEvent**

Component: driver.SCSI\_TRAN\_FAILED

EventCode: 7.20.318

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.SCSI\_TRAN\_FAILED' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Event: host.LogEvent**

Component: driver.SCSI\_TR\_READ

EventCode: 7.20.319

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 1 'driver.SCSI\_TR\_READ' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Error on SCSI read.

**Event: host.LogEvent**

Component: driver.CORRUPT\_LABEL

EventCode: 7.20.355

**Severity: Info**  
**Action\_required: No****Sample Description**

Found in logfile /var/adm/messages on sp0 : Dec 16 15:46:00 Received 2 'Corrupt Label' message(s) in 1 mins [threshold is 2 in 6hours], Last-Message: 'sp0 Corrupt label; wrong magic number

**Information:**

A corrupt label means a new lun needs to be partitioned.

**Probable Cause:**

This is typically because a new lun has been configured and recognized by format.

**Recommended Action:**

Use format to label the lun.

**Event: host.LogEvent**  
Component: device\_error  
EventCode: 7.20.158

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

### Information:

The Storage A.D.E agent monitoring the array log file reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") lines about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

### Probable Cause:

- 1.Storage A.D.E detected a pattern described above in the array log file. It was generated as a HOST event because the message was about an array that Storage A.D.E is not monitoring.
2. Maintenance was performed on storage attached to host.

### Recommended Action:

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the disk in question.
3. Replace the component called out in the event.
4. Check for maintenance operations occurring at this time.

**Event: host.LogEvent**

Component: driver.NFS\_write

EventCode: 7.20.357

**Severity: Warning**  
**Action\_required: No****Sample Description**

Found in logfile /var/adm/messages on [Host\_Name] (related to 5210 [Device\_

**Probable Cause:**

1. Corrupted filesystem on device.
2. Invalid mount point

**Recommended Action:**

1. Run fsck on the filesystem.
2. Check the mount point parameters.

**Event: host.LogEvent**

Component: driver.SD\_ALERT

EventCode: 7.20.358

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_ALERT' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Information:**

Storage A.D.E scrubs the system log file for patterns that match known failure signatures. These warnings could indicate

Actual pattern match "WARNING.\*\((sdd+)\)"

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and exceeded

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Run link test to isolate a possible bad GBIC, cable, switch, etc.
4. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: host.LogEvent**

Component: device\_warning

EventCode: 7.20.159

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

This was generated as a HOST event because the message was about an array that Storage A.D.E is not configured to monitor.

Storage A.D.E monitors the array log file(s).

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Check volume integrity associated with the component in question.
2. Refer to the Array Service Guide for additional information describing the message in more detail.
3. Replace the component called out in the [Array\_Log\_File] message.
4. Add this device to the monitored collective.

**Event: host.LogEvent**

Component: power.battery

EventCode: 7.20.38

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 error(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 [Array\_Name]/[IP\_Address]):

**Information:**

This event is generated for battery messages found in the array log file that are not specific to any other type of battery event.

**Probable Cause:**

1. The battery warranty period may have expired.
2. The battery's ability to hold a charge has deminished to a point where it can no longer be recharged.
3. The last refresh cycle failed changing the status of the battery.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state and status of the PCU's in the array.
2. Replace the suspect Battery or the whole PCU in the array.

**Event: host.LogEvent**

Component: driver.SCSI\_TR\_WRITE

EventCode: 7.20.320

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 1 'driver.SCSI\_TR\_WRITE' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Error on SCSI write.

**Event: host.LogEvent**

Component: disk.log

EventCode: 7.20.104

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

4 array\_warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with array [Array\_Name]/[IP\_Address]): Feb 05 18:45:28 t400 sh50[1]: N: u2d01 ioctl disk failed err=1:

**Information:**

The Storage A.D.E agent monitoring the array log file reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") lines about disks.  
Notices about the battery.  
Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern described above in the array log file.

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the disk in question.
3. Replace this disk.
4. Monitor disk.

**Event: host.LogEvent**

Component: driver.SFOFFTOWARN

EventCode: 7.20.321

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Found 1 'driver.SFOFFTOWARN' error(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Offline Timeout

**Event: host.LogEvent**

Component: driver.SF\_CRC\_ALERT

EventCode: 7.20.322

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 1 'driver.SF\_CRC\_ALERT' error(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Loop CRC (Cyclic Redundancy Check), DMA and Timeout Warnings

**Probable Cause:**

CRC alerts are generated when the CRC code for a data block does not match the CRC code when the data is read.

**Recommended Action:**

1. Check the Storage A.D.E GUI for similar events and alarms for the device(s)/host(s) called out in the description.
2. Check the Storage A.D.E GUI Topology for attached devices to the HBA.
3. Run a link test diagnostic between the devices found in the topology.
4. Replace the component most likely to have caused this message.
  - . GBIC
  - . HBA
  - . Controller (if applicable)
  - . Cable

**Event: host.LogEvent**

Component: device\_notice

EventCode: 7.20.160

**Severity: Info**  
**Action\_required: No****Sample Description**

notice(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

This was generated as a HOST event because the message was about an array that Storage A.D.E is not configured to monitor.

Storage A.D.E monitors the array log file(s).

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Check volume integrity associated with the component in question.
2. Refer to the Array Service Guide for additional information describing the message in more detail.
3. Replace the component called out in the [Array\_Log\_File] message.

**Event: host.LogEvent**

Component: driver.SF\_CRC\_WARN

EventCode: 7.20.323

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 1 'driver.SF\_CRC\_WARN' error(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Loop CRC (Cyclic Redundancy Check), DMA and Timeout Warnings

**Probable Cause:**

CRC alerts are generated when the CRC codes for a data block does not match the CRC code when the data is read.

**Recommended Action:**

1. Check the Storage A.D.E GUI for similar events and alarms for the device(s)/host(s) called out in the description.
2. Check the Storage A.D.E GUI Topology for attached devices to the HBA.
3. Run a link test diagnostic between the devices found in the topology.
4. Replace the component most likely to have caused this message.
  - . GBIC
  - . HBA
  - . Controller (if applicable)
  - . Cable

**Event: host.LogEvent**

Component: driver.LOOP\_OFFLINE

EventCode: 7.20.310

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

Found 1 'driver.LOOP\_OFFLINE' errors(s) in logfile: /var/adm/messages on [Host\_Name]  
(id=hostid)

### Information:

Found Loop OFFLINE message.  
This could indicate that a fiber channel cable has been removed.  
This could indicate troubles with a fiber channel loop.  
This could also be caused by running the qlctest.

### Recommended Action:

1. Check to see if a fiber channel cable has been removed.
2. Check for fiber channel errors.

**Event: host.LogEvent**

Component: power.battery.refresh

EventCode: 7.20.108

**Severity: Warning**  
**Action\_required: No****Sample Description**

2003-02-13 14:33:02 1 array\_warning(s) found in logfile [Array\_Message\_Logfile]  
(indicating problem with t3 [Array\_Name]/[IP\_Address]): Feb 13 15:29:26 [Array\_Name] LPCT[1]: N: u1pcu1

**Information:**

The T3 Array has a BATD process that executes according to /etc/schd.conf file on the T3. The process monitors the Battery portion of the PCU.

**Probable Cause:**

A refresh message was posted to the log file indicating that the batteries are recharging.

**Recommended Action:**

1. Monitor the cycle and ensure proper completion.
2. Check the Storage A.D.E GUI for current state and status of the PCU's in the array.
3. Check the Storage A.D.E GUI for warranty dates and battery usage calculations and follow proper PFA strategies for replacing the unit.

**Event: host.LogEvent**

Component: driver.SF\_DMA\_WARN

EventCode: 7.20.324

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 1 'driver.SF\_DMA\_WARN' error(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Incomplete DMA Transfer.

**Probable Cause:**

The host systems' message log has recorded an error resulting from a problem with the Fibre Channel.

**Recommended Action:**

1. Check the Storage A.D.E GUI for information about the host and specifics about the HBA.
2. Check the Storage A.D.E GUI Topology for attached devices to the HBA.
3. Run a link test diagnostic between the devices found in the topology.
4. Replace the component most likely to have caused this message.
  - . GBIC
  - . HBA
  - . Controller (if applicable)
  - . Cable

**Event: host.LogEvent**

Component: uulog

EventCode: 7.20.180

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 device\_error(s) found in logfile uulog (related to host:ccadieux.central.sun.com): uucp  
ichabod (1/10-9:59:01,3386,0) CONN FAILED (CAN'T ACCES

**Information:**

Found CONN FAILED in the uulog output

**Recommended Action:**

verify modem and SSRR communication

**Event: host.LogEvent**

Component: power.battery.replace

EventCode: 7.20.109

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

2 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 't3 Array\_Name/IP\_Address'): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days 'battery life left, Re

**Information:**

A message was found in the T3 Message Log file indicating a status of the Battery that warrants notification.

**Probable Cause:**

1. The battery warranty period is about to expire.
2. The battery hold time may be low or can no longer hold a charge.

**Recommended Action:**

1. Check Storage A.D.E status of the PCU batteries for this array.
2. Telnet to the ARRAY and run 'refresh -s' to verify battery state.
3. Replace battery.

**Event: host.LogEvent**

Component: driver.SF\_OFFLALERT

EventCode: 7.20.325

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 1 'driver.SF\_OFFLALERT' error(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Error: socal/ifp Offline.

**Probable Cause:**

The host systems' message log has recorded an error resulting from a problem with the Fibre Channel.

**Recommended Action:**

1. Check the Storage A.D.E GUI for information about the host and specifics about the HBA.
2. Check the Storage A.D.E GUI Topology for attached devices to the HBA.
3. Run a link test diagnostic between the devices found in the topology.
4. Replace the component most likely to have caused this message.
  - . GBIC
  - . HBA
  - . Controller (if applicable)
  - . Cable

**Event: host.LogEvent**

Component: driver.ELS\_RETRY

EventCode: 7.20.307

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Found 2 'driver.ELS\_RETRY' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Target and Loop Extended Link Service Retry

**Event: host.LogEvent**

Component: driver.SF\_OFFLINE

EventCode: 7.20.326

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Found 1 'driver.SF\_OFFLINE' error(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Warning: socal/ifp Offline.

**Event: host.LogEvent**

Component: driver.Fabric\_Warning

EventCode: 7.20.308

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.Fabric\_Warning' warning(s) in logfile: /var/adm/messages on [Host\_Name]  
(id=hostid)

**Information:**

Fabric warning

**Event: host.LogEvent**

Component: driver.SF\_RESET

EventCode: 7.20.327

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

WARNING.\*\((sfd+)\) next = /(sfd+):.\*sf\_reset/

**Information:**

SF Reset

**Event: host.LogEvent**

Component: driver.Firmware\_Change

EventCode: 7.20.309

**Severity: Warning**  
**Action\_required: Yes**

---

Sample Description

The recommended firmware version for this application is ...

**Event: host.LogEvent**

Component: driver.LOOP\_ONLINE

EventCode: 7.20.311

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.LOOP\_ONLINE' errors(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

Found Loop ONLINE message.

This could indicate that a new fiber channel loop has been added.

This could indicate troubles with a fiber channel loop.

This could also be caused by running the qlctest.

**Recommended Action:**

1. Check for fiber channel errors.

**Event: host.LogEvent**

Component: driver.SF\_RETRY

EventCode: 7.20.328

---

**Severity: Warning**  
**Action\_required: Yes**

**Sample Description**

(sfd+):s+ELs+.\*(targets+0x[0-9a-f]+)s+retrying

**Information:**

Target and Loop ELS Retry

**Event: host.LogEvent**

Component: driver.SSD\_WARN

EventCode: 7.20.330

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_WARN' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Information:**

Storage A.D.E scrubs the system log file for patterns that match known failure signatures. These warnings could indicate

Actual pattern match "WARNING.\*\((ssdd+)\)"

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and exceeded

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Run link test to isolate a possible bad GBIC, cable, switch, etc.
4. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: host.LogEvent**  
Component: driver.MPXIO  
EventCode: 7.20.312

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.MPXIO' warnings(s) in logfile: /var/adm/messages on [Host\_Name]

**Event: host.LogEvent**

Component: driver.SSD\_ALERT

EventCode: 7.20.329

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_ALERT' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Information:**

Storage A.D.E scrubs the system log file for patterns that match known failure signatures. These warnings could indicate

Actual pattern match "WARNING.\*\((ssdd+)\)"

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and exceeded

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Run link test to isolate a possible bad GBIC, cable, switch, etc.
4. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: host.LogEvent**  
Component: array\_notice  
EventCode: 7.20.213

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

### Information:

This is a generic event about information found in the Array Log File.  
This was generated as a HOST event because the message was about an array that Storage A.D.E is not configured to monitor.  
Storage A.D.E monitors the array log file(s) and reports on the following:  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.

This is a generic event about information found in the Array Log File.  
This was generated as a HOST event because the message was about an array that Storage A.D.E is not configured to monitor.  
Storage A.D.E monitors the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

### Probable Cause:

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File]  
Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

### Recommended Action:

- No Action Required.
1. Check volume integrity associated with the component in question.
  2. Refer to the Array Service Guide for additional information describing the message in more detail.
  3. Replace the component called out in the [Array\_Log\_File] message.
  4. Add this device to the monitored collective.

**Event: host.LogEvent**

Component: driver.MPXIO\_offline

EventCode: 7.20.313

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.MPXIO\_offline' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Probable Cause:**

The MPxIO multipathing software has noted the path to a storage device has gone offline.

**Recommended Action:**

1. Check the Topology View to see what device(s) are affected.
2. Check all cables and connections.
3. Check for other alerts that may indicate an underlying problem. (ex. Switch Ports offline)
4. The outputs of 'cfgadm -al' and 'luxadm -e port' may uncover other fabric problems.

**Event: host.LogEvent**

Component: driver.LINK\_DOWN

EventCode: 7.20.350

**Severity: Warning**  
**Action\_required: No****Sample Description**

Found 1 'driver.LINK\_DOWN' errors(s) in logfile: /var/adm/messages on [Host\_Name]  
(id=hostid)

**Information:**

Found Link Down message.

This could indicate that a fiber channel cable has been removed.

This could indicate troubles with a fiber channel loop.

**Recommended Action:**

1. Check to see if a fiber channel cable has been removed.
2. Check for fiber channel errors.

**Event: host.LogEvent**

Component: driver.PFA

EventCode: 7.20.314

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

failure prediction threshold exceeded

**Information:**

Predictive failure analysis entry

**Event: host.LogEvent**

Component: error

EventCode: 7.20.17

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Errors(s) found in logfile: /var/adm/messages

**Information:**

Errors found.

**Event: host.LogEvent**

Component: warning

EventCode: 7.20.54

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Warnings(s) found in logfile: /var/adm/messages

**Information:**

Warnings found in /var/adm/messages

**Event: host.LogEvent**

Component: array\_error

EventCode: 7.20.90

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

The Storage A.D.E agent monitoring the array log file reports on the following:

- Errors and Warnings (depicted by "E:" and "W:") found in the logfile
- Notice and Information (depicted by "N:" and "I:") lines about disks errors.
- Notices about the battery.
- Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern described above in the array log file. It was generated as a HOST event because the message was about an array that Storage A.D.E is not monitoring.

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the disk in question.
3. Replace the component called out in the event.

**Event: host.PatchInfo**

Component:

EventCode: 7.21.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

New Patch and Package Information generated

**Information:**

sending Patch and Package information to Providers

**Event: host.backup**

Component: topo

EventCode: 7.31.177

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Agent Backup

Information:

Backup of the topology database

**Event: host.backup**

Component:

EventCode: 7.31.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Agent Backup

Information:

Backup of the configuration file of the agent.

**Event: host.patchInfo**

Component:

EventCode: 7.38.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Patch and/or Package Information has changed:

**Event: host.LinkEvent\_CRC**

Component:

EventCode: 7.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on host [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: host.LinkEvent\_SIG**

Component:

EventCode: 7.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on host [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: internal.AuditEvent**

Component:

EventCode: 8.10.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Auditing internal disk

**Event: internal.CommunicationEstablishedEvent**

Component: ib

EventCode: 8.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication Established with internal disks

**Event: internal.CommunicationLostEvent**

Component: ib

EventCode: 8.12.21

**Severity: Err/Critical**  
**Action\_required: Yes**

---

**Sample Description**

Lost communication with [Device\_Name] (wwn=WWN)

**Recommended Action:**

1. Check the power cables on host

**Event: internal.DiagnosticTest-**

Component: fcdisktest

EventCode: 8.13.331

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

fctest on internal disk failed

**Recommended Action:**

Check Test Manager for details on failure.

**Event: internal.DiscoveryEvent**

Component:

EventCode: 8.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new internal disk

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: internal.StateChangeEvent+**

Component: disk

EventCode: 8.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk\_front.0'(WWN) in internalDisk (wwn=[WWN]) is now Available, status changed from 'Bypassed' to 'Ok'

**Event: internal.StateChangeEvent-**

Component: disk

EventCode: 8.26.13

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

'disk\_front.0'(WWN) in internalDisk (wwn=[WWN]) is now Not-Available, status changed from 'OK' to 'Bypassed'

**Information:**

This state of this internal disk changed

**Event: internal.ComponentInsertEvent**

Component: disk

EventCode: 8.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

an internal disk was added

**Information:**

A new disk was added in internal disk enclosure

**Event: internal.ComponentRemoveEvent**

Component: disk

EventCode: 8.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Internal disk was removed

**Probable Cause:**

Luxadm cannot see the wwn of a disk, it may have been removed or damaged.

**Recommended Action:**

1. Check /var/adm/messages for any errors
2. Verify connections and cables to the disk.

**Event: san.LinkEvent\_CRC**

Component: host|storage

EventCode: 10.43.333

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Origin: hba-1 on 'host '[Host\_Name]'.  
Destination: IB-A on 'a5k '[Array\_Name]'

### Information:

Storage A.D.E monitors Fibre Channel counters of components on a SAN.

CRC - Cyclic Reduncy Checks

ITW - Invalid Transmit Words

SIG - Signal Errors

An increase of the CRC counter on a Fibre Channel storage device was detected by Storage A.D.E and has generated based on predetermined thresholds.

CRC went up on port of Storage, source of error was a host.

### Probable Cause:

Likely Causes are: HBA, GBIC, FC Cable and Storage optical connection.

### Recommended Action:

To isolate further please run the link, HBA, and storage tests.

**Event: san.LinkEvent\_CRC**

Component: switch|t3

EventCode: 10.43.344

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

12-14 06:35:25 CRC-ERROR (1309488 in 1 mins): Origin: port 1 on switch '[Array\_Name]/[IP\_Address]'. Destination: ctrl-2 on 't3 '[Array\_Name]'.

### Information:

A link error (CRC) was detected between the switch and storage.

### Probable Cause:

Likely Causes are: GBIC, FC Cable and storage optical interface.

### Recommended Action:

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_CRC**

Component: switch|a3500fc

EventCode: 10.43.340

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 CRC-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: controller-1 on 'a3500fc '[Array\_Name]'.

**Information:**

CRC went up on port of Storage, source is the switch.

**Probable Cause:**

Likely Cause: Switch, Switch GBIC, FC Cable, storage optical port.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_CRC**

Component: host|switch

EventCode: 10.43.334

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Origin: hba-1 on 'host '[Host\_Name]'.  
Destination: port 2 on switch '[Array\_Name]/[IP\_Address]':

**Information:**

A CRC counter was detected on a switch port. Source was a host.  
This may indicate a potential problem on this link segment.

**Probable Cause:**

Likely Causes are: Host HBA/GBIC, FC cable and Switch GBIC.

**Recommended Action:**

To isolate further please run the link, switch and host tests.

**Event: san.LinkEvent\_CRC**

Component: ve|switch

EventCode: 10.43.347

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

08 13:26:16 CRC-ERROR (680 in 1 mins): Origin: port 1 on 've 'msp0-v1a/29000060220041f4'.  
Destination: port 1 on switch '192.168.0.30':

**Information:**

A link error threshold (CRC) was reached between the switch and Virtualization Engine.

**Probable Cause:**

Likely Causes are: VE GBIC, FC Cable or switch GBIC.

**Recommended Action:**

To isolate further please run the link, VE and switch tests.

**Event: san.LinkEvent\_CRC**

Component: switch|a5k

EventCode: 10.43.341

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 CRC-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'.

**Information:**

A link error threshold (CRC) was reached between the switch and storage.

**Probable Cause:**

Likely Causes are: Switch, Switch GBIC, FC Cable or IB GBIC.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_CRC**

Component: switch|switch

EventCode: 10.43.343

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

12-12 09:36:08 CRC-ERROR (1885 in 1 mins): Origin: port 7 on 'switch 'IP\_Address'.  
Destination: port 15 on switch 'Device\_Name/IP\_Address'.

### Information:

A CRC counter on a switch port went up by a certain threshold, The problem is in the link between the 2 switch ports.

### Probable Cause:

Likely Causes are: GBICs, FC Cable and switch ports.

### Recommended Action:

To isolate further please run the link and switch tests.

**Event: san.LinkEvent\_CRC**

Component: Any|Any

EventCode: 10.43.301

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Origin: port 2 on switch  
'[Device]/[IP\_Address]', Destination: IB-A on 'a5k '[Array\_Name]'

### Information:

Storage A.D.E monitors Fibre Channel counters of components on a SAN.

CRC - Cyclic Reduncy Checks

ITW - Invalid Transmit Words

SIG - Signal Errors

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E and has generated an event based on predetermined thresholds.

### Probable Cause:

1. An intermittent/bad GBIC in the FC device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

### Recommended Action:

1. Check Storage A.D.E status of device for events about the component named in the event.
2. Run link test to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: san.LinkEvent\_CRC**

Component: switch|storage

EventCode: 10.43.342

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Origin: port 2 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'

### Information:

A link error (CRC) was detected between the switch and storage.

### Probable Cause:

Likely Causes are: Switch, Switch GBIC, FC Cable and storage optical interface.

### Recommended Action:

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_ITW**

Component: switch|switch

EventCode: 10.44.343

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

12-12 09:36:08 ITW-ERROR (1885 in 1 mins): Origin: port 7 on 'switch 'IP\_Address'.  
Destination: port 15 on switch 'switch197/IP\_Address'.

### Information:

A CRC counter on a switch port went up by a certain threshold, The problem is in the link between the 2 switch ports.

### Probable Cause:

Likely Causes are: GBICs, FC Cable and switch ports.

### Recommended Action:

To isolate further please run the link and switch tests.

**Event: san.LinkEvent\_ITW**

Component: switch|t3

EventCode: 10.44.344

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 ITW-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: ctrl-2 on 't3 '[Array\_Name]'.

**Information:**

A link error (CRC) was detected between the switch and storage.

**Probable Cause:**

Likely Causes are: GBIC, FC Cable and storage optical interface.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_ITW**

Component: ve|switch

EventCode: 10.44.347

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

08 13:26:16 ITW-ERROR (680 in 1 mins): Origin: port 1 on 've 'msp0-v1a/29000060220041f4'.  
Destination: port 1 on switch '192.168.0.30':

**Information:**

A link error threshold (CRC) was reached between the switch and Virtualization Engine.

**Probable Cause:**

Likely Causes are: VE GBIC, FC Cable or switch GBIC.

**Recommended Action:**

To isolate further please run the link, VE and switch tests.

**Event: san.LinkEvent\_ITW**

Component: Any|Any

EventCode: 10.44.301

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Origin: port 2 on switch  
'[Array\_Name]/[IP\_Address]'. Destination: IB-A on 'a5k '[Array\_Name]'

**Information:**

An invalid transmission word (ITW) was detected between two components.

**Probable Cause:**

Likely Causes are: GBIC, FC Cable and device optical connections.

**Recommended Action:**

Run the link test associated with this link segment to isolate further.

**Event: san.LinkEvent\_ITW**

Component: switch|a3500fc

EventCode: 10.44.340

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 ITW-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]'. Destination: controller-1 on 'a3500fc '[Array\_Name]'.

**Information:**

CRC went up on port of Storage, source is the switch.

**Probable Cause:**

Likely Cause: Switch, Switch GBIC, FC Cable, storage optical port.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_ITW**

Component: switch|a5k

EventCode: 10.44.341

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 ITW-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'.

**Information:**

A link error threshold (CRC) was reached between the switch and storage.

**Probable Cause:**

Likely Causes are: Switch, Switch GBIC, FC Cable or IB GBIC.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_ITW**

Component: host|storage

EventCode: 10.44.333

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Origin: hba-1 on 'host '[Host\_Name]'.  
Destination: IB-A on 'a5k '[Array\_Name]'

**Information:**

CRC went up on port of Storage, source of error was a host.

**Probable Cause:**

Likely Causes are: HBA, GBIC, FC Cable and Storage optical connection.

**Recommended Action:**

Run the link test associated with this link segment to isolate further.

**Event: san.LinkEvent\_ITW**

Component: switch|storage

EventCode: 10.44.342

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Origin: port 2 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'

### Information:

A link error (CRC) was detected between the switch and storage.

### Probable Cause:

Likely Causes are: Switch, Switch GBIC, FC Cable and storage optical interface.

### Recommended Action:

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_ITW**

Component: host|switch

EventCode: 10.44.334

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Origin: hba-1 on 'host '[Host\_Name]'.  
Destination: port 2 on switch '[Array\_Name]/[IP\_Address]'.

**Information:**

A CRC counter was detected on a switch port. Source was a host.  
This may indicate a potential problem on this link segment.

**Probable Cause:**

Likely Causes are: Host HBA/GBIC, FC cable and Switch GBIC.

**Recommended Action:**

To isolate further please run the link, switch and host tests.

**Event: san.LinkEvent\_SIG**

Component: switch|switch

EventCode: 10.45.343

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

12-12 09:36:08 SIG-ERROR (1885 in 1 mins): Origin: port 7 on 'switch 'IP\_Address'.  
Destination: port 15 on switch 'switch197/IP\_Address'.

### Information:

A CRC counter on a switch port went up by a certain threshold, The problem is in the link between the 2 switch ports.

### Probable Cause:

Likely Causes are: GBICs, FC Cable and switch ports.

### Recommended Action:

To isolate further please run the link and switch tests.

**Event: san.LinkEvent\_SIG**

Component: switch|t3

EventCode: 10.45.344

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: ctrl-2 on 't3 '[Array\_Name]'.

**Information:**

A link error (CRC) was detected between the switch and storage.

**Probable Cause:**

Likely Causes are: GBIC, FC Cable and storage optical interface.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_SIG**

Component: Any|Any

EventCode: 10.45.301

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Origin: port 2 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'

**Information:**

An invalid transmission word (SIG) was detected between two components. This could indicate a potential problem.

**Probable Cause:**

Likely Causes are: GBIC, FC Cable and device optical connections.

**Recommended Action:**

To isolate further please run the tests associated with this link segment.

**Event: san.LinkEvent\_SIG**

Component: switch|a3500fc

EventCode: 10.45.340

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: controller-1 on 'a3500fc '[Array\_Name]'.

**Information:**

CRC went up on port of Storage, source is the switch.

**Probable Cause:**

Likely Cause: Switch, Switch GBIC, FC Cable, storage optical port.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_SIG**

Component: switch|storage

EventCode: 10.45.342

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Origin: port 2 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'

**Information:**

A link error (CRC) was detected between the switch and storage.

**Probable Cause:**

Likely Causes are: Switch, Switch GBIC, FC Cable and storage optical interface.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_SIG**

Component: host|storage

EventCode: 10.45.333

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Origin: hba-1 on 'host '[Host\_Name]'

Destination: IB-A on 'a5k '[Array\_Name]'

**Information:**

CRC went up on port of Storage, source of error was a host.

**Probable Cause:**

Likely Causes are: HBA, GBIC, FC Cable and Storage optical connection.

**Recommended Action:**

To isolate further please run the link, HBA, and storage tests.

**Event: san.LinkEvent\_SIG**

Component: host|switch

EventCode: 10.45.334

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Origin: hba-1 on 'host '[Host\_Name]'.  
Destination: port 2 on switch '[Array\_Name]/[IP\_Address]':

**Information:**

A CRC counter was detected on a switch port. Source was a host.  
This may indicate a potential problem on this link segment.

**Probable Cause:**

Likely Causes are: Host HBA/GBIC, FC cable and Switch GBIC.

**Recommended Action:**

To isolate further please run the link, switch and host tests.

**Event: san.LinkEvent\_SIG**

Component: switch|a5k

EventCode: 10.45.341

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

12-14 06:35:25 SIG-ERROR (1309488 in 1 mins): Origin: port 1 on switch  
'[Array\_Name]/[IP\_Address]': Destination: IB-A on 'a5k '[Array\_Name]'.

**Information:**

A link error threshold (CRC) was reached between the switch and storage.

**Probable Cause:**

Likely Causes are: Switch, Switch GBIC, FC Cable or IB GBIC.

**Recommended Action:**

To isolate further please run the link, switch and storage tests.

**Event: san.LinkEvent\_SIG**

Component: ve|switch

EventCode: 10.45.347

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

08 13:26:16 SIG-ERROR (680 in 1 mins): Origin: port 1 on 've 'msp0-v1a/29000060220041f4'.  
Destination: port 1 on switch '192.168.0.30':

**Information:**

A link error threshold (CRC) was reached between the switch and Virtualization Engine.

**Probable Cause:**

Likely Causes are: VE GBIC, FC Cable or switch GBIC.

**Recommended Action:**

To isolate further please run the link, VE and switch tests.

**Event: switch.ValueChangeEvent**

Component: chassis.power

EventCode: 11.3.9

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'chassi.power-supply.1.status' on [Switch\_Name] ([IP\_Address]) is 'invalid'

**Information:**

This event monitors changes in the status of the chassis's power supply as reported by sanbox chassis\_status <ipno>.

**Probable Cause:**

Storage A.D.E detected a state change in the power supply.

**Recommended Action:**

1. Check the power switch
2. Check power going to switch
3. Replace power supply if needed

**Event: switch.ValueChangeEvent**

Component: port.statistics

EventCode: 11.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch [Switch\_Name] ([IP\_Address]), port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193037062 )

**Information:**

The Fibre Channel counter values retrieved from the switch exceeded a threshold value warranting notification.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for events about the switch named in the event.
2. Run the link test to isolate the GBIC, cable, switch, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: switch.ValueChangeEvent**

Component: system\_reboot

EventCode: 11.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch uptime decreased on [Switch\_Name] ([IP\_Address]), from 774396s to 524848s

**Information:**

Storage A.D.E checks the uptime information coming from the switch and found it to be less than the previous uptime of the switch. The uptime information is the number of seconds since the last reset or power cycle.

**Probable Cause:**

This could be an indication that the switch has been reset either by a user or loss of power.

**Recommended Action:**

1. Check to see if the switch has been reset by anyone.
2. Check the power going to the switch.
3. Check other devices that may be common to this switches' power grid.

**Event: switch.ValueChangeEvent**

Component: chassis.temperature

EventCode: 11.3.92

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

chassis.temp.1 status changed from OK to Invalid

**Information:**

This event monitors changes in the status of the chassis's temperature supply as reported by sanbox chassis\_status <ipno>.

**Recommended Action:**

1. If necessary replace entire switch as a FRU.

**Event: switch.ValueChangeEvent**

Component: zone\_change

EventCode: 11.3.80

---

**Severity: Warning**  
**Action\_required: No**

**Sample Description**

Switch [Switch\_Name] was rezoned: [ new zones ...]

**Information:**

Storage A.D.E reports changes in the zoning of a switch.

**Probable Cause:**

The admin has reconfigured the zoning of the switch.

**Recommended Action:**

Verify with customer that the zoning is functioning as expected.

**Event: switch.ValueChangeEvent**

Component: chassis.fan

EventCode: 11.3.8

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

chassis.fan.1 status changed from OK to Invalid

**Information:**

Storage A.D.E checks the fan status and detected a change from OK to Invalid.

**Probable Cause:**

This is an indication that the fan is no longer functional.

**Recommended Action:**

1. Replace switch

**Event: switch.AuditEvent**

Component:

EventCode: 11.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new switch called [Switch\_Name] ([IP\_Address]) WWN

**Event: switch.CommunicationEstablishedEvent**

Component: oob

EventCode: 11.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with [Switch\_Name] ([IP\_Address])

**Information:**

oob means OutOfBand. This is specific to describing the Ethernet access to the device.

**Probable Cause:**

A previous CommunicationLostEvent (OOB) must have occurred and now the Ethernet problem has been corrected or the device has been repaired.

**Event: switch.CommunicationLostEvent**

Component: oob

EventCode: 11.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with [Switch\_Name] ([IP\_Address])

**Information:**

oob means OutOfBand.

This is specific to describing the Ethernet access to the device.

**Probable Cause:**

Storage A.D.E did not receive a response to a ping from the device.

**Recommended Action:**

1. Check Power on switch
2. Check Ethernet connectivity to switch
3. Verify switch is booted correctly with no POST errors.
4. Verify switch Test Mode is set for normal operations
5. Verify TCP/IP settings on switch via Forced Prom Mode access
6. Replace switch if needed

**Event: switch.DiagnosticTest-**

Component: switchtest

EventCode: 11.13.339

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

switchtest (switch) on [Switch\_Name] ([IP\_Address]) WWN

**Recommended Action:**

Check Test Manager for details on failure.

**Event: switch.DiscoveryEvent**

Component:

EventCode: 11.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new switch called [Switch\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: switch.LocationChangeEvent**

Component:

EventCode: 11.19.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Location of switch [Switch\_Name] ([IP\_Address]) was changed

**Event: switch.LogEvent**

Component: port.statistics

EventCode: 11.20.36

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Change in Port Statistics on switch [Switch\_Name] ([IP\_Address]):

### Information:

The switch has reported a change in an error counter. This could indicate a failing component in the link.

### Recommended Action:

1. Check the Topology GUI for any link errors.
2. Run linktest on the link to isolate the failing FRU. Quiesce IO on the link 'before running linktest.

**Event: switch.QuiesceEndEvent**

Component:

EventCode: 11.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: switch.QuiesceStartEvent**

Component:

EventCode: 11.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: switch.StateChangeEvent+**

Component: port

EventCode: 11.25.35

**Severity: Info**  
**Action\_required: No****Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

The port state on the switch has changed.

**Probable Cause:**

1. The admin state of the port has been changed. This will generate an informational message only.
2. The physical state of the port has changed.

**Event: switch.StateChangeEvent-**

Component: port

EventCode: 11.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'Online' to 'Offline')

**Information:**

A port on the switch has logged out of the fabric and gone offline.

**Probable Cause:**

1. An bad GBIC in the port of the switch specified in the event.
2. A bad cable connection or a poorly routed cable.
3. The switch port is bad.
4. The device that this port was connected to has gone offline.

**Recommended Action:**

1. Check Storage A.D.E status of device for additional events about the switch named in the event.
2. Verify cables, GBICs and connections along Fibre Channel path.
3. Check Storage A.D.E SAN Topology GUI to identify failing segment of the data path.
4. Verify reconfigurations have been done.
5. Verify correct FC switch configuration.

**Event: switch.Statistics**

Component:

EventCode: 11.27.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Statistics about switch [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E periodically gathers all the port traffic information from a switch.

**Probable Cause:**

This information can be used to generate a report possibling detecting a trend (good or bad).

**Recommended Action:**

Look through the output to ensure a proper understanding of the load on the switch.

**Event: switch.DeviceLostEvent**

Component: ib

EventCode: 11.34.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Device [Switch\_Name] is not available anymore, this was confirmed by other inband/outofband events

**Probable Cause:**

Possibly administration activity or defective HBA on server.  
Defective GBIC, Cable, Switch.

**Recommended Action:**

1. Check Power on switch
2. Check Ethernet connectivity to switch
3. Check cable routing.
4. Verify GBICs in the data path.
5. Replace HBA.
6. Replace switch.

**Event: switch.ConnectivityLostEvent**

Component:

EventCode: 11.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: switch.ConnectivityLostEvent**

Component: aggregate

EventCode: 11.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between switch [Switch\_Name] port-2 and t3 [ARRAY] ctrl-1

**Information:**

This event is generated when switch-ports go offline and other events are confirming it.

This can be a link host <-> switch, switch <-> switch or switch <-> device that is no longer passing I/O.

**Probable Cause:**

Storage A.D.E used luxadm to request information and can no longer confirm I/O traffic on this datapath.

**Recommended Action:**

1. Check the Storage A.D.E topology to verify link status and counter information.
2. Ensure proper connectivity of all datapath cables.

**Event: switch.LinkEvent\_CRC**

Component:

EventCode: 11.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: switch.LinkEvent\_SIG**

Component:

EventCode: 11.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: switch.LoopCableDisconnect**

Component:

EventCode: 11.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: switch2.ValueChangeEvent**

Component: port.statistics

EventCode: 12.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch [Switch\_Name] ([IP\_Address]), port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193037062 )

**Information:**

The Fibre Channel counter values retrieved from the switch exceeded a threshold value warranting notification.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for events about the switch named in the event.
2. Run the link test to isolate the GBIC, cable, switch, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: switch2.ValueChangeEvent**

Component: system\_reboot

EventCode: 12.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch uptime decreased on [Switch\_Name] ([IP\_Address]) from 774396s to 524848s

**Information:**

Storage A.D.E checks the uptime information coming from the switch and found it to be less than the previous uptime of the switch. The uptime information is the number of seconds since the last reset or power cycle.

**Probable Cause:**

This could be an indication that the switch has been reset either by a user or loss of power.

**Recommended Action:**

1. Check to see if the switch has been reset by anyone.
2. Check the power going to the switch.
3. Check other devices that may be common to this switch's power grid.

**Event: switch2.ValueChangeEvent-**

Component: chassis.power

EventCode: 12.5.9

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.power-supply.1.status' on [Switch\_Name] ([IP\_Address]) is 'invalid'

**Information:**

Storage A.D.E queries each device to get the current status of each component.

**Probable Cause:**

This is an indication that the power supply may no longer be functional.

**Recommended Action:**

1. Check the power switch
2. Check power going to switch
3. Replace power supply if needed
4. Replace switch.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: switch2.ValueChangeEvent-**

Component: chassis.board

EventCode: 12.5.7

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.board.7.status' on [Switch\_Name] ([IP\_Address]) changed from 'ok' to 'failed'.

**Information:**

Storage A.D.E queries each Device to obtain the current status of each component. In the example Storage A.D.E de

**Probable Cause:**

1. This is an indication of a component gone bad or going bad.
2. There may also be environmental problems in the datacenter.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state and status of the sensors.  
Monitor Devices -> <device> -> Health
2. Refer to the device service manual for specifics about the sensor location and its meaning.
3. Replace failed component.
4. Replace switch.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: switch2.ValueChangeEvent-**

Component: chassis.fan

EventCode: 12.5.8

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.fan.1.status' on [Switch\_Name] ([IP\_Address]) changed from 'ok' to 'failed'

**Information:**

Storage A.D.E queries each Device to get the current status of each component. In the example Storage A.D.E has d

**Probable Cause:**

This is an indication that the fan is no longer functional.

**Recommended Action:**

1. Check the Storage A.D.E GUI for similar messages on other components.
2. Ensure proper airflow in and around the switch.
3. Ensure proper operation of the fan.
4. Where applicable, replace fan and/or temp sensor.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

5. Replace switch.

**Event: switch2.AuditEvent**

Component:

EventCode: 12.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new switch2 called [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E performs a full device audit once per week.

**Recommended Action:**

1. No Action Needed.

**Event: switch2.CommunicationEstablishedEvent**

Component: oob

EventCode: 12.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with [Switch\_Name] ([IP\_Address])

**Event: switch2.CommunicationLostEvent**

Component: fsa

EventCode: 12.12.63

**Severity: Err/Critical**

**Action\_required: Yes**

---

**Sample Description**

Node switch2:[Switch\_Name] is not available anymore, this was confirmed inband/outOfBand by 5 sub-events.

**Information:**

This switch is not available anymore. This problem was found outOfBand and confirmed by other inBand events.

**Event: switch2.CommunicationLostEvent**

Component: oob

EventCode: 12.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with [Switch\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet connectivity to the switch has been lost

**Recommended Action:**

1. Check Power on switch
2. Check Ethernet connectivity to switch
3. Verify switch is booted correctly with no POST errors.
4. Verify switch Test Mode is set for normal operations
5. Verify TCP/IP settings on switch via Forced Prom Mode access
6. Replace switch if needed

**Event: switch2.DiagnosticTest-**

Component: switch2test

EventCode: 12.13.338

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

switch2test (switch2) on [Switch\_Name] ([IP\_Address]) WWN

**Event: switch2.DiscoveryEvent**

Component:

EventCode: 12.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new switch2 called [Switch\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: switch2.LocationChangeEvent**

Component:

EventCode: 12.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of switch2 [Switch\_Name] ([IP\_Address]) was changed

**Event: switch2.QuiesceEndEvent**

Component:

EventCode: 12.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: switch2.QuiesceStartEvent**

Component:

EventCode: 12.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Check with the administrator that this is in fact expect.

**Event: switch2.StateChangeEvent+**

Component: port

EventCode: 12.25.35

**Severity: Info**  
**Action\_required: No****Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

The port state on the switch has changed.

**Probable Cause:**

1. The admin state of the port has been changed. This will generate an informational message only.
2. The physical state of the port has changed.

**Event: switch2.StateChangeEvent-**

Component: port

EventCode: 12.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'Online' to 'Offline')

**Probable Cause:**

A port on the switch has logged out of the fabric and gone offline.

**Recommended Action:**

1. Check Storage A.D.E status of device for additional events about the switch named in the event.
2. Verify cables, GBICs and connections along Fibre Channel path.
3. Check Storage A.D.E Topology GUI to identify failing segment of the data path.
4. Run linktest or switchtest to isolate the failing component.

**Event: switch2.Statistics**

Component:

EventCode: 12.27.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Statistics about switch2 [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E periodically gathers all the port traffic information from a switch.

**Probable Cause:**

This information can be used to generate a report possibling detecting a trend (good or bad).

**Recommended Action:**

No action required.

**Event: switch2.ConnectivityLostEvent**

Component:

EventCode: 12.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: switch2.ConnectivityLostEvent**

Component: aggregate

EventCode: 12.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between switch2 [Switch\_Name] port-2 and t3 [ARRAY] ctrl-1

**Information:**

This event is generated when switch-ports go offline and other events are confirming it. This can be a link host &lt;-&gt; sw

**Event: switch2.LinkEvent\_CRC**

Component:

EventCode: 12.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: switch2.LinkEvent\_SIG**

Component:

EventCode: 12.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: switch2.LoopCableDisconnect**

Component:

EventCode: 12.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: t3.ValueChangeEvent**

Component: remove\_initiators

EventCode: 13.3.114

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Removed 10 initiators to [Array\_Name]

**Event: t3.ValueChangeEvent**

Component: volOwner

EventCode: 13.3.76

**Severity: Error**  
**Action\_required: No****Sample Description**

Volume Attach owner for u1vol1 (port 'u2p1-a-0') on t3 [Array\_Name] (ip=IP\_Address) changed from " to 'u1'

**Information:**

The ownership of a volume between Master and Alternate Master has been determined to have changed. Storage A.D.E verifies the tokens 'attachVolOwner' and 'attachVolID'

**Probable Cause:**

The ownership of a volume will most likely change due to a hardware condition in the array.

**Recommended Action:**

Check the overall state and status of each FRU in the array

**Event: t3.ValueChangeEvent**

Component: loop.statistics

EventCode: 13.3.115

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Internal Loop statistics changed on [Array\_Name]

**Event: t3.ValueChangeEvent**

Component: system\_reboot

EventCode: 13.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

System reboot for T3 [Array\_Name] (ip=[IP\_Address]) changed from '2003-2-13 17:32:43' to '2002-9-16 17:32:43'

**Information:**

Event is generated when the reboot date/time changed by at least 5 minutes.

**Probable Cause:**

A power hit.  
Purposely rebooted.  
Date command executed.

**Recommended Action:**

1. Verify if a reboot was on purpose and was successful.
2. Use the Storage A.D.E UI Log viewer to check mirrored log file for the date command.
3. Check power source(s) to ensure solid connections throughout.

**Event: t3.ValueChangeEvent**

Component: initiators

EventCode: 13.3.78

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

initiator changed from old\_value to new\_value

**Event: t3.ValueChangeEvent**

Component: disk.Glist

EventCode: 13.3.175

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u1d1.fruDiskGlist in [array]: counter increased by 998 in 152 mins

**Information:**

The Glist of a disk is monitored to look for an increase of 60 successfully reallocated bad blocks in a 24hr period.

**Probable Cause:**

1. Intermittent areas of the media.
2. A head going bad.

**Recommended Action:**

1. Wait for Sense Key event 0x1, 0x5d (Predictive Failure bit) and allow volume reconstruct to complete before replacing this drive (Raid1/5 protected).
2. If Storage A.D.E UI shows excessive Sense Key events for this drive within the last 5 days, then schedule replacement.
3. Continue to monitor for excessive Sense Key events for this drive and schedule replacement if deemed necessary.

**Event: t3.ValueChangeEvent**

Component: lunPermission

EventCode: 13.3.79

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The access permission has changed for LUN 01 from old\_access to new\_access.

**Event: t3.ValueChangeEvent**

Component: time\_diff

EventCode: 13.3.56

**Severity: Info**  
**Action\_required: No****Sample Description**

[current\_date\_time] Time of t3 [Array\_Name] ([IP\_Address]) is different from host: t3  
time='2003-2-13 09:30:35' Host time='2003-02-13 08:38:23'

**Information:**

It is important for interpreting logs that the date and time should between  
the T3 and the Host be the same.

**Recommended Action:**

1. Fix the date/time on the T3 using the date command.

**Event: t3.ValueChangeEvent**

Component: backend\_loop

EventCode: 13.3.111

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'loop.u1p1.loopStatus' on [Array\_Name] changed from 'available' to 'unavailable'

**Information:**

Storage A.D.E probes the Array and gathers its tokens to check for anomalies in the state/status of the device.

**Probable Cause:**

Storage A.D.E detected a change in the loopStatus token element of loopInf.htm.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state/status of the Array.
2. Replace loop card.

**Event: t3.ValueChangeEvent**

Component: volCount

EventCode: 13.3.87

**Severity: Warning**  
**Action\_required: No****Sample Description**

The number of Volume(s) on t3 [Array\_Name] (ip=[IP\_Address]) changed from 10 to 12

**Information:**

Storage A.D.E verifies the number of volumes through token id 'volCount'

**Probable Cause:**

1. Potential hardware problem in the array.
2. Administrative or remedial maintenance process taking place.

**Recommended Action:**

1. Verify with administrator that the LUN change was done on purpose and that the LUN change was successfully recognized by the host.
2. Check the overall state and status of each FRU in the array

**Event: t3.ValueChangeEvent**

Component: device\_path

EventCode: 13.3.112

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Path 50020f230000ddee to t3 [Array\_Name]/[IP\_Address] disappeared from the host

**Information:**

Storage A.D.E will generate this event when a device disappears from the luxadm probe list.

**Probable Cause:**

A LUN presented to the host is no longer available to Solaris.

**Recommended Action:**

1. Check Storage A.D.E UI for events relating to the device in the message.
2. Check the Storage A.D.E topology view for link errors associated with the device connections.
3. Check Storage A.D.E for events associated with the components connected to the device in the message as per the topology.

**Event: t3.ValueChangeEvent**

Component: lunCount

EventCode: 13.3.265

**Severity: Warning**  
**Action\_required: No****Sample Description**

The number of LUN(s) on t3 [Array\_Name] (ip=[IP\_Address]) changed from 10 to 12

**Information:**

Storage A.D.E verifies the number of volumes through token id 'volCount'

**Probable Cause:**

1. Potential hardware problem in the array.
2. Administrative or remedial maintenance process taking place.

**Recommended Action:**

1. Verify with administrator that the LUN change was done on purpose and that the LUN change was successfully recognized by the host.
2. Check the overall state and status of each FRU in the array

**Event: t3.ValueChangeEvent**

Component: revision

EventCode: 13.3.42

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Revision on controller.u1ctr1 in t3 [Array\_Name] changed from R01 to R02

**Event: t3.ValueChangeEvent**

Component: system\_time\_token

EventCode: 13.3.169

**Severity: Warning**  
**Action\_required: No****Sample Description**

System reboot for T3 [Array\_Name] (ip=[IP\_Address]) changed from '2003-2-13 17:32:43' to '2002-9-16 17:32:43'

**Information:**

This event is generated when the reboot date/time of a T3 is not reported.

**Probable Cause:**

The T3 could have experienced a power hit or may be rebooting.

**Recommended Action:**

1. Verify with administrator that if a reboot did in fact occur, it was successful.
2. Verify with administrator that the reboot was done on purpose.
3. Use the Storage A.D.E GUI Log viewer to check the devices mirrored syslog for the date command.
4. Check Storage A.D.E for current status of other monitored devices with similar events.
5. Check the cabinets power source to ensure solid connections throughout the distribution.

**Event: t3.ValueChangeEvent**

Component: identification

EventCode: 13.3.156

**Severity: Warning**  
**Action\_required: No****Sample Description**

The identification of this device changed from '[OLD\_KEY]' to '[NEW\_KEY]'

**Information:**

The u1 midplane is returning a new serial#.

**Probable Cause:**

The midplane was replaced

**Recommended Action:**

A midplane replacement requires Storage A.D.E to rediscover the Array. Please delete the array from the configuration and add the array back as a new array.

**Event: t3.ValueChangeEvent**

Component: log

EventCode: 13.3.55

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Errors(s) found in logfile: [Array\_Message\_Logfile]

**Information:**

This event includes all important errors found.

**Recommended Action:**

1. Check the messages file for appropriate action

**Event: t3.ValueChangeEvent**

Component: add\_initiators

EventCode: 13.3.113

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Added 10 initiators to [Array\_Name]

**Event: t3.ValueChangeEvent+**

Component: portStatus

EventCode: 13.4.445

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The 'portStatus' of 'array00' on array00 is 'online' (previous 'portStatus' was 'offline')

**Information:**

he Fibre Port has come online.

**Probable Cause:**

1. The Port has been connected.

**Event: t3.ValueChangeEvent+**

Component: sysvolslice

EventCode: 13.4.48

**Severity: Info**  
**Action\_required: No****Sample Description**

Volume Slicing is now on!

**Information:**

The vol slice feature is possible in T3+ firmware 2.1 and above.

This option enables volume slicing, up to 16 LUN's per single T3 or partner pair. This also enables lun masking (HBA Zoning) features.

**Recommended Action:**

The option enable\_volslice is disabled by default. To activate

the feature type 'sys enable\_volslice on' from the T3 command line.

Notification regarding slice and LUN changes will occur when changes are made to volume slices and lun masks. Volume slice or LUN mask changes which were not initiated by a user could indicate a potential problem. Please connect to the storage device or the appropriate management software to validate the system status.

**Event: t3.ValueChangeEvent+**

Component: cacheMirror

EventCode: 13.4.123

**Severity: Info**  
**Action\_required: No****Sample Description**

CacheMirror on [Array\_Name] ([IP\_Address]) change from off to on

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: t3.ValueChangeEvent+**

Component: backend\_loop

EventCode: 13.4.111

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'loop.u1p1.loopStatus' on [Array\_Name] changed from 'available' to 'unavailable'

**Event: t3.ValueChangeEvent+**

Component: power.output

EventCode: 13.4.40

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.Output' on t3-88 changed from '[Undefined]' to 'normal'

**Event: t3.ValueChangeEvent+**

Component: power.temp

EventCode: 13.4.41

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of power.u1pcu1.PowTemp on [Array\_Name] ([IP\_Address]) is Normal

**Information:**

The status taken from the array tokens indicate a change in temperature of the PCU.

**Probable Cause:**

A previous abnormal status for the temperature of the PCU existed.

**Recommended Action:**

Confirm Storage A.D.E fru status for the array.

**Event: t3.ValueChangeEvent+**

Component: volOper

EventCode: 13.4.155

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of 'volume.u1vol1.volOper' on t3 [Array\_Name] (ip=[IP\_Address]) changed from 'reconstructing' to 'OK'

**Information:**

Storage A.D.E verifies the operational status of a volume with token id 'volOper'

**Probable Cause:**

1. Potential hardware problem in the array.
2. Administrative or remedial maintenance process taking place.

**Recommended Action:**

Check the overall state and status of each FRU in the array

**Event: t3.ValueChangeEvent+**

Component: backend\_loop\_split

EventCode: 13.4.144

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of 'loop.u1p1.loopsIsolated' on [Array\_Name] changed from 'no' to 'yes'

**Information:**

The Loop Card cable status has changed state.

**Probable Cause:**

Storage A.D.E detected a change in the loopStatus token element of loopInf.htm.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state/status of the Array.
2. Check cable connections.

**Event: t3.ValueChangeEvent+**

Component: cacheMode

EventCode: 13.4.77

**Severity: Info**  
**Action\_required: No****Sample Description**

The 'State' of 'volume.u2vol1.volCacheMode' on array00 is 'writeBehind' (previous 'State' was 'writeThrough')

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: t3.ValueChangeEvent+**

Component: power.fan

EventCode: 13.4.39

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.Fan' on t3-88 changed from '[Undefined]' to 'normal'

**Event: t3.ValueChangeEvent+**

Component: power.battery

EventCode: 13.4.38

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.fruPowerBatState' on t3-88 changed from '[Undefined]' to 'normal'

**Event: t3.ValueChangeEvent-**

Component: cacheMirror

EventCode: 13.5.123

**Severity: Warning**  
**Action\_required: No****Sample Description**

CacheMirror on [Array\_Name] ([IP\_Address]) change from on to off

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

Cacheing changes are only a symptom and potentially the result of a hardware issue in the array.

- Controller Failure
- Battery/Power Failure
- Battery Refresh/Test
- Disk Failure
- Loop Failure

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: t3.ValueChangeEvent-**

Component: portStatus

EventCode: 13.5.445

**Severity: Warning**  
**Action\_required: No****Sample Description**

The 'portStatus' of 'array00' on array00 is 'offline' (previous 'portStatus' was 'online')

**Information:**

The Fibre Port has gone offline.

**Probable Cause:**

1. Fibre Cable was removed from Array
2. Fibre cable was removed from adjacent Device
3. Fibre cable has malfunctioned.

**Recommended Action:**

Check both side of fibre cable for disconnections or replace the fibre.

**Event: t3.ValueChangeEvent-**

Component: sysvolslice

EventCode: 13.5.48

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Volume Slicing is now off!

**Probable Cause:**

The vol slice feature is possible in T3+ firmware 2.1 and above.

This option enables volume slicing, up to 16 LUN's per single T3 or partner pair. This also enables lun masking (HBA Zoning) features.

**Recommended Action:**

The option enable\_volslice is disabled by default. To activate

the feature type 'sys enable\_volslice on' from the T3 command line.

Notification regarding slice and LUN changes will occur when changes are made to volume slices and lun masks. Volume slice or LUN mask changes which were not initiated by a user could indicate a potential problem. Please connect to the storage device or the appropriate management software to validate the system status.

**Event: t3.ValueChangeEvent-**  
Component: backend\_loop\_split  
EventCode: 13.5.144

**Severity: Info**  
**Action\_required: No**

---

### Sample Description

The state of 'loop.u1lp1.loopsIsolated' on [Array\_Name] changed from 'yes' to 'no'

### Information:

The Loop Card cable status has changed state.

### Probable Cause:

Storage A.D.E detected a change in the loopStatus token element of loopInf.htm.

### Recommended Action:

1. Check the Storage A.D.E GUI for current state/status of the Array.
2. Check cable connections.

**Event: t3.ValueChangeEvent-**

Component: disk.port

EventCode: 13.5.14

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of disk.u1d1.Port1State on T3 [Array\_Name] ([IP\_Address]) changed from 'OK' to 'failed'

**Probable Cause:**

The array has reported that a port has changed to a negative state.

**Recommended Action:**

1. Check Storage A.D.E status of the array
2. Telnet to the array and verify disk state.

. 'vol stat'

. 'fru stat'

. 'fru list'

**Drive Status Messages:****Value Description**

0 Drive mounted

2 Drive present

3 Drive is spun up

4 Drive is disable

5 Drive has been replaced

7 Invalid system area on drive

9 Drive Not Present

D Drive disabled; drive is being reconstructed

S Drive Drive Substituted

3. Replace disk if necessary

4. Verify the connections of the Loop Card interconnect cables

**Event: t3.ValueChangeEvent-**

Component: power.temp

EventCode: 13.5.41

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.PowTemp on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

1. Airflow in and around unit is being impeded.
2. A fan may have gone bad.

**Recommended Action:**

1. Telnet to affected T3
2. Verify Power Cooling Unit state in 'fru stat'
3. Replace PCU if necessary

**Event: t3.ValueChangeEvent-**

Component: power.battery

EventCode: 13.5.38

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.BatState on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

Battery may be unable to hold a charge.

**Recommended Action:**

1. Telnet to affected T3
2. Run 'refresh -s' to verify battery state
3. Replace battery if necessary
4. Check airflow of device.

**Event: t3.ValueChangeEvent-**

Component: power.output

EventCode: 13.5.40

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.PowOutput on [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of the power in the T3 Power Cooling Unit is not optimal.

**Probable Cause:**

1. Voltage Level on Power Supply and Battery have moved out of acceptable thresholds.
2. The internal PCU temp has exceeded acceptable thresholds.
3. A PCU fan has failed.

**Recommended Action:**

1. Telnet to affected T3
2. Verify Power Cooling Unit State in 'fru stat'
3. Replace PCU if necessary

**Event: t3.ValueChangeEvent-**

Component: disk.temperature

EventCode: 13.5.94

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The temperature of disk.u1d1 went over 40.

**Information:**

The temperature threshold for this disk in the array has been exceeded.

**Probable Cause:**

1. PCU fan(s) may not be functioning.
2. Physical placement of unit may be impeding heat dissipation.
3. Disk may be going bad.

**Recommended Action:**

1. Check the physical environment to ensure proper air flow around array.
2. Check Storage A.D.E status of the PCU fans for this array.
3. Check Storage A.D.E status of other disk temperatures in the unit and compare.

**Event: t3.ValueChangeEvent-**

Component: cacheMode

EventCode: 13.5.77

**Severity: Warning**  
**Action\_required: No****Sample Description**

The 'State' of 'volume.u2vol1.volCacheMode' on array00 is 'writeThrough' (previous 'State' was 'writeBehind')

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

Cacheing changes are only a symptom and potentially the result of a hardware issue in the array.

- Controller Failure
- Battery/Power Failure
- Battery Refresh/Test
- Disk Failure
- Loop Failure

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: t3.ValueChangeEvent-**

Component: power.fan

EventCode: 13.5.39

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.Fan1State on [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of a fan on the T3 is not optimal

**Probable Cause:**

Problem with the Power Cooling Unit called out in the event.

**Recommended Action:**

1. Telnet to affected T3
2. Verify fan state with 'fru stat'
3. Replace Power Cooling Unit if necessary

**Event: t3.ValueChangeEvent-**  
Component: interface.loopcard.cable  
EventCode: 13.5.25

---

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

The state of loopcable.u1l1.CableState changed from 'OK' to 'failed'

### Information:

The T3 has reported a problem with a loopcard cable.

### Recommended Action:

1. Telnet to affected T3
2. Verify loopcard state with 'fru stat'
3. Verify matching firmware with other loopcard
4. Re-enable loopcard if possible (enable u(encid)l[1|2])
5. Replace loopcard if necessary
6. Verify the connections of the Loop Card interconnect cables

**Event: t3.ValueChangeEvent-**

Component: volOper

EventCode: 13.5.155

**Severity: Warning**  
**Action\_required: No****Sample Description**

The state of 'volume.u1vol1.volOper' on t3 [Array\_Name] (ip=[IP\_Address]) changed from 'OK' to 'reconstructing'

**Information:**

Storage A.D.E verifies the operational status of a volume with token id 'volOper'

**Probable Cause:**

1. Potential hardware problem in the array.
2. Administrative or remedial maintenance process taking place.

**Recommended Action:**

Check the overall state and status of each FRU in the array

**Event: t3.ValueChangeEvent-**

Component: disk.pathstat

EventCode: 13.5.93

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of [Array\_Name] ([IP\_Address]) pathstat has changed

**Information:**

The pathstat to the disk drive has changed.

This is the status of the loop on the drive.

**Probable Cause:**

Disk may have timed out therefore causing the loop to go offline.

**Recommended Action:**

Unbypass the loop(s) for the disk in question.

**Event: t3.AuditEvent**

Component:

EventCode: 13.10.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Auditing a new T3 called ras [Array\_Name] ([IP\_Address]) slr-mi.370-3990-01-e-e1.003239

**Information:**

Storage A.D.E periodically gathers all the information about a device to ensure sanity in the health monitoring. An AuditEvent occurs weekly on every monitored device.

**Probable Cause:**

Any anomalies that may be present, will have been detected and an event would be generated.

**Recommended Action:**

Review the current state/status of each monitored device.

**Event: t3.CommunicationEstablishedEvent**

Component: oob

EventCode: 13.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address])

**Information:**

oob means OutOfBand. This is specific to describing the Ethernet access to the device.

**Probable Cause:**

A previous CommunicationLostEvent (OOB) must have occurred and now the Ethernet problem has been corrected or the device has been repaired.

**Event: t3.CommunicationEstablishedEvent**

Component: ib

EventCode: 13.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (InBand(Host\_Name)) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Information:**

ib means InBand. InBand is the datapath connection. This monitoring may not be activated for all Arrays.

**Probable Cause:**

A previous CommunicationLostEvent (IB) must have occurred and now the Fibre Channel problem has been corrected or the device has been repaired.

**Recommended Action:**

1. Verify with administrator that the connection has been successfully re-established.
2. Verify operational status with luxadm
  - . luxadm probe
  - . luxadm display </dev/rdisk/c##d#s2>
3. Verify cables, GBICs, Power, and connections along data path.
4. Check SAN Topology GUI to identify failing segment of the data path
5. Verify correct FC switch configuration (If applicable)

**Event: t3.CommunicationLostEvent**

Component: oob

EventCode: 13.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address])

**Information:**

OutOfBand. This means that the t3 failed to answer to ping or failed to return it's tokens.

**Probable Cause:**

This problem can also be caused by:

- A very slow network,
- The ethernet connection to this T3 was lost or is very slow.
- A bad controller.

**Recommended Action:**

1. Check Power on array
2. Check Ethernet connectivity to the affected T3.
3. Verify T3 is booted correctly using the `fru stat` command.
4. Verify correct TCP/IP settings on T3 using the `set` command.
5. Telnet to the array and make sure the `fru stat` command is responding.
6. Increase the http and/or ping timeout in Administration -> General Setup -> Timeout Setting. The current default timeouts are 10 secs for ping, 60 secs for http (tokens).

**Event: t3.CommunicationLostEvent**

Component: ib

EventCode: 13.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand(Host\_Name)) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Information:**

ib means InBand. InBand is the datapath connection.  
This event is established using luxadm.

**Probable Cause:**

Monitoring may not be activated for a particular T3.

**Recommended Action:**

1. Verify operational status with luxadm
  - . luxadm probe
  - . luxadm display </dev/rdisk/c#t#d#s2>
2. Verify cables, GBICs, Power, and connections along data path.
3. Check SAN Topology GUI to identify failing segment of the data path
4. Verify correct FC switch configuration (If applicable)

**Event: t3.DiagnosticTest-**

Component: t3test

EventCode: 13.13.345

**Severity: Error**  
**Action\_required: No**

---

Sample Description

t3test (HOST) on [Array\_Name] ([IP\_Address]) failed

**Event: t3.DiagnosticTest-**

Component: t3volverify

EventCode: 13.13.50

**Severity: Error**  
**Action\_required: No**

---

### Sample Description

t3volverify (HOST) on [Array\_Name] ([IP\_Address]) failed

### Information:

The vol verify command compares the constructed parity with the stored parity. This implementation assumes that the integrity of the data drives is correct.

The 'fix' option will update the parity drive as well as any encountered bad blocks that need to be reallocated.

**Event: t3.DiagnosticTest-**

Component: volverify

EventCode: 13.13.140

**Severity: Error**  
**Action\_required: No****Sample Description**

t3volverify (HOST) on [Array\_Name] ([IP\_Address]) failed

**Information:**

The vol verify command compares the constructed parity with the stored parity. This implementation assumes that the integrity of the data drives is correct.

The 'fix' option will update the parity drive as well as any encountered bad blocks that need to be reallocated.

**Event: t3.DiagnosticTest-**

Component: t3ofdg

EventCode: 13.13.49

**Severity: Error**  
**Action\_required: No****Sample Description**

t3ofdg (HOST) on [Array\_Name] ([IP\_Address]) failed

**Information:**

Ofdg is an offline diagnostic utility. The failed state is a result of a healthcheck failure.

**Probable Cause:**

The results of ofdg testing on a T3 unit resulted in a failed status.

**Recommended Action:**

1. Check Test Manager for details on why test failed.
2. Review the T3 syslog from unit where ofdg was run.
  - \* The complete ofdg results will be written to the unit's syslog facility

**Event: t3.DiscoveryEvent**

Component:

EventCode: 13.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new T3 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: t3.LocationChangeEvent**

Component:

EventCode: 13.19.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Location of t3 [Array\_Name] ([IP\_Address]) was changed

**Information:**

Storage A.D.E checks the WWN/Key of the device against the host monitoring the device to see if it's different.

**Probable Cause:**

Storage A.D.E detected either a new host or a new sitename that is now monitoring a device it already knew about.

**Recommended Action:**

No action required.

**Event: t3.LogEvent**

Component: disk

EventCode: 13.20.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3  
Array\_Name/IP\_Address): Nov 30 14:50:00 [Array\_Name] ISR1[2]: N: u1d5 SVD\_DONE: Command Error =

**Information:**

Storage A.D.E has detected a possible problem contained in a message of the  
T3 Message Log.

**Probable Cause:**

Storage A.D.E looks for all "SVD" and "Command Error" messages as an indication  
of possible disk failure.

**Recommended Action:**

1. Use the Storage A.D.E log viewing mechanism to check messages before and after this one.
2. Replace this disk.

**Event: t3.LogEvent**

Component: controller.port2

EventCode: 13.20.429

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem 'with 't3  
Array\_Name/IP\_Address): Oct 25 20:15:41 t3b1 ISR1[1]: W: u1ctr 'ISP2300[2] Received LOOP DOWN asyn

**Information:**

A message was found in the T3 Message Log file indicating a loss of signal on the external controller port.

**Probable Cause:**

1. Switch port being offlined.
2. Cable being unplugged.
3. Host system being rebooted.

**Recommended Action:**

1. Verify that external maintenance/admin activities are occurring.
2. Investigate the physical connection to the array further.

**Event: t3.LogEvent**  
Component: cmd.error4  
EventCode: 13.20.428

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 msp0-t3b1/192.168.0.41):Sep 29 12:11:34 t3b1 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x4:

### Information:

Command error 4 is indicating the I/O operation retries on this disk have been exhausted.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.

**Event: t3.LogEvent**

Component: controller.XOR

EventCode: 13.20.139

**Severity: Error**  
**Action\_required: Yes****Sample Description**

3 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with array [Array\_Name]): Feb 24 09:53:56 [ip] ISR1[1]: W: u1ctr XOR: Flags=B-S---- Cntr=0xAE Synd=0x10 Addr=0x9

**Information:**

Data cache ECC errors,

**Probable Cause:**

ECC errors in controller.

**Recommended Action:**

Replace the Controller

**Event: t3.LogEvent**  
Component: cmd.error3  
EventCode: 13.20.427

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 msp0-t3b1/192.168.0.41):Sep 29 12:11:34 t3b1 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x3:

### Information:

Command Error 3 is indicating the I/O operation retries on this disk have successfully completed but with a recovered error.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.

**Event: t3.LogEvent**

Component: cmd.error14

EventCode: 13.20.426

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 sp0-t3b1/192.168.0.40): Sep 29 12:11:34 t3b1 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x14:

**Information:**

Command error 14 is indicating the a hard failure to this disk.

**Probable Cause:**

A mechanical problem with this disk.

**Recommended Action:**

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.
2. Replace disk.

**Event: t3.LogEvent**

Component: device\_error

EventCode: 13.20.158

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_LogFile]

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: t3.LogEvent**

Component: power.battery.replace

EventCode: 13.20.109

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

2 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 't3 Array\_Name/IP\_Address'): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days 'battery life left, Re

**Information:**

A message was found in the T3 Message Log file indicating a status of the Battery that warrants notification.

**Probable Cause:**

1. The battery warranty period is about to expire.
2. The battery hold time may be low or can no longer hold a charge.

**Recommended Action:**

1. Check Storage A.D.E status of the PCU batteries for this array.
2. Telnet to the ARRAY and run 'refresh -s' to verify battery state.
3. Replace battery.

**Event: t3.LogEvent**

Component: device\_warning

EventCode: 13.20.159

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_LogFile]

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: t3.LogEvent**

Component: power.battery.refresh

EventCode: 13.20.108

**Severity: Warning**  
**Action\_required: No****Sample Description**

2003-02-13 14:33:02 1 array\_warning(s) found in logfile [Array\_Message\_Logfile]  
(indicating problem with t3 [Array\_Name]/[IP\_Address]): Feb 13 15:29:26 [Array\_Name] LPCT[1]: N: u1pcu1

**Information:**

The T3 Array has a BATD process that executes according to /etc/schd.conf file on the T3. The process monitors the Battery portion of the PCU.

**Probable Cause:**

A refresh message was posted to the log file indicating that the batteries are recharging.

**Recommended Action:**

1. Monitor the cycle and ensure proper completion.
2. Check the Storage A.D.E GUI for current state and status of the PCU's in the array
3. Check the Storage A.D.E GUI for warranty dates and battery usage calculations and follow proper PFA strategies for replacing the unit.

**Event: t3.LogEvent**

Component: disk.missing

EventCode: 13.20.198

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Warning found in logfile: E: u5d7: Missing

**Information:**

The t3 has reported a disk has been removed from the chassis

**Recommended Action:**

1. Replace Disk within 30 minute power shutdown window

**Event: t3.LogEvent**

Component: temp\_threshold

EventCode: 13.20.74

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 Array\_Name/IP\_Address):

**Information:**

A message was found in the T3 Message Log file indicating a threshold for a temperature setting is exceeded.

**Probable Cause:**

1. PCU fan(s) may not be functioning.
2. Physical placement of unit may be impeding heat dissipation.
3. Component may be going bad.

**Recommended Action:**

1. Check the physical environment to ensure proper air flow around array.
2. Check Storage A.D.E status of the PCU fans for this array.
3. Check Storage A.D.E status of the other component temperatures in the unit and compare.

**Event: t3.LogEvent**

Component: power.battery

EventCode: 13.20.38

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 error(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 [Array\_Name]/[IP\_Address]):

**Information:**

This event is generated for battery messages found in the array log file that are not specific to any other type of battery event.

**Probable Cause:**

1. The battery warranty period may have expired.
2. The battery's ability to hold a charge has diminished to a point where it can no longer be recharged.
3. The last refresh cycle failed changing the status of the battery.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state and status of the PCU's in the array.
2. Replace the suspect Battery or the whole PCU in the array.

**Event: t3.LogEvent**  
Component: disk.error  
EventCode: 13.20.107

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 msp0-t3b1/192.168.0.41):Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

### Probable Cause:

Storage A.D.E detected disk information indicating command status.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.

**Event: t3.LogEvent**  
Component: faulty\_port  
EventCode: 13.20.204

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Error found in logfile: E: u5d07 has faulty port on loop 2

**Information:**

The array has reported that one port of a dual-ported disk has failed

**Event: t3.LogEvent**

Component: disk.loopMode

EventCode: 13.20.143

**Severity: Info**  
**Action\_required: No****Sample Description**

Warnings found in logfile [Array\_Message\_Logfile] (indicating problem with t3  
Array\_Name/IP\_Address): SVD\_PATH\_FAILOVER

**Information:**

This is a path failover and is considered a notice.

**Event: t3.LogEvent**  
Component: disk.log  
EventCode: 13.20.104

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

4 array\_warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6120 [Array\_Name]/[IP\_Address]): Feb 05 18:45:28 t400 sh50[1]: N: u2d01 ioctl disk failed err=1:

### Information:

The Storage A.D.E agent monitoring the array log file reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") lines about disks.  
Notices about the battery.  
Notices about the PCU hold time.

### Probable Cause:

Storage A.D.E detected a pattern described above in the array log file.

### Recommended Action:

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the disk in question.
3. Replace this disk.
4. Monitor disk.

**Event: t3.LogEvent**

Component: controller.port

EventCode: 13.20.103

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 Array\_Name/IP\_Address):

**Probable Cause:**

Potential hardware problem with the controller.

**Recommended Action:**

1. Check the Storage A.D.E status of the FRUs in the array.
2. Check the Fibre Channel connections to ensure continuity.

**Event: t3.LogEvent**

Component: disk.senseKey

EventCode: 13.20.100

**Severity: Info**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information reported from a disk.

**Recommended Action:**

1. Monitor for excessive occurrences.
2. Contact support provider if necessary.

**Event: t3.LogEvent**

Component: fru\_disabled

EventCode: 13.20.168

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 device\_error(s) found in logfile /var/adm/messages.array (related to 6020  
Array\_Name/IP\_Address) : (TimeZone MST)Feb 18 13:26:18 array01 LPCT[1]: W: u1pcu1 Disabled::

**Information:**

A message stating "FRU is disabled" was found in mirrored log file.

**Probable Cause:**

1. A hardware failure with the FRU in question.
2. Administrative or remedial maintenance taking place.

**Recommended Action:**

Review pre/post Critical events for indications as to root cause.

**Event: t3.LogEvent**  
Component: disk.error3  
EventCode: 13.20.430

**Severity: Warning**  
**Action\_required: No**

### Sample Description

61 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 msp0-t3b1/192.168.0.41): Apr 01 20:30:17 t3b1 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 3:

### Information:

Disk error 3 is indicating the I/O operation retries on this disk have successfully completed but with a recovered error.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.  
Other failure indicators.

**Event: t3.LogEvent**  
Component: disk.error4  
EventCode: 13.20.210

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 msp0-t3b1/192.168.0.41): Apr 01 20:30:17 t3b1 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 4:

### Information:

Disk error 4 is indicating the I/O operation retries on this disk have been exhausted.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.  
Other failure indicators.

**Event: t3.LogEvent**  
Component: disk.error5  
EventCode: 13.20.211

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.t300 (indicating problem with T3 msp0-t3b1/192.168.0.41): Apr 01 20:30:17 t3b1 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 5:

### Information:

Storage A.D.E has detected a possible problem contained in a message of the array Message Log.

### Probable Cause:

Disk information indicating an illegal Logical Block Address has been encountered.

### Recommended Action:

Monitor for additional occurrences and then contact Support Provider for Corrective Action.

**Event: t3.LogEvent**

Component: disk.bypassed

EventCode: 13.20.212

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

N: u1d01: Bypassed on loop 1

**Event: t3.LogEvent**

Component: array\_warning

EventCode: 13.20.91

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_LogFile]

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: t3.LogEvent**

Component: array\_error

EventCode: 13.20.90

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_LogFile]

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: t3.LogEvent**

Component: shell\_commands

EventCode: 13.20.193

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning(s) found in logfile

**Information:**

Manual commands entered using the telnet interface

**Event: t3.LogEvent**

Component: disk.senseKeyE

EventCode: 13.20.136

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information reported from a disk indicating a problem.

**Recommended Action:**

1. Monitor reconstruct process to completion.
2. Replace this disk.

**Event: t3.LogEvent**

Component: disk.senseKeyl

EventCode: 13.20.137

**Severity: Info**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3  
Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information indicating a recovered condition.

**Recommended Action:**

No Action is Required

**Event: t3.LogEvent**

Component: disk.senseKeyW

EventCode: 13.20.138

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with t3 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information indicating a potential problem condition.

**Recommended Action:**

1. Monitor for excessive occurrences.
2. Contact support provider if necessary.

**Event: t3.QuiesceEndEvent**

Component:

EventCode: 13.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on t3 [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: t3.QuiesceStartEvent**

Component:

EventCode: 13.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on t3 [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well as any additional events that may have occurred.

**Event: t3.StateChangeEvent+**

Component: volume

EventCode: 13.25.53

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'volume.u1vol1'(slr-mi.370-3990-01-e-f0.022542.u1vol1) in T3 [Array\_Name]  
(ip=[IP\_Address]) is now Available (status-state changed from 'unmounted' to 'mounted')

**Information:**

The T3 has reported that a LUN has changed state

**Event: t3.StateChangeEvent+**

Component: controller

EventCode: 13.25.12

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'controller.u1ctr' in T3 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Event: t3.StateChangeEvent+**

Component: disk

EventCode: 13.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk.u1d5' in T3 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault-disabled' to 'ready-enabled'):

**Event: t3.StateChangeEvent+**

Component: power

EventCode: 13.25.37

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) in T3 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'ready-disable' to 'ready-enable'):

**Event: t3.StateChangeEvent+**

Component: interface.loopcard

EventCode: 13.25.24

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'loopcard.u111'(SLR-MI.375-0085-01-G-G4.070924) in T3 [Array\_Name] (ip=[IP\_Address]):

**Probable Cause:**

'The T3 has reported that a Loop Card has been replaced or brought back online

**Recommended Action:**

No action required.

**Event: t3.StateChangeEvent-**

Component: volume

EventCode: 13.26.53

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Information:**

The T3 has reported that a LUN has changed state

**Probable Cause:**

This event can be as a result of

1. Failed Raid set.
2. User directed unmount.
3. Administrator has deleted one or more volumes.

**Recommended Action:**

1. Telnet to affected T3
2. Check status of LUNs via 'vol mode' or 'vol stat' from T3
3. Check disk status with 'fru stat' and 'vol stat'

**Drive Status Messages:**

Value/ Description

- 0 Drive mounted
- 2 Drive present
- 3 Drive is spun up
- 4 Drive is disable
- 5 Drive has been replaced
- 7 Invalid system area on drive
- 9 Drive Not Present
- D Drive disabled; drive is being reconstructed
- S Drive Drive Substituted

**Event: t3.StateChangeEvent-**  
Component: interface.loopcard  
EventCode: 13.26.24

**Severity: Error**  
**Action\_required: Yes**

---

## Sample Description

### Probable Cause:

The T3 has indicated that the loopcard is no longer in an optimal state

### Recommended Action:

1. Telnet to affected T3
2. Verify loopcard state with 'fru stat'
3. Verify matching firmware with other loopcard
4. Re-enable loopcard if possible (enable u(encid)|[1|2])
5. Replace loopcard if necessary

**Event: t3.StateChangeEvent-**

Component: power

EventCode: 13.26.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'ready-enabled' to 'ready-disable'):

**Information:**

The T3 has reported that a Power Cooling Unit has been disabled

**Probable Cause:**

A PCU failure can happen due to the following reasons.

1. Internal/External Power loss
2. Power switch has been turned off
3. PCU failures
4. Battery failures
5. Fan has failed

**Recommended Action:**

1. Check Power Supply and Cables
2. Check with onsite administration/service for expected occurrence
3. Replace PCU
4. Replace Battery
5. Replace Fan

**Event: t3.StateChangeEvent-**

Component: disk

EventCode: 13.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'disk.u1d5' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'unknown' to 'fault-disabled'):

**Probable Cause:**

The T3 has reported that a disk has failed

**Recommended Action:**

1. Telnet to affected T3
2. Verify disk state with 'vol stat', 'fru stat' and 'fru list'

**Drive Status Messages:**

Value/ Description

0 Drive mounted

2 Drive present

3 Drive is spun up

4 Drive is disable

5 Drive has been replaced

7 Invalid system area on drive

9 Drive Not Present

D Drive disabled; drive is being reconstructed

S Drive Drive Substituted

3. Replace disk if necessary

**Event: t3.StateChangeEvent-**

Component: controller

EventCode: 13.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'State' of controller.u2ctr in T3 [Array\_Name] is 'ready-disabled' (previous 'State' was 'ready-enabled')(id=[Unique\_Key])

**Probable Cause:**

A controller has failed in the array due to a potential hardware problem.

**Recommended Action:**

1. Telnet to affected T3
2. Verify controller state with 'fru stat' and 'sys stat'
3. Re-enable controller if possible (enable u<encid>)
4. Run 'logger -dmprstlog' from a serial port session on affected controller
  - \* The output from logger will only go to the syslog facility.Review syslog on Master Controller to determine cause of failure.
5. Replace controller as indicated by the NVRAM failure code.

**Event: t3.Statistics**

Component:

EventCode: 13.27.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Statistics about T3 [Array\_Name] ([IP\_Address])

**Event: t3.ConnectivityLostEvent**

Component:

EventCode: 13.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: t3.ComponentInsertEvent**

Component: disk  
EventCode: 13.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.LRG07139) was added to [Array\_Name] ([IP\_Address])

**Information:**

A new Disk, as identified by it's serial#, has been installed on the T3.

**Event: t3.ComponentInsertEvent**

Component: controller

EventCode: 13.40.12

**Severity: Info**  
**Action\_required: No****Sample Description**

'controller.u1ctr'(id) was added to T3 [Array\_Name] ([IP\_Address])

**Information:**

A new Controller, as identified by it's serial#, has been installed on the T3.

**Event: t3.ComponentInsertEvent**

Component: power  
EventCode: 13.40.37

**Severity: Info**  
**Action\_required: No**

**Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) was added to T3 [Array\_Name]  
([IP\_Address])

**Information:**

A new Power Supply, as identified by it's serial#, has been installed on  
the T3.

**Event: t3.ComponentInsertEvent**

Component: interface.loopcard

EventCode: 13.40.24

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Probable Cause:

New LoopCard, as identified by it's serial#, has been installed on the T3.action=No action required.

**Event: t3.ComponentRemoveEvent**

Component: disk

EventCode: 13.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.LRG07139) was removed from [Array\_Name] ([IP\_Address])

**Information:**

The T3 has reported a disk has been removed from the chassis

**Recommended Action:**

1. Replace Disk within 30 minute power shutdown window

**Event: t3.ComponentRemoveEvent**

Component: power

EventCode: 13.41.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) was removed from T3 [Array\_Name]  
([IP\_Address])

**Information:**

The T3 has reported that a Power Cooling Unit has been removed from  
the chassis

**Probable Cause:**

The PCU was removed

**Recommended Action:**

1. Replace PCU within 30 minute shutdown window

**Event: t3.ComponentRemoveEvent**

Component: volume

EventCode: 13.41.53

**Severity: Warning**  
**Action\_required: No****Sample Description**

(u2vol2) was removed from t3 [Array\_Name] (sn=0x301.5405318.123456.volume.u2vol2)

**Information:**

The removal/reconfiguration of a volume has been detected.

**Probable Cause:**

Remedial maintenance or an administrative process.

**Recommended Action:**

No Action is Required.

**Event: t3.ComponentRemoveEvent**

Component: interface.loopcard

EventCode: 13.41.24

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

A loopcard has been removed from the chassis

**Recommended Action:**

1. Replace loopcard within 30 minute power shutdown window

**Event: t3.ComponentRemoveEvent**

Component: controller

EventCode: 13.41.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'controller.u1ctr'(id) was removed from T3 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A controller was removed from the chassis

**Recommended Action:**

1. Replace controller within 30 minute power shutdown window

**Event: t3.RemovalEvent**

Component:

EventCode: 13.42.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

**Event: t3.LinkEvent\_CRC**

Component:

EventCode: 13.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: t3.LinkEvent\_SIG**

Component:

EventCode: 13.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: t3.LoopCableDisconnect**

Component:

EventCode: 13.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: t3.ComponentReplaceEvent**

Component: disk

EventCode: 13.57.13

**Severity: Warning**  
**Action\_required: No****Sample Description**

disk.u1d1 in [device] was replace from [old\_serial] to [new\_serial]

**Information:**

A disk was replaced with a new one.

**Event: tape.AuditEvent**

Component:

EventCode: 14.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a tape '[Device\_Name]' 10002000007a609

**Information:**

Audits occur every week.

**Event: tape.CommunicationEstablishedEvent**

Component: ib

EventCode: 14.11.21

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Communication regained with tape '[Device\_Name]'

**Event: tape.CommunicationLostEvent**

Component: ib

EventCode: 14.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication with tape '[Device\_Name]'

**Probable Cause:**

In-Band communication to a Fibre Channel tape drive has been lost

**Recommended Action:**

1. Verify cables, GBICs, Power and connections along data path.
2. Check SAN Topology GUI to identify failing segment of the data path
3. Verify correct FC switch configuration (if present)

**Event: tape.DiagnosticTest-**

Component: fctapetest

EventCode: 14.13.332

**Severity: Error**  
**Action\_required: No**

---

Sample Description

fctapetest ([Host\_Name]) on [Device\_Name] (IP\_Address) failed

**Event: tape.DiscoveryEvent**

Component:

EventCode: 14.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new tape called [Device\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: tape.LocationChangeEvent**

Component:

EventCode: 14.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of tape '[Device\_Name]' changed

**Event: tape.QuiesceEndEvent**

Component:

EventCode: 14.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: tape.QuiesceStartEvent**

Component:

EventCode: 14.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: tape.StateChangeEvent+**

Component: port

EventCode: 14.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.A' in TAPE '[Device\_Name]' is now Available (status-state changed from 'Offline' to 'Online')

**Event: tape.StateChangeEvent-**

Component: port

EventCode: 14.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.A' in TAPE '[Device\_Name]' is now Not-Available (status-state changed from 'Online' to 'Offline')

**Information:**

In-Band communication to one port of a dual-ported tape drive has been lost

**Recommended Action:**

1. Verify cables, GBICs and connections along data path.
2. Check SAN Topology GUI to identify failing segment of the data path
3. Verify correct FC switch configuration (if present)

**Event: tape.ConnectivityLostEvent**

Component:

EventCode: 14.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: tape.LinkEvent\_CRC**

Component:

EventCode: 14.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: tape.LinkEvent\_SIG**

Component:

EventCode: 14.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: tape.LoopCableDisconnect**

Component:

EventCode: 14.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: v880disk.ValueChangeEvent-**

Component: backplane

EventCode: 15.5.3

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The state of 'SSC.exp\_backplane.status' on [Device\_Name] (wwn=[WWN]) is 'NotInstalled'

**Event: v880disk.ValueChangeEvent-**

Component: temperature

EventCode: 15.5.51

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The state of 'temperature.expansion.status' on [Device\_Name] (wwn=[WWN]) is 'Not Installed'

**Event: v880disk.ValueChangeEvent-**

Component: loop

EventCode: 15.5.26

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

The state of 'SSC.base\_loopB.status' on [Device\_Name] (wwn=[WWN]) is 'NotInstalled'

### Probable Cause:

The internal "B" loop for V880 internal drives is not installed. The "B" loop is only created with the addition of a dual port Fiber Channel card to a pci port on the back of the V880.

**Event: v880disk.AuditEvent**

Component:

EventCode: 15.10.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Auditing a v880disk called [Device\_Name] (wwn=[WWN])

**Information:**

Use luxadm to verify the integrity of the enclosure

**Recommended Action:**

1. luxadm probe should identify the internal enclosure name (FCloop is default)
2. Use luxadm display [enclosure name] to verify members
3. check /dev/es to see ses devices are configured and linked.

**Event: v880disk.CommunicationEstablishedEvent**

Component: ib

EventCode: 15.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication Established with [Device\_Name] (wwn=[WWN])

**Information:**

The internal enclosure has been discovered by the system

**Event: v880disk.CommunicationLostEvent**

Component: ib

EventCode: 15.12.21

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Lost communication (InBand([Host\_Name])) with [Device\_Name] (wwn=[WWN])

### Recommended Action:

1. Check the power cables on V880
2. Run qlc test on v880 to check whether the mother board ISP controller is broken
3. Check the internal cable connection between ISP and backplane

**Event: v880disk.DiagnosticTest-**

Component: daktest

EventCode: 15.13.306

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

v880daktest ([Host\_Name])) on [Device\_Name] failed

**Recommended Action:**

Check Test Manager for details on test failure.

**Event: v880disk.DiscoveryEvent**

Component:

EventCode: 15.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new V880 called [Device\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: v880disk.LocationChangeEvent**

Component:

EventCode: 15.19.16

**Severity: Info**  
**Action\_required: Yes****Sample Description**

Location of V880disk called [Device\_Name] was changed

**Information:**

The disks position may be swapped

**Recommended Action:**

1. Check /var/adm/messages for more information
2. Run luxadm display wwn to check current disk status
3. Run topology snapshot to get the latest update

**Event: v880disk.QuiesceEndEvent**

Component:

EventCode: 15.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: v880disk.QuiesceStartEvent**

Component:

EventCode: 15.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: v880disk.ConnectivityLostEvent**

Component:

EventCode: 15.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: v880disk.ComponentInsertEvent**

Component: disk

EventCode: 15.40.13

**Severity: Info**  
**Action\_required: No****Sample Description**

disk.4(20000020375b251a) was added to [Device\_Name] (wwn=[WWN]) ([IP\_Address])

**Information:**

A new disk was added in V880 disk enclosure

**Probable Cause:**

1.A new disk was added in V880 disk enclosure

**Recommended Action:**

1. Run a devfsadm -C or allow picl daemon to create devices.
2. Run luxadm display [enclosure] to verify disk is present.
3. Look in /dev/dsk and /dev/rdisk to see addition of drive.
4. Verify the disk shows up in format.
5. Update Storage A.D.E inventory.
  - a)Delete original V880 discovered device.
  - b)Delete newly discovered inband drive.
  - c)Run inband discovery.

**Event: v880disk.ComponentRemoveEvent**

Component: disk

EventCode: 15.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.4(20000020375b251a) was removed from [Device\_Name] (wwn=[WWN]) ([IP\_Address])

**Information:**

Luxadm cannot see the wwn of a disk, it may have been removed.

**Recommended Action:**

1. Check /var/adm/messages for any errors
2. Reseat disk in enclosure
3. Replace disk if necessary

**Event: v880disk.LoopCableDisconnect**

Component:

EventCode: 15.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: ve.ValueChangeEvent**

Component: log

EventCode: 16.3.55

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Change in Port Statistics on VE '[Device\_Name]'

**Event: ve.ValueChangeEvent**

Component: volume\_delete

EventCode: 16.3.58

**Severity: Info**  
**Action\_required: No****Sample Description**

VLUN T16431/62573361-30304769 on VE [Device\_Name] is not present.

**Information:**

The removal of a VLUN was detected by Storage A.D.E.

**Probable Cause:**

A VLUN was deleted using the SECFG tools.

**Recommended Action:**

Use the Storage A.D.E GUI to query the configuration tools to verify configuration.

**Event: ve.ValueChangeEvent**

Component: volume\_add

EventCode: 16.3.57

**Severity: Info**  
**Action\_required: No****Sample Description**

VLUN T16431/62573361-30304769 on VE [Device\_Name] was added.

**Information:**

The discovery of a new VLUN was detected by Storage A.D.E.

**Probable Cause:**

A new VLUN was created using the SECFG tools.

**Recommended Action:**

Use the Storage A.D.E GUI to query the configuration tools to verify configuration.

**Event: ve.ValueChangeEvent**

Component: volume

EventCode: 16.3.53

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

VLUN T16431/62573361-30304769 on [Device\_Name] was changed

**Information:**

This event occurs when the VE has detected a change in status for a Multipath Drive or VLUN.

**Probable Cause:**

Usually indicating a pathing problem to a storage array controller

**Recommended Action:**

1. Check the Storage A.D.E GUI for changes in Active/Passive paths.
2. Check storage array for current LUN ownership. (`port listmap`)
3. Use `mpdrive failback` if needed to fail LUNs back to correct controller if needed.

**Event: ve.AuditEvent**

Component:

EventCode: 16.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a Virtualization Engine called '[Device\_Name]'

**Information:**

Audits occur once per week

**Probable Cause:**

This is a resyncing the cache to ensure accuracy of the Storage A.D.E telemetry information.

**Recommended Action:**

No additional actions are required.

**Event: ve.CommunicationEstablishedEvent**

Component: oob

EventCode: 16.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained with VE '[Device\_Name]'

**Information:**

"oob" (OutOfBand) refers to the Ethernet connection. The "Source" field in the email message is the hostname of the system that has regained ethernet communication with the device.

**Event: ve.CommunicationLostEvent**

Component: oob

EventCode: 16.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication with VE/slicd '[Device\_Name]'

**Information:**

"oob" (OutOfBand) refers to an Ethernet connection. The "Source" field in the email message is the hostname of the system that has lost slicd communication with the device.

**Probable Cause:**

1. Invalid command or slicd daemon problem.
2. Lost Ethernet connectivity.

**Recommended Action:**

1. Check the status of the 'slicd' daemon
2. Check Power on VE
3. Make sure VE is booted correctly
4. Use the Storage A.D.E GUI configuration tools to verify proper VE configuration.
5. Check for T3 failover conditions in T3 message log
6. Replace VE if necessary.
7. Check Ethernet cable, switch, hub etc.

**Event: ve.DiagnosticTest-**

Component: ve\_diag

EventCode: 16.13.52

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

ve\_diag ([Host\_Name]) on [Device\_Name] ([IP\_Address]) failed

**Event: ve.DiagnosticTest-**

Component: veluntest

EventCode: 16.13.346

**Severity: Error**  
**Action\_required: No**

---

Sample Description

veluntest ([Host\_Name]) on [Device\_Name] ([IP\_Address]) failed

**Event: ve.DiscoveryEvent**

Component:

EventCode: 16.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new Virtualization Engine called '[Device\_Name]'

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: ve.LocationChangeEvent**

Component:

EventCode: 16.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of VE '[Device\_Name]' changed

**Event: ve.QuiesceEndEvent**

Component:

EventCode: 16.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: ve.QuiesceStartEvent**

Component:

EventCode: 16.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: ve.ConnectivityLostEvent**

Component:

EventCode: 16.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: ve.LinkEvent\_CRC**

Component:

EventCode: 16.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on device [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: ve.LinkEvent\_SIG**

Component:

EventCode: 16.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on device [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: ve.LoopCableDisconnect**

Component:

EventCode: 16.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: mcddata.ValueChangeEvent**

Component: port.statistics

EventCode: 17.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch [Switch\_Name] ([IP\_Address]), port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193037062 )

**Information:**

The Fibre Channel counter values retrieved from the switch exceeded a threshold value warranting notification.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for events about the switch named in the event.
2. Run the link test to isolate the GBIC, cable, switch, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: mcdata.ValueChangeEvent**

Component: system\_reboot

EventCode: 17.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch uptime decreased on [Switch\_Name] ([IP\_Address]) from 774396s to 524848s

**Information:**

The uptime of the switch was less than than the previous uptime of the switch.

This could indicate that the switch has been reset either by a user or loss of power

**Recommended Action:**

1. Check to see if the switch has been reset.
2. Check the power going to the switch.

**Event: mcddata.ValueChangeEvent+**

Component: power

EventCode: 17.4.37

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'sensor.power-supply.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

**Information:**

The switch is reporting a problem with the Power Supply.

**Recommended Action:**

Check switch Power Supply and replace switch as an entire FRU if necessary.

**Event: mcddata.ValueChangeEvent+**

Component: fan

EventCode: 17.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'sensor.fan.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

**Information:**

The switch is reporting a problem with the cooling fans.

**Recommended Action:**

Replace the entire switch as a FRU.

**Event: mcddata.ValueChangeEvent-**

Component: power

EventCode: 17.5.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.power-supply.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

**Information:**

The switch is reporting a problem with the Power Supply.

**Probable Cause:**

1. The power supply is bad.
2. The switch is bad.

**Recommended Action:**

1. Replace switch Power Supply if possible.
2. Replace switch as an entire FRU if necessary.

**Event: mcddata.ValueChangeEvent-**

Component: fan

EventCode: 17.5.19

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.fan.5.status' on [Switch\_Name] ([IP\_Address]) is 'absent'

**Information:**

The switch is reporting a problem with the cooling fans.

**Probable Cause:**

1. The fan is bad.
2. A power supply is bad.
3. The switch is bad.

**Recommended Action:**

1. Replace the fan if possible.
2. Replace the power supply if possible.
3. Replace the entire switch as a FRU.

**Event: mcddata.AuditEvent**

Component:

EventCode: 17.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new switch called ras [Array\_Name] ([IP\_Address]): 10002000007a609

**Event: mcddata.CommunicationEstablishedEvent**

Component: oob

EventCode: 17.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with [Array\_Name] ([IP\_Address])

**Event: mcddata.CommunicationLostEvent**

Component: oob

EventCode: 17.12.31

**Severity: Err/Critical**

**Action\_required: Yes**

---

**Sample Description**

Lost communication with [Array\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet connectivity to the switch has been lost

**Recommended Action:**

1. Check Power on switch
2. Check Ethernet connectivity to switch
3. Verify switch is booted correctly with no POST errors.
4. Verify switch Test Mode is set for normal operations
5. Verify TCP/IP settings on switch via Forced Prom Mode access
6. Replace switch if needed

**Event: mcddata.DiscoveryEvent**

Component:

EventCode: 17.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new switch called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: mcddata.LocationChangeEvent**

Component:

EventCode: 17.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of switch [Array\_Name] ([IP\_Address]) was changed

**Event: mcddata.LogEvent**

Component: port.statistics

EventCode: 17.20.36

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Change in Port Statistics on switch [Array\_Name] ([IP\_Address])

### Information:

The switch has reported a change in an error counter. This could indicate a failing component in the link.

### Recommended Action:

1. Check the Topology GUI for any link errors.
2. Run linktest on the link to isolate the failing FRU. Quiesce IO on the link 'before running linktest.

**Event: mcdatalogevent**

Component: PhysState

EventCode: 17.20.2

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

PhysicalState of port 4 changed from 'on to 'off

**Information:**

Monitors the PhysicalState attribute of the switch

**Event: mcdata.QuiesceEndEvent**

Component:

EventCode: 17.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: mcddata.QuiesceStartEvent**

Component:

EventCode: 17.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: mcddata.StateChangeEvent+**

Component: port

EventCode: 17.25.35

**Severity: Info**  
**Action\_required: No****Sample Description**

'port.1' in SWITCH [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

The port state on the switch has changed.

**Probable Cause:**

1. The admin state of the port has been changed. This will generate an informational message only.
2. The physical state of the port has changed.

**Event: mcddata.StateChangeEvent-**

Component: port

EventCode: 17.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in MCDATA switch\_name is now Not-Available (state changed from 'Online' to 'Offline')(Admin Status is 'online')

**Information:**

A port on the switch has logged out of the fabric and gone offline

**Probable Cause:**

1. A faulty SFP or GBIC
2. A bad cable connection or a poorly routed cable
3. A bad UPM card

**Recommended Action:**

1. Verify cables, SFP, GBICs and connections along Fibre Channel path
2. Check SAN Topology GUI to identify failing segment of the data path
3. Verify correct FC switch configuration
4. Verify port is enabled

**Event: mcddata.Statistics**

Component:

EventCode: 17.27.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Statistics about switch [Array\_Name] ([IP\_Address]): 10002000007a609

**Information:**

Port Statistics

**Event: mcddata.ConnectivityLostEvent**

Component: aggregate

EventCode: 17.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between mcddata [Device\_Name] port-2 and t3 [Array\_Name] ctrl-1

**Information:**

This event is generated when switch-ports go offline and other events are confirming it. This can be a link host &lt;-&gt; sw

**Event: mcddata.ConnectivityLostEvent**

Component:

EventCode: 17.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: mcddata.LinkEvent\_CRC**

Component:

EventCode: 17.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: mcddata.LinkEvent\_SIG**

Component:

EventCode: 17.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: mcddata.LoopCableDisconnect**

Component:

EventCode: 17.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: 3310.ValueChangeEvent**

Component: Revision

EventCode: 18.3.117

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Revision changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent**

Component: volume

EventCode: 18.3.53

**Severity: Warning**  
**Action\_required: No****Sample Description**

Total partitions in logical drive has been changed.

**Probable Cause:**

Administrator added or removed logical partitions.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent**

Component: part

EventCode: 18.3.72

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Total partitions in logical drive has been changed.

**Probable Cause:**

Administrator added or removed logical partitions.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent**

Component: revision

EventCode: 18.3.42

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The revision of POWER on [device] changed from 01 to 02.

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent**

Component: fru\_location

EventCode: 18.3.229

**Severity: Info****Action\_required: Yes****Sample Description**

fru location is changed.

**Probable Cause:**

Some frus may be removed from the enclosure or put in different slot position in enclosure

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information .

**Event: 3310.ValueChangeEvent**

Component: power

EventCode: 18.3.37

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Power status has been changed.

**Probable Cause:**

Power status has changed.

**Recommended Action:**

Check the power.

**Event: 3310.ValueChangeEvent**

Component: firmware\_version

EventCode: 18.3.119

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent+**

Component: logical\_drive

EventCode: 18.4.188

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'logical\_drive.1'(WWN.logical.1) in 3310 [Device] (wwn=WWN) is now available (status changed from 'degraded' to 'good'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent+**

Component: disk

EventCode: 18.4.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk.u1d5' in 3310 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault-disabled' to 'ready-enabled'):

**Event: 3310.ValueChangeEvent+**

Component: volume

EventCode: 18.4.53

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'volume.u1vol1'([UniqueID].u1vol1) in 3310 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'unmounted' to 'mounted').

**Event: 3310.ValueChangeEvent+**

Component: fan

EventCode: 18.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'enclosure.component.2'(fan-1) in 3120jbod-SN is now Available (status changed from 'fault' to 'OK'):

**Probable Cause:**

The fan has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent+**

Component: fru\_status

EventCode: 18.4.230

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Fru status is changed to "ok".

**Probable Cause:**

Enclosure has returned to normal operation mode .

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent+**

Component: controller\_redundancy

EventCode: 18.4.410

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Controller redundancy status in 3310 [Array\_Name] ([IP\_Address]) is now enabled (status changed from 'failed' to 'enabled'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent+**

Component: ps

EventCode: 18.4.227

**Severity: Info**  
**Action\_required: No****Sample Description**

'component.ps' [fru-sn] status is changed to OK.

**Probable Cause:**

The power supply status is changed to normal state.

**Recommended Action:**

1. No action necessary.

**Event: 3310.ValueChangeEvent+**

Component: diskslot

EventCode: 18.4.240

**Severity: Info**  
**Action\_required: No****Sample Description**

'component.10.diskslot' [fru-sn] status is changed to OK.

**Probable Cause:**

The disk is changed to normal state.

**Recommended Action:**

1. No action necessary.

**Event: 3310.ValueChangeEvent+**

Component: logical\_volume

EventCode: 18.4.416

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'logical\_volume.1'(WWN.logical\_volume.1) in 3310 [Device] (wwn=WWN) is now available (status changed from 'degraded' to 'good'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent+**

Component: temp

EventCode: 18.4.228

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has changed to normal state.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3310.ValueChangeEvent+**

Component: controller\_shutdown

EventCode: 18.4.443

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Controller in 3310 [Array\_Name] (wwn=WWN) is reset from shutdown status

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent-**

Component: temp

EventCode: 18.5.228

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has increased.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check temperature sensor status.
2. Check fan or air flow to the device.

**Event: 3310.ValueChangeEvent-**

Component: logical\_drive

EventCode: 18.5.188

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logical\_drive.1'(WWN.logical.1) in 3310 [Device] (wwn=WWN) is now Not-Available (status changed from 'unknown' to 'Degraded').

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical drive configured in the array.

**Recommended Action:**

1. Check the in-band Fiber cable link
2. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
3. Execute 'sccli <device-path> show logical\_drive' and check logical drive status
4. Execute 'sccli <device-path> show shutdown' and check controller status
5. Rebuild the logical drive to Good status.

**Event: 3310.ValueChangeEvent-**

Component: fan

EventCode: 18.5.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.fan' [fru-sn] status is changed from OK to fault.

**Probable Cause:**

Storage A.D.E. has detected a change in fan status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the Power Supply / Fan Module if needed.

**Event: 3310.ValueChangeEvent-**

Component: size

EventCode: 18.5.70

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Effective size has been changed on part.1 from 38952MB to 68952MB.

**Probable Cause:**

Administrator modified logical drive configuration.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent-**

Component: diskslot

EventCode: 18.5.240

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.10.diskslot' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The disk is unresponsive and it may have been removed or faulted in a way to indicate this status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check diskslot component status.
2. Ensure disk is seated properly.

**Event: 3310.ValueChangeEvent-**  
Component: controller\_redundancy  
EventCode: 18.5.410

---

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

Controller redundancy in 3310 [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'Enabled' to 'failed')

### Probable Cause:

One of two controllers may have faulted in a way to indicate this status.

### Recommended Action:

1. Execute 'sccli <device\_path> show redundancy' and check controller redundancy status.
2. Check if any diagnostic test is running which may require failing the primary controller
3. Replace the controller if necessary.

**Event: 3310.ValueChangeEvent-**

Component: controller\_shutdown

EventCode: 18.5.443

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Controller in 3310 [Array\_Name] (wwn=WWN) is shutdown.

**Probable Cause:**

One of two controllers may have been shutdown to indicate this status.

**Recommended Action:**

1. Execute 'sccli <device\_path> show shutdown' and check controller shutdown status.
2. Check if any diagnostic test is running which may requires failing the primary controller
3. Replace the controller if necessary.

**Event: 3310.ValueChangeEvent-**

Component: logical\_volume

EventCode: 18.5.416

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logical\_volume.1'(WWN.logical\_volume.1) in 3310 [Device] (wwn=WWN) is now Not-Available (status changed from 'unknown' to 'Degraded').

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical volume configured in the array.

**Recommended Action:**

1. Check the in-band Fiber cable link
2. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
3. Execute 'sccli <device-path> show logical-volume' and check logical volume status
4. Execute 'sccli <device-path> show shutdown' and check controller status
5. Rebuild the logical volume to Good status.

**Event: 3310.ValueChangeEvent-**

Component: raid\_level

EventCode: 18.5.69

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

RAID level has been changed on logical.0 from 5 to 0.

**Probable Cause:**

Administrator modified logical drive configuration.

**Recommended Action:**

No action required.

**Event: 3310.ValueChangeEvent-**

Component: disk

EventCode: 18.5.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'components.disk.12'([s/n]) in 3310 [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'Online' to 'Bad drive')

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Execute 'sccli show events' and look for disk errors.
3. Execute 'sccli <device\_name/IP> show disks' and check disk status.
4. Replace the failed disk.

**Event: 3310.ValueChangeEvent-**

Component: fru\_status

EventCode: 18.5.230

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Fru status is changed.

**Probable Cause:**

1. Fru may be removed from the enclosure.
2. The fru is non-functional anymore

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information .
2. Replace the bad fru

**Event: 3310.ValueChangeEvent-**

Component: temperature

EventCode: 18.5.51

---

**Severity: Warning**  
**Action\_required: Yes**

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has increased.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3310.ValueChangeEvent-**

Component: ps

EventCode: 18.5.227

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.ps' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The power supply has lost ac power.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check power supply component status.
2. Ensure AC power cords are securely plugged in.
3. Ensure power supply is turned on.
4. Ensure power is reliable to array.

**Event: 3310.ValueChangeEvent-**

Component: enclosure

EventCode: 18.5.16

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'info.status' on [enclosure] changed from 'Online' to 'Offline'.

**Probable Cause:**

The enclosure is unavailable.

**Recommended Action:**

1. Check InBand access to the array.
2. Check that the array is powered on.
3. Contact Support.

**Event: 3310.ValueChangeEvent-**

Component: volume

EventCode: 18.5.53

**Severity: Error**  
**Action\_required: Yes**

---

Sample Description

Recommended Action:

1. Telnet to affected 3310.

**Event: 3310.CommunicationEstablishedEvent**

Component: ib

EventCode: 18.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3310.CommunicationEstablishedEvent**

Component: oob

EventCode: 18.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3310.CommunicationLostEvent**

Component: e

EventCode: 18.12.118

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad controller.
- Array has a password set

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.
3. Use Update Monitoring and Setup to update password within Storage A.D.E GUI.

**Event: 3310.CommunicationLostEvent**

Component: ib

EventCode: 18.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

The host has lost access to the array via the In-Band Connection  
This could be caused by loss of power to the array.  
This could be caused by bad cables or Host Bus Adapters.  
This could be caused by a bad controller on the array.  
This could be caused by a software error on the host.

**Recommended Action:**

1. Verify sccli access via command line (sccli show).
2. Verify cables, GBICs, power, and connections along data path.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify correct FC switch configuration, if applicable.
5. If you want to monitor the device out of band, please remove the device from the inventory list first, then do OOB discovery

**Event: 3310.CommunicationLostEvent**

Component: oob

EventCode: 18.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad controller.
- array has a password set

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.
3. Use Update Monitoring and Setup to update password within Storage A.D.E GUI.
4. If you want to monitor the device inband, please remove the device from the inventory list first, then do inband discovery.

**Event: 3310.DiscoveryEvent**

Component:

EventCode: 18.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new 3310 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 3310.LocationChangeEvent**

Component:

EventCode: 18.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 3310 [Array\_Name] ([IP\_Address]) was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 3310.LogEvent**

Component: SAF\_TE

EventCode: 18.20.186

**Severity: Error**  
**Action\_required: Yes****Sample Description**

SAF-TE Device ( ) ALERT: Cooling Fan Not Installed ( ).

**Probable Cause:**

The SAF-TE Device is reporting a potential problem condition.

**Recommended Action:**

1. Refer to the Array Service Guide for additional information describing the message in more detail.
2. Contact Support.

**Event: 3310.LogEvent**

Component: insufficient\_memory

EventCode: 18.20.187

**Severity: Error**  
**Action\_required: Yes****Sample Description**

There is insufficient memory to fully support the current config.

**Probable Cause:**

The array does not have sufficient memory installed.

**Recommended Action:**

Contact Support.

**Event: 3310.LogEvent**

Component: logical\_drive

EventCode: 18.20.188

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Logical Drive ALERT: Add SCSI Drive Operation Failed.

**Probable Cause:**

The drive just inserted failed to become ready.

**Recommended Action:**

Reseat the drive in the enclosure, and retry the operation.

**Event: 3310.LogEvent**

Component: peripheral\_device

EventCode: 18.20.189

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[3F21] Peripheral Device ALERT: Power Supply \_ Failure Detected.

**Probable Cause:**

Fan not present.

**Recommended Action:**

1. Check that the power cooling unit is inserted.
2. Reseat the identified power cooling unit.
3. If power cooling unit fails to come online, contact Support.

**Event: 3310.LogEvent**

Component: array\_error

EventCode: 18.20.90

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3310.LogEvent**

Component: fan

EventCode: 18.20.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

2 device\_error(s) found in logfile (related to 3310 [device]): 2003-10-01 17:15:50 [3F3F]  
#8: SES Device on Storage Array SN#[s/n] CH2 ID12: ALERT: Fan 1 cooling fan state changed to critical:

**Probable Cause:**

The fan is not present.

**Recommended Action:**

1. Check that power cooling unit is inserted.
2. Reseat the identified power cooling unit.
3. If fan fails to come online, contact Support.

**Event: 3310.LogEvent**

Component: cpu

EventCode: 18.20.116

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

Storage A.D.E. found CPU messages. Reported for indication of possible error.

**Recommended Action:**

1. Check the Storage A.D.E. log message file for 3310 events.
2. Check the Storage A.D.E. status of the controller.

**Event: 3310.LogEvent**

Component: predictable\_failure

EventCode: 18.20.190

**Severity: Warning**  
**Action\_required: No****Sample Description**

[1142] SMART-CH:\_ ID:\_ Predictable Failure Detected (TEST).

**Probable Cause:**

The RAID controller has predicted a component failure.

**Recommended Action:**

1. Review the Storage A.D.E. Event Log for details.
2. Contact Support.

**Event: 3310.LogEvent**

Component: scsi\_drive\_alert

EventCode: 18.20.191

**Severity: Error**  
**Action\_required: Yes****Sample Description**

CHL:\_ ID:\_ SCSI Target ALERT: Gross Phase/Signal Error Detected.

**Probable Cause:**

The RAID controller has detected a bus reset.

**Recommended Action:**

1. Review the Storage A.D.E. Event Log for details.
2. Contact Support.

**Event: 3310.LogEvent**

Component: power\_supply\_insert

EventCode: 18.20.373

**Severity: Info**  
**Action\_required: No****Sample Description**

[3F81] #27: SAF-TE Device on StorEdge Array SN#10548 CH0 ID14: NOTICE: PS 1 Power Supply OK

**Probable Cause:**

The array has detected a new power supply.

**Recommended Action:**

No action required.

**Event: 3310.LogEvent**

Component: controller\_init

EventCode: 18.20.179

**Severity: Warning**  
**Action\_required: No****Sample Description**

2 device\_error(s) found in logfile.

**Probable Cause:**

Controller reboot.

**Recommended Action:**

If the controller reboot was not user directed, contact Support.

**Event: 3310.LogEvent**

Component: device\_error

EventCode: 18.20.158

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3310.LogEvent**

Component: device\_warning

EventCode: 18.20.159

**Severity: Warning**  
**Action\_required: No****Sample Description**

Warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Storage A.D.E. monitors the array log file for specific patterns.

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3310.LogEvent**

Component: device\_notice

EventCode: 18.20.160

**Severity: Info**  
**Action\_required: No****Sample Description**

Notice(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Storage A.D.E. monitors the array log file for specific patterns.

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3310.LogEvent**

Component: controller

EventCode: 18.20.12

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Storage Array SN#s/n Controller ALERT: redundant controller failure detected.

### Probable Cause:

1. Controller has failed to respond to a request from Storage A.D.E. This may be due to power cycling or rebooting.
2. The controller has experienced a hardware failure and is no longer responding.

### Recommended Action:

1. Check the event message closely for possible initialization sequence.
2. Ensure initialization sequence completed successfully.
3. If controller fails to come online, replace controller.

**Event: 3310.QuiesceEndEvent**

Component:

EventCode: 18.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 3310.QuiesceStartEvent**

Component:

EventCode: 18.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 3310.ConnectivityLostEvent**

Component:

EventCode: 18.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: 3310.ComponentInsertEvent**  
Component: PRI\_RAID\_CONTROLLER  
EventCode: 18.40.272

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.006457' (PRI\_RAID\_CONTROLLER) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A raid controller, as identified by it's serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: RAID\_IO\_BOARD

EventCode: 18.40.274

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (RAID\_IO\_BOARD) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid IO board, as identified by it's serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: RAID\_CHASSIS\_BKPLN

EventCode: 18.40.273

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006355' (RAID\_CHASSIS\_BKPLN) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid chassis backplane, as identified by it's serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: SEC\_RAID\_CONTROLLER

EventCode: 18.40.275

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (SEC\_RAID\_CONTROLLER) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A raid controller, as identified by it's serial#, has been installed on the 3310 or the controller has been re-enabled.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: EMU\_BOARD

EventCode: 18.40.271

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (EMU\_BOARD) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A EMU board, as identified by it's serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: TERMINATOR\_BOARD

EventCode: 18.40.276

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (TERMINATOR\_BOARD) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new terminator board, as identified by its serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: disk  
EventCode: 18.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.[s/n]) was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentInsertEvent**

Component: logical\_drive

EventCode: 18.40.188

**Severity: Info**  
**Action\_required: No****Sample Description**

was added for 3310 [Array\_Name] ([IP\_Address]).

**Information:**

1. Execute 'scli <device-path> show logical-drives' to check the logical drive status
2. Make sure the added logical drive is intended to be added.

**Probable Cause:**

A logical drive was added for the array.

**Recommended Action:**

1. No action necessary.

**Event: 3310.ComponentInsertEvent**

Component: logical\_volume

EventCode: 18.40.416

**Severity: Info**  
**Action\_required: No****Sample Description**

was added for 3310 [Array\_Name] ([IP\_Address]).

**Information:**

1. Execute 'scli <device-path> show logical-volume' to check the logical volume status
2. Make sure the added logical volume is intended to be added.

**Probable Cause:**

A logical volume was added for the array.

**Recommended Action:**

- 1.No action nessesary.

**Event: 3310.ComponentInsertEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 18.40.270

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (AC\_POWER\_SUPPLY) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A AC power supply, identified by it's serial#, has been installed on the 3310.

**Recommended Action:**

No action required.

**Event: 3310.ComponentRemoveEvent**

Component: logical\_volume

EventCode: 18.41.416

**Severity: Info****Action\_required: Yes****Sample Description**

was removed from 3310 Device\_Name (wwn=WWN) (sn=WWN) logical\_volume.2FFDFFB5)

**Information:**

1. Execute 'sccli <device-path> show logical-volume' to check the logical volume status
2. Make sure the removed logical volume is intended to be removed.

**Probable Cause:**

A logical volume was removed from the array.

**Recommended Action:**

1. No action necessary if removal was intentional
2. Recreate logical volume and restore data if removal was not intentional

**Event: 3310.ComponentRemoveEvent**

Component: disk

EventCode: 18.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.[s/n]) was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A disk has failed or been removed

**Recommended Action:**

Replace disk.

**Event: 3310.ComponentRemoveEvent**

Component: logical\_drive

EventCode: 18.41.188

**Severity: Info**  
**Action\_required: No****Sample Description**

was removed from 3310 Device\_Name (wwn=WWN) (sn=WWN) logical\_drive.2FFB25B5)

**Information:**

1. Execute 'scli <device-path> show logical-drives' to check the logical drive status
2. Make sure the removed logical drive is intended to be removed.

**Probable Cause:**

A logical drive was removed from the array.

**Recommended Action:**

1. No action necessary if removal was intentional
2. Recreate logical drive and restore data if removal was not intentional

**Event: 3310.ComponentRemoveEvent**

Component: SEC\_RAID\_CONTROLLER

EventCode: 18.41.275

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (SEC\_RAID\_CONTROLLER) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information

**Event: 3310.ComponentRemoveEvent**

Component: TERMINATOR\_BOARD

EventCode: 18.41.276

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (TERMINATOR\_BOARD) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information

**Event: 3310.ComponentRemoveEvent**

Component: EMU\_BOARD

EventCode: 18.41.271

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

A raid EMU, as identified by it's serail #, has been removed from the 3310.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Replace the bad EMU board if necessary

**Event: 3310.ComponentRemoveEvent**

Component: PRI\_RAID\_CONTROLLER

EventCode: 18.41.272

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (PRI\_RAID\_CONTROLLER) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information

**Event: 3310.ComponentRemoveEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 18.41.270

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

The 3310 has reported that a AC power supply has been removed from the chassis

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Replace the bad Power Supply unit

**Event: 3310.ComponentRemoveEvent**

Component: RAID\_CHASSIS\_BKPLN

EventCode: 18.41.273

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006355' (RAID\_CHASSIS\_BKPLN) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current chassis fru information

**Event: 3310.ComponentRemoveEvent**

Component: RAID\_IO\_BOARD

EventCode: 18.41.274

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (RAID\_IO\_BOARD) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

cause=The array has reported that a controller was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing RAID Controller.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information

**Event: 3310.LoopCableDisconnect**

Component:

EventCode: 18.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: se.ValueChangeEvent-**

Component: lun

EventCode: 19.5.66

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'lun.2.lunStatus' on 3910 [Host\_Name] changed from 'mounted' to 'Offline'  
([Array\_Name]-vol1)

**Event: se.ValueChangeEvent-**

Component: remove\_lun

EventCode: 19.5.85

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Lun [Device\_Name]-vol66/6257335830303667 removed

**Event: se.CommunicationLostEvent**

Component: oob

EventCode: 19.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (OutOfBand([Host\_Name])) with se [Array\_Name] ([IP\_Address]) :

**Information:**

OutOfBand. Ethernet access to the unit cannot be confirmed.

**Probable Cause:**

The device specified in the event description has failed to answer ping or return valid status.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: se.QuiesceEndEvent**

Component:

EventCode: 19.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI. This event means that the monitoring has been resumed.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

No Action is Required.

**Event: se.QuiesceStartEvent**

Component:

EventCode: 19.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI. This event means that the monitoring has been stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

No Action is Required.

**Event: se.AgregatedEvent**

Component: POWERSEQ1

EventCode: 19.33.64

**Severity: Warning**  
**Action\_required: Yes**

---

Sample Description

Aggregated event related to POWERSEQ1

**Event: se.ConnectivityLostEvent**

Component:

EventCode: 19.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: se.StateChangeEvent**

Component: sp

EventCode: 19.37.98

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

[Array\_Name] in SE- [Host\_Name]: 'disk.u1d9' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'unknown' to 'fault-enabled'):

**Event: se.StateChangeEvent**

Component: port

EventCode: 19.37.35

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

External Port of [Device\_Name] on SE-[Host\_Name] ([IP\_Address]): 'port.2' in SWITCH  
[Device\_Name] ([IP\_Address]) is now Not-Available (state changed from 'Online' to 'Offline'):

**Event: se.StateChangeEvent**

Component: slot

EventCode: 19.37.84

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

[Array\_Name] in SE- [Host\_Name]: 'disk.u1d9' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'unknown' to 'fault-enabled'):

**Event: se.StateChangeEvent**

Component: links

EventCode: 19.37.83

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

'links' in SE 6910 [Host\_Name]: 06-19 13:01:39 ITW-ERROR (185 in 54 mins): Origin: port 2  
on 've '[Device\_Name]/[WWN]': Destination: port 1 on switch '[Device\_Name]/[IP\_Address]':

**Event: se.ComponentInsertEvent**

Component: lun

EventCode: 19.40.66

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

lun.2(0103001060020F200000580E3D32BE17000389D8) was added to 3910 [Host\_Name]

**Event: se.ComponentRemoveEvent**

Component: lun

EventCode: 19.41.66

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

lun.2(0103001060020F200000580E3D32BE17000389D8) was removed from 3910 [Host\_Name]

**Event: se.ComponentRemoveEvent**

Component: slot

EventCode: 19.41.84

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

slot.1(slr-mi.370-3990-01-e-f0.027582) was removed from [Host\_Name]

**Event: se.LinkEvent\_CRC**

Component:

EventCode: 19.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: se.LinkEvent\_SIG**

Component:

EventCode: 19.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: se.LoopCableDisconnect**

Component:

EventCode: 19.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: se2.ValueChangeEvent**

Component: power\_sequencer

EventCode: 20.3.110

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Power sequencer on 6920 sp1 changed from 'POWER\_MGMT\_NOT\_ENABLED' to 'ERR'  
(REMOTE\_SEQUENCER\_ERROR)

**Probable Cause:**

The Power Sequencer has changed to a negative state.

**Recommended Action:**

1. Verify the cables to the sequencer card are connected.
  - . USB at Service Processor
  - . USB at card in service panel
2. Ensure that the power has not been turned off.

**Service:**

se.extract

**Event: se2.ValueChangeEvent**

Component: power\_sequencer\_timeout

EventCode: 20.3.447

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

The checkPower routine timed out.

**Recommended Action:**

Increase timeout value in the UI, Administration > General Setup > Timeout Settings for Power Sequencer

**Event: se2.ValueChangeEvent**

Component: core\_file

EventCode: 20.3.261

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

New core file \$file available for download in Storage A.D.E. UI

**Probable Cause:**

6020 array or DSP device failure has occurred generating a core file.

**Recommended Action:**

Use the Service Advisor procedure to download the core. Isolate further using the Storage A.D.E. UI for current health

**Service:**

se.core

**Event: se2.ValueChangeEvent+**

Component: power\_sequencer

EventCode: 20.4.110

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power\_sequencer' on 6120 [Array\_Name] is 'ON'

**Event: se2.ValueChangeEvent-**

Component: power\_sequencer

EventCode: 20.5.110

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'status' of 'info.power\_sequencer' on [SP\_Name] is '[Undefined]' (previous 'status' was 'ON')

**Probable Cause:**

The Power Sequencer has changed to a negative state.

**Recommended Action:**

1. Verify the cables to the sequencer card are connected.
  - . USB at Service Processor
  - . USB at card in service panel
2. Ensure that the power has not been turned off.

**Event: se2.ValueChangeEvent-**

Component: lun

EventCode: 20.5.66

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'lun.2.lunStatus' on SE Solution Rack [Host\_Name] changed from 'mounted' to 'Offline' ([Array\_Name]-vol1)

**Event: se2.CommunicationLostEvent**

Component: oob

EventCode: 20.12.31

**Severity: Err/Critical**

**Action\_required: Yes**

---

**Sample Description**

Lost communication (OutOfBand(Host\_Name)) with se2 [Array\_Name] : No Report available!

**Probable Cause:**

Cannot access the Service Processor of this array  
Service Processor experienced a hardware failure  
Hardware failure in the Service Processor Accessory Tray

**Recommended Action:**

Verify power to the Service Processor.  
Verify power to the Service Processor Accessory Tray.  
Verify ethernet connectivity.  
Verify the boot status of the Service Processor.  
Call support provider for additional assistance.

**Event: se2.LogEvent**

Component: driver.MPXIO\_offline

EventCode: 20.20.313

**Severity: Warning**  
**Action\_required: No****Sample Description**

Found in logfile /var/adm/messages on Host\_Name (related to se2 6920-sp0/IP\_Adress:6789):

Jan 9 09:44:16, WWN:wwn, Host\_Name mpzio: [ID 779286 kern.info] /scsi\_vhci/ssd@wwn (ssd3) multipath

**Information:**

The MPxIO multipathing software has noted the path to a storage device has gone offline.

**Recommended Action:**

1. Check the Topology View to see what device(s) are affected.
2. Check all cables and connections.
3. Check for other alerts that may indicate an underlying problem.  
(e.g. Switch Ports offline)
4. The outputs of 'cfgadm -al' and 'luxadm -e port' may uncover other fabric problems.

**Event: se2.LogEvent**

Component: driver.Fabric\_Warning

EventCode: 20.20.308

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found 1 'driver.Fabric\_Warning' warning(s) in logfile: /var/adm/messages on [Host\_Name]  
(id=hostid)

**Information:**

Fabric warning

**Event: se2.LogEvent**

Component: driver.SSD\_ALERT

EventCode: 20.20.329

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_ALERT' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Information:**

Storage A.D.E scrubs the system log file for patterns that match known failure signatures. These warnings could indicate

Actual pattern match "WARNING.\*\((ssdd+)\)"

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and exceeded

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Run link test to isolate a possible bad GBIC, cable, switch, etc.
4. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: se2.LogEvent**

Component: driver.SSD\_WARN

EventCode: 20.20.330

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_WARN' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Information:**

Storage A.D.E scrubs the system log file for patterns that match known failure signatures. These warnings could indicate

Actual pattern match "WARNING.\*\((ssdd+)\)"

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and exceeded

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Run link test to isolate a possible bad GBIC, cable, switch, etc.
4. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: se2.QuiesceEndEvent**

Component:

EventCode: 20.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: se2.QuiesceStartEvent**

Component:

EventCode: 20.23.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Quiesce Start on [Array\_Name] ([IP\_Address])

**Event: se2.StateChangeEvent+**

Component: slot

EventCode: 20.25.84

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

[Array\_Name] in SE- [Host\_Name]: 'disk.u1d9' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'fault' to 'normal-enabled'):

**Event: se2.StateChangeEvent-**

Component: slot

EventCode: 20.26.84

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[Array\_Name] in SE- [Host\_Name]: 'disk.u1d9' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'unknown' to 'fault-enabled'):

**Information:**

An SE event means that the solution system experienced an anomaly within a component of the cabinet.

**Probable Cause:**

The actual description will indicate the specific component and the problem with that component.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Contact support provider for additional assistance.

**Event: se2.AgregatedEvent**

Component: POWERSEQ1

EventCode: 20.33.64

---

**Severity: Warning**  
**Action\_required: Yes**

**Sample Description**

Aggregated event related to POWERSEQ1

**Information:**

The SE Solution Rack has reported an Aggregated Event related to the Power Sequencer

**Event: se2.ConnectivityLostEvent**

Component:

EventCode: 20.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: se2.StateChangeEvent**

Component: port

EventCode: 20.37.35

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

External Port of [Device\_Name] on SE-[Host\_Name] ([IP\_Address]): 'port.2' in SWITCH  
[Device\_Name] ([IP\_Address]) is now Not-Available (state changed from 'Online' to 'Offline'):

**Event: se2.StateChangeEvent**

Component: sp

EventCode: 20.37.98

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

[Array\_Name] in SE- [Host\_Name]: 'disk.u1d9' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'unknown' to 'fault-enabled'):

**Event: se2.StateChangeEvent**

Component: links

EventCode: 20.37.83

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

'links' in SE 6910 [Host\_Name]: 06-19 13:01:39 ITW-ERROR (185 in 54 mins): Origin: port 2  
on 've '[Device\_Name]/[WWN]': Destination: port 1 on switch '[Device\_Name]/[IP\_Address]':

**Event: se2.ComponentInsertEvent**

Component: lun

EventCode: 20.40.66

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

lun.2(wwn) was added to 3910 [Host\_Name]

**Event: se2.ComponentRemoveEvent**

Component: slot

EventCode: 20.41.84

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

slot.1(Unique\_Key) was removed from [Host\_Name]

**Event: se2.ComponentRemoveEvent**

Component: lun

EventCode: 20.41.66

**Severity: Error**  
**Action\_required: Yes****Sample Description**

lun.2(wwn) was removed from 3910 [Host\_Name]

**Information:**

Storage A.D.E has detected a serial number or state/status change in the FRU detailed in the event.

**Probable Cause:**

These changes are typically due to service and/or administrative actions.

**Recommended Action:**

Verify with the system admin that the change was intentional and no unknown access loss has been incurred.

**Event: se2.LinkEvent\_CRC**

Component:

EventCode: 20.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: se2.LinkEvent\_SIG**

Component:

EventCode: 20.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: se2.LoopCableDisconnect**

Component:

EventCode: 20.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: 6120.ValueChangeEvent**

Component: disk.statistics

EventCode: 21.3.150

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

CRC on disk.u1d01 (path 0) changed from 0 to 10 on [device\_name]

**Information:**

CRC Internal Fibre Channel counter on array increased.

**Event: 6120.ValueChangeEvent**

Component: loop.statistics

EventCode: 21.3.115

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Internal Loop statistics changed on [Array\_Name]

**Information:**

Internal loop statistics monitors the fibre channel counters of each of the 3 ses chips on each controller.

**Event: 6120.ValueChangeEvent**

Component: initiators

EventCode: 21.3.78

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

initiator changed from old\_value to new\_value

**Event: 6120.ValueChangeEvent**

Component: system\_reboot

EventCode: 21.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

System reboot for 6120 [Array\_Name] (ip=[IP\_Address]) changed from '2003-2-13 17:32:43' to '2002-9-16 17:32:43'

**Information:**

Event is generated when the reboot date/time changed by at least 5 minutes.

**Probable Cause:**

A power hit.  
Purposely rebooted.  
Date command executed.

**Recommended Action:**

1. Verify if a reboot was on purpose and was successful.
2. Use the Storage A.D.E UI Log viewer to check mirrored log file for the date command.
3. Check power source(s) to ensure solid connections throughout.

**Event: 6120.ValueChangeEvent**

Component: lunPermission

EventCode: 21.3.79

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The access permission has changed for LUN 01 from old\_access to new\_access.

**Event: 6120.ValueChangeEvent**

Component: volCount

EventCode: 21.3.87

**Severity: Warning**  
**Action\_required: No****Sample Description**

Number of LUN(s) on 6120 [Array\_Name] ([IP\_Address]) from 10 to 12

**Probable Cause:**

Volume slices have been removed.

**Recommended Action:**

If Volume slice removal was not intentional

1. Call Sun support to try and recover Volume slices without data loss.
2. Re-create Volume slices and restore data.

**Event: 6120.ValueChangeEvent**

Component: identification

EventCode: 21.3.156

**Severity: Warning**  
**Action\_required: No****Sample Description**

The identification of this device changed from 'slr-mi.370-3990-01-e-f0.027582' to 'slr-mi.370-3990-01-e-f0.027599'

**Information:**

The u1 midplane is returning a new serial#.

**Probable Cause:**

The midplane was replaced

**Recommended Action:**

No Action Required.

**Event: 6120.ValueChangeEvent**

Component: system\_time\_token

EventCode: 21.3.169

**Severity: Warning**  
**Action\_required: No****Sample Description**

System reboot for 6120 [Array\_Name] (ip=[IP\_Address]) changed from '2003-2-13 17:32:43' to '2002-9-16 17:32:43'

**Information:**

This event is generated when the reboot date/time of a 6120 is not reported.

**Probable Cause:**

The 6120 could have experienced a power hit or may be rebooting.

**Recommended Action:**

1. Verify with administrator that if a reboot did in fact occur, it was successful.
2. Verify with administrator that the reboot was done on purpose.
3. Use the Storage A.D.E GUI Log viewer to check the devices mirrored syslog for the date command.
4. Check Storage A.D.E for current status of other monitored devices with similar events.
5. Check the cabinets power source to ensure solid connections throughout the distribution.

**Event: 6120.ValueChangeEvent**

Component: volOwner

EventCode: 21.3.76

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Volume owner for u1vol1 changed from 'u1' to 'u2'

**Probable Cause:**

Volume or controller failover has occurred.  
This could be the result of a hardware error.  
This could be due to administrator action.

**Recommended Action:**

1. Check Controller, Cable, SFP, Switch and HBA status
2. Check correct Multipathing settings.
3. When error is corrected, use Multipathing software to return volume back to primary owner.

**Event: 6120.ValueChangeEvent**

Component: disk.Glist

EventCode: 21.3.175

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u1d1.fruDiskGlist in [array]: counter increased by 998 in 152 mins

**Information:**

The disk has exceeded the Storage A.D.E Defect Growth List threshold.

**Probable Cause:**

Glist growth occurs due to successfully reallocated blocks.

**Recommended Action:**

1. Monitor disk in Storage A.D.E GUI.

**Event: 6120.ValueChangeEvent**

Component: log

EventCode: 21.3.55

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Errors(s) found in logfile: [Array\_Messages\_Logfile]

**Information:**

This event includes all important errors found.

**Recommended Action:**

1. Check the messages file for appropriate action

**Event: 6120.ValueChangeEvent**

Component: revision

EventCode: 21.3.42

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Revision on controller.u1ctr1 in 6120 [Array\_Name] ([IP\_Address]) from R01 to R02

**Event: 6120.ValueChangeEvent**

Component: time\_diff

EventCode: 21.3.56

**Severity: Info**  
**Action\_required: No****Sample Description**

Time of 6120 [Array\_Name] ([IP\_Address]) is different from host: 6120=Fri Oct 26 10:16:17  
200, Host=2001-10-26 12:21:04

**Recommended Action:**

1) Fix the date/time on the 6120 using the date command. Date and time should be the same as the monitoring host.

**Event: 6120.ValueChangeEvent**

Component: lunCount

EventCode: 21.3.265

**Severity: Warning**  
**Action\_required: No****Sample Description**

The number of LUN(s) on t3 [Array\_Name] (ip=[IP\_Address]) changed from 10 to 12

**Information:**

Storage A.D.E verifies the number of volumes through token id 'volCount'

**Probable Cause:**

1. Potential hardware problem in the array.
2. Administrative or remedial maintenance process taking place.

**Recommended Action:**

1. Verify with administrator that the LUN change was done on purpose and that the LUN change was successfully recognized by the host.
2. Check the overall state and status of each FRU in the array

**Event: 6120.ValueChangeEvent**

Component: backend\_loop

EventCode: 21.3.111

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'loop.u1p1.loopStatus' on [Array\_Name] changed from 'available' to 'unavailable'

**Information:**

The array has reported the status of a loop is not Optimal.  
the state/status of the device.

**Probable Cause:**

Storage A.D.E detected a change in the loopStatus token element of loopInf.htm.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state/status of the Array.
2. Check cable connections.

**Event: 6120.ValueChangeEvent**

Component: device\_path

EventCode: 21.3.112

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Path 50020f230000ddee to 6120 [Array\_Name]/[IP\_Address] disappeared from the host

**Information:**

Storage A.D.E will generate this event when a device disappears from the "luxadm probe" list.

**Probable Cause:**

A LUN presented to the host is no longer available to Solaris.

**Recommended Action:**

1. Check the Storage A.D.E GUI for events relating to the device in the message.
2. Check the Storage A.D.E topology view for link errors associated with the device connections.
3. Check Storage A.D.E for events associated with the components connected to the device in the message as per the topology.

**Event: 6120.ValueChangeEvent+**

Component: cacheMode

EventCode: 21.4.77

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The 'State' of 'volume.u2vol1.volCacheMode' on array00 is 'writeBehind' (previous 'State' was 'writeThrough')

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6120.ValueChangeEvent+**

Component: portStatus

EventCode: 21.4.445

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The 'portStatus' of 'array00' on array00 is 'online' (previous 'portStatus')

**Information:**

The Fibre Port has come online.

**Probable Cause:**

1. The Port has been connected.

**Event: 6120.ValueChangeEvent+**

Component: power.fan

EventCode: 21.4.39

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.Fan' on t3-88 changed from '[Undefined]' to 'normal'

**Event: 6120.ValueChangeEvent+**

Component: cacheMirror

EventCode: 21.4.123

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

CacheMirror on [Array\_Name] ([IP\_Address]) change from off to on

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6120.ValueChangeEvent+**

Component: power.battery

EventCode: 21.4.38

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.fruPowerBatState' on t3-88 changed from '[Undefined]' to 'normal'

**Event: 6120.ValueChangeEvent+**

Component: volOper

EventCode: 21.4.155

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'volume.u1vol1.volOper' on [Array\_Name] changed from 'reconstructing' to 'OK'

**Information:**

Volume Operation

**Event: 6120.ValueChangeEvent+**

Component: power.output

EventCode: 21.4.40

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.Output' on t3-88 changed from '[Undefined]' to 'normal'

**Event: 6120.ValueChangeEvent+**

Component: power.temp

EventCode: 21.4.41

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of power.u1pcu1.PowTemp on [Array\_Name] ([IP\_Address]) is Normal

**Event: 6120.ValueChangeEvent+**

Component: sysvolslice

EventCode: 21.4.48

**Severity: Info**  
**Action\_required: No**

---

### Sample Description

Volume Slicing is now on!

### Information:

The vol slice feature is available on the 6120.

This option enables volume slicing, up to 16 LUN's per single T3 or partner pair. This also enables lun masking (HBA Zoning) features.

### Recommended Action:

The option enable\_volslice is disabled by default. To activate the feature type 'sys enable\_volslice on' from the T3 command line. Notification regarding slice and LUN changes will occur when changes are made to volume slices and lun masks. Volume slice or LUN mask changes which were not initiated by a user could indicate a potential problem. Please connect to the storage device or the appropriate management software to validate the system status.

**Event: 6120.ValueChangeEvent+**

Component: backend\_loop\_split

EventCode: 21.4.144

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of 'loop.u1lp1.loopsIsolated' on [Array\_Name] changed from 'no' to 'yes'

**Information:**

The Loop Card cable status has changed state.

**Probable Cause:**

Storage A.D.E detected a change in the loopStatus token element of loopInf.htm.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state/status of the Array.
2. Check cable connections.

**Event: 6120.ValueChangeEvent-**

Component: backend\_loop\_split

EventCode: 21.5.144

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of 'loop.u1p1.loopsIsolated' on [Array\_Name] changed from 'yes' to 'no'

**Information:**

The Loop Card cable status has changed state.

**Probable Cause:**

Storage A.D.E detected a change in the loopStatus token element of loopInf.htm.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state/status of the Array.
2. Check cable connections.

**Event: 6120.ValueChangeEvent-**

Component: sysvolslice

EventCode: 21.5.48

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Volume Slicing is now off!

### Information:

The vol slice feature is possible in 6120+ firmware 2.1 and above. This option enables volume slicing, up to 16 LUN's per single 6120 or partner pair. This also enables lun masking (HBA Zoning) features.

### Recommended Action:

The option enable\_volslice is disabled by default. To activate the feature type 'sys enable\_volslice on' from the 6120 command line. Notification regarding slice and LUN changes will occur when changes are made to volume slices and lun masks. Volume slice or LUN mask changes which were not initiated by a user could indicate a potential problem. Please connect to the storage device or the appropriate management software to validate the system status.

**Event: 6120.ValueChangeEvent-**

Component: disk.pathstat

EventCode: 21.5.93

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of disk pathstat changed

**Information:**

Storage A.D.E monitors the tokens that are equivalent to the ".disk pathstat uXdNN" command.

**Probable Cause:**

A disk drive has experienced a failover of one of its loops.

**Recommended Action:**

1. Check the Storage A.D.E GUI for events relating to the array called out in the message.
2. Check the Storage A.D.E GUI for the current status of the disk drive called out in the message.
3. Replace disk

**Event: 6120.ValueChangeEvent-**

Component: disk.temperature

EventCode: 21.5.94

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The temperature of disk.u1d1 went over 40.

**Information:**

Storage A.D.E monitors the temperature of the disks in the enclosure.

**Probable Cause:**

Storage A.D.E detected a discrepancy in the token information about the disk temperature returned by the array.

**Recommended Action:**

1. Check Storage A.D.E for additional event information pertaining to the disk called out in the event.
2. Check airflow in and around the array.

**Event: 6120.ValueChangeEvent-**

Component: power.temp

EventCode: 21.5.41

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.PowTemp on [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of the temperature in the 6120 Power Cooling Unit is either too high or is unknown.

**Probable Cause:**

A PCU change in state can happen due to the following reasons.

1. Internal/External Power loss
2. Power switch has been turned off
3. PCU failures
4. Battery failures
5. Controller Failover

**Recommended Action:**

1. Check Power Supply and Cables
2. Check the overall state-status of the array
3. Check with onsite administration/service for expected occurrence
4. Replace PCU
5. Replace Battery

**Event: 6120.ValueChangeEvent-**

Component: cacheMirror

EventCode: 21.5.123

**Severity: Warning**  
**Action\_required: No****Sample Description**

CacheMirror on [Array\_Name] ([IP\_Address]) change from on to off

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

Cacheing changes are only a symptom and potentially the result of a hardware issue in the array.

- Controller Failure
- Battery/Power Failure
- Battery Refresh/Test
- Disk Failure
- Loop Failure

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6120.ValueChangeEvent-**

Component: power.battery

EventCode: 21.5.38

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'power.u2pcu2.fruPowerBatState' on [Array\_Name] changed from "OLD\_VALUE" to "NEW\_VALUE"

**Information:**

This event is generated for a state change to the battery information obtained from the array by Storage A.D.E.

**Probable Cause:**

1. Battery state changes can occur for several reasons, the best source of information will be in the message itself indicating the new state.
2. A refresh cycle can cause a "normal" 'fault' state.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state and status of the PCU's in the array.
2. Telnet to the suspect array and check status of the battery:  
    <array>: fru stat  
    <array>: refresh -s
3. Replace the suspect Battery or the whole PCU in the array.
4. Check airflow.

**Event: 6120.ValueChangeEvent-**

Component: power.output

EventCode: 21.5.40

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.PowOutput on [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of the power in the 6120 Power Cooling Unit is not optimal.

**Probable Cause:**

1. Voltage Level on Power Supply and Battery have moved out of acceptable thresholds.
2. The internal PCU temp has exceeded acceptable thresholds.
3. A PCU fan has failed.

**Recommended Action:**

1. Telnet to affected 6120
2. Verify Power Cooling Unit State in 'fru stat'
3. Replace PCU if necessary

**Event: 6120.ValueChangeEvent-**

Component: volOper

EventCode: 21.5.155

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The state of 'volume.u1vol1.volOper' on [Array\_Name] changed from 'OK' to 'reconstructing'

**Information:**

Volume Operation

**Event: 6120.ValueChangeEvent-**

Component: portStatus

EventCode: 21.5.445

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The 'portStatus' of 'array00' on array00 is 'offline' (previous 'portStatus was 'online')

**Information:**

The Fibre Port has gone offline.

**Probable Cause:**

1. Fibre Cable was removed from Array
2. Fibre cable was removed from adjacent Device
3. Fibre cable has malfunctioned.

**Recommended Action:**

Check both side of fibre cable for disconnections or replace the fibre.

**Event: 6120.ValueChangeEvent-**

Component: disk

EventCode: 21.5.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'State' of disk.u2d11 in 6120 t4-96 is 'notInstalled-missing'

**Probable Cause:**

The disk has gone into a non-optimal state.

**Recommended Action:**

1. Check Storage A.D.E GUI to verify status of the array.
2. Check for LED status on the array.
3. Reseat drive.
4. Replace drive if needed.

**Event: 6120.ValueChangeEvent-**  
Component: interface.loopcard.cable  
EventCode: 21.5.25

---

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

The state of loopcable.u1l1.CableState changed from 'OK' to 'failed'

### Information:

The 6120 has reported a problem with a loopcard cable.

### Probable Cause:

The array has reported that a LoopCable has a problem

### Recommended Action:

1. Verify the connections of the Loop Card interconnect cables
2. Verify loopcard state with 'fru stat'
3. Verify matching firmware with other loopcard
4. Re-enable loopcard if possible (enable u(encid)|[1|2])
5. Replace loopcard if necessary

**Event: 6120.ValueChangeEvent-**

Component: disk.port

EventCode: 21.5.14

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of disk.u1d1.Port1State on 6120 [Array\_Name] ([IP\_Address]) changed from 'OK' to 'failed'

**Probable Cause:**

The array has reported that a port of a dual-ported disk has failed

**Recommended Action:**

1. Check Storage A.D.E status of the array
2. Telnet to the array and verify disk state in 'fru stat' and 'vol stat'
3. Replace disk if necessary
4. Verify the connections of the Loop Card interconnect cables

**Event: 6120.ValueChangeEvent-**

Component: power.fan

EventCode: 21.5.39

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.Fan1State on [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of a fan on the 6120 is not optimal

**Probable Cause:**

Problem with the Power Cooling Unit called out in the event.

**Recommended Action:**

1. Telnet to affected 6120
2. Verify fan state with 'fru stat'
3. Replace Power Cooling Unit if necessary

**Event: 6120.ValueChangeEvent-**

Component: cacheMode

EventCode: 21.5.77

**Severity: Warning**  
**Action\_required: No****Sample Description**

The 'State' of 'volume.u2vol1.volCacheMode' on array00 is 'writeThrough' (previous 'State' was 'writeBehind')

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

Cacheing changes are only a symptom and potentially the result of a hardware issue in the array.

- Controller Failure
- Battery/Power Failure
- Battery Refresh/Test
- Disk Failure
- Loop Failure

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6120.AuditEvent**

Component:

EventCode: 21.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new 6120 called ras [Array\_Name] ([IP\_Address]) slr-mi.370-3990-01-e-e1.003239

**Information:**

Audits occur every week

**Event: 6120.CommunicationEstablishedEvent**

Component: ib

EventCode: 21.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Information:**

InBand is considered Fibre Channel access using luxadm commands.

**Probable Cause:**

Fibre Channel access to the array has been re-established.

**Recommended Action:**

No Action is Required.

**Event: 6120.CommunicationEstablishedEvent**

Component: oob

EventCode: 21.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address])

**Information:**

OutOfBand is considered Ethernet access using 'ping' and 'http'

**Probable Cause:**

Ethernet access to the array has been re-established.

**Recommended Action:**

No Action is Required.

**Event: 6120.CommunicationLostEvent**

Component: oob

EventCode: 21.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address])

**Information:**

OutOfBand. This means that the 6120 failed to answer to ping or failed to return it's tokens.

**Probable Cause:**

This problem can be caused by a very slow network, controller failover, or because the ethernet connection to this 6120 was lost.

**Recommended Action:**

1. Check Power on array
2. Check Ethernet connectivity to the affected 6120
3. Check the overall state-status of the array
4. Verify correct TCP/IP settings on 6120
5. Increase the http and/or ping timeout in  
Administration -> System Utilities -> System Timeouts  
Current default timeouts are:  
ping: 10 secs  
http: 60 secs

**Event: 6120.CommunicationLostEvent**

Component: ib

EventCode: 21.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Information:**

InBand. This event is established using luxadm. This monitoring may not be activated for a particular 6120.

**Recommended Action:**

1. Verify luxadm via command line  
luxadm probe  
luxadm display </dev/rdisk/c#t#d#s2>
2. Verify cables, GBICs, Power, and connections along data path.
3. Check SAN Topology GUI to identify failing segment of the data path
4. Verify correct FC switch configuration (If applicable)

**Event: 6120.DiagnosticTest-**

Component: 6120ofdg

EventCode: 21.13.105

**Severity: Error**  
**Action\_required: No****Sample Description**

6120ofdg ([Host\_Name]) on [Array\_Name] ([IP\_Address]) failed

**Probable Cause:**

The results of ofdg testing on a 6120 unit resulted in a failed status.  
Ofdg is an offline diagnostic utility. The failed stated is a result of a healthcheck failure.

**Recommended Action:**

1. Check Test Manager for details on why test failed.
  2. Review the 6120 syslog from unit where ofdg was run.
- \* The complete ofdg results will be written to the unit's syslog facility

**Event: 6120.DiagnosticTest-**

Component: 6120volverify

EventCode: 21.13.106

**Severity: Error**  
**Action\_required: No**

---

### Sample Description

6120volverify ([Host\_Name] on [Array\_Name] ([IP\_Address])) failed

### Information:

The vol verify command compares the constructed parity with the stored parity. This implementation assumes that the integrity of the data drives is correct. The 'fix' option will update the parity drive only.

**Event: 6120.DiagnosticTest-**

Component: 6120test

EventCode: 21.13.349

**Severity: Error**  
**Action\_required: No**

---

Sample Description

6120test ([Host\_Name] on [Array\_Name] ([IP\_Address]) failed

**Event: 6120.DiscoveryEvent**

Component:

EventCode: 21.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new 6120 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 6120.LocationChangeEvent**

Component:

EventCode: 21.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 6120 [Array\_Name] ([IP\_Address]) was changed

**Event: 6120.LogEvent**

Component: faulty\_port

EventCode: 21.20.204

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

Error found in logfile: E: u5d07 has faulty port on loop 2

### Information:

The array has reported that one port of a dual-ported disk has failed

**Event: 6120.LogEvent**

Component: power.battery.refresh

EventCode: 21.20.108

**Severity: Warning**  
**Action\_required: No****Sample Description**

2003-02-13 14:33:02 1 array\_warning(s) found in logfile [Array\_Message\_Logfile]  
(indicating problem with 6120 [Array\_Name]/[IP\_Address]): Feb 13 15:29:26 [Array\_Name] LPCT[1]: N: u1p

**Information:**

The Storage Array has a process that executes according to the /etc/bat.conf file on the 6120. The process monitors the Battery portion of the PCU.

**Probable Cause:**

A refresh message was posted to the log file indicating that the batteries are recharging.

**Recommended Action:**

1. Monitor the cycle and ensure proper completion.
2. Check the Storage A.D.E GUI for current state and status of the PCU's in the array.
3. Check the Storage A.D.E GUI for warranty dates and battery usage calculations and follow proper PFA strategies for replacing the unit.

**Event: 6120.LogEvent**

Component: power.battery.replace

EventCode: 21.20.109

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

2 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with '6120 Array\_Name/IP\_Address'): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days 'battery life left, Re

**Information:**

A message was found in the 6120 Message Log file indicating a status of the Battery that warrants notification.

**Probable Cause:**

1. The battery warranty period is about to expire.
2. The battery hold time may be low or can no longer hold a charge.

**Recommended Action:**

1. Check Storage A.D.E status of the PCU batteries for this array.
2. Telnet to the ARRAY and run 'refresh -s' to verify battery state.
3. Replace battery.

**Event: 6120.LogEvent**  
Component: cmd.error14  
EventCode: 21.20.426

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120 sp0-array00/192.168.0.40): Sep 29 12:11:34 array00 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x1

### Information:

Command error 14 is indicating the a hard failure to this disk.

### Probable Cause:

A mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.
2. Replace disk.

**Event: 6120.LogEvent**

Component: cmd.error3

EventCode: 21.20.427

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120 sp0-array01/192.168.0.41):Sep 29 12:11:34 array00 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x3

### Information:

Command Error 3 is indicating the I/O operation retries on this disk have successfully completed but with a recovered error.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.

**Event: 6120.LogEvent**

Component: device\_notice

EventCode: 21.20.160

**Severity: Info**  
**Action\_required: No****Sample Description**

notice(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the [Array\_Log\_File] message.

**Event: 6120.LogEvent**

Component: cmd.error4

EventCode: 21.20.428

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120  
sp0-array01/192.168.0.41):Sep 29 12:11:34 array00 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x4:

### Information:

Command error 4 is indicating the I/O operation retries on this disk  
have been exhausted.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.

**Event: 6120.LogEvent**

Component: fru\_disabled

EventCode: 21.20.168

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 device\_error(s) found in logfile /var/adm/messages.array (related to 6120  
Array\_Name/IP\_Address) : (TimeZone MST)Feb 18 13:26:18 array01 LPCT[1]: W: u1pcu1 Disabled::

**Information:**

A message stating "FRU is disabled" was found in mirrored log file.

**Probable Cause:**

1. A hardware failure with the FRU in question.
2. Administrative or remedial maintenance taking place.

**Recommended Action:**

Review pre/post Critical events for indications as to root cause.

**Event: 6120.LogEvent**

Component: controller.port2

EventCode: 21.20.429

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem 'with '6120  
Array\_Name/IP\_Address): Oct 25 20:15:41 array00 ISR1[1]: W: u1ctr 'ISP2300[2] Received LOOP DOWN a

**Information:**

A message was found in the Array Message Log file indicating a loss of signal on the external controller port.

**Probable Cause:**

1. Switch port being offlined.
2. Cable being unplugged.
3. Host system being rebooted.

**Recommended Action:**

1. Verify that external maintenance/admin activities are occurring.
2. Investigate the physical connection to the array further.

**Event: 6120.LogEvent**

Component: controller.port

EventCode: 21.20.103

**Severity: Error**  
**Action\_required: Yes****Sample Description**

found LOOP DOWN in logfile

**Information:**

Storage A.D.E searches for LOOP DOWN patterns in the array log file.

**Probable Cause:**

The array has detected an internal loop failure and logged it.

**Recommended Action:**

Check Storage A.D.E for additional events related to the device called out in the log file.

**Event: 6120.LogEvent**

Component: power.replaceBattery

EventCode: 21.20.102

**Severity: Warning**  
**Action\_required: No****Sample Description**

2 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120  
[Array\_Name]/[IP\_Address]): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days battery life left, F

**Information:**

The state of the batteries in the 6120 is not optimal

**Recommended Action:**

1. Telnet to affected 6120
2. Run 'refresh -s' to verify battery state
3. Replace battery if necessary

**Event: 6120.LogEvent**

Component: power

EventCode: 21.20.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

2 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120  
[Array\_Name]/[IP\_Address]): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days battery life left, F

**Information:**

The array battery life expectancy is electronically monitored.

**Recommended Action:**

Replace battery

**Event: 6120.LogEvent**

Component: disk

EventCode: 21.20.13

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120

[Array\_Name]/[IP\_Address]): Nov 30 14:50:00 [Array\_Name] ISR1[2]: N: u1d5 SVD\_DONE: Command Error

**Event: 6120.LogEvent**

Component: temp\_threshold

EventCode: 21.20.74

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120  
[Array\_Name]/[IP\_Address]): Sep 26 14:17:03 [Array\_Name] TMON[1]: W: u1d4 TMON warning temperatur

**Event: 6120.LogEvent**

Component: power.refreshBattery

EventCode: 21.20.101

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

2 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120  
[Array\_Name]/[IP\_Address]): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days battery life left, F

**Information:**

refresh battery

**Event: 6120.LogEvent**

Component: disk.senseKey

EventCode: 21.20.100

**Severity: Info**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120  
[Array\_Name]/[IP\_Address]): Oct 22 18:30:45 [Array\_Name] ISR1[1]: N: u1d4 SCSI Disk Error Occurred (pa

**Probable Cause:**

Sense Key information reported from a disk.

**Recommended Action:**

1. Monitor for excessive occurrences.
2. Contact support provider if necessary.

**Event: 6120.LogEvent**

Component: disk.error4

EventCode: 21.20.210

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120  
sp0-array01/192.168.0.41): Apr 01 20:30:17 array01 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 4.

### Information:

Disk error 4 is indicating the I/O operation retries on this disk  
have been exhausted.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.  
Other failure indicators.

**Event: 6120.LogEvent**

Component: disk.error5

EventCode: 21.20.211

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120  
sp0-array01/192.168.0.41): Apr 01 20:30:17 array01 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 5.

**Information:**

Storage A.D.E has detected a possible problem contained in a message  
of the array Message Log.

**Probable Cause:**

Disk information indicating an illegal Logical Block Address has  
been encountered.

**Recommended Action:**

Monitor for additional occurrences and then contact Support Provider  
for Corrective Action.

**Event: 6120.LogEvent**

Component: disk.bypassed

EventCode: 21.20.212

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

N: u1d01: Bypassed on loop 1

**Event: 6120.LogEvent**

Component: array\_error

EventCode: 21.20.90

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") lines about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern described above in the array log file.

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the disk in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 6120.LogEvent**

Component: driver.SSD\_WARN

EventCode: 21.20.330

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found in logfile /var/adm/messages on [Host\_Name] (indicating problem with 6120  
[Array\_Name]/[IP\_Address]): Jan 8 08:52:00 WWN:wwn Received 8 'SSD Warning' message(s) on 'SWITCH'

**Information:**

**Probable Cause:**

This could be related to the following:

- The MPxIO support is set differently between 6120 and host.

**Recommended Action:**

Check MPxIO settings.

**Event: 6120.LogEvent**

Component: array\_warning

EventCode: 21.20.91

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.  
Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the [Array\_Log\_File] message.

**Event: 6120.LogEvent**

Component: disk.senseKeyE

EventCode: 21.20.136

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6120 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information reported from a disk indicating a problem.

**Recommended Action:**

1. Monitor reconstruct process to completion.
2. Replace this disk.

**Event: 6120.LogEvent**

Component: disk.senseKeyl

EventCode: 21.20.137

**Severity: Info**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6120  
Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information indicating a recovered condition.

**Recommended Action:**

No action required

**Event: 6120.LogEvent**

Component: disk.senseKeyW

EventCode: 21.20.138

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6120 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information indicating a potential problem condition.

**Recommended Action:**

1. Monitor for excessive occurrences.
2. Contact support provider if necessary.

**Event: 6120.LogEvent**

Component: controller.XOR

EventCode: 21.20.139

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

3 array\_error(s) found in logfile [Array\_Message\_Logfile] (indicating problem with array [array\_name]): Feb 24 09:53:56 [ip] ISR1[1]: W: u1ctr XOR: Flags=B-S---- Cntr=0xAE Synd=0x10 Addr=0x9

**Information:**

Data cache ECC errors,

**Probable Cause:**

ECC errors in controller.

**Recommended Action:**

Replace the Controller

**Event: 6120.LogEvent**

Component: device\_warning

EventCode: 21.20.159

**Severity: Warning**  
**Action\_required: No****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.

Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:

Errors and Warnings (depicted by "E:" and "W:") found in the logfile

Notice and Information (depicted by "N:" and "I:") about disks errors.

Notices about the battery.

Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the [Array\_Log\_File] message.

**Event: 6120.LogEvent**

Component: disk.error3

EventCode: 21.20.430

**Severity: Warning**  
**Action\_required: No**

### Sample Description

61 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120 sp0-array01/192.168.0.41): Apr 01 20:30:17 array01 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 3.

### Information:

Disk error 3 is indicating the I/O operation retries on this disk have successfully completed but with a recovered error.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators

**Event: 6120.LogEvent**

Component: disk.missing

EventCode: 21.20.198

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Warning found in logfile: E: u5d7: Missing

**Information:**

The 6120 has reported a disk has been removed from the chassis

**Recommended Action:**

1. Replace Disk.

**Event: 6120.LogEvent**

Component: disk.loopMode

EventCode: 21.20.143

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Warnings found in logfile [Array\_Message\_Logfile] (indicating problem with '6120  
Array\_Name/IP\_Address)': SVD\_PATH\_FAILOVER

**Information:**

This a path failover and is considered a notice.

**Event: 6120.LogEvent**

Component: shell\_commands

EventCode: 21.20.193

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning(s) found in logfile

**Information:**

Manual commands entered using the telnet interface

**Event: 6120.LogEvent**

Component: disk.error

EventCode: 21.20.107

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6120  
sp0-array01/192.168.0.41):Oct 22 18:30:45 array01 ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0)

**Probable Cause:**

Storage A.D.E detected disk information indicating command status.

**Recommended Action:**

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.

**Event: 6120.LogEvent**

Component: disk.log

EventCode: 21.20.104

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

4 array\_warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6120 [Array\_Name]/[IP\_Address]): Feb 05 18:45:28 t400 sh50[1]: N: u2d01 ioctl disk failed err=1:

**Information:**

The Storage A.D.E agent monitoring the array log file reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") lines about disks.  
Notices about the battery.  
Notices about the PCU hold time.

**Probable Cause:**

Storage A.D.E detected a pattern described above in the array log file.

**Recommended Action:**

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the disk in question.
3. Replace this disk.
4. Monitor disk.

**Event: 6120.LogEvent**  
Component: device\_error  
EventCode: 21.20.158

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

### Information:

This is a generic event about information found in the Array Log File.  
Storage A.D.E monitors (scrubs) the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

### Probable Cause:

Storage A.D.E detected a pattern as described in the Info of the [Array\_Log\_File].

### Recommended Action:

1. Use the Storage A.D.E GUI log viewing functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the [Array\_Log\_File] message.

**Event: 6120.QuiesceEndEvent**

Component:

EventCode: 21.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 6120 [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 6120.QuiesceStartEvent**

Component:

EventCode: 21.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 6120 [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well as any additional events that may have occurred.

**Event: 6120.StateChangeEvent+**

Component: volume

EventCode: 21.25.53

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'volume.u1vol1'(slr-mi.370-3990-01-e-f0.022542.u1vol1) in 6120 dvt2-6120b0  
(ip=192.168.0.40) is now Available (status-state changed from 'unmounted' to 'mounted')

**Information:**

'The 6120 has reported that a LUN has changed state

**Event: 6120.StateChangeEvent+**

Component: power

EventCode: 21.25.37

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) in 6120 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'ready-disable' to 'ready-enable'):

**Event: 6120.StateChangeEvent+**

Component: interface.loopcard

EventCode: 21.25.24

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'loopcard.u111'(SLR-MI.375-0085-01-G-G4.070924) in 6120 [Array\_Name] ([IP\_Address])

**Information:**

'The 6120 has reported that a Loop Card has been replaced or brought back online

**Event: 6120.StateChangeEvent+**

Component: controller

EventCode: 21.25.12

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'controller.u1ctr' in 6120 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Event: 6120.StateChangeEvent+**

Component: disk

EventCode: 21.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk.u1d5' in 6120 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault-disabled' to 'ready-enabled'):

**Event: 6120.StateChangeEvent-**

Component: controller

EventCode: 21.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'controller.u1ctr' in 6120 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'unknown' to 'ready-disabled')

**Information:**

The 6120 controller has been disabled

**Probable Cause:**

A potential hardware problem within the controller

**Recommended Action:**

1. Telnet to affected 6120
2. Verify controller state with 'fru stat' and 'sys stat'
3. Re-enable controller if possible (enable u1)
4. Contact Service Provider

**Event: 6120.StateChangeEvent-**

Component: volume

EventCode: 21.26.53

**Severity: Error**  
**Action\_required: Yes**

---

Sample Description

Probable Cause:

The 6120 has reported that a LUN has changed state

Recommended Action:

1. Telnet to affected 6120
2. Check status of LUNs via 'vol mode' or 'vol stat' from 6120
3. Check disk status with 'fru stat' and 'vol stat'

**Event: 6120.StateChangeEvent-**

Component: power

EventCode: 21.26.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) in 6120 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'ready-enabled' to 'ready-disable'):

**Information:**

The 6120 has reported that a Power Cooling Unit has been disabled

**Probable Cause:**

A PCU change in state can happen due to the following reasons.

1. Internal/External Power loss
2. Power switch has been turned off
3. PCU failures
4. Battery failures
5. Controller Failover

**Recommended Action:**

1. Check Power Supply and Cables
2. Check the overall state-status of the array
3. Check with onsite administration/service for expected occurrence
4. Replace PCU
5. Replace Battery

**Event: 6120.StateChangeEvent-**

Component: interface.loopcard

EventCode: 21.26.24

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'loopcard.u2l2'(0x301.5405384.000978) in 6120 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'ready-enabled' to 'ready-disabled')

**Probable Cause:**

The 6120 has indicated that the loopcard is no longer in an optimal state

**Recommended Action:**

1. Telnet to affected 6120
2. Verify loopcard state with 'fru stat'
3. Verify matching firmware with other loopcard
4. Re-enable loopcard if possible (enable u(encid)l[1|2])
5. Verify the connections of the Loop Card interconnect cables
6. Replace loopcard if necessary

**Event: 6120.StateChangeEvent-**

Component: disk

EventCode: 21.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'disk.u1d5' in 6120 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'unknown' to 'fault-disabled'):

**Probable Cause:**

The 6120 has reported that a disk has failed

**Recommended Action:**

1. Telnet to affected 6120
2. Verify disk state with 'vol stat', 'fru stat' and 'fru list'
3. Replace disk if necessary

**Event: 6120.Statistics**

Component:

EventCode: 21.27.16

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Statistics about 6120 [Array\_Name] ([IP\_Address])

**Event: 6120.ConnectivityLostEvent**

Component:

EventCode: 21.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: 6120.ComponentInsertEvent**

Component: controller

EventCode: 21.40.12

**Severity: Info**  
**Action\_required: No****Sample Description**

'controller.u1ctr'(id) was added to 6120 [Array\_Name] ([IP\_Address])

**Information:**

A new Controller, as identified by it's serial#, has been installed on the 6120.

**Event: 6120.ComponentInsertEvent**

Component: interface.loopcard

EventCode: 21.40.24

**Severity: Info**  
**Action\_required: No**

---

### Sample Description

#### Information:

A new LoopCard, as identified by it's serial#, has been installed on the 6120.

**Event: 6120.ComponentInsertEvent**

Component: disk

EventCode: 21.40.13

**Severity: Info**  
**Action\_required: No****Sample Description**

disk.u2d3(SEAGATE.S612018203FSUN18G.LRG07139) was added to [Array\_Name] ([IP\_Address])

**Information:**

A new Disk, as identified by it's serial#, has been installed on the 6120.

**Event: 6120.ComponentInsertEvent**

Component: power

EventCode: 21.40.37

**Severity: Info**  
**Action\_required: No****Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) was added to 6120 [Array\_Name]  
([IP\_Address])

**Information:**

A new Power Supply, as identified by it's serial#, has been installed on  
the 6120.

**Event: 6120.ComponentRemoveEvent**

Component: volume

EventCode: 21.41.53

**Severity: Warning**  
**Action\_required: No****Sample Description**

(u2vol2) was removed from 6120 [Array\_Name] (sn=0x301.5405318.123456.volume.u2vol2)

**Information:**

The removal/reconfiguration of a volume has been detected.

**Probable Cause:**

Remedial maintenance or an administrative process.

**Recommended Action:**

No Action is Required.

**Event: 6120.ComponentRemoveEvent**

Component: interface.loopcard

EventCode: 21.41.24

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Information:**

The 6120 has reported that a loopcard has been removed from the chassis

**Recommended Action:**

1. Replace loopcard.

**Event: 6120.ComponentRemoveEvent**

Component: controller

EventCode: 21.41.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'controller.u1ctr'(id) was removed from 6120 [Array\_Name] ([IP\_Address])

**Information:**

The 6120 has reported that a controller was removed from the chassis

**Probable Cause:**

The controller card was removed from the chassis

**Recommended Action:**

1. Login to the array and check fru status.
2. Insert the removed controller.
3. Replace controller.

**Event: 6120.ComponentRemoveEvent**

Component: power

EventCode: 21.41.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) was removed from 6120 [Array\_Name]  
([IP\_Address])

**Information:**

The 6120 has reported that a Power Cooling Unit has been removed from  
the chassis

**Recommended Action:**

1. Replace PCU.

**Event: 6120.ComponentRemoveEvent**

Component: disk

EventCode: 21.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u2d3(SEAGATE.S612018203FSUN18G.LRG07139) was removed from [Array\_Name] ([IP\_Address])

**Information:**

The 6120 has reported a disk has been removed from the chassis

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well as any additional events that may have occurred.
3. Replace Disk

**Event: 6120.LinkEvent\_CRC**

Component:

EventCode: 21.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: 6120.LinkEvent\_SIG**

Component:

EventCode: 21.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: 6120.LoopCableDisconnect**

Component:

EventCode: 21.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: 6120.ComponentReplaceEvent**

Component: disk

EventCode: 21.57.13

**Severity: Warning**  
**Action\_required: No****Sample Description**

disk.u1d1 in [device] was replace from [old\_serial] to [new\_serial]

**Information:**

A disk was replaced with a new one.

**Event: topo.DiscoveryEvent**

Component:

EventCode: 24.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Topology event with 1 host , 4 switch(es) , 15 Array(s)

**Information:**

Discovered a new Topology.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent**

Component: volume

EventCode: 26.3.53

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Total partitions in logical drive has been changed.

**Probable Cause:**

Administrator added or removed logical partitions.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent**

Component: revision

EventCode: 26.3.42

**Severity: Warning**  
**Action\_required: No****Sample Description**

The revision of POWER on [device] changed from 01 to 02.

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent**

Component: firmware\_version

EventCode: 26.3.119

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent**

Component: MissingBatteryError

EventCode: 26.3.218

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Can not access the battery information.

**Probable Cause:**

1. Battery is missing
2. Battery is faulty
3. Battery in-service date may be not set up
4. Can not get FRU status

**Recommended Action:**

1. Check the 3510 device setup and battery or FRU status.
2. Use 'sccli <dev> show battery -u' to set the service date

**Event: 3510.ValueChangeEvent**

Component: port.statistics

EventCode: 26.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

[device], port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193).

**Probable Cause:**

Likely causes are: GBIC, FC Cable, and device optical connections.

**Recommended Action:**

Isolate further by running the tests associated with this link segment.

**Event: 3510.ValueChangeEvent**

Component: battery\_expiredW

EventCode: 26.3.215

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Battery is expired.

**Event: 3510.ValueChangeEvent**

Component: part

EventCode: 26.3.72

**Severity: Warning**  
**Action\_required: No****Sample Description**

Total partitions in logical drive has been changed.

**Probable Cause:**

Administrator added or removed logical partitions.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent**

Component: fru\_location

EventCode: 26.3.229

**Severity: Info****Action\_required: Yes****Sample Description**

fru location is changed.

**Probable Cause:**

Some frus may be removed from the enclosure or put in different slot position in enclosure

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information .

**Event: 3510.ValueChangeEvent**

Component: Revision

EventCode: 26.3.117

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Revision changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent**

Component: power

EventCode: 26.3.37

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Power status has been changed.

**Probable Cause:**

Power status has changed.

**Recommended Action:**

Check the power.

**Event: 3510.ValueChangeEvent**

Component: disk.statistics

EventCode: 26.3.150

**Severity: Warning**  
**Action\_required: No****Sample Description**

[device], disk-7: Received 64516890 'InvalidTxWds' in 10 mins (value=31062).

**Probable Cause:**

This could be caused by:

- Faulty Fibre Channel SFP, cable, or other connectors
- Downrev Firmware
- Downrev Hardware

**Recommended Action:**

1. Run write read buffer test
2. If the 3510 device is in loop mode, please run looptest and show loopmap test.
  - If the device is in fabric mode, please run echotest.
3. Check all firmware revisions using Storage A.D.E.
4. Contact Support for assistance in checking hardware revisions.

**Event: 3510.ValueChangeEvent**

Component: battery\_expiredE

EventCode: 26.3.214

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

Battery is expired.

**Recommended Action:**

Replace the battery.

**Event: 3510.ValueChangeEvent+**

Component: fan

EventCode: 26.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'enclosure.component.2'(fan-1) in 3120jbod-SN is now Available (status changed from 'fault' to 'OK'):

**Probable Cause:**

The fan has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent+**

Component: logical\_drive

EventCode: 26.4.188

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'logical\_drive.1'(WWN.logical.1) in 3510 [Device] (wwn=WWN) is now available (status changed from 'degraded' to 'good'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent+**

Component: diskslot

EventCode: 26.4.240

**Severity: Info**  
**Action\_required: No****Sample Description**

'component.10.diskslot' [fru-sn] status is changed to OK.

**Probable Cause:**

The disk is changed to normal state.

**Recommended Action:**

1. No action necessary.

**Event: 3510.ValueChangeEvent+**

Component: controller\_shutdown

EventCode: 26.4.443

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Controller in 3510 [Array\_Name] (wwn=WWN) is reset from shutdown status

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent+**

Component: controller\_redundancy

EventCode: 26.4.410

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Controller redundancy status in 3510 [Array\_Name] ([IP\_Address]) is now enabled (status changed from 'failed' to 'enabled'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent+**

Component: ps

EventCode: 26.4.227

**Severity: Info**  
**Action\_required: No****Sample Description**

'component.ps' [fru-sn] status is changed to OK.

**Probable Cause:**

The power supply status is changed to normal state.

**Recommended Action:**

1. No action necessary.

**Event: 3510.ValueChangeEvent+**

Component: logical\_volume

EventCode: 26.4.416

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'logical\_volume.1'(WWN.logical\_volume.1) in 3510 [Device] (wwn=WWN) is now available (status changed from 'degraded' to 'good'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent+**

Component: temp

EventCode: 26.4.228

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

temperature in the enclosure has changed to normal.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3510.ValueChangeEvent+**

Component: fru\_status

EventCode: 26.4.230

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Fru status is changed to "ok".

**Probable Cause:**

Enclosure has returned to normal operation mode .

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent+**

Component: inter\_controller\_link

EventCode: 26.4.431

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Inter-controller-link status in 3510 [Array\_Name] ([IP\_Address]) is now connected (status changed from 'disconnected' to 'connected'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent-**

Component: raid\_level

EventCode: 26.5.69

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

RAID level has been changed on logical.0 from 5 to 0.

**Probable Cause:**

Administrator modified logical drive configuration.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent-**

Component: diskslot

EventCode: 26.5.240

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.10.diskslot' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The disk is unresponsive and it may have been removed or faulted in a way to indicate this status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check diskslot component status.
2. Ensure disk is seated properly.

**Event: 3510.ValueChangeEvent-**

Component: inter\_controller\_link

EventCode: 26.5.431

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Inter-controller-link status in 3510 [Array\_Name] ([IP\_Address]) is now disconnected (status changed from 'connected' to 'disconnected')

**Probable Cause:**

The link between the controllers are broken.

**Recommended Action:**

1. Execute 'sccli <device\_path> show ICL' and check the status
2. Replace the controller if necessary

**Event: 3510.ValueChangeEvent-**  
Component: controller\_redundancy  
EventCode: 26.5.410

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

Controller redundancy in 3510 [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'Enabled' to 'failed')

### Probable Cause:

One of two controllers may have faulted in a way to indicate this status.

### Recommended Action:

1. Execute 'sccli <device\_path> show redundancy' and check controller redundancy status.
2. Check if any diagnostic test is running which may require failing the primary controller
3. Replace the controller if necessary.

**Event: 3510.ValueChangeEvent-**

Component: size

EventCode: 26.5.70

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Effective size has been changed on part.1 from 38952MB to 68952MB.

**Probable Cause:**

Administrator modified logical drive configuration.

**Recommended Action:**

No action required.

**Event: 3510.ValueChangeEvent-**

Component: ps

EventCode: 26.5.227

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.ps' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The power supply has lost AC power.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check ps component status
2. Ensure AC power cords are securely plugged in.
3. Ensure power supply is turned on.
4. Ensure power is reliable to array.

**Event: 3510.ValueChangeEvent-**

Component: logical\_volume

EventCode: 26.5.416

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logical\_volume.1'(WWN.logical\_volume.1) in 3510 [Device] (wwn=WWN) is now Not-Available (status changed from 'unknown' to 'Degraded').

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical volume configured in the array.

**Recommended Action:**

1. Check the in-band Fiber cable link
2. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
3. Execute 'sccli <device-path> show logical-volume' and check logical volume status
4. Execute 'sccli <device-path> show shutdown' and check controller status
5. Rebuild the logical volume to Good status.

**Event: 3510.ValueChangeEvent-**

Component: controller\_shutdown

EventCode: 26.5.443

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Controller in 3510 [Array\_Name] (wwn=WWN) is shutdown.

**Probable Cause:**

One of two controllers may have been shutdown to indicate this status.

**Recommended Action:**

1. Execute 'sccli <device\_path> show shutdown' and check controller shutdown status.
2. Check if any diagnostic test is running which may requires failing the primary controller
3. Replace the controller if necessary.

**Event: 3510.ValueChangeEvent-**

Component: temp

EventCode: 26.5.228

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.temp' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The temperature sensor status is changed

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check temperature sensor status.
2. Check fan or air flow to the array.

**Event: 3510.ValueChangeEvent-**

Component: logical\_drive

EventCode: 26.5.188

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logical\_drive.1'(WWN.logical.1) in 3510 [Device] (wwn=WWN) is now Not-Available (status changed from 'unknown' to 'Degraded').

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical drive configured in the array.

**Recommended Action:**

1. Check the in-band Fiber cable link
2. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
3. Execute 'sccli <device-path> show logical\_drive' and check logical drive status
4. Execute 'sccli <device-path> show shutdown' and check controller status
5. Rebuild the logical drive to Good status.

**Event: 3510.ValueChangeEvent-**

Component: disk

EventCode: 26.5.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'components.disk.23(CH2 ID23) in 3510 3510-1554 (wwn=001554) is 'BAD' (previous 'State' was 'ONLINE')(id=ST373307FSUN72G.3HZ0XDKJ00007337)

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diod (LED) fault indicator on the drive.
2. Execute 'sccli show events' and look for disk errors.
3. Execute 'sccli <device\_name/IP> show disks' and check disk status.
4. Replace the failed disk.

**Event: 3510.ValueChangeEvent-**

Component: temperature

EventCode: 26.5.51

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has increased.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3510.ValueChangeEvent-**

Component: enclosure

EventCode: 26.5.16

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'info.status' on [enclosure] changed from 'Online' to 'Offline'.

**Probable Cause:**

The enclosure is unavailable.

**Recommended Action:**

1. Check InBand access to the array.
2. Check that the array is powered on.
3. Contact Support.

**Event: 3510.ValueChangeEvent-**

Component: channel\_mode

EventCode: 26.5.415

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Channel mode is changed.

**Probable Cause:**

1.Channel mode may be changed.

**Recommended Action:**

1. Execute 'sccli &lt;device-path&gt; show channels' to check the current channel information .

**Event: 3510.ValueChangeEvent-**

Component: fan

EventCode: 26.5.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.fan' [fru-sn] status is changed from OK to fault.

**Probable Cause:**

Storage A.D.E. has detected a change in fan status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the Power Supply / Fan Module if needed.

**Event: 3510.ValueChangeEvent-**

Component: fru\_status

EventCode: 26.5.230

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Fru status is changed.

**Probable Cause:**

1. Fru may be removed from the enclosure.
2. The fru is non-functional anymore

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information .
2. Replace the bad fru

**Event: 3510.CommunicationEstablishedEvent**

Component: oob

EventCode: 26.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3510.CommunicationEstablishedEvent**

Component: ib

EventCode: 26.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3510.CommunicationLostEvent**

Component: ib

EventCode: 26.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00). InBand. This event is established using sccli. This monitoring may not be activated for

**Probable Cause:**

This problem can also be caused by:

- Fibre Channel hardware failure
- Switch port offline
- Array power offline
- Array controller offline

**Recommended Action:**

1. Verify sccli access via command line (sccli show).
2. Verify cables, GBICs, power, and connections along data path.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify correct FC switch configuration, if applicable.
5. If you want to monitor the device out of band, please remove the device from the inventory list first, then do OOB discovery

**Event: 3510.CommunicationLostEvent**

Component: oob

EventCode: 26.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad controller.
- A bad Battery Module.
- Array has a password set

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.
3. Check the status of the Battery Module.
4. Use Update Monitoring and Setup to update password within Storage A.D.E GUI.
5. If you want to monitor the device inband, please remove the device from the inventory list first, then do inband discovery.

**Event: 3510.CommunicationLostEvent**

Component: e

EventCode: 26.12.118

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad controller.
- Array has a password set

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.
3. Use Update Monitoring and Setup to update password within Storage A.D.E GUI.

**Event: 3510.DiscoveryEvent**

Component:

EventCode: 26.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new 3510 called ras [Array\_Name] ([IP\_Address])  
slr-mi.370-3990-01-e-e1.003239.

**Probable Cause:**

Device discovery.

**Recommended Action:**

No action required.

**Event: 3510.LocationChangeEvent**

Component:

EventCode: 26.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 3510 [Array\_Name] ([IP\_Address]) was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 3510.LogEvent**

Component: driver.SSD\_ALERT

EventCode: 26.20.329

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_ALERT' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and excee

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Check with the System Administrator for activity on disk removal.
4. Run link test to isolate a possible bad GBIC, cable, switch, etc.
5. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: 3510.LogEvent**

Component: device\_warning

EventCode: 26.20.159

**Severity: Warning**  
**Action\_required: No****Sample Description**

Warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Storage A.D.E. monitors the array log file for specific patterns.

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3510.LogEvent**

Component: power

EventCode: 26.20.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[Date Time] 1 device\_error(s) found in logfile (related to 3510 [Array\_Name/IP\_Address]):

[Date Time] [3F3F] #9: SES Device on Storage Array [S/N] CH2 ID12: ALERT: PS 0 power supply state cha

**Probable Cause:**

1. AC power failure.
2. AC power cable missing.
3. Bad power supply

**Recommended Action:**

1. Check power supply LED.
2. Verify AC power.
3. Replace power supply.

**Event: 3510.LogEvent**

Component: device\_notice

EventCode: 26.20.160

**Severity: Info**  
**Action\_required: No****Sample Description**

Notice(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Storage A.D.E. monitors the array log file for specific patterns.

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3510.LogEvent**

Component: controller\_init

EventCode: 26.20.179

**Severity: Warning**  
**Action\_required: No****Sample Description**

2 device\_error(s) found in logfile.

**Probable Cause:**

Controller reboot.

**Recommended Action:**

If the controller reboot was not user directed, contact Support.

**Event: 3510.LogEvent**

Component: controller

EventCode: 26.20.12

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Storage Array SN#3341262 Controller ALERT: redundant controller failure detected.

### Probable Cause:

1. Controller has failed to respond to a request from Storage A.D.E. This may be due to power cycling or rebooting.
2. The controller has experienced a hardware failure and is no longer responding.

### Recommended Action:

1. Check the event message closely for possible initialization sequence.
2. Ensure initialization sequence completed successfully.
3. If controller fails to come online, replace controller.

**Event: 3510.LogEvent**

Component: fan

EventCode: 26.20.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

3F3f] #5: SES Device on StorEdge Array SN#8001138 CH2 ID28:

**Probable Cause:**

This could indicate a problem with the following FRUs

- AC Power
- Power Supply Module

**Recommended Action:**

1. Check AC Power to the Array.
2. Check LED Status on Chassis and Power Supply Module
3. Refer to Array Service Guide to troubleshoot further.

**Event: 3510.LogEvent**

Component: LIP

EventCode: 26.20.185

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

[110f] CHL:\_ LIP(\_ \_) Detected.

**Probable Cause:**

A device on the loop has initiated a re arbitration of the loop.

**Recommended Action:**

If the event repeats, isolate further by running the tests associated with this link segment.

**Event: 3510.LogEvent**

Component: logical\_drive

EventCode: 26.20.188

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Logical Drive ALERT: Add SCSI Drive Operation Failed.

**Probable Cause:**

The drive just inserted failed to become ready.

**Recommended Action:**

Reseat the drive in the enclosure, and retry the operation.

**Event: 3510.LogEvent**

Component: insufficient\_memory

EventCode: 26.20.187

**Severity: Error**  
**Action\_required: Yes****Sample Description**

There is insufficient memory to fully support the current config.

**Probable Cause:**

The array does not have sufficient memory installed.

**Recommended Action:**

Contact Support.

**Event: 3510.LogEvent**

Component: peripheral\_device

EventCode: 26.20.189

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[3F21] Peripheral Device ALERT: Power Supply \_ Failure Detected.

**Probable Cause:**

Storage A.D.E has detected a log message concerning a problem with the array.

**Recommended Action:**

1. Refer to the problem description for more details.
2. Refer to the Array Service Guide for additional information describing the problem.
3. Contact Support.

**Event: 3510.LogEvent**

Component: driver.MPXIO\_offline

EventCode: 26.20.313

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.MPXIO\_offline' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Probable Cause:**

The MPxIO multipathing software has noted the path to a storage device has gone offline.

**Recommended Action:**

1. Check the Topology View to see what device(s) are affected.
2. Check all cables and connections.
3. Check for other alerts that may indicate an underlying problem. (ex. Switch Ports offline)
4. The outputs of 'cfgadm -al' and 'luxadm -e port' may uncover other fabric problems.

**Event: 3510.LogEvent**

Component: cpu

EventCode: 26.20.116

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

Storage A.D.E. found CPU messages. Reported for indication of possible error.

**Recommended Action:**

1. Check the Storage A.D.E. Log Message File for 3510 events.
2. Check the Storage A.D.E. status of the controller.

**Event: 3510.LogEvent**

Component: array\_error

EventCode: 26.20.90

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3510.LogEvent**

Component: predictable\_failure

EventCode: 26.20.190

**Severity: Warning**  
**Action\_required: No****Sample Description**

[1142] SMART-CH:\_ ID:\_ Predictable Failure Detected.

**Probable Cause:**

The RAID controller has predicted a component failure.

**Recommended Action:**

1. Review the Storage A.D.E. Event Log for details.
2. Contact Support.

**Event: 3510.LogEvent**

Component: prime\_battery\_charge

EventCode: 26.20.237

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

[0125] #2: StorEdge Array SN#8011428 Peripheral Device ALERT: primary battery board not fully charged:

**Probable Cause:**

The array has detected a low battery.

**Recommended Action:**

No action required.

**Event: 3510.LogEvent**

Component: sec\_battery\_charge

EventCode: 26.20.238

**Severity: Info**  
**Action\_required: No****Sample Description**

[0125] #2: StorEdge Array SN#8011428 Peripheral Device ALERT: primary battery board

**Probable Cause:**

The array has detected a low battery.

**Recommended Action:**

No action required.

**Event: 3510.LogEvent**

Component: device\_error

EventCode: 26.20.158

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3510.QuiesceEndEvent**

Component:

EventCode: 26.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 3510.QuiesceStartEvent**

Component:

EventCode: 26.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 3510.ConnectivityLostEvent**

Component:

EventCode: 26.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: 3510.ComponentInsertEvent**

Component: FC\_RAID\_IOM

EventCode: 26.40.279

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (RAID\_IO\_BOARD) was added to 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid IO board, as identified by it's serial#, has been installed on the 3510.

**Recommended Action:**

No action required.

**Event: 3510.ComponentInsertEvent**

Component: FC\_JBOD\_IOM

EventCode: 26.40.282

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (FC\_JBOD\_IOM) was added to 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A FC\_JBOD\_IOM for extension array box, identified by it's serial#, has been installed on the 3510.

**Recommended Action:**

No action required.

**Event: 3510.ComponentInsertEvent**

Component: logical\_volume

EventCode: 26.40.416

**Severity: Info**  
**Action\_required: No****Sample Description**

was added for 3510 [Array\_Name] ([IP\_Address]).

**Information:**

1. Execute 'scli <device-path> show logical-volume' to check the logical volume status
2. Make sure the added logical volume is intended to be added.

**Probable Cause:**

A logical volume was added for the array.

**Recommended Action:**

- 1.No action nessesary.

**Event: 3510.ComponentInsertEvent**

Component: BATTERY\_BOARD

EventCode: 26.40.277

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.2'(TECTROL-CAN.300-1454-01(50).[s/n]) was added to raid array [Array\_Name] .

**Probable Cause:**

A new battery/ethnet card, as identified by it's serial#, has been installed on the 3510.

**Recommended Action:**

No action required.

**Event: 3510.ComponentInsertEvent**

Component: disk  
EventCode: 26.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.LRG07139) was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 3510.

**Recommended Action:**

No action required.

**Event: 3510.ComponentInsertEvent**

Component: logical\_drive

EventCode: 26.40.188

**Severity: Info**  
**Action\_required: No****Sample Description**

was added for 3510 [Array\_Name] ([IP\_Address]).

**Information:**

1. Execute 'sccli <device-path> show logical-drives' to check the logical drive status
2. Make sure the added logical drive is intended to be added.

**Probable Cause:**

A logical drive was added for the array.

**Recommended Action:**

- 1.No action nessesary.

**Event: 3510.ComponentInsertEvent**

Component: SEC\_RAID\_CONTROLLER

EventCode: 26.40.275

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (SEC\_RAID\_CONTROLLER) was added to 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A raid controller, as identified by it's serial#, has been installed on the 3510 or it is re-enabled.

**Recommended Action:**

No action required.

**Event: 3510.ComponentInsertEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 26.40.270

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (AC\_POWER\_SUPPLY) was added to 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A AC power supply, identified by it's serial#, has been installed on the 3510.

**Recommended Action:**

No action required.

**Event: 3510.ComponentInsertEvent**

Component: FC\_CHASSIS\_BKPLN

EventCode: 26.40.278

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006355' (FC\_CHASSIS\_BKPLN) was added to 3510 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid chassis backplane, as identified by it's serial#, has been installed on the 3510.

**Recommended Action:**

No action required.

**Event: 3510.ComponentRemoveEvent**

Component: SEC\_RAID\_CONTROLLER

EventCode: 26.41.275

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (SEC\_RAID\_CONTROLLER) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information

**Event: 3510.ComponentRemoveEvent**

Component: disk

EventCode: 26.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Components.disk.23(CH2 ID23) was removed from 3510-1554 (wwn=SUN.3510.001554) (ID=ST373307FSUN72G.3HZ0XDKJ00007337).

**Probable Cause:**

A disk has failed or been removed

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Execute 'sccli show events' and look for disk errors.
3. Execute 'sccli <device\_name/IP> show disks' and check disk status.
4. Replace the failed disk.

**Event: 3510.ComponentRemoveEvent**

Component: FC\_RAID\_IOM

EventCode: 26.41.279

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (RAID\_IO\_BOARD) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a controller was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing RAID Controller.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Execute 'sccli <device-path> show redundancy' to check for failed controller

**Event: 3510.ComponentRemoveEvent**

Component: BATTERY\_BOARD

EventCode: 26.41.277

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.1'(007865) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The 3510 has reported that a battery/ethernet card has been removed from the chassis. This may be caused by a failing battery board or battery board being removed for maintenance.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Replace the bad fru if necessary

**Event: 3510.ComponentRemoveEvent**

Component: FC\_CHASSIS\_BKPLN

EventCode: 26.41.278

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006355' (RAID\_CHASSIS\_BKPLN) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current chassis fru information

**Event: 3510.ComponentRemoveEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 26.41.270

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

The 3510 has reported that a AC power supply has been removed from the chassis. It may also due to faulty fibre channel cable/sfp or power lost to expansion tray

**Recommended Action:**

- 1.Execute 'sccli <device-path> show FRUs' to check the current fru information
- 2.Replace the bad Power Supply unit

**Event: 3510.ComponentRemoveEvent**

Component: logical\_volume

EventCode: 26.41.416

**Severity: Info****Action\_required: Yes****Sample Description**

was removed from 3510 Device\_Name (wwn=WWN) (sn=WWN) logical\_volume.2FFB25B5)

**Information:**

1. Execute 'sccli <device-path> show logical-volume' to check the logical volume status
2. Make sure the removed logical volume is intended to be removed.

**Probable Cause:**

A logical volume was removed from the array.

**Recommended Action:**

1. No action necessary if removal was intentional
2. Recreate logical volume and restore data if removal was not intentional

**Event: 3510.ComponentRemoveEvent**

Component: logical\_drive

EventCode: 26.41.188

**Severity: Info**  
**Action\_required: No****Sample Description**

was removed from 3510 Device\_Name (wwn=WWN) (sn=WWN). logical\_drive.2FFB25B5)

**Information:**

1. Execute 'scli <device-path> show logical-drives' to check the logical drive status
2. Make sure the removed logical drive is intended to be removed.

**Probable Cause:**

A logical drive was removed from the array.

**Recommended Action:**

1. No action necessary if removal was intentional
2. Recreate logical drive and restore data if removal was not intentional

**Event: 3510.ComponentRemoveEvent**

Component: FC\_JBOD\_IOM

EventCode: 26.41.282

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Information:**

The 3510 has reported that a FC\_JBOD\_IOM has been removed from 'the chassis

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'scli <device-path> show FRUs' to check the current fru information

**Event: 3510.LinkEvent\_CRC**

Component:

EventCode: 26.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: 3510.LinkEvent\_SIG**

Component:

EventCode: 26.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: 3510.LoopCableDisconnect**

Component:

EventCode: 26.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: 9900.ValueChangeEvent**

Component: contr\_version

EventCode: 27.3.374

**Severity: Warning**  
**Action\_required: No****Sample Description**

Controller version on 9900 [Array\_Name]/[IP\_Address] changed from '21-06-22-00/00' to "

**Information:**

The controller information coming from snmp has changed.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.Processor

EventCode: 27.5.130

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'controller.Processor' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a change in the health of the Controller Processor.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: disk.Drive

EventCode: 27.5.132

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'disk.Disk' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the disk drives.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.SM

EventCode: 27.5.131

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'controller.SM' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the Shared Memory.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: disk.Environment

EventCode: 27.5.133

**Severity: Error**  
**Action\_required: No**

---

### Sample Description

The state of 'disk.Environment' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

### Information:

Storage A.D.E has detected a changed in the health of the disk environment.

### Recommended Action:

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.Battery

EventCode: 27.5.124

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'controller.Battery' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the Batteries.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: disk.Fan

EventCode: 27.5.134

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'disk.Fan' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the disk fans.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.CSW

EventCode: 27.5.125

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'controller.CSW' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the array.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: disk.PS

EventCode: 27.5.135

**Severity: Error**  
**Action\_required: No****Sample Description**

The state of 'disk.PS' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the disk power supply.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.Cache

EventCode: 27.5.126

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'controller.Cache' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a change in the health of the Cache.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**  
Component: controller.Environment  
EventCode: 27.5.127

**Severity: Error**  
**Action\_required: No**

---

### Sample Description

The state of 'controller.Environment' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

### Information:

Storage A.D.E has detected a changed in the health of the controller.

### Recommended Action:

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.Fan

EventCode: 27.5.128

**Severity: Error**  
**Action\_required: No****Sample Description**

The state of 'controller.Fan' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the fans.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.ValueChangeEvent-**

Component: controller.PS

EventCode: 27.5.129

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

The state of 'controller.PS' on [Array\_Name]/[IP\_Address] changed from 'noError' to 'acute'

**Information:**

Storage A.D.E has detected a changed in the health of the Power Supply.

**Recommended Action:**

Please check your Hitachi software for further details on this event.

**Event: 9900.CommunicationEstablishedEvent**

Component: oob

EventCode: 27.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand(Host\_Name)) with [Array\_Name]/[IP\_Address]

**Information:**

oob means OutOfBand. This is specific to describing the Ethernet access to the device.

**Probable Cause:**

A previous CommunicationLostEvent (OOB) must have occurred and now the Ethernet problem has been corrected or the device has been repaired.

**Event: 9900.CommunicationLostEvent**

Component: oob

EventCode: 27.12.31

**Severity: Error**  
**Action\_required: No****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name]/[IP\_Address]

**Information:**

OutOfBand. This means that the HDS failed to answer to ping or failed to return it's snmp response.

**Probable Cause:**

This problem can also be caused by:

- A very slow network,
- The ethernet connection to the HDS was lost or is very slow.
- A bad controller.

**Recommended Action:**

1. Check Power on array
2. Check Ethernet connectivity to the affected array.
3. Verify the array is booted correctly.
4. Increase the snmp and/or ping timeout in Utilities -> System -> System-Timeouts.

**Event: 9900.DiscoveryEvent**

Component:

EventCode: 27.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new 9900 called [Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 9900.QuiesceEndEvent**

Component:

EventCode: 27.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 9900.QuiesceStartEvent**

Component:

EventCode: 27.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: sve2.ValueChangeEvent**

Component: volume\_add

EventCode: 28.3.57

**Severity: Warning**  
**Action\_required: No****Sample Description**

VLUN T16431/62573361-30304769 on [Device\_Name] was added

**Information:**

The discovery a new VLUN was detected by Storage A.D.E.

**Probable Cause:**

A new VLUN was created using the SECFG tools.

**Recommended Action:**

Use the Storage A.D.E GUI to query the configuration tools to verify configuration.

**Event: sve2.ValueChangeEvent**

Component: volume\_delete

EventCode: 28.3.58

**Severity: Warning**  
**Action\_required: No****Sample Description**

VLUN T16431/62573361-30304769 on [Device\_Name] was deleted

**Information:**

The removal a VLUN was detected by Storage A.D.E.

**Probable Cause:**

A VLUN was deleted using the SECFG tools.

**Recommended Action:**

Use the Storage A.D.E GUI to query the configuration tools to verify configuration.

**Event: sve2.ValueChangeEvent**

Component: volume

EventCode: 28.3.53

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

VLUN T16431/62573361-30304769 on [Device\_Name] was changed

**Information:**

This event occurs when the Virtualization Device has detected a change in status for a Multipath Drive or VLUN.

**Probable Cause:**

Usually indicating a pathing problem to a storage array controller

**Recommended Action:**

1. Check the Storage A.D.E GUI for changes in Active/Passive paths.
2. Check storage array for current LUN ownership. (`port listmap`)
3. Use `mpdrive failback` if needed to fail LUNs back to correct controller if needed.

**Event: sve2.ValueChangeEvent**

Component: log

EventCode: 28.3.55

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Change in Port Statistics on Virtualization Device '[Device\_Name]'

**Event: sve2.AuditEvent**

Component:

EventCode: 28.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a Virtualization Engine called '[Device\_Name]'

**Information:**

Audits occur once per week

**Probable Cause:**

This is a resyncing the cache to ensure accuracy of the Storage A.D.E telemetry information.

**Recommended Action:**

No additional actions are required.

**Event: sve2.CommunicationEstablishedEvent**

Component: oob

EventCode: 28.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with Virtualization Device '[Device\_Name]'

**Information:**

"oob" (OutOfBand) refers to the Ethernet connection. The "Source" field in the email message is the hostname of the system that has regained ethernet communication with the device.

**Event: sve2.CommunicationLostEvent**

Component: oob.command

EventCode: 28.12.32

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with VE '[Device\_Name]'

**Information:**

"oob" (OutOfBand) refers to an Ethernet connection. The "Source" field in the email message is the hostname of the system that has lost communication with the device.

**Probable Cause:**

Invalid command.

**Recommended Action:**

1. Check the status
2. Check Power on VE
3. Make sure Virtualization Device is booted correctly
4. Use the Storage A.D.E GUI configuration tools to verify proper Virtualization Device configuration.
5. Check for T3 failover conditions in T3 message log
6. Replace Virtualization Device if necessary

**Event: sve2.CommunicationLostEvent**

Component: oob.ping

EventCode: 28.12.33

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with Virtualization Device '[Device\_Name]'

**Information:**

"oob" (OutOfBand) refers to an Ethernet connection. The "Source" field in the email message is the hostname of the system that has lost ethernet communication with the device.

**Probable Cause:**

VE and/or ethernet connectivity problem

**Recommended Action:**

1. Check Power to Virtualization Device unit
2. Check Ethernet connectivity to VE
3. Check the status
4. Make sure Virtualization Device is booted correctly
5. Verify correct TCP/IP settings on VE
6. Replace Virtualization Device if necessary
7. Run ipcs(1) and ipcrm(1) to clean-up any old semaphore.

**Event: sve2.DiagnosticTest-**

Component: ve\_diag

EventCode: 28.13.52

**Severity: Error**  
**Action\_required: No**

---

Sample Description

ve\_diag ([Host\_Name]) on [Device\_Name] ([IP\_Address]) failed

**Event: sve2.DiagnosticTest-**

Component: veluntest

EventCode: 28.13.346

**Severity: Error**  
**Action\_required: No**

---

Sample Description

veluntest ([Host\_Name]) on [Device\_Name] ([IP\_Address]) failed

**Event: sve2.DiscoveryEvent**

Component:

EventCode: 28.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new Virtualization Engine called '[Device\_Name]'

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: sve2.LocationChangeEvent**

Component:

EventCode: 28.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of Virtualization Device '[Device\_Name]' changed

**Event: sve2.QuiesceEndEvent**

Component:

EventCode: 28.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: sve2.QuiesceStartEvent**

Component:

EventCode: 28.23.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: sve2.ConnectivityLostEvent**

Component:

EventCode: 28.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: sve2.LoopCableDisconnect**

Component:

EventCode: 28.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: device.LinkEvent\_CRC**

Component:

EventCode: 36.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: device.LinkEvent\_SIG**

Component:

EventCode: 36.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: a1000.ValueChangeEvent-**

Component: battery

EventCode: 29.5.5

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'device\_info.battery.status' on crash7\_001 is 'Failed'

**Probable Cause:**

A battery can fail either because it is bad or has exceeded its life span. Batteries have a 2 year life span and will report errors when they are about to exceed that life span.

**Recommended Action:**

Use raidutil -c <controller> -B to verify battery age.

2. Use Recovery Guru to walk through the steps to replace the battery.

3. After replacing the battery, reset the battery age using  
raidutil -c <controller> -R against each controller.

\* You must have a LUN on the controller when you execute the command for the battery age to be retained.

4. Use raidutil -c <controller> -B to verify age.

**Event: a1000.AuditEvent**

Component:

EventCode: 29.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new a1000 with ID:a1000.[Array\_Name]

**Information:**

Audits occur every week.

**Event: a1000.CommunicationEstablishedEvent**

Component: ib

EventCode: 29.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with A3500fc called a1000.[Array\_Name]

**Event: a1000.CommunicationLostEvent**

Component: ib

EventCode: 29.12.21

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with A3500FC called a1000.[Array\_Name]

**Information:**

This event is always done inband using rm6 commands (lad, raidutil, rdacutil,drivutil)

**Recommended Action:**

1. Check SAN Topology to identify failing segment of data path
2. Verify cables, GBICs and HBAs and Power Cables.
- \* If problem FRU is on A3500 continue on to step 3 for A3500 specific procedures.
3. Run '/usr/sbin/osa/healthck -a' from command line to see status
4. Run Healthcheck and Recovery Guru from Raid Manager GUI. Follow service procedures given

**Event: a1000.DiscoveryEvent**

Component:

EventCode: 29.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new a1000 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: a1000.LocationChangeEvent**

Component:

EventCode: 29.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of a1000 called [Array\_Name] was changed

**Event: a1000.QuiesceEndEvent**

Component:

EventCode: 29.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

The monitoring of a previously quiesced device has resumed.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: a1000.QuiesceStartEvent**

Component:

EventCode: 29.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: a1000.StateChangeEvent+**

Component: disk

EventCode: 29.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

disk.0 (SEAGATE.LT04183900) in A3500FC 'Array\_Name' a1000.[Array\_Name] is now Available  
(status-state changed from 'Degraded' to 'Optimal')

**Event: a1000.StateChangeEvent-**

Component: disk

EventCode: 29.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.0 (SEAGATE.LT04183900) in A3500FC 'Array\_Name' a1000.[Array\_Name] is now Not-Available (status-state changed from 'Optimal' to 'Degraded')

**Information:**

A disk in the A3500 enclosure is reporting a failing condition.

**Recommended Action:**

1. Check HealthCheck and Recovery Guru in Raid Manager GUI. Follow service procedures given

**Event: a1000.StateChangeEvent-**

Component: controller

EventCode: 29.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

controller.a (Symbios.1T93200466) in A3500FC 'Array\_Name' a1000.[Array\_Name] is now Not-Available (status-state changed from 'Active' to 'Error')

**Information:**

This state of a controller in the a1000 enclosure changed (rm6)

**Recommended Action:**

1. Check the Raid Manager GUI message log for any errors.  
\* /usr/lib/osa/rmlog.log can be sent to Sun Support for decoding.
2. Run '/usr/sbin/osa/lad' to obtain list of controllers
3. Run '/usr/sbin/osa/healthck -a' from command line to see status
4. Run Healthcheck and Recovery Guru from Raid Manager GUI. Follow service procedures given
5. Replace controller if necessary

**Event: a1000.ConnectivityLostEvent**

Component:

EventCode: 29.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: a1000.ComponentInsertEvent**

Component: disk  
EventCode: 29.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Component 'disk.1:SEAGATE.LT02926900' was added to Array\_Name 'a1000.[Array\_Name]

**Information:**

A new Disk, as identified by it's serial#, has been installed on the A3500fc.

**Event: a1000.ComponentInsertEvent**

Component: controller

EventCode: 29.40.12

**Severity: Info**  
**Action\_required: No****Sample Description**

Component 'controller.b:XX' was added to [Array\_Name] 'a1000.[Array\_Name]

**Information:**

A new Controller, as identified by it's serial#, has been installed on the device.

**Event: a1000.ComponentRemoveEvent**

Component: disk

EventCode: 29.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Component 'disk.1:SEAGATE.LT02926900' was removed from Array\_Name 'a1000.[Array\_Name]

**Information:**

The A3500 is reporting a disk has been removed. This could be due to failure or service replacement action

**Recommended Action:**

1. Replace disk

**Event: a1000.ComponentRemoveEvent**

Component: controller

EventCode: 29.41.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Component 'controller.b:XX' was removed from Array\_Name 'a1000.[Array\_Name]

**Information:**

The A3500 is reporting a controller has been removed. This could be due to failure or service replacement actions

**Recommended Action:**

1. Replace controller using Recovery Guru from Raid Manager GUI

**Event: a1000.LinkEvent\_CRC**

Component:

EventCode: 29.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: a1000.LinkEvent\_SIG**

Component:

EventCode: 29.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: a1000.LoopCableDisconnect**

Component:

EventCode: 29.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: dsp.ValueChangeEvent**

Component: fcserver.name

EventCode: 30.3.164

**Severity: Warning**  
**Action\_required: No****Sample Description**

The name of fcserver.1([serialno]) on [device\_id] changed from 'oldname' to 'newname'

**Information:**

Changes to an instance of an fcserver are typically reconfigurations.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and procede accordingly.  
Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent**

Component: loop\_reset

EventCode: 30.3.224

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

fibresPort.m1p1: Received 10 Loop Resets in 20 minutes

**Information:**

Fibre Channel counter threshold event

**Probable Cause:**

The number of loop resets exceeded the recommended threshold for this device.

**Event: dsp.ValueChangeEvent**

Component: system\_reboot

EventCode: 30.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

DSP uptime decreased on [device\_id] ([IP\_Address]), from [old\_seconds] to [new\_seconds]

**Information:**

A decrease in the DSP's uptime in seconds means that the unit has been rebooted.

**Probable Cause:**

Possibly a maintenance action or potentially a power issue.

**Recommended Action:**

Check for stable power and power connections to the unit.

Verify whether or not this was a deliberate action.

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent**

Component: fcserver

EventCode: 30.3.161

**Severity: Warning**  
**Action\_required: No****Sample Description**

Instance server1 was added/removed to fcserver 1 on [dsp\_name]

**Information:**

Changes to an instance of an fcserver are typically reconfigurations.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and proceed accordingly.

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent**

Component: fcserverInstance

EventCode: 30.3.162

**Severity: Warning**  
**Action\_required: No****Sample Description**

Instance server/1/4/3 was added/removed to fcserver 1 on [dsp\_name]

**Information:**

Changes to an instance of an fcserver are typically reconfigurations.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and procede accordingly.  
Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent**

Component: name

EventCode: 30.3.163

**Severity: Warning**  
**Action\_required: No****Sample Description**

The name of fcserver 1 on [dsp\_name] changed from 'server2 to 'server1

**Information:**

Changes to an instance of an fcserver are typically reconfigurations.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and procede accordingly.  
Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent**

Component: protocol

EventCode: 30.3.145

**Severity: Warning**  
**Action\_required: No****Sample Description**

Protocol of dsp on <device\_id> changed from 'Fabric,SCSI' to 'Loop,SCSI'

**Probable Cause:**

The DSP is reporting a change in configuration

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: dsp.ValueChangeEvent+**

Component: link

EventCode: 30.4.448

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The 'PeerLinkISCSIState' of 'dsp00'(RearModule3,port7) on dsp00 is 'LINK UP'

**Information:**

The ISCSI link to the specified IP address has changed value.

**Probable Cause:**

Reconfiguration, Network Change

**Event: dsp.ValueChangeEvent+**  
Component: fcserverInstance.state  
EventCode: 30.4.165

**Severity: Info**  
**Action\_required: No**

---

### Sample Description

'fcserver.5.instance.1.InstanceState'(server5:server5/3/4) on server5 is 'Allocated'

### Information:

Changes to an instance of an fcserver are typically reconfigurations.

### Probable Cause:

Possibly a maintenance action or an administrator doing a reconfiguration.

### Recommended Action:

Verify if this was a deliberate action and procede accordingly.

No Action is Required.

**Event: dsp.ValueChangeEvent+**  
Component: fcserverInstance.status  
EventCode: 30.4.197

---

**Severity: Info**  
**Action\_required: No**

#### Sample Description

'fcserver.5.instance.1.InstanceState'(server5:server5/3/4) on server5 is 'Allocated'

#### Information:

Changes to an instance of an fcserver are typically reconfigurations.

#### Probable Cause:

Possibly a maintenance action or an administrator doing a reconfiguration.

#### Recommended Action:

Verify if this was a deliberate action and procede accordingly.

No Action is Required.

**Event: dsp.ValueChangeEvent+**

Component: chassis.power

EventCode: 30.4.9

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'chassis.power-supply.1.status' on [device\_id] ([IP\_Address]) is 'valid'

**Probable Cause:**

This event indicates a positive state change in a Power Supply.

The actual power supply is indicated in the description of the event.

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: dsp.ValueChangeEvent-**

Component: EEPROM

EventCode: 30.5.404

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The Card quit reporting a part number

**Information:**

The Card quit reporting a part number

**Probable Cause:**

This is generally caused by a bad EEPROM on the card

**Recommended Action:**

replace the affected card and return it for service

**Event: dsp.ValueChangeEvent-**  
Component: fcserverInstance.state  
EventCode: 30.5.165

**Severity: Warning**  
**Action\_required: No**

### Sample Description

'fcserver.5.instance.1.InstanceState'(server5:server5/3/4) on server5 changed from Allocated to DeAllocated

### Information:

Changes to an instance of an fcserver are typically reconfigurations.

### Probable Cause:

Possibly a maintenance action or an administrator doing a reconfiguration.

### Recommended Action:

Verify if this was a deliberate action and procede accordingly.  
Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent-**  
Component: fcserverInstance.status  
EventCode: 30.5.197

**Severity: Warning**  
**Action\_required: No**

### Sample Description

'fcserver.5.instance.1.InstanceState'(server5:server5/3/4) on server5 changed from Allocated to DeAllocated

### Information:

Changes to an instance of an fcserver are typically reconfigurations.

### Probable Cause:

Possibly a maintenance action or an administrator doing a reconfiguration.

### Recommended Action:

Verify if this was a deliberate action and procede accordingly.  
Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ValueChangeEvent-**

Component: link

EventCode: 30.5.448

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'PeerLinkISCSIState' of 'dsp00'(RearModule3,port7) on dsp00 is 'Internal error'  
(previous 'PeerLinkISCSIState' was 'LINK UP') (ISCSI link state to 172.20.35.202=Internal error

**Information:**

The ISCSI link to the specified IP address has encountered an error.

**Probable Cause:**

Network Problem

**Service:**

dsp.siolink

**Event: dsp.ValueChangeEvent-**

Component: chassis.fan

EventCode: 30.5.8

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

chassis.fan.1 status changed from OK to Invalid

**Information:**

This event indicates any one of the possible negative changes in status to the FAN assembly. This event is most likely indicating a hardware problem. The component number is indicated in the description of the event.

**Probable Cause:**

A defective fan or power to the assembly.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.fan

**Event: dsp.ValueChangeEvent-**

Component: chassis.power

EventCode: 30.5.9

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'chassis.power-supply.1.status' on [device\_id] ([IP\_Address]) is 'invalid'

**Probable Cause:**

This event indicates a negative state change to a Power Supply in the DSP.  
The actual power supply component is indicated in the description of the event.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.power

**Event: dsp.AuditEvent**

Component:

EventCode: 30.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new DSP called [device\_id] ([IP\_Address]) WWN

**Probable Cause:**

An audit of all the device information is done each week.

**Recommended Action:**

No Action is Required.

**Event: dsp.CommunicationEstablishedEvent**

Component: oob

EventCode: 30.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [DSP\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet access to the array has been re-established

**Recommended Action:**

No Action is Required.

**Event: dsp.CommunicationLostEvent**

Component: oob

EventCode: 30.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (OutOfBand([Host\_Name])) with [DSP\_Name] ([IP\_Address])

**Information:**

OutOfBand. Ethernet access to the unit cannot be confirmed.

**Probable Cause:**

The device specified in the event description has failed to answer ping or return valid status.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Check Power on the dsp unit.

Check the internal HUB ethernet connectivity to the affected dsp.

Verify the PC card on active MIC is inserted properly.

**Event: dsp.DiscoveryEvent**

Component:

EventCode: 30.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new DSP called [device\_id]

**Probable Cause:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No Action is Required.

**Event: dsp.LocationChangeEvent**

Component:

EventCode: 30.19.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Location of DSP [device\_id] ([IP\_Address]) was changed

**Information:**

The location is determined by the Customer Name and the Site Name.

**Probable Cause:**

A change was made to the site and/or customer name fields in Site Info.

**Recommended Action:**

No Action is Required.

**Event: dsp.LogEvent**

Component: mic\_failover

EventCode: 30.20.181

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

2 device\_notice(s) found in logfile /var/adm/messages.dsp (related to dsp  
sp7-dsp00/192.168.0.10): Nov 4 06:31:44 dsp00 11/04/2003

**Probable Cause:**

The MIC card in the slot specified in the event description has posted a log file  
entry.

**Recommended Action:**

No Action is Required.

**Service:**

dsp.mic

**Event: dsp.LogEvent**

Component: micpc\_unmounted

EventCode: 30.20.222

**Severity: Error**  
**Action\_required: Yes****Sample Description**

2 device\_error(s) found in logfile /var/adm/messages.dsp (related to dsp  
dsp00/192.168.0.10): Mar 10 14:48:51 dsp00 03/10/2004 21:48:39 LOG\_ERR (PC\_CARD: 31-0) MIC PC C

**Information:**

Drive A is the PCMCIA flash card in the MIC.

**Probable Cause:**

A hardware failure with the flash card.  
A hardware failure with the MIC Card.  
The PCMCIA flash card in the MIC has been pulled.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status  
on the device specified in the event description as well as any additional  
events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Use the Service Advisor procedure(s) available on the storage system  
that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

dsp.micpc

**Event: dsp.LogEvent**

Component: device\_notice

EventCode: 30.20.160

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

notice(s) found in logfile: [Array\_Log\_File]

**Probable Cause:**

A message was found in the DSP log file which has been classified as a Notice.

**Recommended Action:**

No Action is Required.

**Event: dsp.LogEvent**

Component: device\_error

EventCode: 30.20.158

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File]

**Probable Cause:**

A message was found in the DSP log file which has been classified as a Error.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: dsp.LogEvent**

Component: device\_warning

EventCode: 30.20.159

**Severity: Warning**  
**Action\_required: No****Sample Description**

warning(s) found in logfile: [Array\_Log\_File]

**Probable Cause:**

A message was found in the DSP log file which has been classified as a Warning.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: dsp.LogEvent**  
Component: port\_down  
EventCode: 30.20.202

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

error(s) found in logfile: (Proc: 3-3) Port 3/5 is DOWN

**Event: dsp.LogEvent**

Component: log\_vol\_redist

EventCode: 30.20.182

**Severity: Warning**  
**Action\_required: No****Sample Description**

errors(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

The "vol redistribution" message is an indication of a recovery action from a previous failover operation.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.LogEvent**

Component: port.statistics

EventCode: 30.20.36

**Severity: Info**  
**Action\_required: No**

---

### Sample Description

Change in Port Statistics on DSP [device\_id] ([IP\_Address]):

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.LogEvent**

Component: sntp\_alert

EventCode: 30.20.208

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning found in logfile (related to [device]): Dec 23 10:35:12 dsp00 12/23/2003  
10:32:55 LOG\_ALERT (MIC: 0-0) The SNTP time correction task has been started,

**Information:**

SNTP time correction

**Event: dsp.LogEvent**

Component: log\_alert

EventCode: 30.20.146

**Severity: Error**  
**Action\_required: Yes****Sample Description**

errors(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

A message was found in the DSP log file which has been classified as an Alert.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: dsp.LogEvent**  
Component: log\_critical  
EventCode: 30.20.147

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

N device errors(s) found in logfile: [Array\_Log\_File] (related to dsp [DSP\_Name/IP\_Address] [Log\_Message])

### Probable Cause:

A message was found in the DSP log file which has been classified as Critical.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

### Service:

se.extract

**Event: dsp.LogEvent**

Component: log\_error

EventCode: 30.20.148

**Severity: Error**  
**Action\_required: Yes****Sample Description**

errors(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

A message was found in the DSP log file which has been classified as an Error.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: dsp.LogEvent**  
Component: log\_warning  
EventCode: 30.20.149

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

### Probable Cause:

A message was found in the DSP log file which has been classified as a Warning.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.QuiesceEndEvent**

Component:

EventCode: 30.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on dsp [DSP\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: dsp.QuiesceStartEvent**

Component:

EventCode: 30.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [DSP\_Name] ([IP\_Address])

**Information:**

Quiescing a device means that the monitoring has been temporarily stopped.

**Probable Cause:**

The monitoring status of the device called out in the event message has been stopped.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.StateChangeEvent+**

Component: MIC

EventCode: 30.25.171

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'MIC.Front2.Status' on [DSP\_Name] changed from 'Offline' to 'Online'

**Information:**

The device has gone from a degraded state to a normal operating condition.

**Probable Cause:**

The card has been replaced or rebooted.

**Recommended Action:**

Validate the operational status of the MIC card.

It may be necessary to use the Storage A.D.E. UI "Command Viewer" to execute:

'redund -c'

**Event: dsp.StateChangeEvent+**

Component: SFC

EventCode: 30.25.172

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'SFC.Front2.Status' on [DSP\_Name] changed from 'Offline' to 'Online'

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: dsp.StateChangeEvent+**

Component: fcserver

EventCode: 30.25.161

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'fcserver.2.Status' on [DSP\_Name] changed from 'Offline' to 'Online'

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: dsp.StateChangeEvent+**

Component: fcserverInstance

EventCode: 30.25.162

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'fcserver.2.Instance.2.Status' on [DSP\_Name] changed from 'Offline' to 'Online'

**Information:**

Changes to an instance of an fcserver are typically reconfigurations.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.  
The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

Verify if this was a deliberate action and procede accordingly.  
No Action is Required.

**Event: dsp.StateChangeEvent+**

Component: port

EventCode: 30.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in DSP [device\_id] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

A port on the DSP has logged in on the fabric and gone online.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: dsp.StateChangeEvent+**

Component: SRC

EventCode: 30.25.174

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'SRC.Front2.Status' on [DSP\_Name] changed from 'Offline' to 'Online'

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: dsp.StateChangeEvent+**

Component: SIO

EventCode: 30.25.173

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'SIO.Front2.Status' on [DSP\_Name] changed from 'Offline' to 'Online'

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: dsp.StateChangeEvent-**

Component: MIC

EventCode: 30.26.171

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'MIC.Front2.Status' on [DSP\_Name] changed from 'Online' to 'Offline'

**Probable Cause:**

The MIC card in the slot specified in the event description has failed due to a potential hardware problem.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.mic

**Event: dsp.StateChangeEvent-**

Component: SFC

EventCode: 30.26.172

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'ReadyState' of SFC.Front5 in DSP dsp00 is 'Not Ready' (previous 'ReadyState' was 'Ready')

**Probable Cause:**

The SFC card in the slot specified in the event description has failed due to a potential hardware problem

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.sfc

**Event: dsp.StateChangeEvent-**

Component: SIO

EventCode: 30.26.173

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'ReadyState' of SIO.Rear2 in DSP dsp00 is 'Not Ready' (previous 'ReadyState' was 'Ready')

**Probable Cause:**

The SIO card in the slot specified in the event description has failed due to a potential hardware problem that may involve the SRC card.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.sio

**Event: dsp.StateChangeEvent-**

Component: SRC

EventCode: 30.26.174

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'ReadyState' of SRC.Front2 in DSP dsp00 is 'Not Ready' (previous 'ReadyState' was 'Ready')

**Probable Cause:**

The SRC card in the slot specified in the event description has failed due to a potential hardware problem that may involve the SIO card.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.src

**Event: dsp.StateChangeEvent-**

Component: port

EventCode: 30.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'State' of fibrePort.m3p5(wwn.fibrePort.m3p5) (RearModule3,port5) in DSP [Device\_Name] is 'Offline' (previous 'State' was 'Online')(Link Down)

**Information:**

A port on the DSP has changed to a negative state.

**Probable Cause:**

The port on the SIO card in the slot specified in the event description has experienced a failure due to a potential hardware problem. Possibly a bad HBA in datahost, SIO card, GBIC, FC Cable and/or device optical connections.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.gbic

**Event: dsp.StateChangeEvent-**

Component: power

EventCode: 30.26.37

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'chassis.power-supply.1.status' on [device\_id] ([IP\_Address]) is 'invalid'

**Probable Cause:**

This event indicates a negative state change to a Power Supply in the DSP.  
The actual power supply component is indicated in the description of the event.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.power

**Event: dsp.StateChangeEvent-**

Component: fcserver

EventCode: 30.26.161

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The state of 'fcserver.2.Status' on [DSP\_Name] changed from 'Online' to 'Offline'

**Information:**

Changes to an instance of an fcserver are typically reconfigurations.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and procede accordingly.

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: dsp.StateChangeEvent-**

Component: fcserverInstance

EventCode: 30.26.162

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

The state of 'fcserver.2.Instance.2.Status' on [DSP\_Name] changed from 'Online' to 'Offline'

### Information:

Changes to an instance of an fcserver are typically reconfigurations.

### Probable Cause:

Possibly a maintenance action or an administrator doing a reconfiguration.

### Recommended Action:

Verify if this was a deliberate action and proceed accordingly.

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

### Service:

se.extract

**Event: dsp.Statistics**

Component:

EventCode: 30.27.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Statistics about DSP [device\_id] ([IP\_Address]) WWN

**Event: dsp.DeviceLostEvent**

Component: ib

EventCode: 30.34.21

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Device [device\_id] is not available anymore, this was confirmed by other inband/outofband events

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

### Service:

se.extract

**Event: dsp.LogEvent-**

Component: snap\_90

EventCode: 30.35.446

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

The Snapshot volume is 90% or higher

**Information:**

The Snapshot volume is 90% or higher

**Probable Cause:**

This is generally caused by a full snapshot volume

**Recommended Action:**

Use Configuration Service to increase Snapshot volume size

**Event: dsp.ConnectivityLostEvent**

Component:

EventCode: 30.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: dsp.ConnectivityLostEvent**

Component: aggregate

EventCode: 30.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between DSP [device\_id] [Port-#] and Array [Array\_Name] ctrl-1

**Probable Cause:**

This event is generated when device-ports go offline and other events are confirming it.

Possible connections include:

- host <-> switch
- switch <-> switch
- switch <-> device

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.sio

**Event: dsp.ComponentInsertEvent**

Component: SIO

EventCode: 30.40.173

**Severity: Info**  
**Action\_required: No****Sample Description**

SIO.Front3([serialNo]) was added to [dsp] (wwn=[wwn]) ([old\_serial] -> [new\_serial])

**Information:**

The DSP has reported that a module was added to the chassis with details about the old and new serial numbers.

**Probable Cause:**

The specified SIO in the event description was added to the unit.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ComponentInsertEvent**

Component: SFC

EventCode: 30.40.172

**Severity: Info**  
**Action\_required: No****Sample Description**

SFC.Front3([serialno]) was added to [dsp] (wwn=[wwn]) ([old\_serial] -> [new\_serial])

**Information:**

The DSP has reported that a module was added to the chassis with details about the old and new serial numbers.

**Probable Cause:**

The specified SFC in the event description was added to the unit.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ComponentInsertEvent**

Component: MIC

EventCode: 30.40.171

**Severity: Info**  
**Action\_required: No****Sample Description**

MIC.Front3([serialno]) was added to [dsp] (wwn=[wwn]) ([old\_serial] -&gt; [new\_serial])

**Information:**

The DSP has reported that a module was added to the chassis with details about the old and new serial numbers.

**Probable Cause:**

The specified MIC in the event description was added to the unit.

**Recommended Action:**

Clear the redundancy flag to re-enable the MIC card as Master.

**Service:**

dsp.clearredund

**Event: dsp.ComponentInsertEvent**

Component: SRC

EventCode: 30.40.174

**Severity: Info**  
**Action\_required: No****Sample Description**

SRC.Front3([serialno]) was added to [dsp] (wwn=[wwn]) ([old\_serial] -&gt; [new\_serial])

**Information:**

The DSP has reported that a module was added to the chassis with details about the old and new serial numbers.

**Probable Cause:**

The specified SRC in the event description was added to the unit.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: dsp.ComponentRemoveEvent**

Component: MIC

EventCode: 30.41.171

**Severity: Error**  
**Action\_required: Yes****Sample Description**

MIC.Front3([serialno]) was removed from [dsp] (wwn=[wwn]) ([old\_serial] -&gt; [new\_serial])

**Information:**

The DSP has reported that a module was removed from the chassis with details about the old and new serial numbers.

**Probable Cause:**

The specified MIC in the event description was removed or had a failure.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.mic

**Event: dsp.ComponentRemoveEvent**

Component: SIO

EventCode: 30.41.173

**Severity: Error**  
**Action\_required: Yes****Sample Description**

SIO.Front3([serialno]) was removed from [dsp] (wwn=[wwn]) ([old\_serial] -> [new\_serial])

**Information:**

The DSP has reported that a module was removed from the chassis with details about the old and new serial numbers.

**Probable Cause:**

The specified SIO in the event description was removed or had a failure.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.sio

**Event: dsp.ComponentRemoveEvent**

Component: SRC

EventCode: 30.41.174

**Severity: Error**  
**Action\_required: Yes****Sample Description**

SRC.Front3([serialno]) was removed from [dsp] (wwn=[wwn]) ([old\_serial] -&gt; [new\_serial])

**Information:**

The specified SRC in the event description was removed or had a failure.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and proceed accordingly.

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details

- Search the Event Logs

**Service:**

dsp.src

**Event: dsp.ComponentRemoveEvent**

Component: SFC

EventCode: 30.41.172

**Severity: Error**  
**Action\_required: Yes****Sample Description**

SFC.Front3([serialno]) was removed from [dsp] (wwn=[wwn]) ([old\_serial] -&gt; [new\_serial])

**Information:**

The specified SFC in the event description was removed or had a failure.

**Probable Cause:**

Possibly a maintenance action or an administrator doing a reconfiguration.

**Recommended Action:**

Verify if this was a deliberate action and proceed accordingly.

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

dsp.sfc

**Event: dsp.LinkEvent\_CRC**

Component:

EventCode: 30.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on dsp [device\_id], Link: port 1 on [device\_id]

**Information:**

An increase in the Cyclic Reduncy Check (CRC) counter was detected between two components on the Fibre Channel. Threshold = 10/24hr (Error).

**Probable Cause:**

GBIC, FC Cable and device optical connections.

**Recommended Action:**

1. Replace GBIC(s) associated with the link to the device specified in the event description.
2. Reroute/replace cable(s) associated with the device as needed. Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.
  - View Alarm Details
  - Search the Event Logs

**Service:**

se.extract



**Event: dsp.LinkEvent\_SIG**

Component:

EventCode: 30.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on dsp [device\_id], Link: port 1 on [device\_id]

**Information:**

An increase in the Signal Loss (SIG) counter was detected between two components on the Fibre Channel. Threshold = 10/1hr (Error).

**Probable Cause:**

GBIC, FC Cable and device optical connections.

**Recommended Action:**

1. Replace GBIC(s) associated with the link to the device specified in the event description.
2. Reroute/replace cable(s) associated with the device as needed. Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.
  - View Alarm Details
  - Search the Event Logs

**Service:**

se.extract

**Event: dsp.LoopCableDisconnect**

Component:

EventCode: 30.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: inrange.ValueChangeEvent**

Component: chassis.power

EventCode: 31.3.9

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.power-supply.1.status' on [Switch\_Name] ([IP\_Address]) is 'invalid'

**Information:**

Storage A.D.E queries each Device to get the current status of each component. In the example Storage A.D.E has d

**Probable Cause:**

This is an indication that the power supply may no longer be functional.

**Recommended Action:**

1. Check the power switch
2. Check power going to switch
3. Replace power supply if needed
4. Replace switch.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: inrange.ValueChangeEvent**

Component: system\_reboot

EventCode: 31.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch uptime decreased on [Switch\_Name] ([IP\_Address]) from 774396s to 524848s

**Information:**

Storage A.D.E checks the uptime information coming from the switch and found it to be less than the previous uptime of the switch. The uptime information is the number of seconds since the last reset or power cycle.

**Probable Cause:**

This could be an indication that the switch has been reset either by a user or loss of power.

**Recommended Action:**

1. Check to see if the switch has been reset by anyone.
2. Check the power going to the switch.
3. Check other devices that may be common to this switch's power grid.

**Event: inrange.ValueChangeEvent**

Component: port.statistics

EventCode: 31.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch [Switch\_Name] ([IP\_Address]), port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193037062 )

**Information:**

The Fibre Channel counter values retrieved from the switch exceeded a threshold value warranting notification.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for events about the switch named in the event.
2. Run the link test to isolate the GBIC, cable, switch, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: inrange.ValueChangeEvent-**

Component: chassis.fan

EventCode: 31.5.8

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.fan.1.status' on [Switch\_Name] ([IP\_Address]) changed from 'ok' to 'failed'

**Information:**

Storage A.D.E queries each Device to get the current status of each component. In the example Storage A.D.E has d

**Probable Cause:**

This is an indication that the fan is no longer functional.

**Recommended Action:**

1. Check the Storage A.D.E GUI for similar messages on other components.
2. Ensure proper airflow in and around the switch.
3. Ensure proper operation of the fan.
4. Replace switch.
5. Where applicable, replace fan and/or temp sensor.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: inrange.ValueChangeEvent-**

Component: chassis.board

EventCode: 31.5.7

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.board.7.status' on [Switch\_Name] ([IP\_Address]) changed from 'ok' to 'failed'.

**Information:**

Storage A.D.E queries each Device to obtain the current status of each component. In the example Storage A.D.E de

**Probable Cause:**

1. This is an indication of a component gone bad or going bad.
2. There may also be environmental problems in the datacenter.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state and status of the sensors.  
Monitor Devices -> <device> -> Health
2. Refer to the device service manual for specifics about the sensor location and its meaning.
3. Replace failed component.
4. Replace switch.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: inrange.AuditEvent**

Component:

EventCode: 31.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new inrange switch called [Switch\_Name] ([IP\_Address]) WWN

**Event: inrange.CommunicationEstablishedEvent**

Component: oob

EventCode: 31.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with [Switch\_Name] ([IP\_Address])

**Event: inrange.CommunicationLostEvent**

Component: fsa

EventCode: 31.12.63

**Severity: Err/Critical**  
**Action\_required: Yes**

---

**Sample Description**

Node inrange:[Switch\_Name] is not available anymore, this was confirmed inband/outOfBand by 5 sub-events.

**Information:**

This switch is not available anymore. This problem was found outOfBand and confirmed by other inBand events.

**Event: inrange.CommunicationLostEvent**

Component: oob

EventCode: 31.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with [Switch\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet connectivity to the inrange switch has been lost

**Recommended Action:**

1. Check Power on switch2
2. Check Ethernet connectivity to switch
3. Verify switch is booted correctly with no POST errors.
4. Verify switch Test Mode is set for normal operations
5. Verify TCP/IP settings on switch via Forced Prom Mode access
6. Replace switch if needed

**Event: inrange.DiagnosticTest-**

Component: inranetest

EventCode: 31.13.353

**Severity: Error**  
**Action\_required: No**

---

**Sample Description**

inranetest (inrange) on [Switch\_Name] ([IP\_Address]) WWN

**Event: inrange.DiscoveryEvent**

Component:

EventCode: 31.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new inrange switch called [Switch\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: inrange.LocationChangeEvent**

Component:

EventCode: 31.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of inrange switch [Switch\_Name] ([IP\_Address]) was changed

**Event: inrange.QuiesceEndEvent**

Component:

EventCode: 31.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: inrange.QuiesceStartEvent**

Component:

EventCode: 31.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Check with the administrator that this is in fact expected.

**Event: inrange.StateChangeEvent+**

Component: port

EventCode: 31.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

Port on switch is now available

**Event: inrange.StateChangeEvent-**

Component: port

EventCode: 31.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'Online' to 'Offline')

**Information:**

A port on the switch has logged out of the fabric and gone offline.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for additional events about the switch named in the event.
2. Verify cables, GBICs and connections along Fibre Channel path.
3. Check Storage A.D.E SAN Topology GUI to identify failing segment of the data path.
4. Verify with the customer about reconfigurations that may been done.

**Event: inrange.Statistics**

Component:

EventCode: 31.27.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Statistics about inrange switch [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E periodically gathers all the port traffic information from a switch.

**Probable Cause:**

This information can be used to generate a report possibling detecting a trend (good or bad).

**Recommended Action:**

Look through the output to ensure a proper understanding of the load on the switch.

**Event: inrange.ConnectivityLostEvent**

Component:

EventCode: 31.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: inrange.ConnectivityLostEvent**

Component: aggregate

EventCode: 31.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between inrange [Switch\_Name] port-2 and t3 [ARRAY] ctrl-1

**Information:**

This event is generated when switch-ports go offline and other events are confirming it. This can be a link host &lt;-&gt; sw

**Event: inrange.LinkEvent\_CRC**

Component:

EventCode: 31.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: inrange.LinkEvent\_SIG**

Component:

EventCode: 31.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: inrange.LoopCableDisconnect**

Component:

EventCode: 31.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: domain.CommunicationLostEvent**

Component: oob

EventCode: 37.12.31

**Severity: Err/Critical**

**Action\_required: Yes**

---

**Sample Description**

Lost communication (OutOfBand([Host\_Name])) with domain [Array\_Name] ([IP\_Address]) :

**Event: domain.QuiesceStartEvent**

Component:

EventCode: 37.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Event: domain.StateChangeEvent**

Component: slot

EventCode: 37.37.84

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

[Array\_Name] in SE- [Host\_Name]: 'disk.u1d9' in T3 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'unknown' to 'fault-enabled'):

**Event: domain.ComponentInsertEvent**

Component: slot

EventCode: 37.40.84

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

(slr-mi.370-3990-01-e-f0.027582) was added to [Host\_Name]

**Event: domain.ComponentRemoveEvent**

Component: slot

EventCode: 37.41.84

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

(slr-mi.370-3990-01-e-f0.027582) was removed from [Host\_Name]

**Event: 6020.ValueChangeEvent**

Component: volCount

EventCode: 38.3.87

**Severity: Info**  
**Action\_required: No****Sample Description**

Number of LUN(s) on 6020 [Array\_Name] ([IP\_Address]) changed from 10 to 12

**Information:**

The number of vdisks reported by the array has changed.

**Probable Cause:**

Possibly administration activity.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent**

Component: volOwner

EventCode: 38.3.76

**Severity: Error**  
**Action\_required: Yes****Sample Description**

VDisk owner for u1vol1 changed from 'u1' to 'u2'

**Probable Cause:**

The array vdisk has failed over to another controller in the array.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.ValueChangeEvent**

Component: lunPermission

EventCode: 38.3.79

**Severity: Info**  
**Action\_required: No****Sample Description**

The access permission has changed for LUN 01 from old\_access to new\_access.

**Information:**

The LUN Masking permissions have changed for this array's LUN.

**Probable Cause:**

Possibly administration activity.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent**

Component: system\_reboot

EventCode: 38.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

System reboot for 6020 [Array\_Name] (ip=[IP\_Address]) changed from '2003-2-13 17:32:43' to '2002-9-16 17:32:43'

**Information:**

Event is generated when the reboot date/time changed by at least 5 minutes.

**Probable Cause:**

A power hit.  
Reboot purposely executed.  
Date command purposely executed.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Use the Storage A.D.E UI Log viewer to check the mirrored log file for the date command.

**Service:**

se.extract

**Event: 6020.ValueChangeEvent**

Component: system\_time\_token

EventCode: 38.3.169

**Severity: Warning**  
**Action\_required: No****Sample Description**

System reboot for 6020 [Array\_Name] (ip=[IP\_Address]) changed from '2003-2-13 17:32:43' to '2002-9-16 17:32:43'

**Probable Cause:**

The last reboot time of the array cannot be determined.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.ValueChangeEvent**

Component: identification

EventCode: 38.3.156

**Severity: Warning**  
**Action\_required: No****Sample Description**

The identification of this device changed from 'slr-mi.370-3990-01-e-f0.027582' to 'slr-mi.370-3990-01-e-f0.027599'

**Probable Cause:**

The serial number reported by this array has changed.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent**

Component: lunCount

EventCode: 38.3.265

**Severity: Warning**  
**Action\_required: No****Sample Description**

The number of LUN(s) on t3 [Array\_Name] (ip=[IP\_Address]) changed from 10 to 12

**Information:**

Storage A.D.E verifies the number of vdisk through token id 'volCount'

**Probable Cause:**

1. Potential hardware problem in the array.
2. Administrative or remedial maintenance process taking place.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent**

Component: loop.statistics

EventCode: 38.3.115

**Severity: Warning**  
**Action\_required: No****Sample Description**

Internal Loop statistics changed on [Array\_Name]

**Information:**

Internal loop statistics monitors the fibre channel counters of each of the 3 ses chips on each controller.

**Probable Cause:**

These can change during normal operation.

**Recommended Action:**

Watch for excessive statistic changes and other possibly related problems.

**Event: 6020.ValueChangeEvent**

Component: time\_diff

EventCode: 38.3.56

**Severity: Info**  
**Action\_required: No****Sample Description**

Time of 6020 [Array\_Name] ([IP\_Address]) is different from host: 6020=Fri Oct 26 10:16:17  
200, Host=2001-10-26 12:21:04

**Probable Cause:**

The system time between the array and the monitoring host is different.

**Recommended Action:**

1. Check the NTP settings on the array.

**Service:**

se.extract

**Event: 6020.ValueChangeEvent**

Component: initiators

EventCode: 38.3.78

**Severity: Warning**  
**Action\_required: No****Sample Description**

initiator changed from old\_value to new\_value

**Probable Cause:**

A Host Bus Adapter WWN connected to this array has been changed.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.ValueChangeEvent**

Component: revision

EventCode: 38.3.42

**Severity: Info**  
**Action\_required: No****Sample Description**

Revision on controller.u1ctr1 in 6020 [Array\_Name] ([IP\_Address]) from R01 to R02

**Probable Cause:**

The firmware level on this FRU has been changed.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent**

Component: log

EventCode: 38.3.55

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Errors(s) found in logfile: [Array\_Messages\_Logfile]

**Probable Cause:**

This is a Generic Logfile Event

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.ValueChangeEvent+**

Component: power.fan

EventCode: 38.4.39

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.Fan' on [Array\_Name] changed from '[Undefined]' to 'normal'

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent+**

Component: power.temp

EventCode: 38.4.41

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of power.u1pcu1.PowTemp on [Array\_Name] ([IP\_Address]) is Normal

**Probable Cause:**

The PCU temperature has returned to normal levels.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent+**

Component: sysvolslice

EventCode: 38.4.48

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Volume Slicing is now on!

**Information:**

The vol slice feature is possible in 6020+ firmware 3.1 and above.

**Probable Cause:**

The volslice command has been used to enable this feature.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent+**

Component: cacheMode

EventCode: 38.4.77

**Severity: Info**  
**Action\_required: No****Sample Description**

The 'State' of 'volume.u2vol1.volCacheMode' on array00 is 'writeBehind' (previous 'State' was 'writeThrough')

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent+**

Component: cacheMirror

EventCode: 38.4.123

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

CacheMirror on [Array\_Name] ([IP\_Address]) change from off to on

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent+**

Component: portStatus

EventCode: 38.4.445

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The 'portStatus' of 'array00' on array00 is 'online' (previous 'portStatus')

**Information:**

The Fibre Port has come Online.

**Probable Cause:**

1. The Port has been connected.

**Event: 6020.ValueChangeEvent+**

Component: backend\_loop\_split

EventCode: 38.4.144

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'loop.u1p1.loopsIsolated' on [Array\_Name] changed from 'no' to 'yes'

**Probable Cause:**

Storage A.D.E. probes the Array and gathers its tokens to check for anomalies in the state/status of the device.

**Recommended Action:**

No Action is Required.

**Service:**

se.extract

**Event: 6020.ValueChangeEvent+**

Component: volOper

EventCode: 38.4.155

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'volume.u1vol1.volOper' on [Array\_Name] changed from 'reconstructing' to 'OK'

**Probable Cause:**

The array's vdisk status has changed from negative to positive.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent+**

Component: power.output

EventCode: 38.4.40

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power.u1pcu1.Output' on [Array\_Name] changed from '[Undefined]' to 'normal'

**Probable Cause:**

The PCU Power Output has returned to a normal operating mode.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent-**

Component: power.output

EventCode: 38.5.40

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.PowOutput on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

The PCU Power Output has entered a degraded operating mode.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.power

**Event: 6020.ValueChangeEvent-**  
Component: interface.loopcard.cable  
EventCode: 38.5.25

---

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

The state of loopcable.u1l1.CableState changed from 'OK' to 'failed'

### Probable Cause:

The 6020 has reported a problem with a loopcard cable.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

### Service:

se.extract

**Event: 6020.ValueChangeEvent-**

Component: volOper

EventCode: 38.5.155

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

The state of 'volume.u1vol1.volOper' on [Array\_Name] changed from 'OK' to 'reconstructing'

### Probable Cause:

The array vdisk is not in a normal operating mode.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.ValueChangeEvent-**

Component: power.temp

EventCode: 38.5.41

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.PowTemp on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

The PCU Temperature has entered a degraded operating mode.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.power

**Event: 6020.ValueChangeEvent-**

Component: disk.temperature

EventCode: 38.5.94

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The temperature of disk.u1d1 went over 40.

**Information:**

The array is reporting an over temperature condition.

**Probable Cause:**

Array disk has exceeded normal operating temperature

**Recommended Action:**

Check for obstruction in airflow in and around unit.

Check for PCU failures.

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.ValueChangeEvent-**

Component: sysvolslice

EventCode: 38.5.48

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Volume Slicing is now off!

**Information:**

The vol slice feature is possible in 6020+ firmware 3.1 and above.

**Probable Cause:**

The volslice command has been used to disable this feature.

**Recommended Action:**

No Action is Required.

**Event: 6020.ValueChangeEvent-**

Component: disk.port

EventCode: 38.5.14

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of disk.u1d1.Port1State on 6020 [Array\_Name] ([IP\_Address]) changed from 'OK' to 'failed'

**Probable Cause:**

A disk drive has reported a failure of one of its dual ports.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

6020.disk

**Event: 6020.ValueChangeEvent-**

Component: portStatus

EventCode: 38.5.445

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The 'portStatus' of 'array00' on array00 is 'offline' (previous 'portStatus was 'online')

**Information:**

The Fibre Port has gone offline.

**Probable Cause:**

1. Fibre Cable was removed from Array
2. Fibre cable was removed from adjacent Device
3. Fibre cable has malfunctioned.

**Recommended Action:**

Check both side of fibre cable for disconnections or replace the fibre.

**Event: 6020.ValueChangeEvent-**

Component: disk

EventCode: 38.5.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The 'State' of disk.u2d11 in 6020 array00 is 'notInstalled-missing' (previous 'State' was 'unknown')

**Probable Cause:**

The disk has gone into a non-optimal state.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

6020.disk

**Event: 6020.ValueChangeEvent-**

Component: cacheMirror

EventCode: 38.5.123

**Severity: Warning**  
**Action\_required: No****Sample Description**

CacheMirror on [Array\_Name] ([IP\_Address]) change from on to off

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

Cacheing changes are only a symptom and potentially the result of a hardware issue in the array.

- Controller Failure
- Battery/Power Failure
- Battery Refresh/Test
- Disk Failure
- Loop Failure

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.ValueChangeEvent-**

Component: power.battery

EventCode: 38.5.38

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'power.u2pcu2.fruPowerBatState' on [Array\_Name] changed from "OLD\_VALUE" to "NEW\_VALUE"

**Probable Cause:**

The Battery state has entered a degraded operating mode.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.power

**Event: 6020.ValueChangeEvent-**

Component: power.fan

EventCode: 38.5.39

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of power.u1pcu1.Fan1State on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

The Fan state has entered a degraded operating mode.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

6020.power

**Event: 6020.ValueChangeEvent-**

Component: cacheMode

EventCode: 38.5.77

**Severity: Warning**  
**Action\_required: No****Sample Description**

The 'State' of 'volume.u2vol1.volCacheMode' on array00 is 'writeThrough' (previous 'State' was 'writeBehind')

**Information:**

Changes to the operational status of cache in the array has potential performance impacts.

**Probable Cause:**

Cacheing changes are only a symptom and potentially the result of a hardware issue in the array.

- Controller Failure
- Battery/Power Failure
- Battery Refresh/Test
- Disk Failure
- Loop Failure

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.ValueChangeEvent-**

Component: disk.pathstat

EventCode: 38.5.93

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of disk pathstat changed

**Probable Cause:**

A disk drive has lost access to one of its two paths.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.ValueChangeEvent-**

Component: backend\_loop\_split

EventCode: 38.5.144

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The state of 'loop.u1p1.loopsIsolated' on [Array\_Name] changed from 'yes' to 'no'

**Probable Cause:**

The Backend Loop of the array has gone into Healed Mode.

**Recommended Action:**

No Action is Required.

**Service:**

6020.loopcard

**Event: 6020.AuditEvent**

Component:

EventCode: 38.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new 6020 called ras [Array\_Name] ([IP\_Address]) slr-mi.370-3990-01-e-e1.003239

**Probable Cause:**

Audit Events are performed once per week.

**Recommended Action:**

No Action is Required.

**Event: 6020.CommunicationEstablishedEvent**

Component: oob

EventCode: 38.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet access to the array has been re-established.

**Recommended Action:**

No Action is Required.

**Event: 6020.CommunicationEstablishedEvent**

Component: ib

EventCode: 38.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Probable Cause:**

Fibre Channel access to the array has been re-established.

**Recommended Action:**

No Action is Required.

**Event: 6020.CommunicationLostEvent**

Component: ib

EventCode: 38.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Probable Cause:**

Fibre Channel access to the array has been lost.  
This could indicate a loss of a data path component.  
This could indicate the array is not responding.

**Recommended Action:**

Check the datahost message log for possible HBA failures.  
Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.CommunicationLostEvent**

Component: oob

EventCode: 38.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address])

**Information:**

Ethernet access to the array has been lost.

**Probable Cause:**

This could indicate the loss of a network path component.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Check Power to the Component LAN HUB.  
Contact Support Provider for Corrective Action.**Service:**

se.extract

**Event: 6020.DiagnosticTest-**

Component: 6020test

EventCode: 38.13.354

**Severity: Error**  
**Action\_required: No**

---

Sample Description

6020test ([Host\_Name] on [Array\_Name] ([IP\_Address]) failed

**Event: 6020.DiagnosticTest-**

Component: 6020volverify

EventCode: 38.13.167

**Severity: Error**  
**Action\_required: No**

---

### Sample Description

6020volverify ([Host\_Name] on [Array\_Name] ([IP\_Address])) failed

### Probable Cause:

The vol verify command compares the constructed parity with the stored parity. This implementation assumes that the integrity of the data drives is correct. The 'fix' option will update the parity drive only.

**Event: 6020.DiscoveryEvent**

Component:

EventCode: 38.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new 6020 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No Action is Required.

**Event: 6020.LocationChangeEvent**

Component:

EventCode: 38.19.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Location of 6020 [Array\_Name] ([IP\_Address]) was changed

**Probable Cause:**

The location is determined by the Customer Name and the Site Name.

**Recommended Action:**

No Action is Required.

**Event: 6020.LogEvent**

Component: array\_warning

EventCode: 38.20.91

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

This is a generic event about information found in the Array Log File.  
Storage A.D.E. monitors the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.LogEvent**

Component: faulty\_port

EventCode: 38.20.204

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Error found in logfile: E: u5d07 has faulty port on loop 2

**Probable Cause:**

The array has reported that one port of a dual-ported disk has failed

**Event: 6020.LogEvent**

Component: shell\_commands

EventCode: 38.20.193

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning(s) found in logfile

**Probable Cause:**

Manual commands entered using the telnet interface

**Event: 6020.LogEvent**

Component: disk.missing

EventCode: 38.20.198

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Warning found in logfile: E: u5d07: Missing

**Probable Cause:**

The 6020 has reported a disk has been removed from the chassis

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.LogEvent**

Component: device\_warning

EventCode: 38.20.159

**Severity: Warning**  
**Action\_required: No****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

This is a generic event about information found in the Array Log File.  
Storage A.D.E. monitors the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.LogEvent**  
Component: device\_error  
EventCode: 38.20.158

**Severity: Warning**  
**Action\_required: Yes**

### Sample Description

error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

### Probable Cause:

This is a generic event about information found in the Array Log File.  
Storage A.D.E. monitors the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status  
on the device specified in the event description as well as any additional  
events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

### Service:

se.extract

**Event: 6020.LogEvent**

Component: fru\_disabled

EventCode: 38.20.168

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 device\_error(s) found in logfile /var/adm/messages.array (related to 6020  
Array\_Name/IP\_Address) : (TimeZone MST)Feb 18 13:26:18 array01 LPCT[1]: W: u1pcu1 Disabled::

**Information:**

A message stating "FRU is disabled" was found in mirrored log file.

**Probable Cause:**

- 1. A hardware failure with the FRU in question.
- 2. Administrative or remedial maintenance taking place.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.LogEvent**

Component: disk.error3

EventCode: 38.20.430

**Severity: Warning**  
**Action\_required: No**

### Sample Description

61 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020 sp0-array01/192.168.0.41): Apr 01 20:30:17 array01 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 3.

### Information:

Disk error 3 is indicating the I/O operation retries on this disk have successfully completed but with a recovered error.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.

**Event: 6020.LogEvent**

Component: power

EventCode: 38.20.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

2 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020 [Array\_Name]/[IP\_Address]): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days battery life left, F

**Probable Cause:**

The Storage A.D.E. agent monitoring the array log file reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") lines about disks.  
Notices about the battery.  
Notices about the PCU hold time.

**Service:**

6020.power

**Event: 6020.LogEvent**

Component: temp\_threshold

EventCode: 38.20.74

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020  
[Array\_Name]/[IP\_Address]): Sep 26 14:17:03 [Array\_Name] TMON[1]: W: u1d4 TMON warning temperatur

**Information:**

Array disk has exceeded normal operating temperature review environmental conditions

**Service:**

se.extract

**Event: 6020.LogEvent**

Component: disk.error4

EventCode: 38.20.210

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020  
sp0-array01/192.168.0.41): Apr 01 20:30:17 array01 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 4.

### Information:

Disk error 4 is indicating the I/O operation retries on this disk  
have been exhausted.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.  
Other failure indicators.

**Event: 6020.LogEvent**

Component: disk.error5

EventCode: 38.20.211

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020  
sp0-array01/192.168.0.41): Apr 01 20:30:17 array01 ISR1[1]: N: u1d02 sid 1236306 stype 2024 disk error 5.

### Information:

Storage A.D.E has detected a possible problem contained in a message  
of the array Message Log.

### Probable Cause:

Disk information indicating an illegal Logical Block Address has  
been encountered.

### Recommended Action:

Monitor for additional occurrences and then contact Support Provider  
for Corrective Action.

**Event: 6020.LogEvent**

Component: disk.bypassed

EventCode: 38.20.212

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

N: u1d01: Bypassed on loop 1

**Event: 6020.LogEvent**

Component: driver.SSD\_WARN

EventCode: 38.20.330

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Found in logfile /var/adm/messages on [Host\_Name] (indicating problem with 6020

[Array\_Name]/[IP\_Address]): Jan 8 08:52:00 WWN:wwn Received 8 'SSD Warning' message(s) on 'SWITCH'

**Probable Cause:**

**Event: 6020.LogEvent**

Component: disk.senseKeyE

EventCode: 38.20.136

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6020 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information reported from a disk indicating a problem.

**Recommended Action:**

1. Monitor reconstruct process to completion.
  2. Replace this disk.
- Use the Service Advisor procedure(s) available on the storage system that was called out in the event.
- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

6020.disk

**Event: 6020.LogEvent**

Component: path\_down

EventCode: 38.20.223

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Path down on array

**Probable Cause:**

The 6020 has reported a disk has been removed from the chassis

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.LogEvent**

Component: disk.senseKeyl

EventCode: 38.20.137

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6020 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information indicating a recovered condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.LogEvent**

Component: disk.error

EventCode: 38.20.107

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020  
sp0-array01/192.168.0.41):Oct 22 18:30:45 array01 ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0)

### Probable Cause:

Storage A.D.E detected disk information indicating command status.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.

**Event: 6020.LogEvent**

Component: disk.senseKeyW

EventCode: 38.20.138

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with 6020 Array\_Name/IP\_Address):

**Probable Cause:**

Sense Key information indicating a potential problem condition.

**Recommended Action:**

1. Monitor for excessive occurrences.
2. Contact support provider if necessary.

**Event: 6020.LogEvent**

Component: disk.loopMode

EventCode: 38.20.143

**Severity: Info**  
**Action\_required: No****Sample Description**

Warnings found in logfile [Array\_Message\_Logfile] (indicating problem with '6020  
Array\_Name/IP\_Address'): SVD\_PATH\_FAILOVER

**Probable Cause:**

There has been a disk path failover on the array.

**Recommended Action:**

No Action is Required.

**Event: 6020.LogEvent**  
Component: cmd.error14  
EventCode: 38.20.426

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020  
sp0-array00/192.168.0.40): Sep 29 12:11:34 array00 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x1

### Information:

Command error 14 is indicating the a hard failure to this disk.

### Probable Cause:

A mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.
  - Excessive Sense Key messages.
  - Command Error messages.
  - Loop bypass messages.
  - Other failure indicators.
2. Replace disk.

**Event: 6020.LogEvent**

Component: cmd.error3

EventCode: 38.20.427

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020  
sp0-array01/192.168.0.41):Sep 29 12:11:34 array00 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x3

### Information:

Command Error 3 is indicating the I/O operation retries on this disk  
have successfully completed but with a recovered error.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.  
Other failure indicators.

**Event: 6020.LogEvent**

Component: cmd.error4

EventCode: 38.20.428

**Severity: Warning**  
**Action\_required: No**

### Sample Description

1 array\_error(s) found in logfile /var/adm/messages.se6320 (indicating problem with 6020  
sp0-array01/192.168.0.41):Sep 29 12:11:34 array00 ISR1[1]: N: u1d08 SVD\_DONE: Command Error = 0x4:

### Information:

Command error 4 is indicating the I/O operation retries on this disk  
have been exhausted.

### Probable Cause:

1. Activity to this disk may be extreme causing it to respond slowly.
2. A potential mechanical problem with this disk.

### Recommended Action:

1. Monitor this disk for additional indications of a potential problem.  
Excessive Sense Key messages.  
Command Error messages.  
Loop bypass messages.

**Event: 6020.LogEvent**

Component: controller.port2

EventCode: 38.20.429

**Severity: Warning**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Message\_Logfile] (indicating problem with '6020  
Array\_Name/IP\_Address): Oct 25 20:15:41 array00 ISR1[1]: W: u1ctr ISP2300[2] Received LOOP DOWN a

**Information:**

A message was found in the Array Message Log file indicating a loss of signal on the external controller port.

**Probable Cause:**

1. Switch port being offlined.
2. Cable being unplugged.
3. Host system being rebooted.

**Recommended Action:**

1. Verify that external maintenance/admin activities are occurring.
2. Investigate the physical connection to the array further.

**Event: 6020.LogEvent**

Component: disk

EventCode: 38.20.13

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020

[Array\_Name]/[IP\_Address]): Nov 30 14:50:00 [Array\_Name] ISR1[2]: N: u1d5 SVD\_DONE: Command Error

**Probable Cause:**

**Event: 6020.LogEvent**

Component: device\_notice

EventCode: 38.20.160

**Severity: Info**  
**Action\_required: No****Sample Description**

1 message found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Jan 15 07:48:12  
array00 WXFT[3]: N: u3ctr Parity on stripe 14691 is fixed in vol (vol1)

**Probable Cause:**

The array controller reported a block fix using parity.

**Recommended Action:**

No Action is Required.

**Event: 6020.LogEvent**

Component: array\_error

EventCode: 38.20.90

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Information:**

This is a generic event about information found in the Array Log File.  
Storage A.D.E. monitors the array log file(s) and reports on the following:  
Errors and Warnings (depicted by "E:" and "W:") found in the logfile  
Notice and Information (depicted by "N:" and "I:") lines about disks errors.  
Notices about the battery.  
Notices about the PCU hold time.  
Refer to the actual log message to determine potential defective component.

**Probable Cause:**

A defective component in the array or power to the assembly.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

se.extract

**Event: 6020.LogEvent**

Component: disk.senseKey

EventCode: 38.20.100

**Severity: Info**  
**Action\_required: No****Sample Description**

1 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020 [Array\_Name]/[IP\_Address]): Oct 22 18:30:45 [Array\_Name] ISR1[1]: N: u1d4 SCSI Disk Error Occurred (pa

**Information:**

Sense Key information reported from a disk indicating a possible problem with the disk.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.LogEvent**

Component: power.refreshBattery

EventCode: 38.20.101

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

2 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020 [Array\_Name]/[IP\_Address]): Sep 24 16:20:39 [Array\_Name] SCHED[1]: Battery Refreshing

**Probable Cause:**

The PCU Battery is refreshing

**Event: 6020.LogEvent**

Component: power.replaceBattery

EventCode: 38.20.102

**Severity: Warning**  
**Action\_required: No****Sample Description**

2 warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020 [Array\_Name]/[IP\_Address]): Sep 24 16:20:39 [Array\_Name] SCHED[1]: W: u1pcu1 37 days battery life left, F

**Probable Cause:**

The state of the batteries in the 6020 is not optimal

**Recommended Action:**

1. Check the Storage A.D.E. GUI for the current status of the disk drive called out in the message.
2. Refer to PCU replacement procedure.

**Service:**

6020.power

**Event: 6020.LogEvent**

Component: controller.port

EventCode: 38.20.103

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 device\_error(s) found in logfile /var/adm/messages.array (related to 6020

[Device\_Name/IP\_Address): Jan 29 01:24:16 array00 ISR1[1]: N: u1ctr ISP2200[0] Received LOOP DOWN

**Information:**Storage A.D.E. searches for LOOP DOWN patterns  
in the array log file.**Probable Cause:**The port on the array specified in the event description has experienced  
a failure due to a potential hardware problem.Possibly a bad HBA in datahost, SIO card in DSP, GBIC, FC Cable and/or  
device optical connections.**Recommended Action:**Isolate further using the Storage A.D.E. UI for current health status  
on the device specified in the event description as well as any additional  
events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.LogEvent**

Component: disk.log

EventCode: 38.20.104

**Severity: Warning**  
**Action\_required: No**

---

### Sample Description

4 array\_warning(s) found in logfile [Array\_Messages\_Logfile] (indicating problem with 6020 [Array\_Name]/[IP\_Address]): Feb 05 18:45:28 t400 sh50[1]: N: u2d01 ioctl disk failed err=1:

### Probable Cause:

The Storage A.D.E. agent monitoring the array log file reports on the following:

- Errors and Warnings (depicted by "E:" and "W:") found in the logfile
- Notice and Information (depicted by "N:" and "I:") lines about disks.
- Notices about the battery.
- Notices about the PCU hold time.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.QuiesceEndEvent**

Component:

EventCode: 38.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 6020 [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 6020.QuiesceStartEvent**

Component:

EventCode: 38.23.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce Start on 6020 [Array\_Name] ([IP\_Address])

**Probable Cause:**

Quiescing a device means that the monitoring has been temporarily stopped.

**Event: 6020.StateChangeEvent+**

Component: controller

EventCode: 38.25.12

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'controller.u1ctr' in 6020 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.StateChangeEvent+**

Component: disk

EventCode: 38.25.13

**Severity: Info**  
**Action\_required: No****Sample Description**

'disk.u1d5' in 6020 [Array\_Name] ([IP\_Address]) is now Available

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.StateChangeEvent+**

Component: interface.loopcard

EventCode: 38.25.24

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'loopcard.u111'(SLR-MI.375-0085-01-G-G4.070924) in 6020 [Array\_Name] ([IP\_Address])

**Information:**

'The 6020 has reported that a Loop Card has been replaced or brought back online

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.StateChangeEvent+**

Component: volume

EventCode: 38.25.53

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'volume.u1vol1'(slr-mi.370-3990-01-e-f0.022542.u1vol1) in 6020 dvt2-6020b0  
(ip=192.168.0.40) is now Available (status-state changed from 'unmounted' to 'mounted')

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.StateChangeEvent+**

Component: power

EventCode: 38.25.37

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) in 6020 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'ready-disable' to 'ready-enable'):

**Probable Cause:**

The device has gone from a degraded state to a normal operating condition.

**Recommended Action:**

No Action is Required.

**Event: 6020.StateChangeEvent-**

Component: controller

EventCode: 38.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'controller.u1ctr' in 6020 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'unknown' to 'ready-disabled')

**Probable Cause:**

A controller has failed in the array due to a potential hardware problem.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.controller

**Event: 6020.StateChangeEvent-**

Component: power

EventCode: 38.26.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) in 6020 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'ready-enabled' to 'ready-disable'):

**Information:**

The 6020 has reported that a Power Cooling Unit has been disabled

**Probable Cause:**

A PCU change in state can happen due to the following reasons.

1. Internal/External Power loss
2. Power switch has been turned off
3. PCU failures
4. Battery failures
5. Controller Failover

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

6020.power

**Event: 6020.StateChangeEvent-**

Component: disk

EventCode: 38.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'disk.u1d5' in 6020 [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'unknown' to 'fault-disabled'):

**Probable Cause:**

A disk has failed in the array due to a potential hardware problem.

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.disk

**Event: 6020.StateChangeEvent-**

Component: volume

EventCode: 38.26.53

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'array00' on SE2-system1: 6020:[Unique\_ID]:6020.StateChangeEvent:volume.u4vol1:error

**Probable Cause:**

1. VDisk state changes can be the cause of potential hardware problems with:
  - Disk Drive
  - Controller
  - Power Supply
2. Configuration Software administrative actions.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.StateChangeEvent-**

Component: interface.loopcard

EventCode: 38.26.24

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'loopcard.u2l2'(0x301.5405384.000978) in 6020 [Array\_Name] ([IP\_Address]) is now Not-Available (state changed from 'ready-enabled' to 'ready-disabled')

**Probable Cause:**

The 6020 has indicated that the loopcard is no longer in an optimal state due to a potential hardware problem.

**Recommended Action:**

Check the loopcard cables for proper connection and seating.  
Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.loopcard

**Event: 6020.Statistics**

Component:

EventCode: 38.27.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Statistics about 6020 [Array\_Name] ([IP\_Address])

**Probable Cause:**

Statistics about 6020 are periodically collected by the Storage A.D.E.

**Recommended Action:**

No Action is Required.

**Event: 6020.DeviceLostEvent**

Component: aggregate

EventCode: 38.34.71

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Device 6020b0 is not available anymore, confirmed by the following 5 subevents

### Probable Cause:

Aggregated Events that confirms that a device is not available.

### Recommended Action:

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Event: 6020.ComponentInsertEvent**

Component: disk

EventCode: 38.40.13

**Severity: Info**  
**Action\_required: No****Sample Description**

disk.u2d3(SEAGATE.S602018203FSUN18G.LRG07139) was added to [Array\_Name] ([IP\_Address])

**Information:**

A new Disk, as identified by it's serial#, has been installed on the 6020.

**Probable Cause:**

This is typically done as remedial maintenance or an administrative process.

**Recommended Action:**

No Action is Required.

**Event: 6020.ComponentInsertEvent**

Component: interface.loopcard.cable

EventCode: 38.40.25

**Severity: Info**  
**Action\_required: No****Sample Description**

Cable between 'u1I1' and 'u2I1' on array00 was inserted

**Probable Cause:**

The 6020 has inserted a loopcard cable.

**Recommended Action:**

No Action is Required.

**Event: 6020.ComponentInsertEvent**

Component: controller

EventCode: 38.40.12

**Severity: Info**  
**Action\_required: No****Sample Description**

'controller.u1ctr'(id) was added to 6020 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new Controller, as identified by it's serial#, has been installed on the 6020.

**Recommended Action:**

No Action is Required.

**Event: 6020.ComponentRemoveEvent**

Component: disk

EventCode: 38.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u2d3(SEAGATE.S602018203FSUN18G.LRG07139) was removed from [Array\_Name] ([IP\_Address])

**Probable Cause:**

The 6020 has reported a disk has been removed from the chassis

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

6020.disk

**Event: 6020.ComponentRemoveEvent**

Component: controller

EventCode: 38.41.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'controller.u1ctr'(id) was removed from 6020 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The 6020 has reported that a controller was removed from the chassis

**Service:**

6020.controller

**Event: 6020.ComponentRemoveEvent**

Component: power  
EventCode: 38.41.37

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

'power.u1pcu2'(TECTROL-CAN.300-1454-01(50).008275) was removed from 6020 [Array\_Name]  
([IP\_Address])

**Probable Cause:**

The 6020 has reported that a Power Cooling Unit has been removed from  
the chassis

**Service:**

6020.power

**Event: 6020.ComponentRemoveEvent**

Component: interface.loopcard

EventCode: 38.41.24

---

**Severity: Error**  
**Action\_required: Yes**

Sample Description

Probable Cause:

The 6020 has reported that a loopcard has been removed from the chassis

Service:

6020.loopcard

**Event: 6020.ComponentRemoveEvent**

Component: volume

EventCode: 38.41.53

**Severity: Info**  
**Action\_required: No****Sample Description**

(u2vol2) was removed from 6020 [Array\_Name] (sn=0x301.5405318.123456.volume.u2vol2)

**Information:**

The removal/reconfiguration of a volume has been detected.

**Probable Cause:**

This is typically done as remedial maintenance or an administrative process.

**Recommended Action:**

No Action is Required.

**Event: 6020.ComponentRemoveEvent**

Component: interface.loopcard.cable

EventCode: 38.41.25

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Cable between 'u1l1' and 'u2l1' on array00 was removed

**Probable Cause:**

The 6020 has reported a problem with a loopcard cable.

**Recommended Action:**

Isolate further using the Storage A.D.E. UI for current health status on the device specified in the event description as well as any additional events that may have occurred on the system.

- View Alarm Details
- Search the Event Logs

**Service:**

se.extract

**Event: 6020.LinkEvent\_CRC**

Component:

EventCode: 38.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link:  
port 1 on [device\_id]

**Information:**

An increase in the Cyclic Reduncy Check (CRC) counter was detected between two components on the Fibre Channel. Threshold = 10/24hr (Error).

**Probable Cause:**

GBIC, FC Cable and device optical connections.

**Recommended Action:**

1. Replace GBIC(s) associated with the link to the device specified in the event description.
2. Reroute/replace cable(s) associated with the device as needed.

**Service:**

se.extract



**Event: 6020.LinkEvent\_SIG**

Component:

EventCode: 38.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

An increase in the Signal Loss (SIG) counter was detected between two components on the Fibre Channel. Threshold = 10/1hr (Error).

**Probable Cause:**

GBIC, FC Cable and device optical connections.

**Recommended Action:**

1. Replace GBIC(s) associated with the link to the device specified in the event description.
2. Reroute/replace cable(s) associated with the device as needed.

**Service:**

se.extract

**Event: 6020.ComponentReplaceEvent**

Component: disk

EventCode: 38.57.13

**Severity: Warning**  
**Action\_required: No****Sample Description**

disk.u1d1 in [device] was replace from [old\_serial] to [new\_serial]

**Information:**

A disk was replaced with a new one.

**Probable Cause:**

This is typically done as remedial maintenance or an administrative process.

**Recommended Action:**

No Action is Required.

**Event: samfs.CommunicationEstablishedEvent**

Component: ib

EventCode: 40.11.21

**Severity: Info**  
**Action\_required: No**

---

Sample Description

Communication regained with SAM-QFS

**Event: samfs.CommunicationLostEvent**

Component: ib

EventCode: 40.12.21

**Severity: Err/Critical**

**Action\_required: Yes**

---

**Sample Description**

Lost communication with SAM-QFS

**Probable Cause:**

The SAM-QFS Fault Management API is not responding.

**Recommended Action:**

1. Verify that the sam-amld process is running.
2. Verify that you have a robot device configured in the SAM-QFS mcf file.

**Event: samfs.DiscoveryEvent**

Component:

EventCode: 40.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new instance of SAM-QFS

**Information:**

Enabling the sam-log will improve SAM-QFS health monitoring.

**Probable Cause:**

Occurs the first time the agent probes a newly discovered application.

**Recommended Action:**

No action required.

**Event: samfs.LogEvent**

Component: samlog\_alert

EventCode: 40.20.366

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 alert error found in sam-log (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported an error in the sam-log.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: samlog\_crit

EventCode: 40.20.367

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 critical error found in sam-log (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported an error in the sam-log.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: samlog\_emerg

EventCode: 40.20.368

**Severity: Err/Critical**

**Action\_required: Yes**

---

**Sample Description**

1 emergency error found in sam-log (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported an emergency error in the sam-log.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: samlog\_err

EventCode: 40.20.369

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 error found in sam-log (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported an error in the sam-log.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: trap\_critical

EventCode: 40.20.234

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 log\_critical(s) found in logfile /var/adm/trap\_messages (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported that the application, hardware device or tape media has encountered an error.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: samlog\_warning

EventCode: 40.20.370

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 warning found in sam-log (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported a warning in the sam-log.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: trap\_error

EventCode: 40.20.235

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 log\_error(s) found in logfile /var/adm/trap\_messages (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported that the application, hardware device or tape media has encountered an error.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.LogEvent**

Component: samlog\_info

EventCode: 40.20.407

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

1 informational entry found in sam-log (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has information in the sam-log.

**Recommended Action:**

Refer to the description in this event for further details.

**Event: samfs.LogEvent**

Component: trap\_warning

EventCode: 40.20.236

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning(s) found in logfile /var/adm/trap\_messages (related to samfs:10.8.11.107):

**Probable Cause:**

SAM-QFS has reported that the application, hardware device or tape media has issued a warning.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: samfs.StateChangeEvent+**

Component: status.stor\_full

EventCode: 40.25.286

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

The library has reported that it has reached full cartridge capacity.

**Probable Cause:**

The library has reached full capacity and cartridges can no longer be imported.

**Recommended Action:**

Export cartridges no longer needed in order to make more space.

**Event: samfs.StateChangeEvent+**

Component: status.attention

EventCode: 40.25.283

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

The device requires user intervention.

**Probable Cause:**

The device has set the attention bit on.

**Recommended Action:**

Check the devices display for errors and physically inspect the device.

**Event: samfs.StateChangeEvent+**

Component: status.bad\_media

EventCode: 40.25.284

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

The device has reported that the loaded media is defective.

**Probable Cause:**

The loaded media is defective.

**Recommended Action:**

Replace the defective media.

**Event: samfs.StateChangeEvent+**

Component: state

EventCode: 40.25.266

---

**Severity: Warning**  
**Action\_required: No**

**Sample Description**

The device is on.

**Probable Cause:**

SAM-QFS or the user has set device to on.

**Recommended Action:**

No action required.

**Event: samfs.StateChangeEvent+**

Component: status.scan\_err

EventCode: 40.25.285

---

**Severity: Error**  
**Action\_required: Yes**

#### Sample Description

The library has reported an error while scanning cartridgegs.

#### Probable Cause:

The cartridge has a defective barcode lable or the library has a hardware problem.

#### Recommended Action:

Inspect or replace the barcode label or troubleshoot the library hardware.

**Event: samfs.StateChangeEvent+**

Component: status.ready

EventCode: 40.25.267

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

The device is ready.

**Probable Cause:**

The device has changed to the ready state.

**Recommended Action:**

No action required.

**Event: samfs.StateChangeEvent-**

Component: status.attention

EventCode: 40.26.283

---

**Severity: Warning**  
**Action\_required: No**

**Sample Description**

The device no longer requires user intervention.

**Probable Cause:**

The device has set the attention bit to off.

**Recommended Action:**

No action required.

**Event: samfs.StateChangeEvent-**

Component: state

EventCode: 40.26.266

**Severity: Error**  
**Action\_required: Yes****Sample Description**

State of device is now Not-Available (status-state changed from 'On' to 'Down')

**Information:**

SAM-QFS has marked the device down.

**Probable Cause:**

The device is experiencing a hardware problem.

**Recommended Action:**

1. Check the device.
2. Check SAN Topology GUI to identify failing segment of the data path
3. Verify correct FC switch configuration (if present)

**Event: samfs.StateChangeEvent-**

Component: status.scan\_err

EventCode: 40.26.285

---

**Severity: Warning**  
**Action\_required: No**

**Sample Description**

The library is no longer experiencing scan errors.

**Probable Cause:**

The barcode label or the library has been repaired.

**Recommended Action:**

No action required.

**Event: samfs.StateChangeEvent-**

Component: status.bad\_media

EventCode: 40.26.284

---

**Severity: Warning**  
**Action\_required: No**

**Sample Description**

The device has reported that the bad media has been removed.

**Information:**

The cartridge in the drive is not defective.

**Probable Cause:**

The defective media has been removed.

**Recommended Action:**

No action required.

**Event: samfs.StateChangeEvent-**

Component: status.ready

EventCode: 40.26.267

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Device is not ready.

**Probable Cause:**

The library is off line or a tape has unloaded.

**Recommended Action:**

Place the library online or load a tape.

**Event: samfs.StateChangeEvent-**

Component: status.stor\_full

EventCode: 40.26.286

---

**Severity: Warning**  
**Action\_required: No**

**Sample Description**

There is now space available to import cartridges.

**Probable Cause:**

Cartidges have been exported and the library now has available space.

**Recommended Action:**

No action required.

**Event: sp.ValueChangeEvent**

Component: disk\_capacity\_okay

EventCode: 41.3.61

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Detected SUNWstade back to 82% capacity

**Information:**

Detected that /var/opt/SUNWstade is now below 98% capacity by doing:  
/usr/sbin/df -k /var/opt/SUNWstade

**Recommended Action:**

No Action is Required.

**Event: sp.ValueChangeEvent**

Component: disk\_capacity

EventCode: 41.3.6

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Detected SUNWstade at 100% capacity

### Information:

Detected that /var/opt/SUNWstade is at or above 98% capacity by doing:  
/usr/sbin/df -k /var/opt/SUNWstade

### Recommended Action:

1. Remove unused files/directories to free up space
2. Use a larger file system for /var/opt/SUNWstade

**Event: sp.ValueChangeEvent+**

Component: power\_sequencer

EventCode: 41.4.110

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'power\_sequencer' on 6120 [Array\_Name] is 'ON'

**Event: sp.ValueChangeEvent+**

Component: usb

EventCode: 41.4.201

**Severity: Info**  
**Action\_required: No****Sample Description**

The state of 'usb0/1' on sp [sp\_name] changed from 'Empty' to 'Connected'

**Information:**

The USB drive is the backup medium for the Service Processor

**Probable Cause:**

1. Drive has been replaced or formatted properly.

**Recommended Action:**

1. No Action Required

**Event: sp.ValueChangeEvent-**

Component: power\_sequencer

EventCode: 41.5.110

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

The 'status' of 'info.power\_sequencer' on [SP\_Name] is '[Undefined]' (previous 'status' was 'ON')

### Probable Cause:

The Power Sequencer has changed to a negative state.  
2. Timed out trying to get status of Power Sequencer.

### Recommended Action:

1. Verify the cables to the sequencer card are connected.
  - . USB at Service Processor
  - . USB at card in service panel
2. Ensure that the power has not been turned off.
3. Increase system timeout setting.

**Event: sp.ValueChangeEvent-**

Component: usb

EventCode: 41.5.201

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'usb0/1' on sp [sp\_name] changed from 'Connected' to 'Empty'

**Information:**

The USB drive is the backup medium for the Service Processor

**Probable Cause:**

1. Drive has fallen out or has been removed.
2. Drive experienced a loss of power due to the USB port or the drive itself.
3. The format on the drive may have been lost.

**Recommended Action:**

1. Verify drive is securely connected with the green LED illuminated.
2. Replace drive if needed
3. Contact support provider for additional assistance.

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.

- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

usbdr.rr

**Event: sp.CommunicationEstablishedEvent**

Component: firewall

EventCode: 41.11.203

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication Regained(oob) with Firewall / [System\_Name]

**Information:**

The Firewall (router/hub) is inside the Service Processor Accessory Tray.

**Probable Cause:**

Corrective action has been taken against a previously recognized ethernet problem.

**Recommended Action:**

No Action is Required.

**Event: sp.CommunicationEstablishedEvent**

Component: ntc

EventCode: 41.11.30

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication Regained(oob) with TerminalConcentrator / [System\_Name]

**Information:**

The Terminal Concentrator (ntc) is inside the Service Processor Accessory Tray.

**Probable Cause:**

Corrective action has been taken against a previously recognized ethernet problem.

**Recommended Action:**

No Action is Required.

**Event: sp.CommunicationLostEvent**

Component: firewall

EventCode: 41.12.203

**Severity: Err/Critical**  
**Action\_required: Yes**

---

### Sample Description

Lost communication(oob) with Firewall / [System\_Name]

### Information:

The Firewall (router/hub) is inside the Service Processor Accessory Tray and is no longer communicating.

### Probable Cause:

There may be a configuration issue with an incorrect IP Address.  
Unit powered off (SPA Tray)

### Recommended Action:

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.  
- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)  
Contact support provider for additional assistance.

**Event: sp.CommunicationLostEvent**

Component: ntc

EventCode: 41.12.30

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost Communication(oob) with TerminalConcentrator / [System\_Name]

**Information:**

The Terminal Concentrator (ntc) is inside the Service Processor Accessory Tray and is no longer communicating.

**Probable Cause:**

There may be a configuration issue with an incorrect IP Address.  
Unit powered off (SPA Tray)  
Ethernet Connectivity (e.g. router/hub)

**Recommended Action:**

Use the Service Advisor procedure(s) available on the storage system that was called out in the event.  
- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)  
Contact support provider for additional assistance.

**Event: sp.LogEvent**

Component: error

EventCode: 41.20.17

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Errors(s) found in logfile: /var/adm/messages

**Probable Cause:**

Errors found in /var/adm/messages

**Recommended Action:**

Contact support provider for additional assistance.

**Event: sp.LogEvent**

Component: warning

EventCode: 41.20.54

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Warnings(s) found in logfile: /var/adm/messages

**Probable Cause:**

Warnings found in /var/adm/messages

**Recommended Action:**

Contact support provider for additional assistance.

**Event: sp.LogEvent**

Component: driver.CORRUPT\_LABEL

EventCode: 41.20.355

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found in logfile /var/adm/messages on sp0 : Dec 16 15:46:00 Received 2 'Corrupt Label' message(s) in 1 mins [threshold is 2 in 6hours], Last-Message: 'sp0 Corrupt label; wrong magic number

**Information:**

The Service Processor will get this message about the USB Flash Disk used to do backups.

**Probable Cause:**

The USB Flash Disk may have failed during a write.  
Someone may have pulled it out.  
The device is broken.

**Recommended Action:**

1. Use the Storage A.D.E. Service Advisor to reformat the drive.  
Service Advisor -> Utilities -> Format USB Drive
  2. Replace USB Flash Disk.
  3. Contact support provider for additional assistance.
- Use the Service Advisor procedure(s) available on the storage system that was called out in the event.  
- [https://\[storage\\_system\]:6789](https://[storage_system]:6789)

**Service:**

usbdr.rr

**Event: sp.LogEvent**

Component: driver.USB\_FLASH\_DISK

EventCode: 41.20.356

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 1 'USB flash disk' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Information:**

Storage A.D.E scrubs the system log file for patterns that match known failure signatures. These warnings could indicate a misconfigured operating environment. The actual pattern match is "USB flash disk"

**Probable Cause:**

1. The Flash disk is missing.
2. The Flash disk is write protected.
3. The Flash disk file system is full.
4. The Flash disk is not mountable.
5. The Flash disk mount failed.
6. The Flash disk encountered a write error.

**Recommended Action:**

1. Make sure Flash disk is connected properly.
2. Make sure the Flash disk dip switch is not in the write protect mode.
3. Examine why the Flash disk is filling up.
4. Replace the Flash disk if all of the above actions have been checked.

**Event: sp.LogEvent**

Component: uulog

EventCode: 41.20.180

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 device\_error(s) found in logfile uulog (related to sp:sp0): uucp ichabod  
(3/8-11:58:12,21407,0) CONN FAILED (CALLER SCR:

**Information:**

UUCP is the transport protocol for the modem in storage systems.

**Probable Cause:**

Communication to the modem has been severed:  
Phone line has been disconnected  
SPA Tray component failure  
Ethernet Communication to the NTC  
Hung UUCP processes on Service Processor

**Recommended Action:**

Contact support provider for additional assistance.

**Event: sp.PatchInfo**

Component:

EventCode: 41.21.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

New Patch and Package Information generated

**Information:**

sending Patch and Package information to Providers

**Recommended Action:**

No Action is Required.

**Event: sp.backup**

Component:

EventCode: 41.31.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Agent Backup

**Information:**

Backup of the configuration file of the agent.

**Recommended Action:**

No Action is Required.

**Event: sp.backup**  
Component: topo  
EventCode: 41.31.177

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**  
Agent Backup

**Information:**  
Backup of the topology database

**Recommended Action:**  
No Action is Required.

**Event: sp.patchInfo**

Component:

EventCode: 41.38.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Patch and/or Package Information has changed:

**Information:**

Backup of the topology database

**Recommended Action:**

No Action is Required.

**Event: 3120jbod.ValueChangeEvent**

Component: fru\_location

EventCode: 43.3.229

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

fru location is changed.

**Probable Cause:**

A FRU may have been removed from the enclosure or put in different slot position in enclosure

**Recommended Action:**

1.Execute 'sccli <device-path> show FRUs' to check the current fru information .

**Event: 3120jbod.ValueChangeEvent**

Component: power

EventCode: 43.3.37

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Power status has been changed.

**Probable Cause:**

Power status has changed.

**Recommended Action:**

1. Check power to the array.

**Event: 3120jbod.ValueChangeEvent**

Component: firmware\_version

EventCode: 43.3.119

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent**

Component: disk\_slot

EventCode: 43.3.225

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.disk\_slot' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The disk\_slot status is changed

**Recommended Action:**

1.Execute 'scli <device-path> show config' and check disk\_slot status.

**Event: 3120jbod.ValueChangeEvent**

Component: revision

EventCode: 43.3.42

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The revision of POWER on [device] changed from 01 to 02.

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent**

Component: Revision

EventCode: 43.3.117

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Revision changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent+**

Component: fru\_status

EventCode: 43.4.230

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Fru status is changed to "ok".

**Probable Cause:**

Enclosure has returned to normal operation mode .

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent+**

Component: temp

EventCode: 43.4.228

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

temperature in the enclosure has changed to normal.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3120jbod.ValueChangeEvent+**

Component: fru

EventCode: 43.4.239

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.1' in 3120jbod [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault' to 'OK'):

**Probable Cause:**

The fru has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent+**

Component: diskslot

EventCode: 43.4.240

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk.u1d5' in 3120jbod [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault-disabled' to 'ready-enabled'):

**Probable Cause:**

The drive has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent+**

Component: safte

EventCode: 43.4.241

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'safte.5' in 3120jbod [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault' to 'ok'):

**Probable Cause:**

The 3120 jbod safte has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent+**

Component: ps

EventCode: 43.4.227

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'component.ps' [fru-sn] status is changed to OK.

**Probable Cause:**

The power supply status is changed to normal state.

**Recommended Action:**

1.No action necessary.

**Event: 3120jbod.ValueChangeEvent+**

Component: fan

EventCode: 43.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'enclosure.component.2'(fan-1) in 3120jbod-SN is now Available (status changed from 'fault' to 'OK'):

**Probable Cause:**

The fan has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3120jbod.ValueChangeEvent-**

Component: enclosure

EventCode: 43.5.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'info.status' on [enclosure] changed from 'Online' to 'Offline'.

**Probable Cause:**

The array is reporting a change in enclosure status.

**Recommended Action:**

1. Execute 'sccli <device-path> show enclosure-status' to check enclosure status.
2. Check if component in the enclosure such as disk etc is removed.
3. Contact Support if necessary.

**Event: 3120jbod.ValueChangeEvent-**

Component: fan

EventCode: 43.5.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.fan' [fru-sn] status is changed from OK to fault.

**Probable Cause:**

Storage A.D.E. has detected a change in fan status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the Power Supply / Fan Module if needed.

**Event: 3120jbod.ValueChangeEvent-**

Component: temp

EventCode: 43.5.228

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

'component.temp' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The temperature sensor status is changed

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check temperature sensor status.
2. Check fan or air flow to the array.

**Event: 3120jbod.ValueChangeEvent-**

Component: fru\_status

EventCode: 43.5.230

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Fru status is changed.

**Probable Cause:**

- 1.Fru may be removed from the enclosure.
2. The fru is non-functional anymore

**Recommended Action:**

- 1.Execute 'sccli <device-path> show FRUs' to check the current fru information .
2. Replace the bad fru

**Event: 3120jbod.ValueChangeEvent-**

Component: safte

EventCode: 43.5.241

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'safte.5'([s/n]) in 3120jbod [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'OK' to 'fault')

**Probable Cause:**

The array may need new firmware for safte.

**Recommended Action:**

1. Execute 'sccli <device\_path> show enclosure-status' and check safte status.
2. Run Revision check to see whether the safte firmware is down rev.
3. Update safte firmware if necessary.

**Event: 3120jbod.ValueChangeEvent-**

Component: diskslot

EventCode: 43.5.240

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'components.disk.12'([s/n]) in 3120jbod [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'OK' to 'Absent')

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Execute 'sccli <device\_path> show config' and check disk slot status.
3. Replace the disk if necessary.

**Event: 3120jbod.ValueChangeEvent-**

Component: ps

EventCode: 43.5.227

**Severity: Info**  
**Action\_required: Yes**

---

**Sample Description**

'component.ps' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The power supply has lost AC power

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check ps component status.
2. Ensure AC power cords are securely plugged in.
3. Ensure power supply is turned on.
4. Ensure power is reliable to array.

**Event: 3120jbod.ValueChangeEvent-**

Component: fru

EventCode: 43.5.239

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.1' in 3120jbod [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'ok' to 'fault'):

**Probable Cause:**

The fru has a fault.

**Recommended Action:**

1. Check the light-emitting diod (LED) fault indicator on the fru
2. Execute 'sccli <device\_path> show enclosure-status' and check fru status.
3. Replace the fru if necessary

**Event: 3120jbod.ValueChangeEvent-**

Component: temperature

EventCode: 43.5.51

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has increased.

**Recommended Action:**

Check fan or air flow to the array.

**Event: 3120jbod.CommunicationEstablishedEvent**

Component: ib

EventCode: 43.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3120jbod.CommunicationLostEvent**

Component: e

EventCode: 43.12.118

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Lost communication (InBand([Host\_Name])) with [Array\_Name] (last reboot was 2001-09-27 15:22:00).

### Probable Cause:

Storage A.D.E. has lost communication with the array.

### Recommended Action:

1. Verify sccli access via command line (sccli show).
2. Check power to the array.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify cables, GBICs, power, and connections along data path.

**Event: 3120jbod.CommunicationLostEvent**

Component: ib

EventCode: 43.12.21

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Lost communication (InBand([Host\_Name])) with [Array\_Name] (last reboot was 2001-09-27 15:22:00).

### Probable Cause:

Storage A.D.E. has lost communication with the array.

### Recommended Action:

1. Verify sccli access via command line (sccli show).
2. Check power to the array.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify cables, GBICs, power, and connections along data path.

**Event: 3120jbod.DiscoveryEvent**

Component:

EventCode: 43.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new 3120jbod called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 3120jbod.LocationChangeEvent**

Component:

EventCode: 43.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 3120jbod [Array\_Name] was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 3120jbod.QuiesceEndEvent**

Component:

EventCode: 43.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on 3120jbod [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 3120jbod.QuiesceStartEvent**

Component:

EventCode: 43.23.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce Start on 3120jbod [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 3120jbod.ConnectivityLostEvent**

Component:

EventCode: 43.36.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Probable Cause:**

Storage A.D.E. has detected a loss of connectivity between devices.

**Recommended Action:**

1. Verify sccli access via command line (sccli show).
2. Check power to the array.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify cables, GBICs, power, and connections along data path.

**Event: 3120jbod.ComponentInsertEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 43.40.270

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.2' (003456) was added to 3120jbod [Array\_Name] .

**Probable Cause:**

A new power supply, as identified by it's serial#, has been installed on the 3120 JBOD.

**Recommended Action:**

No action required.

**Event: 3120jbod.ComponentInsertEvent**

Component: disk\_slot

EventCode: 43.40.225

**Severity: Info**  
**Action\_required: No****Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.[s/n]) was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 3120jbod.

**Recommended Action:**

No action required.

**Event: 3120jbod.ComponentInsertEvent**

Component: JBOD\_CHASSIS\_BKPLN

EventCode: 43.40.280

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006355' (JBOD\_CHASSIS\_BKPLN) was added to 3120 JBOD [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid chassis backplane, as identified by it's serial#, has been installed on the 3120.

**Recommended Action:**

No action required.

**Event: 3120jbod.ComponentRemoveEvent**

Component: disk\_slot

EventCode: 43.41.225

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.[s/n]) was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

This could be the result of maintenance activity on the array.

This could indicate a faulty disk.

**Recommended Action:**

1. Check for any maintenance activity on the array.
2. Replace disk if necessary.

**Event: 3120jbod.ComponentRemoveEvent**

Component: JBOD\_CHASSIS\_BKPLN

EventCode: 43.41.280

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006355' (JBOD\_CHASSIS\_BKPLN) was removed from 3120 JBOD array [Array\_Name]  
([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1.Execute 'sccli <device-path> show FRUs' to check the current chassis fru information

**Event: 3120jbod.ComponentRemoveEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 43.41.270

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.2'(007865) was removed from 3120 JBOD [Array\_Name] ([IP\_Address])

**Probable Cause:**

The 3120 JBOD has reported that a Power Supply has been removed from the chassis

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the bad Power Supply unit if needed.

**Event: 3310jbod.ValueChangeEvent**

Component: power

EventCode: 44.3.37

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Power status has been changed.

**Probable Cause:**

Power status has changed.

**Recommended Action:**

Check the power.

**Event: 3310jbod.ValueChangeEvent**

Component: Revision

EventCode: 44.3.117

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Revision changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Storage A.D.E has detected a change in the firmware revision.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent**

Component: revision

EventCode: 44.3.42

**Severity: Info**  
**Action\_required: No****Sample Description**

The revision of POWER on [device] changed from 01 to 02.

**Probable Cause:**

Storage A.D.E has detected a change in the firmware revision.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent**

Component: fru\_location

EventCode: 44.3.229

**Severity: Error**  
**Action\_required: Yes****Sample Description**

fru location is changed.

**Probable Cause:**

Some frus may be removed from the enclosure or put in different slot position in enclosure

**Recommended Action:**

1. Execute 'sccli &lt;device-path&gt; show FRUs' to check the current fru information.

**Event: 3310jbod.ValueChangeEvent**

Component: disk\_slot

EventCode: 44.3.225

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.disk\_slot' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The disk\_slot status is changed

**Recommended Action:**

1. Execute 'scli <device-path> show config' and check disk\_slot status.

**Event: 3310jbod.ValueChangeEvent**

Component: firmware\_version

EventCode: 44.3.119

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Storage A.D.E. has detected a change in the firmware revision.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent+**

Component: ps

EventCode: 44.4.227

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'component.ps' [fru-sn] status is changed to OK.

**Probable Cause:**

The power supply status is changed to normal state.

**Recommended Action:**

1.No action necessary.

**Event: 3310jbod.ValueChangeEvent+**

Component: fan

EventCode: 44.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'enclosure.component.2'(fan-1) in 3310jbod-SN is now Available (status changed from 'fault' to 'OK'):

**Probable Cause:**

The fan has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent+**

Component: fru

EventCode: 44.4.239

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.1' in 3310jbod [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault' to 'OK'):

**Probable Cause:**

The fru has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent+**

Component: fru\_status

EventCode: 44.4.230

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Fru status is changed to "ok".

**Probable Cause:**

Enclosure has returned to normal operation mode .

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent+**

Component: safte

EventCode: 44.4.241

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'safte.5' in 3310jbod [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault' to 'ok'):

**Probable Cause:**

The 3310 jbod safte has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent+**

Component: diskslot

EventCode: 44.4.240

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'disk.u1d5' in 3310jbod [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'fault-disabled' to 'ready-enabled'):

**Probable Cause:**

The drive has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3310jbod.ValueChangeEvent+**

Component: temp

EventCode: 44.4.228

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

temperature in the enclosure has changed to normal.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3310jbod.ValueChangeEvent-**

Component: fru\_status

EventCode: 44.5.230

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Fru status is changed.

**Probable Cause:**

- 1.Fru may be removed from the enclosure.
2. The fru is non-functional anymore

**Recommended Action:**

- 1.Execute 'sccli <device-path> show FRUs' to check the current fru information .
2. Replace the bad fru

**Event: 3310jbod.ValueChangeEvent-**

Component: fru

EventCode: 44.5.239

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.1' in 3310jbod [Array\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'ok' to 'fault'):

**Probable Cause:**

The fru has a fault.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the fru
2. Execute 'sccli <device\_path> show enclosure-status' and check fru status.
3. Replace the fru if necessary

**Event: 3310jbod.ValueChangeEvent-**

Component: diskslot

EventCode: 44.5.240

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'components.disk.12'([s/n]) in 3310jbod [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'OK' to 'Absent')

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Execute 'sccli <device\_path> show config' and check disk slot status.
3. Replace the bad disk\_slot.

**Event: 3310jbod.ValueChangeEvent-**

Component: safte

EventCode: 44.5.241

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'safte.5'([s/n]) in 3310jbod [Array\_Name] (wwn=WWN) is now Not-Available (state changed from 'OK' to 'fault')

**Probable Cause:**

The array may need new firmware for safte.

**Recommended Action:**

1. Execute 'sccli <device\_path> show enclosure-status' and check safte status.
2. Run Revision check to see whether the safte firmware is down rev.
3. Update safte firmware if necessary.

**Event: 3310jbod.ValueChangeEvent-**

Component: ps

EventCode: 44.5.227

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.ps' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The power supply has lost ac power.

**Recommended Action:**

- 1.Execute 'sccli <device-path> show config' and check ps component status.
- 2.Ensure AC power cords are securely plugged in.
- 3.Ensure power supply is turned on.
- 4.Ensure power is reliable to array.

**Event: 3310jbod.ValueChangeEvent-**

Component: temp

EventCode: 44.5.228

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

'component.temp' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The temperature sensor status is changed

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check temperature sensor status.
2. Check fan or air flow to the array.

**Event: 3310jbod.ValueChangeEvent-**

Component: temperature

EventCode: 44.5.51

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has increased.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3310jbod.ValueChangeEvent-**

Component: enclosure

EventCode: 44.5.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'info.status' on [enclosure] changed from 'Online' to 'Offline'.

**Probable Cause:**

The enclosure is unavailable.

**Recommended Action:**

1. Execute 'sccli <device-path> show enclosure-status' to check enclosure status.
2. Check if component in the enclosure such as disk etc is removed.
3. Contact Support if necessary.

**Event: 3310jbod.ValueChangeEvent-**

Component: fan

EventCode: 44.5.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.fan' [fru-sn] status is changed from OK to fault.

**Probable Cause:**

Storage A.D.E. has detected a change in fan status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the Power Supply / Fan Module if needed.

**Event: 3310jbod.CommunicationEstablishedEvent**

Component: ib

EventCode: 44.11.21

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3310jbod.CommunicationLostEvent**

Component: ib

EventCode: 44.12.21

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Lost communication (InBand([Host\_Name])) with [Array\_Name] (last reboot was 2001-09-27 15:22:00).

### Probable Cause:

Storage A.D.E. has lost communication with the array.

### Recommended Action:

1. Verify sccli access via command line (sccli show).
2. Check power to the array.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify cables, GBICs, power, and connections along data path.

**Event: 3310jbod.CommunicationLostEvent**

Component: e

EventCode: 44.12.118

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Lost communication (InBand([Host\_Name])) with [Array\_Name] (last reboot was 2001-09-27 15:22:00).

### Probable Cause:

Storage A.D.E. has lost communication with the array.

### Recommended Action:

1. Verify sccli access via command line (sccli show).
2. Check power to the array.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify cables, GBICs, power, and connections along data path.

**Event: 3310jbod.DiscoveryEvent**

Component:

EventCode: 44.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new 3310jbod called ras [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 3310jbod.LocationChangeEvent**

Component:

EventCode: 44.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 3310jbod [Array\_Name] was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 3310jbod.QuiesceEndEvent**

Component:

EventCode: 44.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on 3310jbod [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 3310jbod.QuiesceStartEvent**

Component:

EventCode: 44.23.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce Start on 3310jbod [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 3310jbod.ConnectivityLostEvent**

Component:

EventCode: 44.36.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Probable Cause:**

Storage A.D.E. has detected a loss of connectivity between devices.

**Recommended Action:**

1. Verify sccli access via command line (sccli show).
2. Check power to the array.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify cables, GBICs, power, and connections along data path.

**Event: 3310jbod.ComponentInsertEvent**

Component: disk\_slot

EventCode: 44.40.225

**Severity: Info**  
**Action\_required: No****Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.[s/n]) was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 3310jbod.

**Recommended Action:**

No action required.

**Event: 3310jbod.ComponentInsertEvent**

Component: JBOD\_CHASSIS\_BKPL

EventCode: 44.40.414

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006355' (JBOD\_CHASSIS\_BKPLN) was added to 3310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid chassis backplane, as identified by it's serial#, has been installed on the 3310 JBOD.

**Recommended Action:**

No action required.

**Event: 3310jbod.ComponentInsertEvent**

Component: EMU\_BOARD

EventCode: 44.40.271

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.003244' (EMU\_BOARD) was added to 3310 JBOD [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new jbod IO board, as identified by it's serial#, has been installed on the 3310 JBOD.

**Recommended Action:**

No action required.

**Event: 3310jbod.ComponentInsertEvent**

Component: JBOD\_IO\_BOARD

EventCode: 44.40.281

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.001244' (JBOD\_IO\_BOARD) was added to 3310 JBOD [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new jbod IO board, as identified by it's serial#, has been installed on the 3310 JBOD.

**Recommended Action:**

No action required.

**Event: 3310jbod.ComponentInsertEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 44.40.270

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'fru.003456' was added to 3310 JBOD array [Array\_Name] .

**Probable Cause:**

A new power supply, as identified by it's serial#, has been installed on the 3310 JBOD.

**Recommended Action:**

No action required.

**Event: 3310jbod.ComponentRemoveEvent**

Component: JBOD\_CHASSIS\_BKPLN

EventCode: 44.41.280

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006355' (RAID\_CHASSIS\_BKPLN) was removed from 3310 JBOD array [Array\_Name]  
([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1.Execute 'sccli <device-path> show FRUs' to check the current chassis fru information

**Event: 3310jbod.ComponentRemoveEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 44.41.270

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.007865' was removed from 3310 JBOD [Array\_Name] ([IP\_Address])

**Probable Cause:**

The 3310 JBOD has reported that a Power Supply has been removed from the chassis

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the bad Power Supply unit if needed.

**Event: 3310jbod.ComponentRemoveEvent**

Component: EMU\_BOARD

EventCode: 44.41.271

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.003244' (EMU\_BOARD) was removed from 3310 JBOD array [Array\_Name] ([IP\_Address])

**Probable Cause:**

An emu board is faulty or removed

**Recommended Action:**

1. Execute 'scli <device-path> show FRUs' to check the current chassis fru information

**Event: 3310jbod.ComponentRemoveEvent**

Component: JBOD\_IO\_BOARD

EventCode: 44.41.281

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.001244' (JBOD\_IO\_BOARD) was removed from 3310 JBOD array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1.Execute 'scli <device-path> show FRUs' to check the current chassis fru information

**Event: 3310jbod.ComponentRemoveEvent**

Component: disk\_slot

EventCode: 44.41.225

**Severity: Error**  
**Action\_required: Yes****Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.[s/n]) was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A disk has failed or been removed

**Recommended Action:**

Replace disk.

**Event: 3511.ValueChangeEvent**

Component: Revision

EventCode: 45.3.117

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Revision changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent**

Component: part

EventCode: 45.3.72

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Total partitions in logical drive has been changed.

**Probable Cause:**

Administrator added or removed logical partitions.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent**

Component: disk.statistics

EventCode: 45.3.150

**Severity: Warning**  
**Action\_required: No****Sample Description**

[device], disk-7: Received 64516890 'InvalidTxWds' in 10 mins (value=31062).

**Probable Cause:**

Likely causes are: SFP, FC Cable, and device optical connections.

**Recommended Action:**

1. Run write read buffer test

If the device is in fabric mode, please run echotest.

**Event: 3511.ValueChangeEvent**

Component: volume

EventCode: 45.3.53

**Severity: Warning**  
**Action\_required: No****Sample Description**

Total partitions in logical drive has been changed.

**Probable Cause:**

Administrator added or removed logical partitions.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent**

Component: port.statistics

EventCode: 45.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

[device], port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193).

**Probable Cause:**

Likely causes are: GBIC, FC Cable, and device optical connections.

**Recommended Action:**

Isolate further by running the tests associated with this link segment.

**Event: 3511.ValueChangeEvent**

Component: power

EventCode: 45.3.37

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Power status has been changed.

**Probable Cause:**

Power status has changed.

**Recommended Action:**

Check the power.

**Event: 3511.ValueChangeEvent**

Component: revision

EventCode: 45.3.42

**Severity: Warning**  
**Action\_required: No****Sample Description**

The revision of POWER on [device] changed from 01 to 02.

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent**

Component: battery\_expiredE

EventCode: 45.3.214

**Severity: Error**  
**Action\_required: Yes**

---

Sample Description

Battery is expired.

Recommended Action:

Replace the battery.

**Event: 3511.ValueChangeEvent**

Component: fru\_location

EventCode: 45.3.229

**Severity: Info**  
**Action\_required: Yes****Sample Description**

fru location is changed.

**Probable Cause:**

Some frus may be removed from the enclosure or put in different slot position in enclosure

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information .

**Event: 3511.ValueChangeEvent**

Component: battery\_expiredW

EventCode: 45.3.215

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Battery is expired.

**Event: 3511.ValueChangeEvent**

Component: MissingBatteryError

EventCode: 45.3.218

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Can not access the battery information.

**Probable Cause:**

1. Battery is missing
2. Battery is faulty
3. Battery in-service may be not set up
4. Can not get FRU status

**Recommended Action:**

1. Check the 3511 device setup and battery or FRU status.
2. Use 'sccli <dev> show battery -u' to set the service date

**Event: 3511.ValueChangeEvent**

Component: firmware\_version

EventCode: 45.3.119

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent+**

Component: controller\_shutdown

EventCode: 45.4.443

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Controller in 3511 [Array\_Name] (wwn=WWN) is reset from shutdown status

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent+**

Component: fan

EventCode: 45.4.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'enclosure.component.2'(fan-1) in 3120jbod-SN is now Available (status changed from 'fault' to 'OK'):

**Probable Cause:**

The fan has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent+**

Component: logical\_volume

EventCode: 45.4.416

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'logical\_volume.1'(WWN.logical\_volume.1) in 3511 [Device] (wwn=WWN) is now available (status changed from 'degraded' to 'good'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent+**

Component: ps

EventCode: 45.4.227

**Severity: Info**  
**Action\_required: No****Sample Description**

'component.ps' [fru-sn] status is changed to OK.

**Probable Cause:**

The power supply status is changed to normal state.

**Recommended Action:**

1. No action necessary.

**Event: 3511.ValueChangeEvent+**

Component: diskslot

EventCode: 45.4.240

**Severity: Info**  
**Action\_required: No****Sample Description**

'component.10.diskslot' [fru-sn] status is changed to OK.

**Probable Cause:**

The disk is changed to normal state.

**Recommended Action:**

1. No action necessary.

**Event: 3511.ValueChangeEvent+**

Component: temp

EventCode: 45.4.228

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

temperature in the enclosure has changed to normal.

**Recommended Action:**

Check fan or air flow to the device.

**Event: 3511.ValueChangeEvent+**

Component: controller\_redundancy

EventCode: 45.4.410

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Controller redundancy status in 3511 [Array\_Name] ([IP\_Address]) is now enabled (status changed from 'failed' to 'enabled'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent+**

Component: logical\_drive

EventCode: 45.4.188

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'logical\_drive.1'(WWN.logical.1) in 3511 [Device] (wwn=WWN) is now available (status changed from 'degraded' to 'good'):

**Probable Cause:**

The enclosure has returned to normal operation mode.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent+**

Component: fru\_status

EventCode: 45.4.230

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Fru status is changed to "ok".

**Probable Cause:**

Enclosure has returned to normal operation mode .

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent-**

Component: temperature

EventCode: 45.5.51

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Temperature status has been changed.

**Probable Cause:**

Ambient temperature in the enclosure has increased.

**Recommended Action:**

1. Check fan or air flow to the device.
2. Poweroff the array to replace the faulty fan.

**Event: 3511.ValueChangeEvent-**

Component: enclosure

EventCode: 45.5.16

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'info.status' on [enclosure] changed from 'Online' to 'Offline'.

**Probable Cause:**

The enclosure is unavailable.

**Recommended Action:**

1. Check InBand access to the array.
2. Check that the array is powered on.
3. Contact Support.

**Event: 3511.ValueChangeEvent-**

Component: channel\_mode

EventCode: 45.5.415

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Channel mode is changed.

**Probable Cause:**

1.Channel mode may be changed.

**Recommended Action:**

1. Execute 'sccli &lt;device-path&gt; show channels' to check the current channel information .

**Event: 3511.ValueChangeEvent-**

Component: size

EventCode: 45.5.70

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Effective size has been changed on part.1 from 38952MB to 68952MB.

**Probable Cause:**

Administrator modified logical drive configuration.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent-**  
Component: controller\_redundancy  
EventCode: 45.5.410

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

Controller redundancy in 3511 [Array\_Name] (wwn=WWN) is now failed (state changed from 'Enabled' to 'failed')

### Probable Cause:

One of two controllers may have faulted in a way to indicate this status.

### Recommended Action:

1. Execute 'sccli <device\_path> show redundancy' and check controller redundancy status.
2. Check if any diagnostic test is running which may require failing the primary controller
3. Replace the controller if necessary.

**Event: 3511.ValueChangeEvent-**

Component: fan

EventCode: 45.5.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.fan' [fru-sn] status is changed from OK to fault.

**Probable Cause:**

Storage A.D.E. has detected a change in fan status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check fan status.
2. Replace the Power Supply / Fan Module if needed.

**Event: 3511.ValueChangeEvent-**

Component: disk

EventCode: 45.5.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'components.disk.23(CH2 ID23) in 3511 3511-1554 (wwn=001554) is 'BAD' (previous 'State' was 'ONLINE')(id=ST373307FSUN72G.3HZ0XDKJ00007337)

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Execute 'sccli show events' and look for disk errors.
3. Execute 'sccli <device\_name/IP> show disks' and check disk status.
4. Replace the failed disk.

**Event: 3511.ValueChangeEvent-**

Component: controller\_shutdown

EventCode: 45.5.443

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Controller in 3511 [Array\_Name] (wwn=WWN) is shutdown.

**Probable Cause:**

One of two controllers may have been shutdown to indicate this status.

**Recommended Action:**

1. Execute 'sccli <device\_path> show shutdown' and check controller shutdown status.
2. Check if any diagnostic test is running which may requires failing the primary controller
3. Replace the controller if necessary.

**Event: 3511.ValueChangeEvent-**

Component: logical\_drive

EventCode: 45.5.188

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logical\_drive.1'(WWN.logical.1) in 3511 [Device] (wwn=WWN) is now Not-Available (status changed from 'unknown' to 'Degraded').

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical drive configured in the array.

**Recommended Action:**

1. Check the in-band Fiber cable link
2. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
3. Execute 'sccli <device-path> show logical\_drive' and check logical drive status
4. Execute 'sccli <device-path> show shutdown' and check controller status
5. Rebuild the logical drive to Good status.

**Event: 3511.ValueChangeEvent-**

Component: diskslot

EventCode: 45.5.240

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.10.diskslot' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The disk is unresponsive and it may have been removed or faulted in a way to indicate this status.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check diskslot component status.
2. Ensure disk is seated properly.

**Event: 3511.ValueChangeEvent-**

Component: fru\_status

EventCode: 45.5.230

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Fru status is changed.

**Probable Cause:**

- 1.Fru may be removed from the enclosure.
2. The fru is non-functional anymore

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information .
2. Replace the bad fru

**Event: 3511.ValueChangeEvent-**

Component: temp

EventCode: 45.5.228

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.temp' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The temperature sensor status is changed

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check temperature sensor status.
2. Check fan or air flow to the array.

**Event: 3511.ValueChangeEvent-**

Component: raid\_level

EventCode: 45.5.69

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

RAID level has been changed on logical.0 from 5 to 0.

**Probable Cause:**

Administrator modified logical drive configuration.

**Recommended Action:**

No action required.

**Event: 3511.ValueChangeEvent-**

Component: ps

EventCode: 45.5.227

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'component.ps' [fru-sn] status is changed from OK to Unknown.

**Probable Cause:**

The power supply has lost ac power.

**Recommended Action:**

1. Execute 'sccli <device-path> show config' and check power supply component status.
2. Ensure AC power cords are securely plugged in.
3. Ensure power supply is turned on.
4. Ensure power is reliable to array.

**Event: 3511.ValueChangeEvent-**

Component: logical\_volume

EventCode: 45.5.416

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logical\_volume.1'(WWN.logical\_volume.1) in 3511 [Device] (wwn=WWN) is now Not-Available (status changed from 'unknown' to 'Degraded').

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical volume configured in the array.

**Recommended Action:**

1. Check the in-band Fiber cable link
2. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
3. Execute 'sccli <device-path> show logical-volume' and check logical volume status
4. Execute 'sccli <device-path> show shutdown' and check controller status
5. Rebuild the logical volume to Good status.

**Event: 3511.CommunicationEstablishedEvent**

Component: ib

EventCode: 45.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3511.CommunicationEstablishedEvent**

Component: oob

EventCode: 45.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 3511.CommunicationLostEvent**

Component: e

EventCode: 45.12.118

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad controller.
- Array has a password set

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.
3. Use Update Monitoring and Setup to update password within Storage A.D.E GUI.

**Event: 3511.CommunicationLostEvent**

Component: oob

EventCode: 45.12.31

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad controller.
- A bad Battery Module.
- Array has a password set

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.
3. Check the status of the Battery Module.
4. Use Update Monitoring and Setup to update password within Storage A.D.E GUI.
5. If you want to monitor the device inband, please remove the device from the inventory list first, then do inband discovery.

**Event: 3511.CommunicationLostEvent**

Component: ib

EventCode: 45.12.21

**Severity: Err/Critical**  
**Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) (last reboot was 2001-09-27 15:22:00). InBand. This event is established using sccli. This monitoring may not be activated for

**Probable Cause:**

This problem can also be caused by:

- Fibre Channel hardware failure
- Switch port offline
- Array power offline
- Array controller offline

**Recommended Action:**

1. Verify sccli access via command line (sccli show).
2. Verify cables, GBICs, power, and connections along data path.
3. Check SAN Topology UI to identify failing segment of the data path.
4. Verify correct FC switch configuration, if applicable.
5. If you want to monitor the device out of band, please remove the device from the inventory list first, then do OOB discovery

**Event: 3511.DiscoveryEvent**

Component:

EventCode: 45.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new 3511 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 3511.LocationChangeEvent**

Component:

EventCode: 45.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 3511 [Array\_Name] ([IP\_Address]) was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 3511.LogEvent**

Component: controller\_init

EventCode: 45.20.179

**Severity: Warning**  
**Action\_required: No****Sample Description**

2 device\_error(s) found in logfile.

**Probable Cause:**

Controller reboot.

**Recommended Action:**

If the controller reboot was not user directed, contact Support.

**Event: 3511.LogEvent**

Component: device\_notice

EventCode: 45.20.160

**Severity: Info**  
**Action\_required: No****Sample Description**

Notice(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Storage A.D.E. monitors the array log file for specific patterns.

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3511.LogEvent**

Component: device\_warning

EventCode: 45.20.159

**Severity: Warning**  
**Action\_required: No****Sample Description**

Warning(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]): Storage A.D.E. monitors the array log file for specific patterns.

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3511.LogEvent**

Component: device\_error

EventCode: 45.20.158

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

**Probable Cause:**

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3511.LogEvent**

Component: cpu

EventCode: 45.20.116

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

Storage A.D.E. found CPU messages. Reported for indication of possible error.

**Recommended Action:**

1. Check the Storage A.D.E. Log Message File for 3511 events.
2. Check the Storage A.D.E. status of the controller.

**Event: 3511.LogEvent**

Component: LIP

EventCode: 45.20.185

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

[110f] CHL:\_ LIP(\_ \_) Detected.

**Probable Cause:**

A device on the loop has initiated a re arbitration of the loop.

**Recommended Action:**

If the event repeats, isolate further by running the tests associated with this link segment.

**Event: 3511.LogEvent**

Component: insufficient\_memory

EventCode: 45.20.187

**Severity: Error**  
**Action\_required: Yes****Sample Description**

There is insufficient memory to fully support the current config.

**Probable Cause:**

The array does not have sufficient memory installed.

**Recommended Action:**

Contact Support.

**Event: 3511.LogEvent**

Component: logical\_drive

EventCode: 45.20.188

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Logical Drive ALERT: Add SCSI Drive Operation Failed.

**Probable Cause:**

The drive just inserted failed to become ready.

**Recommended Action:**

Reseat the drive in the enclosure, and retry the operation.

**Event: 3511.LogEvent**

Component: peripheral\_device

EventCode: 45.20.189

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[3F21] Peripheral Device ALERT: Power Supply \_ Failure Detected.

**Probable Cause:**

Storage A.D.E has detected a log message concerning a problem with the array.

**Recommended Action:**

1. Refer to the problem description for more details.
2. Refer to the Array Service Guide for additional information describing the problem.
3. Contact Support.

**Event: 3511.LogEvent**

Component: sec\_battery\_charge

EventCode: 45.20.238

**Severity: Info**  
**Action\_required: No****Sample Description**

[0125] #2: StorEdge Array SN#8011428 Peripheral Device ALERT: primary batte

**Probable Cause:**

The array has detected a low battery.

**Recommended Action:**

No action required.

**Event: 3511.LogEvent**

Component: array\_error

EventCode: 45.20.90

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Error(s) found in logfile: [Array\_Log\_File] on [Host\_Name] (id=[HostID]):

### Probable Cause:

Storage A.D.E. detected a pattern as described in the Info of the [Array\_Log\_File].

### Recommended Action:

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.
4. Replace the component called out in the event.

**Event: 3511.LogEvent**

Component: fan

EventCode: 45.20.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

3F3f] #5: SES Device on StorEdge Array SN#8001138 CH2 ID28:

**Probable Cause:**

This could indicate a problem with the following FRUs

- AC Power
- Power Supply Module

**Recommended Action:**

1. Check AC Power to the Array.
2. Check LED Status on Chassis and Power Supply Module
3. Refer to Array Service Guide to troubleshoot further.

**Event: 3511.LogEvent**

Component: power

EventCode: 45.20.37

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[Date Time] 1 device\_error(s) found in logfile (related to 3511 [Array\_Name/IP\_Address]):

[Date Time] [3F3F] #9: SES Device on Storage Array [S/N] CH2 ID12: ALERT: PS 0 power supply state cha

**Probable Cause:**

1. AC power failure.
2. AC power cable missing.
3. Bad power supply.

**Recommended Action:**

1. Check power supply LED.
2. Verify AC power.
3. Replace power supply.

**Event: 3511.LogEvent**

Component: prime\_battery\_charge

EventCode: 45.20.237

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

[0125] #2: StorEdge Array SN#8011428 Peripheral Device ALERT: primary batte

**Probable Cause:**

The array has detected a low battery.

**Recommended Action:**

No action required.

**Event: 3511.LogEvent**

Component: predictable\_failure

EventCode: 45.20.190

**Severity: Warning**  
**Action\_required: No****Sample Description**

[1142] SMART-CH:\_ ID:\_ Predictable Failure Detected.

**Probable Cause:**

The RAID controller has predicted a component failure.

**Recommended Action:**

1. Review the Storage A.D.E. Event Log for details.
2. Contact Support.

**Event: 3511.LogEvent**

Component: controller

EventCode: 45.20.12

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

Storage Array SN#3341262 Controller ALERT: redundant controller failure detected.

**Probable Cause:**

1. Controller has failed to respond to a request from Storage A.D.E. This may be due to power cycling or rebooting.
2. The controller has experienced a hardware failure and is no longer responding.

**Recommended Action:**

1. Check the event message closely for possible initialization sequence.
2. Ensure initialization sequence completed successfully.
3. If controller fails to come online, replace controller.

**Event: 3511.LogEvent**

Component: driver.SSD\_ALERT

EventCode: 45.20.329

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.SSD\_ALERT' errors(s) in logfile /var/adm/messages on [Host\_Name] :

**Probable Cause:**

Storage A.D.E found enough WARNING messages in the system log file that called out an SSD device and excee

**Recommended Action:**

1. Check Storage A.D.E for other error type events for any of the devices being monitored.
2. Check with the System Administrator for activity on the ssd device.
3. Check with the System Administrator for activity on disk removal.
4. Run link test to isolate a possible bad GBIC, cable, switch, etc.
5. Check the kernel settings for mpxio support if the array is configured to use it.

```
# vi /kernel/drv/scsi_vhci.conf  
mpxio-disable="[yes|no]";
```

**Event: 3511.LogEvent**

Component: driver.MPXIO\_offline

EventCode: 45.20.313

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Found 2 'driver.MPXIO\_offline' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Probable Cause:**

The MPxIO multipathing software has noted the path to a storage device has gone offline.

**Recommended Action:**

1. Check the Topology View to see what device(s) are affected.
2. Check all cables and connections.
3. Check for other alerts that may indicate an underlying problem. (ex. Switch Ports offline)
4. The outputs of 'cfgadm -al' and 'luxadm -e port' may uncover other fabric problems.

**Event: 3511.LogEvent**

Component: redundant\_controller\_failure

EventCode: 45.20.409

**Severity: Error**  
**Action\_required: Yes****Sample Description**

[0111] #3: StorEdge Array SN#8014902 Controller ALERT: redundant controller failure detected

**Probable Cause:**

Likely causes are: the secondary controller is removed or failed

**Recommended Action:**

1. Check the 3511 device, the secondary controller may be removed or in other fault state

**Event: 3511.QuiesceEndEvent**

Component:

EventCode: 45.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 3511.QuiesceStartEvent**

Component:

EventCode: 45.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 3511.ConnectivityLostEvent**

Component:

EventCode: 45.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: 3511.ComponentInsertEvent**

Component: FC\_JBOD\_IOM

EventCode: 45.40.282

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (FC\_JBOD\_IOM) was added to 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A FC\_JBOD\_IOM for extension array box, identified by it's serial#, has been installed on the 3511.

**Recommended Action:**

No action required.

**Event: 3511.ComponentInsertEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 45.40.270

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (AC\_POWER\_SUPPLY) was added to 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A AC power supply, identified by it's serial#, has been installed on the 3511.

**Recommended Action:**

No action required.

**Event: 3511.ComponentInsertEvent**

Component: SEC\_RAID\_CONTROLLER

EventCode: 45.40.275

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (SEC\_RAID\_CONTROLLER) was added to 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A raid controller, as identified by it's serial#, has been installed on the 3511 or it is re-enabled.

**Recommended Action:**

No action required.

**Event: 3511.ComponentInsertEvent**

Component: BATTERY\_BOARD

EventCode: 45.40.277

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.2'(TECTROL-CAN.300-1454-01(50).[s/n]) was added to raid array [Array\_Name] .

**Probable Cause:**

A new battery/ethnet card, as identified by it's serial#, has been installed on the 3511.

**Recommended Action:**

No action required.

**Event: 3511.ComponentInsertEvent**

Component: FC\_CHASSIS\_BKPLN

EventCode: 45.40.278

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006355' (FC\_CHASSIS\_BKPLN) was added to 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid chassis backplane, as identified by it's serial#, has been installed on the 3511.

**Recommended Action:**

No action required.

**Event: 3511.ComponentInsertEvent**

Component: FC\_RAID\_IOM

EventCode: 45.40.279

**Severity: Info**  
**Action\_required: No****Sample Description**

'fru.006457' (RAID\_IO\_BOARD) was added to 3511 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new raid IO board, as identified by it's serial#, has been installed on the 3511.

**Recommended Action:**

No action required.

**Event: 3511.ComponentInsertEvent**

Component: logical\_volume

EventCode: 45.40.416

**Severity: Info**  
**Action\_required: No****Sample Description**

was added for 3511 [Array\_Name] ([IP\_Address]).

**Information:**

1. Execute 'sccli <device-path> show logical-volume' to check the logical volume status
2. Make sure the added logical volume is intended to be added.

**Probable Cause:**

A logical volume was added for the array.

**Recommended Action:**

- 1.No action nessesary.

**Event: 3511.ComponentInsertEvent**

Component: logical\_drive

EventCode: 45.40.188

**Severity: Info**  
**Action\_required: No****Sample Description**

was added for 3511 [Array\_Name] ([IP\_Address]).

**Information:**

1. Execute 'scli <device-path> show logical-drives' to check the logical drive status
2. Make sure the added logical drive is intended to be added.

**Probable Cause:**

A logical drive was added for the array.

**Recommended Action:**

- 1.No action necessary.

**Event: 3511.ComponentInsertEvent**

Component: disk  
EventCode: 45.40.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

disk.u2d3(SEAGATE.ST318203FSUN18G.LRG07139) was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 3511.

**Recommended Action:**

No action required.

**Event: 3511.ComponentRemoveEvent**

Component: logical\_volume

EventCode: 45.41.416

**Severity: Info****Action\_required: Yes****Sample Description**

was removed from 3511 Device\_Name (wwn=WWN) (sn=WWN) logical\_volume.2FFB25B5)

**Information:**

1. Execute 'sccli <device-path> show logical-volume' to check the logical volume status
2. Make sure the removed logical volume is intended to be removed.

**Probable Cause:**

A logical volume was removed from the array.

**Recommended Action:**

1. No action necessary if removal was intentional
2. Recreate logical volume and restore data if removal was not intentional

**Event: 3511.ComponentRemoveEvent**

Component: logical\_drive

EventCode: 45.41.188

**Severity: Info**  
**Action\_required: No****Sample Description**

was removed from 3511 Device\_Name (wwn=WWN) (sn=WWN) logical\_drive.2FFB25B5)

**Information:**

1. Execute 'scli <device-path> show logical-drives' to check the logical drive status
2. Make sure the removed logical drive is intended to be removed.

**Probable Cause:**

A logical drive was removed from the array.

**Recommended Action:**

1. No action necessary if removal was intentional
2. Recreate logical drive and restore data if removal was not intentional

**Event: 3511.ComponentRemoveEvent**

Component: FC\_RAID\_IOM

EventCode: 45.41.279

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (RAID\_IO\_BOARD) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a controller was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing RAID Controller.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Execute 'sccli <device-path> show redundancy' to check for failed controller

**Event: 3511.ComponentRemoveEvent**

Component: AC\_POWER\_SUPPLY

EventCode: 45.41.270

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Probable Cause:**

The 3511 has reported that a AC power supply has been removed from the chassis. It may also due to faulty fibre channel cable/sfp or power lost to expansion tray.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Replace the bad Power Supply unit

**Event: 3511.ComponentRemoveEvent**

Component: disk

EventCode: 45.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Components.disk.23(CH2 ID23) was removed from 3511-1554 (wwn=SUN.3511.001554) (ID=ST373307FSUN72G.3HZ0XDKJ00007337).

**Probable Cause:**

A disk has failed or been removed

**Recommended Action:**

1. Check the light-emitting diod (LED) fault indicator on the drive.
2. Execute 'sccli show events' and look for disk errors.
3. Execute 'sccli <device\_name/IP> show disks' and check disk status.
4. Replace the failed disk.

**Event: 3511.ComponentRemoveEvent**

Component: BATTERY\_BOARD

EventCode: 45.41.277

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.1'(007865) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The 3511 has reported that a battery/ethernet card has been removed from the chassis. This may be caused by a failing battery board or battery board being removed for maintenance.

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information
2. Replace the bad fru if necessary

**Event: 3511.ComponentRemoveEvent**

Component: SEC\_RAID\_CONTROLLER

EventCode: 45.41.275

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006457' (SEC\_RAID\_CONTROLLER) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current fru information

**Event: 3511.ComponentRemoveEvent**

Component: FC\_CHASSIS\_BKPLN

EventCode: 45.41.278

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'fru.006355' (RAID\_CHASSIS\_BKPLN) was removed from raid array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'sccli <device-path> show FRUs' to check the current chassis fru information

**Event: 3511.ComponentRemoveEvent**

Component: FC\_JBOD\_IOM

EventCode: 45.41.282

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description****Information:**

The 3511 has reported that a FC\_JBOD\_IOM has been removed from the chassis

**Probable Cause:**

A fru has failed or been removed

**Recommended Action:**

1. Execute 'scli <device-path> show FRUs' to check the current fru information

**Event: 3511.LinkEvent\_CRC**

Component:

EventCode: 45.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: 3511.LinkEvent\_SIG**

Component:

EventCode: 45.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on array [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: 3511.LoopCableDisconnect**

Component:

EventCode: 45.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: 5210.ValueChangeEvent**

Component: raid\_level

EventCode: 47.3.69

**Severity: Warning**  
**Action\_required: No****Sample Description**

Raid level of [lun\_name] is changed from [old\_value] to [new\_value]

**Probable Cause:**

User changed the Raid Level of Lun.

**Recommended Action:**

No action required.

**Event: 5210.ValueChangeEvent**

Component: firmware\_version

EventCode: 47.3.119

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 5210.ValueChangeEvent**

Component: system\_reboot

EventCode: 47.3.47

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

5210 reboot, uptime decreased on \$id from 'Timeticks: (600261) 1:02.61' to 'Timeticks: (0250) 02.50'

**Information:**

Event is generated when the System uptime changes.

**Probable Cause:**

A power hit.  
Purposely rebooted.

**Recommended Action:**

1. Verify if a reboot was on purpose and was successful.
2. Check power source(s) to ensure solid connections throughout.

**Event: 5210.ValueChangeEvent+**  
Component: RaidSystemDriveCachePolicy  
EventCode: 47.4.413

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The State of 'logicaldrive.1.lun\_cachepolicy' on [Array\_Name] is [New\_Value] previous State was [Old\_Value].

**Probable Cause:**

Installation of TBBU or UPS battery.

**Recommended Action:**

No action required.

**Event: 5210.ValueChangeEvent-**  
Component: RaidSystemDriveCachePolicy  
EventCode: 47.5.413

---

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

The State of 'logicaldrive.1.lun\_cachePolicy' on [Array\_Name] is [New\_Value] previous State was [Old\_Value].

### Probable Cause:

1. TBBU battery is not installed or failed.
2. UPS Battery is not installed or failed.

### Recommended Action:

1. Check the Status of the battery and replace it if necessary.
2. Check the Status of the RAID Controller card and replace it if necessary.
3. Contact your Service Provider for proper corrective action.

**Event: 5210.CommunicationEstablishedEvent**

Component: oob

EventCode: 47.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 5210.CommunicationLostEvent**

Component: oob

EventCode: 47.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

This problem can also be caused by:

- SNMP queries timed out.
- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad chassis.

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.

**Event: 5210.DiscoveryEvent**

Component:

EventCode: 47.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new 5210 called [Array\_Name] ([IP\_Address]).

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 5210.LocationChangeEvent**

Component:

EventCode: 47.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 5210 [Array\_Name] ([IP\_Address]) was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 5210.LogEvent**

Component: trap\_error.RaidLunFail

EventCode: 47.20.394

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a LUN on the system has failed. This is usually caused by more than one disk drive failures.

**Probable Cause:**

The server has discovered that a LUN on the system has failed. This is usually caused by more than one disk drive failures.

**Recommended Action:**

1. Replace failed drive(s).
2. Rebuild the Degraded LUN if necessary using the Web Administrator GUI.

**Event: 5210.LogEvent**

Component: trap\_error.RaidPowerSupplyFail

EventCode: 47.20.395

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E has discovered that at least one power supply module in the RAID controller has failed.

**Probable Cause:**

Storage A.D.E has discovered that at least one power supply module in the RAID controller has failed.

**Recommended Action:**

1. Replace the Power Supply Module as soon as possible.

**Event: 5210.LogEvent**

Component: trap\_error.RaidTemperatureError

EventCode: 47.20.396

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that at least one of the RAID temperature sensors has reported a temperature that is out of normal range.

**Probable Cause:**

Storage A.D.E. has discovered that at least one of the RAID temperature sensors has reported a temperature that is out of normal range.

**Recommended Action:**

1. Check data center cooling and air flow around array.
2. Check for any Fan Failures.
3. Contact your Service Provider for further corrective action.

**Event: 5210.LogEvent**

Component: trap\_warning.EnvUpsAbnormal

EventCode: 47.20.397

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Storage A.D.E. has discovered that the UPS is in an abnormal state such as shutdown due to overload, or shutdown due to low battery capacity.

### Probable Cause:

Storage A.D.E. has discovered that the UPS is in an abnormal state such as shutdown due to overload, or shutdown due to low battery capacity.

### Recommended Action:

1. Check the condition of the UPS.

**Event: 5210.LogEvent**

Component: trap\_warning.EnvUpsLowBattery

EventCode: 47.20.398

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS is in a 'low-battery' condition.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS is in a 'low-battery' condition.

**Recommended Action:**

1. If no 'envUpsNormalBattery' message is received within 30 seconds of this message check the AC Power Supply and

**Event: 5210.LogEvent**

Component: trap\_warning.EnvUpsNormalBattery

EventCode: 47.20.399

**Severity: Info**  
**Action\_required: No****Sample Description**

Storage A.D.E. has discovered that the UPS battery is fully charged.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS battery is fully charged.

**Recommended Action:**

No action needed.

**Event: 5210.LogEvent**

Component: trap\_warning.EnvUpsOffBattery

EventCode: 47.20.400

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Storage A.D.E. has discovered that the UPS status has switched from on-battery to another state.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS status has switched from on-battery to another state.

**Recommended Action:**

1. No action required.

**Event: 5210.LogEvent**

Component: trap\_warning.NicFailover

EventCode: 47.20.401

**Severity: Info**  
**Action\_required: No****Sample Description**

Storage A.D.E. has discovered a successful NIC failover.

**Probable Cause:**

Storage A.D.E. has discovered a successful NIC failover.

**Recommended Action:**

1. No action required.

**Event: 5210.LogEvent**

Component: trap\_warning.RaidControllerBatteryLow

EventCode: 47.20.402

**Severity: Warning**  
**Action\_required: Yes**

---

### Sample Description

Storage A.D.E. has discovered that the charge of a RAID controller battery is low.

### Probable Cause:

Storage A.D.E. has discovered that the charge of a RAID controller battery is low.

### Recommended Action:

1. Check the Status of the battery and replace it if necessary.
2. Check the Status of the RAID Controller card and replace it if necessary.
3. Contact your Service Provider for proper corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.EnvFanFail

EventCode: 47.20.405

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a system fan is not working properly. e.g. EnvFanRPM == 0.

**Probable Cause:**

Storage A.D.E. has discovered that a system fan is not working properly.  
e.g. EnvFanRPM == 0.

If the temperature begins to rise, the situation could become critical.

**Recommended Action:**

1. Check the fan status and replace if necessary.

**Event: 5210.LogEvent**

Component: trap\_error.MirrorLogAlert

EventCode: 47.20.406

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the utilization of a mirror log has exceeded a predefined threshold.

**Probable Cause:**

Storage A.D.E. has discovered that the utilization of a mirror log has exceeded a predefined threshold.

**Recommended Action:**

1. Increase the file size on the host.
2. Add file volume extension segments to existing file volumes.
3. Contact your Service Provider for further corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.BondFailed

EventCode: 47.20.380

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the High Availability (HA) Bond on a port is down.

**Probable Cause:**

Storage A.D.E. has discovered that the High Availability (HA) Bond on a port is down.

**Recommended Action:**

1. Check Status of NICs on System.
2. Check Status of any switches or routers in the network.
3. Check ethernet cabling.

**Event: 5210.LogEvent**

Component: trap\_error.RaidAlarmOn

EventCode: 47.20.444

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has detected a JBOD component failure.

**Probable Cause:**

Storage A.D.E. has detected a JBOD component failure.

**Recommended Action:**

1. Check the status of your system.
2. Contact your Service Provider for proper corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.EnvPowerSupplyFail

EventCode: 47.20.381

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a Power Supply Module has failed.

**Probable Cause:**

Storage A.D.E. has discovered that a Power Supply Module has failed.

**Recommended Action:**

1. Replace the Power Supply Module as soon as possible.

**Event: 5210.LogEvent**

Component: trap\_error.EnvTemperatureError

EventCode: 47.20.382

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that at least one temperature sensor has

**Probable Cause:**

Storage A.D.E. has discovered that at least one temperature sensor has reported a temperature that is out of normal range.

**Recommended Action:**

1. Check data center cooling and air flow around array.
2. Check for any Fan Failures.
3. Contact your Service Provider for further corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.EnvUpsFail

EventCode: 47.20.383

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the communication to the UPS unit has been lost after such communication has been established. The UPS monitoring thread will terminate itself under the occurrence of such failure.

**Probable Cause:**

Storage A.D.E. has discovered that the communication to the UPS unit has been lost after such communication has been established. The UPS monitoring thread will terminate itself under the occurrence of such failure.

**Recommended Action:**

1. Check the serial cable connecting UPS unit to one of the CPU enclosures.
2. Check UPS unit and replace if necessary.

**Event: 5210.LogEvent**

Component: trap\_error.EnvUpsOnBattery

EventCode: 47.20.384

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS status 'UpsStatus' is 'on-battery' and the transfer cause is not 'in response to UPS-Link control command or activation of the UPS'.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS status 'UpsStatus' is on-battery' and the transfer cause is not 'in response to UPS-Link control command or activation of the UPS'.

**Recommended Action:**

1. Check the condition of the UPS if no 'envUpsOffBattery' message is received shortly (e.g. in 30 seconds) after the a
2. Contact the facilities group to have the UPS input power checked.

**Event: 5210.LogEvent**

Component: trap\_error.EnvUpsReplaceBattery

EventCode: 47.20.385

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS battery should be replaced.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS battery should be replaced.

**Recommended Action:**

1. Contact the facilities group to check and replace the UPS battery if necessary.

**Event: 5210.LogEvent**

Component: trap\_error.FsErrors

EventCode: 47.20.386

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has detected filesystem errors.

**Probable Cause:**

Storage A.D.E. has detected filesystem errors.

**Recommended Action:**

1. Run fsck on the filesystem.
2. Contact your Service Provider for proper corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.FsPartitionFull

EventCode: 47.20.387

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The server has discovered that the utilization of a partion

**Probable Cause:**

The server has discovered that the utilization of a partion exceeds a predefined threshold. This threshold is not user selectable.

**Recommended Action:**

1. Delete any unused or temporary files.
2. Extend the partition by using an unused partition.
3. Add addition disk drives and extend the partition after creating a new partition.

**Event: 5210.LogEvent**

Component: trap\_error.MirrorLinkDown

EventCode: 47.20.388

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a mirror link to a remote host is down.

**Probable Cause:**

Storage A.D.E. has discovered that a mirror link to a remote host is down.

**Recommended Action:**

1. Check Status of NICs on System.
2. Check Status of any switches or routers in the network.
3. Check ethernet cabling.
4. Check Status of the remote host.
5. Contact your Service Provider for proper corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.MirrorLogFull

EventCode: 47.20.389

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the utilization of a mirror log has reached 100%

**Probable Cause:**

Storage A.D.E. has discovered that the utilization of a mirror log has reached 100%

**Recommended Action:**

1. Increase the file size on the host.
2. Add file volume extension segments to existing file volumes.
3. Contact your Service Provider for further corrective action.

**Event: 5210.LogEvent**  
Component: trap\_critical  
EventCode: 47.20.234

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 log\_critical(s) found in logfile /var/adm/trap\_messages (related to 5210:10.8.11.107):

**Probable Cause:**

5210 has reported that the application or hardware device has encountered an error.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: 5210.LogEvent**

Component: trap\_error

EventCode: 47.20.235

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

1 log\_error(s) found in logfile /var/adm/trap\_messages (related to 5210:10.8.11.107):

**Probable Cause:**

5210 has reported that the application or hardware device has encountered an error.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: 5210.LogEvent**

Component: trap\_warning

EventCode: 47.20.236

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning(s) found in logfile /var/adm/trap\_messages (related to 5210:10.8.11.107):

**Probable Cause:**

5210 has reported that the application or hardware device has issued a warning.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: 5210.LogEvent**

Component: trap\_error.MirrorOutOfSync

EventCode: 47.20.390

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Stor A.D.E has discovered that a mirror is out of sync.

**Probable Cause:**

Stor A.D.E has discovered that a mirror is out of sync.

**Recommended Action:**

1. Check Status of NICs on System.
2. Check Status of any switches or routers in the network.
3. Check ethernet cabling.
4. Check the logs for errors during mirroring.
5. Check the capacity of file systems on the hosts.
6. Contact your Service Provider for further corrective action.

**Event: 5210.LogEvent**

Component: trap\_error.RaidControllerFail

EventCode: 47.20.391

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The RAID controller's status has changed to 'failed', which suggests that the corresponding RAID controller is not functioning correctly.

**Probable Cause:**

The RAID controller's status has changed to 'failed', which suggests that the corresponding RAID controller is not functioning correctly.

**Recommended Action:**

1. Check the status of the controller and replace if necessary.

**Event: 5210.LogEvent**

Component: trap\_error.RaidDiskFail

EventCode: 47.20.392

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The status of a RAID disk drive RaidPhysicalStatus has become 'dead'. This may or may not lead to a LUN fail, depending on whether there is a Hot Spare Drive available.

**Probable Cause:**

The status of a RAID disk drive RaidPhysicalStatus has become 'dead'. This may or may not lead to a LUN fail, depending on whether there is a Hot Spare Drive available.

**Recommended Action:**

1. Replace the Failed Drive
2. Rebuild the Degraded LUN if necessary using the Web Administrator GUI.

**Event: 5210.LogEvent**

Component: trap\_error.RaidFanFail

EventCode: 47.20.393

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that at least one fan in the RAID Controller has failed.

**Probable Cause:**

Storage A.D.E. has discovered that at least one fan in the RAID Controller has failed.

**Recommended Action:**

1. Check the fan status and replace if necessary.

**Event: 5210.QuiesceEndEvent**

Component:

EventCode: 47.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 5210 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 5210.QuiesceStartEvent**

Component:

EventCode: 47.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 5210 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 5210.StateChangeEvent+**

Component: env\_fan

EventCode: 47.25.255

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'environment\_fn.1' on [Array\_Name] ([IP\_Address]) changed to 'normal'.

**Probable Cause:**

The fan has returned to optimal condition.

**Recommended Action:**

No action required.

**Event: 5210.StateChangeEvent+**

Component: fan

EventCode: 47.25.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'fan.1' on the attached JBOD changed to 'normal'

**Probable Cause:**

The fan has returned to optimal condition.

**Recommended Action:**

No action required.

**Event: 5210.StateChangeEvent+**

Component: env\_powersupply

EventCode: 47.25.256

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'environment\_ps.1' in [Array\_Name] ([IP\_Address]) is now Available.

**Event: 5210.StateChangeEvent+**

Component: powersupply

EventCode: 47.25.257

**Severity: Info**  
**Action\_required: No****Sample Description**

'powersupply.1' on the JBOD attached to [Array\_Name] ([IP\_Address]) is now Available.

**Probable Cause:**

The Power Supply has returned to Optimal Condition

**Recommended Action:**

No action required.

**Event: 5210.StateChangeEvent+**

Component: port

EventCode: 47.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in 5210 [Array\_Name] ([IP\_Address]) is now Available (Operating status changed from 'down' to 'up')

**Probable Cause:**

Port on Array is now available

**Recommended Action:**

No action required.

**Event: 5210.StateChangeEvent+**

Component: controller

EventCode: 47.25.12

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'controller.1' in 5210 [Array\_Name] ([IP\_Address]) is now Available

**Probable Cause:**

The controller has returned to optimal condition.

**Recommended Action:**

No action required.

**Event: 5210.StateChangeEvent+**

Component: disk

EventCode: 47.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'physicaldisk.1-1' in 5210 [Array\_Name] ([IP\_Address]) is now Available

**Probable Cause:**

A disk has returned to Optimal condition.

**Recommended Action:**

No action required.

**Event: 5210.StateChangeEvent-**

Component: env\_fan

EventCode: 47.26.255

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'environment\_fn.1' on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

The state of a fan on 5210 is not optimal

**Recommended Action:**

1. Replace Fan if necessary

**Event: 5210.StateChangeEvent-**

Component: env\_powersupply

EventCode: 47.26.256

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'environment\_ps.1' in [Array\_Name] ([IP\_Address]) is now Not-Available.

**Information:**

The 5210 has reported that a Power Supply has failed.

**Probable Cause:**

A PCU failure can happen due to the following reasons.

1. Internal/External Power loss
2. PCU failures

**Recommended Action:**

1. Check Power Supply and Cables
2. Check with onsite administration/service for expected occurrence
3. Replace Power Supply Unit

**Event: 5210.StateChangeEvent-**

Component: lun

EventCode: 47.26.66

**Severity: Info**  
**Action\_required: No****Sample Description**

'logicaldisk.1' in 5210 [Device] (sn=[Serial#]) is now Not-Available

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical unit number (LUN) configured in the array.

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.

**Event: 5210.StateChangeEvent-**

Component: port

EventCode: 47.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in 5210 [Array\_name] is now Not-Available (Operating status changed from 'up' to 'down')

**Information:**

A port on the 5210 has gone offline

**Recommended Action:**

1. Verify cables and connections along ethernet path
2. Check your LAN monitoring software for any errors
3. Verify correct IP switch configuration
4. Verify port is enabled
5. If the ports are bonded, go to device configuration GUI. Select "Network Configuration" and click on "Recover" button

**Event: 5210.StateChangeEvent-**

Component: partition

EventCode: 47.26.243

**Severity: Info**  
**Action\_required: No****Sample Description**

'partiton.1' in 5210 [Device] (sn=[Serial#]) is now Not-Available

**Probable Cause:**

Storage A.D.E. has detected removal of a partition

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.

**Event: 5210.StateChangeEvent-**

Component: controller

EventCode: 47.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The Status of controller.1 in 5210 [Array\_Name] has 'failed' (id=[Unique\_Key])

**Probable Cause:**

A controller has failed in the array due to a potential hardware problem.

**Recommended Action:**

1. Telnet to affected 5210
2. Verify controller status
3. Re-enable controller if possible
4. Replace controller if necessary.

**Event: 5210.StateChangeEvent-**

Component: powersupply

EventCode: 47.26.257

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'powersupply.1' on the JBOD attached to [Array\_Name] ([IP\_Address]) is now Not-Available.

**Information:**

The 5210 has reported that a Power Supply in the attached JDOB has failed.

**Probable Cause:**

A PCU failure can happen due to the following reasons.

1. Internal/External Power loss
2. Power switch has been turned off
3. PCU failures

**Recommended Action:**

1. Check Power Supply and Cables
2. Check with onsite administration/service for expected occurrence
3. Replace Power Supply Unit

**Event: 5210.StateChangeEvent-**

Component: disk

EventCode: 47.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'physicaldisk.1-1'([s/n]) in 5210 [Array\_Name] (sn=SN) is now Not-Available

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Replace the failed disk.

**Event: 5210.StateChangeEvent-**

Component: fan

EventCode: 47.26.19

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'fan.1' on attached JBOD of [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of a fan on the attached JBOD is not optimal

**Probable Cause:**

Problem with the Fan Unit called out in the event.

**Recommended Action:**

1. Replace Power Supply on the JBOD if necessary

**Event: 5210.ComponentInsertEvent**

Component: powersupply

EventCode: 47.40.257

**Severity: Info**  
**Action\_required: No****Sample Description**

'powersupply.1' was added to the JBOD on [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new power supply, as identified by it's id, has been installed on the 5210.

**Recommended Action:**

No action required.

**Event: 5210.ComponentInsertEvent**

Component: env\_powersupply

EventCode: 47.40.256

**Severity: Info**  
**Action\_required: No****Sample Description**

'environment\_ps.1' was added to 5210 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new power supply, as identified by it's id, has been installed on the 5210.

**Recommended Action:**

No action required.

**Event: 5210.ComponentInsertEvent**

Component: partition

EventCode: 47.40.243

**Severity: Info**  
**Action\_required: No****Sample Description**

'physicaldisk.1-1' was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new Partition, as identified by it's mount point, has been added on the 5210.

**Recommended Action:**

No action required.

**Event: 5210.ComponentInsertEvent**

Component: disk  
EventCode: 47.40.13

---

**Severity: Info**  
**Action\_required: No**

**Sample Description**

'physicaldisk.1-1' was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 5210.

**Recommended Action:**

No action required.

**Event: 5210.ComponentInsertEvent**

Component: lun

EventCode: 47.40.66

**Severity: Info**  
**Action\_required: No****Sample Description**

'physicaldisk.1-1' was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new LUN, as identified by it's name, has been initialized on the 5210.

**Recommended Action:**

No action required.

**Event: 5210.ComponentRemoveEvent**

Component: disk

EventCode: 47.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'physicaldisk.1-1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A disk has been reported as being removed from the array.

This could be the result of a hardware error.

This could also be the result of administrator action.

**Recommended Action:**

1. Replace Disk if it was removed due to administrator action.
2. Re-seat disk.
3. Replace disk with a new disk if needed.
4. Check the status of the Power Supplies on the NAS head and on the expansion unit.
5. Check the SCSI cabling between the ports of the box.
6. Check the interface board on the NAS head and on the expansion unit.

**Event: 5210.ComponentRemoveEvent**

Component: lun

EventCode: 47.41.66

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logicaldisk.1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A Logical Disk has been removed. This is usually the result of administrator action.

**Recommended Action:**

1. Check for SCSI cabling between the ports on the box.
2. Check for Power failures.
3. Check for any administrator action.

**Event: 5210.ComponentRemoveEvent**

Component: powersupply

EventCode: 47.41.257

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'powersupply.1' was removed from the JBOD on [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Power supply from the NAS head was removed.

**Recommended Action:**

Replace power supply if necessary.

**Event: 5210.ComponentRemoveEvent**

Component: partition

EventCode: 47.41.243

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'Partition.1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Storage A.D.E. has detected removal of a partition

**Recommended Action:**

1. Check volume integrity associated with the component in question.

**Event: 5210.ComponentRemoveEvent**

Component: env\_powersupply

EventCode: 47.41.256

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'environment\_ps.1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Power supply from the JBOD was removed.

**Recommended Action:**

Replace power supply if necessary.

**Event: 6130.ValueChangeEvent+**

Component: volumeFailover

EventCode: 48.4.264

**Severity: Info**  
**Action\_required: No****Sample Description**

'Volume'(id) on 6130 [Array\_Name] ([IP\_Address]) is now mapped to the preferred controller

**Probable Cause:**

The volume is now mapped to the preferred Controller.

**Recommended Action:**

1. No action required.

**Event: 6130.ValueChangeEvent+**

Component: ethernetStatus

EventCode: 48.4.434

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The indicated controller is reachable out of band.

**Probable Cause:**

Out of band contact has been reestablished with the target controller.

**Recommended Action:**

1. No action is required.

**Event: 6130.ValueChangeEvent+**

Component: certification

EventCode: 48.4.432

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The indicated drive is now marked as certified.

**Probable Cause:**

The drive is now usable.

**Recommended Action:**

1. No action is required.

**Event: 6130.ValueChangeEvent+**

Component: diskAccess

EventCode: 48.4.262

**Severity: Info**  
**Action\_required: No****Sample Description**

Redundant access to this drive has been regained.

**Probable Cause:**

Access to the device is now redundant and optimal

**Recommended Action:**

1. No action required.

**Event: 6130.ValueChangeEvent+**

Component: diskChannel

EventCode: 48.4.263

**Severity: Info**  
**Action\_required: No****Sample Description**

The channel(s) used to access this drive are now optimal.

**Probable Cause:**

Access to the drive is now redundant and optimal.

**Recommended Action:**

1. No action required.

**Event: 6130.ValueChangeEvent-**

Component: diskAccess

EventCode: 48.5.262

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Redundant access to a drive in [Array\_Name] ([IP\_Address]) has been lost.

**Probable Cause:**

A FC RAID Controller or I/O Module has failed  
A cable is not installed/seated properly  
The drive to IOM link may not have been established.

**Recommended Action:**

1. Check status of the disk drives.
2. Check the status of the FC RAID Controllers
3. Check the status of any I/O Modules
4. Ensure that the fiber optic or drive interconnect cables are correctly seated.
5. Reseat or replace the drive.

**Event: 6130.ValueChangeEvent-**

Component: volumeFailover

EventCode: 48.5.264

**Severity: Info**  
**Action\_required: Yes****Sample Description**

'Volume'(id) on 6130 [Array\_Name] ([IP\_Address]) is no longer mapped to the preferred controller

**Probable Cause:**

The preferred controller is offline or removed due to an Administrative or Service Action or has encountered an actual hardware failure or firmware fault.

The controller port is down.

There is a problem in a component along the I/O Path.

(Fibre optic cable, HBA, FC Switch, SFP)

**Recommended Action:**

1. Check the aggregated events and other alarms for related fault indications.

Typically, this alarm is a symptom of another failure.

2. Check the status of this volume's preferred controller.

The preferred controller can be determined by viewing the Volume Details page for this volume. Then the controller status can be found on the controller

Component Summary page.

3. Check the SAN Topology for other failing components:

- Check 6130 FC port link status LED.
- Check HBA FC port link status LED.
- Check FC switch link status LED, if applicable.
- Check the seating of the fibre cable(s).
- Contact the Sun Service Team.

Note: If a "Loop OFFLINE" or similar message appears in a log event/alarm. This is an indication of a failure in the data path.

4. After correcting the underlying problem (if any), use the 6130 Configuration Service or other management software to redistribute the volumes.

**Event: 6130.ValueChangeEvent-**

Component: ethernetStatus

EventCode: 48.5.434

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Unable to contact the target controller out of band [Array\_Name] ([IP\_Address])

**Probable Cause:**

The Ethernet port on this controller is not responding.

The Ethernet cable may be unseated, or the controller may be unresponsive.

Changing the network settings on a controller can cause the ethernet port to be placed offline.

**Recommended Action:**

1. Ensure that the Ethernet cable is undamaged and properly installed.
2. Verify that the controller is operating correctly by checking its status on the Controller Details page for the appropriate controller.
3. If the Ethernet settings have been recently changed, and the hardware is installed and operating correctly, the controller may need to be reset or rebooted.

**Event: 6130.ValueChangeEvent-**

Component: diskChannel

EventCode: 48.5.263

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A channel used to access this drive has become degraded.

**Probable Cause:**

A FC RAID Controller or I/O Module has failed, or a cable is not installed/seated properly

**Recommended Action:**

1. Check the status of the FC RAID Controllers
2. Check the status of any I/O Modules
3. Check the status of the drive interconnect cables.
4. Check the status of any SFP (if present).
5. Check port bypass LED status. (Amber indicates problem).
6. Follow the appropriate Service Procedure to replace the failed FRU.

**Event: 6130.ValueChangeEvent-**

Component: certification

EventCode: 48.5.432

**Severity: Error**  
**Action\_required: Yes****Sample Description**

An uncertified drive has been detected in [Array\_Name] ([IP\_Address])

**Probable Cause:**

This drive is uncertified for use in this system.

The drive may not be properly formatted or is of an unknown type.

**Recommended Action:**

1. The drive must be replaced with a drive that is properly formatted and is of the appropriate type for use in this array.

**Event: 6130.AuditEvent**

Component:

EventCode: 48.10.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Auditing a new 6130 called ras [Array\_Name] ([IP\_Address]) slr-mi.370-3990-01-e-e1.003239

**Probable Cause:**

Audits occur every week to gather statistical data and current state.

**Recommended Action:**

1. No action required.

**Event: 6130.CommunicationEstablishedEvent**

Component: oob

EventCode: 48.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet access to the array has been re-established.

**Recommended Action:**

1. No action required.

**Event: 6130.CommunicationEstablishedEvent**

Component: ib

EventCode: 48.11.21

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Probable Cause:**

Fibre Channel access to the array has been re-established.

**Recommended Action:**

1. No action required.

**Event: 6130.CommunicationLostEvent**

Component: ib

EventCode: 48.12.21

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (InBand([Host\_Name])) with [Array\_Name] ([IP\_Address]) ( last reboot was 2001-09-27 15:22:00)

**Probable Cause:**

Inband access to the array has been lost.

This could be caused by a Hardware failure in the array.

This could be caused by a Hardware failure in components along the device path. (cables, HBAs, switches)

This could be caused by a misconfiguration of the Host software.

**Recommended Action:**

1. Verify luxadm via command line  
luxadm probe  
luxadm display </dev/rdisk/c##t##s2>
2. Verify cables, GBICs, Power, and connections along data path.
3. Check SAN Topology GUI to identify failing segment of the data path
4. Verify correct FC switch configuration (If applicable)

**Event: 6130.CommunicationLostEvent**

Component: oob

EventCode: 48.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address])

**Probable Cause:**

This problem can be caused by a very slow network or because the ethernet connection to this 6130 was lost.  
This can also be caused by incorrect DHCP settings.  
This problem can also be caused by loss of AC Power.

**Recommended Action:**

1. Check Ethernet Network Health to array  
Ethernet Cables  
Hubs, Routers, Switches  
LED Link status of connections.
2. Check the status of DHCP server (if using for Ethernet configuration).
3. Check AC power to array  
Power Cables  
Power Outlets  
Circuit Breakers  
Power to building

**Event: 6130.DiscoveryEvent**

Component:

EventCode: 48.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new 6130 called [Array\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 6130.LocationChangeEvent**

Component:

EventCode: 48.19.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Location of 6130 [Array\_Name] ([IP\_Address]) was changed

**Probable Cause:**

This event is generated when the Customer Information page is updated.  
This is the result of Administrator intervention.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: mirror\_unsynchronized\_log

EventCode: 48.20.420

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

A mirrored pair is unsynchronized [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has detected a synchronization problem in a mirrored pair.

**Recommended Action:**

1. Contact Sun Support before attempting any repair operations

**Event: 6130.LogEvent**

Component: mixed\_drive\_types\_log

EventCode: 48.20.421

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

One or more drive trays has mixed drive types installed [Array\_Name] ([IP\_Address])

**Probable Cause:**

A drive tray has more than one drive type in it.

**Recommended Action:**

1. Check the type of drives installed in the drive trays examining the Disk Components Summary page and the Disk Details pages.
2. Replace drives as needed to homogenize the types of drives in each tray.

**Event: 6130.LogEvent**

Component: over\_nominal\_temp\_log

EventCode: 48.20.340

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has exceeded its nominal temperature.

**Probable Cause:**

The temperature of the tray has exceeded nominal levels.

Either a fan has failed, an obstruction is blocking the air flow to or from the tray, or the temperature of the room is too high.

**Recommended Action:**

1. Examine the status of the temperature sensors in the affected tray
2. If the sensor's status is unknown, a possible I/O Module failure has occurred. Look for a failed I/O Module and replace if needed.
3. Check the status of the fans, replace if in a failed or unknown state.
4. Check for airflow obstructions.
5. Check the ambient temperature.

**Event: 6130.LogEvent**

Component: uncertified\_drive\_log

EventCode: 48.20.422

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The array has detected an uncertified drive [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has detected an uncertified drive.

**Recommended Action:**

1. Replace the indicated drive.

**Event: 6130.LogEvent**

Component: place\_controller\_offline\_log

EventCode: 48.20.341

**Severity: Warning**  
**Action\_required: No****Sample Description**

Controller offline in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A controller was placed offline.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: unreadable\_sector\_db\_full\_log

EventCode: 48.20.423

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The unreadable sector database is full. [Array\_Name] ([IP\_Address]) IOMs

**Probable Cause:**

The number of unreadable sectors has overflowed the database.

**Recommended Action:**

1. Contact Sun Support before attempting any repair operations.

**Event: 6130.LogEvent**

Component: primary\_volume\_conflict\_log

EventCode: 48.20.342

**Severity: Warning**  
**Action\_required: No****Sample Description**

Dual primary volume conflict on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Logged when there is a conflict over the primary volume.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: unreadable\_sector\_log

EventCode: 48.20.424

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Unreadable sector - data loss [Array\_Name] ([IP\_Address]) IOMs

**Probable Cause:**

An unreadable sector has been detected. The array reports data loss.

**Recommended Action:**

1. Contact Sun Support before attempting any repair operations.

**Event: 6130.LogEvent**

Component: rate\_negotiation\_log

EventCode: 48.20.343

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Auto rate negotiation has failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

An SFP has failed.

There are disconnected or faulty cables.

There is a problem in a component along the I/O Path. (HBA, FC Switch)

**Recommended Action:**

1. Check the status of the SFPs for failures. Replace if failure is found.
2. Unplug and reconnect the cable at both ends of the affected port.
3. Check the hub or switch to determine if it has failed or is not properly transmitting its data rate.
4. Check the host adapter to determine if it has failed or is not properly transmitting its data rate.

**Service:**

6130.sfp

**Event: 6130.LogEvent**

Component: unsupported\_iom\_firmware\_log

EventCode: 48.20.425

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Unsupported firmware was detected on array [Array\_Name] ([IP\_Address]) IOMs

**Probable Cause:**

The array has detected unsupported firmware loaded on the IOMs.

**Recommended Action:**

1. Determine the correct firmware required for the installed IOMs.  
Contact Sun Support Services if required to obtain the correct firmware.
2. Load the firmware using the download script.

**Event: 6130.LogEvent**

Component: read\_diags\_failed\_log

EventCode: 48.20.344

**Severity: Info**  
**Action\_required: No****Sample Description**

Diag read test failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Diagnostic read test failed on this controller.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: remote\_vol\_lost\_com\_log

EventCode: 48.20.345

**Severity: Warning**  
**Action\_required: No****Sample Description**

Communication to remote volume down on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Logged when the communication link to the remote volume is down.

**Recommended Action:**

1. Check the cables and the status of any external communication devices.

**Event: 6130.LogEvent**

Component: gbic\_failed\_log

EventCode: 48.20.325

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A GBIC failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A GBIC or SFP failure was detected.

**Recommended Action:**

1. Follow the Service Procedures for replacing a failed SFP.

**Service:**

6130.sfp

**Event: 6130.LogEvent**

Component: secondary\_volume\_conflict\_log

EventCode: 48.20.346

**Severity: Warning**  
**Action\_required: No****Sample Description**

Dual secondary volume conflict on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Logged when there is a conflict over the secondary volume.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: incompatible\_minihub\_log

EventCode: 48.20.326

**Severity: Info**  
**Action\_required: No****Sample Description**

Incompatible minihub detected on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

An incompatible minihub log was detected.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: small\_drive\_log

EventCode: 48.20.347

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has detected a small drive

**Probable Cause:**

A drive has been inserted that is too small for the VDisk.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive with the proper sized drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: interrupted\_write\_data\_loss\_log

EventCode: 48.20.327

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has encountered data loss.

**Probable Cause:**

A write error was detected.

This is usually due to Media Error on a disk.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: snaphot\_volume\_failure\_log

EventCode: 48.20.348

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Snapshot volume failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A snapshot volume failed.

**Recommended Action:**

1. Check Storage A.D.E. for any additional Hardware failures.
2. Check the Management Software for volume details.

**Event: 6130.LogEvent**

Component: invalid\_batteries

EventCode: 48.20.328

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) is reporting that Batteries are present but the NVSRAM file is configured for no Batteries..

**Probable Cause:**

The NVSRAM settings are incorrect for this array.

**Recommended Action:**

1. Download the correct NVSRAM for this array.

**Event: 6130.LogEvent**

Component: snapshot\_volume\_full\_log

EventCode: 48.20.349

**Severity: Warning**  
**Action\_required: No****Sample Description**

Snapshot volume at capacity on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Logged when the repository usage drops below the warning threshold.

This could result from either a deletion of a point-in-time image or the capacity of the repository volume has been expanded or the warning threshold was changed.

**Recommended Action:**

1. Check Management Software for further details.

**Event: 6130.LogEvent**

Component: iom\_failure\_log

EventCode: 48.20.329

**Severity: Error**  
**Action\_required: Yes****Sample Description**

An I/O Module has failed in array [Array\_Name] ([IP\_Address]).

**Probable Cause:**

One or more I/O Modules have failed in a drive tray.

**Recommended Action:**

Note: Removing the good I/O Module may cause data loss.

1. Check the status of the I/O Modules. Follow the Service Procedures for replacing a I/O Module if needed.
2. Check status of drive interconnect cables.

**Service:**

6130.iom

**Event: 6130.LogEvent**

Component: snapshot\_volume\_warning\_log

EventCode: 48.20.350

**Severity: Warning**  
**Action\_required: No****Sample Description**

Snapshot volume nearing capacity on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

An internal configuration database is full.

**Recommended Action:**

1. Check Management Software Event log for further details.

**Event: 6130.LogEvent**

Component: standby\_power\_log

EventCode: 48.20.351

**Severity: Info**  
**Action\_required: No****Sample Description**

Standby power source not fully charged on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The battery charge is low.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: iom\_firmware\_mismatch\_log

EventCode: 48.20.330

**Severity: Error**  
**Action\_required: Yes****Sample Description**

I/O Module firmware mismatch detected on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The I/O Modules in the target tray have mismatched firmware.

**Recommended Action:**

1. Check the status of the I/O Modules
2. If one I/O Module is not optimal, replace the I/O Module.
3. Reload the correct level of firmware.

**Service:**

6130.iom

**Event: 6130.LogEvent**

Component: iom\_lost\_comm\_log

EventCode: 48.20.331

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost comm with I/O Module on [Array\_Name] ([IP\_Address])

**Probable Cause:**

One or more I/O Modules have failed.

This could also be caused by power to the drive tray or external drive cables.

**Recommended Action:**

1. If you see volume failures, or unassigned drive failures associated with the failed I/O Modules, Contact your Service Provider for proper corrective action.
2. If this was caused by changing switch settings, stop IO to the controller and turn the power switches off and then on.
3. Correct any external power or cable problems.
4. If the status of the I/O Module is unknown  
Reseat the I/O Module. Wait 40 seconds and recheck status.
5. Follow the Service Procedures for replacing failed I/O Module.
6. In some cases, reseating the optimal I/O Module is needed.

**Service:**

6130.iom

**Event: 6130.LogEvent**

Component: temp\_sensor\_removed\_log

EventCode: 48.20.352

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Temperature sensor removed from array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The controller detected a missing temperature sensor.

**Recommended Action:**

1. Replace the affected FC RAID Controller or I/O Module following the proper Service Procedure if needed.

**Service:**

6130.iom

**Event: 6130.LogEvent**

Component: iom\_miswire\_log

EventCode: 48.20.332

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Two I/O Modules in [Array\_Name] ([IP\_Address]) are miswired.

**Probable Cause:**

Two I/O Modules in the same drive tray are connected to the same FC loop.

**Recommended Action:**

It is highly recommended that you suspend all I/O before performing this procedure. Removing cables from a working storage array can cause data loss. If you are not familiar with your cabling configuration, contact your technical support representative.

1. Examine the cable connection on the I/O Module. I/O Modules in the same tray should not be connected to one another
2. Reconnect the cables so that the I/O Modules are on different Fibre Channel loops. Use the interface cable routing examples in the installation guide as a reference.

**Event: 6130.LogEvent**

Component: tray\_path\_not\_redundant\_log

EventCode: 48.20.353

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Tray path not redundant in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A FC RAID Controller or I/O Module has failed, or a cable is not installed/seated properly  
Redundancy can also be temporarily lost during IOM firmware upgrades.

**Recommended Action:**

1. Check the status of the FC RAID Controllers
2. Check the status of any I/O Modules
3. Ensure that the fiber optic or drive interconnect cables are correctly seated
4. Check the status of the disk drives
5. If a firmware upgrade took place and the status of the listed components indicates no problems then the alarm may be deleted.

**Event: 6130.LogEvent**

Component: link\_threshold\_log

EventCode: 48.20.333

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has detected invalid fibre channel signals

**Probable Cause:**

A degraded laser SFP transceiver

Damaged or faulty fiber optic or drive interconnect cables.

Poor cable connections between components on the loop.

**Recommended Action:**

1. Check the cable connections between components on the loop; reseal connections if necessary.

2. Replace faulty or damaged cables.

3. Replace faulty or failed SFPs.

**Service:**

6130.sfp

**Event: 6130.LogEvent**

Component: unresponsive\_drive\_log

EventCode: 48.20.354

**Severity: Error**  
**Action\_required: Yes****Sample Description**

An unresponsive drive was detected in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A drive has malfunctioned.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: log\_entry

EventCode: 48.20.334

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

A non critical event was logged on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array firmware has logged an informational event.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: unsupported\_drivetray\_log

EventCode: 48.20.355

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Unsupported drive tray type in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

An unspecified drive tray type is installed.

**Recommended Action:**

1. The tray will need to be replaced with a supported tray type.  
Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: unsynchronized\_mirror\_log

EventCode: 48.20.356

**Severity: Warning**  
**Action\_required: No****Sample Description**

Mirrored pair unsynchronized on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Logged when the mirror state transitions to the unsynchronized state from either the synchronizing or optimal state.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: ups\_failing\_log

EventCode: 48.20.357

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) ups power is failing.

**Probable Cause:**

The UPS is nearing it's limit.

**Recommended Action:**

1. Restore main power to the array.
2. Power off the array.

**Event: 6130.LogEvent**

Component: loop\_diag\_failure\_log

EventCode: 48.20.335

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A loopback diagnostic has failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Loop diagnostics have determined that the controller is bad.

**Recommended Action:**

1. Attempt to place the controller online using the Service Advisor.
  - If onlining the controller fails, go to Step 2.
2. Follow the Service Procedures for replacing a FC RAID Controller

**Service:**

6130.raidcontroller

**Event: 6130.LogEvent**

Component: volume\_alt\_disabled\_log

EventCode: 48.20.358

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Volume definition incompatible on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The component was failed during interrupted write processing.

**Recommended Action:**

1. Check the status of the drives associated with this volume.
2. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: volume\_copy\_failure\_log

EventCode: 48.20.359

**Severity: Warning**  
**Action\_required: No****Sample Description**

Volume copy operation failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Logged when a volume copy operation fails due to one of the following reasons:  
Read error on source volume, Write error on target volume, Configuration change resulting in a feature compatibility violation (e.g. Role Change of a Remote Mirror)

**Recommended Action:**

1. Check the Management Software Event Logs for any further details.
2. Check status of the disk drives associated with this volume.

**Event: 6130.LogEvent**

Component: alternate\_controller\_failure\_log

EventCode: 48.20.417

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

A controller is holding the other controller in reset [Array\_Name] ([IP\_Address])

**Probable Cause:**

The indicated controller is holding the alternate controller in reset due to a failure.

**Recommended Action:**

1. Reseat the controller that is alternate to the detecting controller.
2. Replace the controller that is alternate to the detecting controller.

**Event: 6130.LogEvent**

Component: manually\_failed\_drive\_log

EventCode: 48.20.336

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

A drive has failed in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A user has manually failed the drive.

**Recommended Action:**

1. Manually unfailed the drive.
2. Follow the Service Procedures for replacing a Drive if needed.

**Event: 6130.LogEvent**

Component: drive\_channel\_failover\_log

EventCode: 48.20.418

**Severity: Warning**  
**Action\_required: Yes**

---

**Sample Description**

A failed drive has caused a drive channel failover [Array\_Name] ([IP\_Address])

**Probable Cause:**

A failed drive has caused a drive channel failover.

**Recommended Action:**

1. Replace the failed drive.

**Event: 6130.LogEvent**

Component: volume\_failover\_log

EventCode: 48.20.360

**Severity: Warning**  
**Action\_required: No****Sample Description**

A volume failed over in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A Mode Select command to make a controller Active was received.

**Recommended Action:**

1. Check the status of the controllers.
2. Check the status of the host I/O Path components. (HBA, FC Switch, SFP)

**Event: 6130.LogEvent**

Component: destination\_drive\_log

EventCode: 48.20.442

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The array has reported a destination driver event [Array\_Name] ([IP\_Address]).

**Probable Cause:**

The destination driver has encountered an unrecoverable error from a drive.

**Recommended Action:**

1. Contact Sun Support if these errors are being frequently logged.  
Support analysis of the errors will be required before repairs can be made.

## Event: 6130.LogEvent

Component: volume\_failure\_log

EventCode: 48.20.361

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

A volume/vdisk failure was detected in array [Array\_Name] ([IP\_Address])

### Probable Cause:

One or more drives in a vdisk has/have failed

### Recommended Action:

#### Important Notes

If the volume is marked failed because you replaced the wrong drive during a degraded volume recovery procedure, you have not lost data. To return the volume to the degraded state, reinsert the drive.

You may be able to recover data from a failed volume. Whether or not this is possible depends on how the failure occurred. You can use this procedure to restore data in two ways: Contacting your technical support representative to attempt a data recovery or restoring data from backup media.

All I/O to the affected volumes will fail.

To the operating system (OS), a failed volume is exactly the same as a failed non-RAID drive. Refer to the operating system documentation for any special requirements concerning failed drives and perform them where necessary.

Make sure the replacement drives have a capacity equal to or greater than the failed drives you will remove in the following steps.

You can replace the failed drives while other volume groups in the storage array are receiving I/O.

1. It may be possible to recover data from the failed volumes. If you wish to attempt a data recovery, you must contact your technical support representative. Do NOT perform steps 2 - 5. Performing any recovery actions before contacting your technical support representative could jeopardize any chance of recovering data. If you prefer to recover from an existing backup or you have mistakenly removed the wrong drive while performing a degraded volume recovery procedure, go to step 2.
2. If you have mistakenly removed the wrong drive while performing a degraded volume recovery procedure, you can return the volume back to the degraded state by replacing the drive you removed. After the volumes return to the degraded state, perform the recovery procedure listed for a degraded volume.
3. Remove all failed drives associated with this vdisk (the fault indicator lights on the failed drives should be lit). To determine the associated drives, go to the details page for the affected volumes/vdisks
4. Wait 30 seconds, then insert the new drives. The fault indicator light on the replaced drives may be lit for a short time (one minute or less).  
Note: Wait until the replaced drives are ready (fault indicator light off) before going to step 6.
5. Monitor the status of the volumes. When they are Optimal, the procedure is complete.

**Event: 6130.LogEvent**

Component: minihub\_failed\_log

EventCode: 48.20.337

**Severity: Info**  
**Action\_required: No****Sample Description**

A minihub failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A minihub failure was detected.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: volume\_parity\_log

EventCode: 48.20.362

**Severity: Error**  
**Action\_required: Yes****Sample Description**

There is a volume parity mismatch on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Data/parity mismatch was detected during data scrubbing.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: write\_diags\_failed\_log

EventCode: 48.20.363

**Severity: Info**  
**Action\_required: No****Sample Description**

Write diags failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Diagnostic write test failed on this controller.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: drive\_signurature\_failed\_log

EventCode: 48.20.419

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The array is unable to access the reserve blocks on a drive [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array cannot access the reserved blocks on the indicated drive.  
The drive reserved blocks are either corrupted, or have not been written.

**Recommended Action:**

1. Replace the indicated drive.

**Event: 6130.LogEvent**

Component: mode\_select\_fail\_diags\_log

EventCode: 48.20.338

**Severity: Info**  
**Action\_required: No****Sample Description**

A diag was rejected on array [Array\_Name] ([IP\_Address]) (mode select)

**Probable Cause:**

A Runtime Diagnostics request failed because the ctrlDiag task was unable to obtain the Mode Select lock.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: access\_lockout\_log

EventCode: 48.20.287

**Severity: Info**  
**Action\_required: No****Sample Description**

Access lockout initiated on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Too may incorrect passwords attempted.

**Recommended Action:**

1. No action required. (10 minute timeout).

**Event: 6130.LogEvent**

Component: alt\_controller\_fail\_log

EventCode: 48.20.288

**Severity: Info**  
**Action\_required: No****Sample Description**

The alternate controller failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The alternate controller failed due to timeout waiting for diagnostic results.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: over\_maxtemp\_log

EventCode: 48.20.339

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address])has exceeded its maximum rated temperature

**Probable Cause:**

The maximum temperature of the tray has been exceeded.

Either a fan has failed, an obstruction is blocking the air flow to or from the tray, or the temperature of the room is too high.

**Recommended Action:**

1. Examine the status of the temperature sensors in the affected tray
2. If the sensor's status is unknown, an I/O Module failure has occurred. Look for a failed I/O Module and follow the Service Procedures for replacing a I/O Module.
3. Check the status of the fans, if failed, follow the Service Procedures for replacing a failed fan.
4. Check for airflow obstructions.
5. Check the ambient temperature.
6. Check for any other Over Temperature Alerts.

**Event: 6130.LogEvent**

Component: alt\_diags\_rejected\_log

EventCode: 48.20.289

**Severity: Info**  
**Action\_required: No****Sample Description**

Configuration failure running diags on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Configuration error encountered when attempting diagnostics.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: alt\_mode\_select\_fail\_diags\_log

EventCode: 48.20.290

**Severity: Info**  
**Action\_required: No****Sample Description**

A diag was rejected on array [Array\_Name] ([IP\_Address]) (mode select)

**Probable Cause:**

A Runtime Diagnostics request failed because the ctrlDiag task on the alternate controller was unable to obtain the M

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: alt\_read\_diags\_failed\_log

EventCode: 48.20.291

**Severity: Info**  
**Action\_required: No****Sample Description**

Read diags failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Diagnostic read test failed on the alternate controller.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: alt\_write\_diags\_failed\_log

EventCode: 48.20.292

**Severity: Info**  
**Action\_required: No****Sample Description**

Write diags failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Diagnostic write test failed on the alternate controller.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: array\_id\_failure\_log

EventCode: 48.20.293

**Severity:**  
**Action\_required: No****Sample Description**

Failed to communicate array ID correctly on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

This error occurs if an array detects during start-up processing that its WWN changed. When the firmware detects this name change, it attempts to notify any remote array that had previously been participating in a mirroring relationship.

**Recommended Action:**

1. No action required.

**Event: 6130.LogEvent**

Component: array\_on\_ups\_log

EventCode: 48.20.294

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) is on ups power.

**Probable Cause:**

This problem can be caused by loss of AC Power

**Recommended Action:**

1. Check AC power to array
  - Power Cables
  - Power Outlets
  - Circuit Breakers
  - Power to building

**Event: 6130.LogEvent**

Component: avt\_rdac\_failover\_log

EventCode: 48.20.295

**Severity: Warning**  
**Action\_required: No****Sample Description**

AVT/RDAC failover on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A "volume not on preferred path" condition persists longer than the alert delay period.

**Recommended Action:**

1. Check the status of the Controllers.
2. Check the status of the host I/O Path components. (HBA, FC Switch, SFP)
3. Use the Management Software to place the volume back to its Preferred Controller.

**Event: 6130.LogEvent**

Component: battery\_near\_expiration\_log

EventCode: 48.20.296

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A cache battery on [Array\_Name] ([IP\_Address]) is nearing expiration.

**Probable Cause:**

The Battery in the FC RAID Controller is no longer in an optimal condition.  
The Battery could be near its expiration date.

**Recommended Action:**

1. If the Battery is nearing its expiration date please follow the Service Procedures for replacing a failed Battery.

If this procedure cannot be done immediately, a risk of losing write cache data exists.

Use the Management Software to disable write caching until the battery can be replaced.

**Service:**

6130.cachebattery

**Event: 6130.LogEvent**

Component: cache\_battery\_fail\_log

EventCode: 48.20.297

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A cache battery on [Array\_Name] ([IP\_Address]) has failed.

**Probable Cause:**

A cache battery has expired.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Cache Battery.

**Service:**

6130.cachebattery

**Event: 6130.LogEvent**

Component: cache\_init\_fail\_log

EventCode: 48.20.298

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A cache initialization failed on array [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A Controller is failing.

**Recommended Action:**

1. Use the Management Software to disable write caching until the Controller can be replaced.
2. Follow the Service Procedures for replacing a FC RAID Controller.

**Service:**

6130.raidcontroller

**Event: 6130.LogEvent**

Component: cache\_reset\_fail\_log

EventCode: 48.20.299

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A cache reset failed on array [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A Controller is failing.

**Recommended Action:**

1. Use the Management Software to disable write caching until the Controller can be replaced.
2. Follow the Service Procedures for replacing a FC RAID Controller.

**Service:**

6130.raidcontroller

**Event: 6130.LogEvent**

Component: cache\_size\_mismatch\_log

EventCode: 48.20.300

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The controller cache sizes on [Array\_Name] ([IP\_Address]) do not match.

**Probable Cause:**

The cache sizes on the redundant controllers are different.

**Recommended Action:**

1. Follow the Service Procedures for replacing a controller

**Service:**

6130.raidcontroller

**Event: 6130.LogEvent**

Component: channel\_fail\_log

EventCode: 48.20.301

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A channel has failed in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The parrallel SCSI destination driver detected a channel failure.  
This could also be caused by manual Administrator intervention.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: channel\_miswire\_log

EventCode: 48.20.302

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has a miswired channel

**Probable Cause:**

Two or more drive channels are connected to the same Fibre Channel loop.

**Recommended Action:**

1. Trace the cables from the controller tray's miswired channel connections to the drive trays. Follow the cable paths until you find a connection where two different channels are connected to the same I/O Module.

2. Reconnect the cables so there is only one drive channel on a Fibre Channel loop.

Use the interface cable routing examples in the installation guide as a reference.

Caution: It is recommended to halt any I/O before recabling the array.

**Event: 6130.LogEvent**

Component: component\_failed\_log

EventCode: 48.20.303

**Severity: Warning**  
**Action\_required: No****Sample Description**

A tray component failed on [Array\_Name] ([IP\_Address])

**Probable Cause:**

This event was triggered by a logfile entry that a component has failed.

A corresponding StateChangeEvent should have also been triggered.

**Recommended Action:**

1. Follow the Recommended Action in the corresponding StateChangeEvent.
2. If no StateChangeEvent is present. Follow the appropriate Service Procedure for replacing the indicated component.

**Event: 6130.LogEvent**

Component: component\_removed\_failed\_log

EventCode: 48.20.304

**Severity: Warning**  
**Action\_required: No****Sample Description**

A drive tray component failed on [Array\_Name] ([IP\_Address])

**Probable Cause:**

This event was triggered by a logfile entry that a component has failed.

A corresponding StateChangeEvent should have also been triggered.

**Recommended Action:**

1. Follow the Recommended Action in the corresponding StateChangeEvent.
2. If no StateChangeEvent is present. Follow the appropriate Service Procedure for replacing the indicated component.

**Event: 6130.LogEvent**

Component: component\_removed\_log

EventCode: 48.20.305

**Severity: Warning**  
**Action\_required: No****Sample Description**

A component was removed from [Array\_Name] ([IP\_Address])

**Probable Cause:**

This event was triggered by a logfile entry that a component was removed.

A corresponding StateChangeEvent should have also been triggered.

**Recommended Action:**

1. Follow the Recommended Action in the corresponding StateChangeEvent.
2. If no StateChangeEvent is present. Follow the appropriate Service Procedure for replacing the indicated component.

**Event: 6130.LogEvent**

Component: controller\_failed\_drive\_log

EventCode: 48.20.306

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A drive has failed in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The controller has failed the drive.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: controller\_firmware\_sync\_fail\_log

EventCode: 48.20.307

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A firmware sync operation failed on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The target controller failed.

**Recommended Action:**

1. Follow the Service Procedures for replacing a FC RAID Controller

**Service:**

6130.raidcontroller

**Event: 6130.LogEvent**

Component: controller\_iom\_swap\_log

EventCode: 48.20.308

**Severity: Error**  
**Action\_required: Yes****Sample Description**

I/O Module detected in a controller slot on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A controller was accidentally replaced with an I/O Module.

**Recommended Action:**

1. Replace the I/O Module with a controller.

**Event: 6130.LogEvent**

Component: controller\_redundancy\_lost\_log

EventCode: 48.20.309

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Controller redundancy lost on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A failed controller has been detected.

**Recommended Action:**

1. Check the status of the Controller.
2. Attempt to place the controller online using the Service Advisor.
  - If onlining the controller fails, go to Step 3.
3. Follow the Service Procedures for replacing a FC RAID Controller.

**Service:**

6130.raidcontroller

**Event: 6130.LogEvent**

Component: database\_full\_log

EventCode: 48.20.310

**Severity: Warning**  
**Action\_required: No****Sample Description**

Configuration database full on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The configuration database is full.

**Recommended Action:**

1. Contact your Service Provider for proper correction action.

**Event: 6130.LogEvent**

Component: diags\_rejected\_log

EventCode: 48.20.311

**Severity: Info**  
**Action\_required: No****Sample Description**

Configuration failure running diags on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

Configuration error encountered when attempting diagnostics.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: drive\_block\_size\_log

EventCode: 48.20.312

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has detected a drive with the wrong block size

**Probable Cause:**

A drive was inserted that has the wrong block size.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: driver.MPXIO\_offline

EventCode: 48.20.313

**Severity: Warning**  
**Action\_required: No****Sample Description**

Found 2 'driver.MPXIO\_offline' warning(s) in logfile: /var/adm/messages on [Host\_Name]

**Information:**

The MPxIO multipathing software has noted the path to a storage device has gone offline.

**Recommended Action:**

1. Check the Topology View to see what device(s) are affected.
2. Check all cables and connections.
3. Check for other alerts that may indicate an underlying problem. (ex. Switch Ports offline)
4. The outputs of 'cfgadm -al' and 'luxadm -e port' may uncover other fabric problems.

**Event: 6130.LogEvent**

Component: drive\_failed\_write\_log

EventCode: 48.20.314

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has detected a failed drive.

**Probable Cause:**

A write failure occurred on a drive.

**Recommended Action:**

1. Check drive LED status.
2. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: drive\_init\_fail\_log

EventCode: 48.20.315

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A drive failed initialization on array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A drive has malfunctioned.

**Recommended Action:**

1. Check the drive LED status.
2. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: drive\_init\_recon\_failure\_log

EventCode: 48.20.316

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A drive failed during reconsruction in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

A drive has malfunctioned.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: drive\_offline\_during\_write\_log

EventCode: 48.20.317

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A drive failed during a write operation in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The drive has malfunctioned during a reconstruction.

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: drive\_path\_not\_redundant\_log

EventCode: 48.20.318

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Drive path not redundant in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has determined that a loss of drive path redundancy has occurred.

**Recommended Action:**

1. Check/replace cables connecting controllers/I/O Modules.
2. Check the status of the I/O Modules, replace failed I/O Modules following the Service Procedures.
3. Check the status of the FC RAID Controllers. If there are any failed, go to step 4.
4. Attempt to place the controller online using the Service Advisor.
  - If onlining the controller fails, go to Step 2.
5. Follow the Service Procedures for replacing a FC RAID Controller.

## Event: 6130.LogEvent

Component: drive\_pfa\_log

EventCode: 48.20.319

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

A drive is reporting internal failures in [Array\_Name] ([IP\_Address])

### Probable Cause:

A drive is reporting internal errors that could cause the drive to fail. If this drive fails before recovery steps are taken the volumes in the vdisk will fail and all data on the volumes will be lost.

### Recommended Action:

1. Note: The current status and RAID level of the Vdisks determines the corrective action you must take in the following recovery steps. Because the drive has not failed, its fault indicator light will not be turned on.

Make sure the replacement drive has a capacity equal to or greater than the drive you will remove.

Recovering RAID 0 Storage Vdisk

1. Stop all I/O to the affected volumes.

2. Back up all data on the affected volumes. (Step 5 will destroy all data on the affected volumes.)

Note: To the operating system (OS), a failed volume is exactly the same as a failed non-RAID drive. Refer to the OS documentation for any special requirements concerning failed drives and perform them where necessary.

3. If any of the affected volumes are also source or target volumes in a copy operation that is either Pending or In Progress, you must stop the copy operation before continuing.

4. If you have snapshot volumes associated with the affected volumes, these snapshot volumes will no longer be valid once you fail the drive in Step 5. Perform any necessary operations (such as backup) on the snapshot volumes and then delete them.

Caution: The data on the affected volumes will be lost once you perform step 5. Be sure you have backed up your data before performing this step.

5. Remove the failed drive (its fault indicator light should be on).

6. Wait 30 seconds, then insert the new drive. Its fault indicator light may be lit for a short time (one minute or less).

Note: Wait until the new drive is ready (its fault indicator light must be off) before attempting to initialize the volumes in step 8.

7. Wait for the initialization process is complete for the affected volumes.

When initialization is completed, all volumes in the vdisk are Optimal.

8. Add the affected volumes back to the operating system. You may need to reboot the system to see the re-initialized volumes.

Note: Do not start I/O to these volumes until after you restore from backup.

9. Restore the data for the affected volumes from backup.

Use the following procedure if the affected volumes are degraded RAID 1, 3, or 5.

You will need two replacement drives for this procedure.

Caution

An Impending Drive Failure means that the affected drive is likely to fail. If it fails while you are replacing the drive that has already failed on this vdisk. (see steps 3 and 4 below), you will lose all data on the affected volumes.

1. Although it is not required, you should stop all I/O to the affected volumes to reduce the possibility of data loss.

2. Although it is not required, you should back up all data on the affected volumes.

3. Remove the failed drive (the drive that has already failed, not the drive with the Impending Drive Failure). The fault indicator light for the drive should be on.

4. Wait 30 seconds, then insert the new drive. Its fault indicator light may be lit for a short time (one minute or less).

**Event: 6130.LogEvent**

Component: drive\_read\_write\_error\_log

EventCode: 48.20.320

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) encountered a read drive error

**Probable Cause:**

An unrecoverable read error during interrupted write was detected.

**Recommended Action:**

1. Contact your Service Provider for proper corrective action.

**Event: 6130.LogEvent**

Component: drive\_recon\_failure\_log

EventCode: 48.20.321

**Severity: Error**  
**Action\_required: Yes****Sample Description**

A drive failed during reconsruction in array [Array\_Name] ([IP\_Address])

**Probable Cause:**

The drive has malfunctioned

**Recommended Action:**

1. Follow the Service Procedures for replacing a Drive.

**Service:**

6130.drive

**Event: 6130.LogEvent**

Component: drive\_tray\_id\_conflict\_log

EventCode: 48.20.322

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has duplicate tray ids.

**Probable Cause:**

Two or more trays are using the same tray identification number.

**Recommended Action:**

1. Change the tray identification numbers so all trays associated with the storage array have a unique number.
2. Power cycle the tray after changing the identification number in order for change to take affect.

**Event: 6130.LogEvent**

Component: drive\_tray\_id\_mismatch\_log

EventCode: 48.20.323

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has duplicate tray ids.

**Probable Cause:**

Two or more trays are using the same tray identification number.

**Recommended Action:**

Change the tray identification numbers so all trays associated with the storage array have a unique number.

Note: If a drive tray has a tray ID switch located on each I/O Module, you must set the tray identification number on both I/O Modules to the same value.

**Event: 6130.LogEvent**

Component: duplicate\_tray\_id\_log

EventCode: 48.20.324

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Array [Array\_Name] ([IP\_Address]) has duplicate tray ids.

**Probable Cause:**

Two or more trays are using the same tray identification number.

**Recommended Action:**

1. Change the tray identification numbers so all trays associated with the storage array have a unique number.
2. Power cycle the tray after changing the identification number in order for change to take affect.

**Event: 6130.QuiesceEndEvent**

Component:

EventCode: 48.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 6130.QuiesceStartEvent**

Component:

EventCode: 48.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 6130.StateChangeEvent+**

Component: StoragePool

EventCode: 48.25.259

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'StoragePool' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The StoragePool is now ready for operation.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: CacheBattery

EventCode: 48.25.244

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'CacheBattery' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The CacheBattery has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: DiskDrive

EventCode: 48.25.245

**Severity: Info**  
**Action\_required: No****Sample Description**

'DiskDrive' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The Disk has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: Fan

EventCode: 48.25.247

**Severity: Info**  
**Action\_required: No****Sample Description**

'Fan' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The Fan has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: Volume

EventCode: 48.25.260

**Severity: Info**  
**Action\_required: No****Sample Description**

'Volume' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The Volume has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: Vdisk

EventCode: 48.25.372

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'Vdisk' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The Vdisk is now ready for operation.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: RaidController

EventCode: 48.25.251

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'RaidController' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The controller has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: PowerSupply

EventCode: 48.25.250

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'PowerSupply' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The PowerSupply has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: Midplane

EventCode: 48.25.412

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'Midplane' in 6130 [Array\_Name] ([IP\_Address]) is now OK (status changed from 'Error' to 'OK')

**Probable Cause:**

The midplane is now OK.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: FibrePort

EventCode: 48.25.248

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'FibrePort' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The FibrePort is now Online and Optimal.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: IOM

EventCode: 48.25.258

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'I/O Module' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The I/O Module has returned to normal operating mode.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: TemperatureSensor

EventCode: 48.25.253

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'TemperatureSensor' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

A FC RAID Controller or I/O Module with a temperature sensor has been installed. Each FC RAID Controller or I/O Module has an integrated temperature sensor.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent+**

Component: SFP

EventCode: 48.25.252

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'SFP' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The SFP is now Online and Optimal.

**Recommended Action:**

1. No action required.

**Event: 6130.StateChangeEvent-**

Component: Volume

EventCode: 48.26.260

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'Volume' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

One or more Drives in the Volume have failed, causing the Volume to fail.

**Recommended Action:****Important Notes**

If the volume is marked failed because you replaced the wrong drive during a degraded volume recovery procedure, you have not lost data. To return the volume to the degraded state, reinsert the drive.

You may be able to recover data from a failed volume. Whether or not this is possible depends on how the failure occurred. You can use this procedure to restore data in two ways: Contacting your technical support representative to attempt a data recovery or restoring data from backup media.

All I/O to the affected volumes will fail.

To the operating system (OS), a failed volume is exactly the same as a failed non-RAID drive. Refer to the operating system documentation for any special requirements concerning failed drives and perform them where necessary.

Make sure the replacement drives have a capacity equal to or greater than the failed drives you will remove in the following steps.

You can replace the failed drives while other volume groups in the storage array are receiving I/O.

1. It may be possible to recover data from the failed volumes. If you wish to attempt a data recovery, you must contact your technical support representative. Do NOT perform steps 2 - 5. Performing any recovery actions before contacting your technical support representative could jeopardize any chance of recovering data. If you prefer to recover from an existing backup or you have mistakenly removed the wrong drive while performing a degraded volume recovery procedure, go to step 2.

2. If you have mistakenly removed the wrong drive while performing a degraded volume recovery procedure, you can return the volume back to the degraded state by replacing the drive you removed. After the volumes return to the degraded state, perform the recovery procedure listed for a degraded volume.

3. Remove all failed drives associated with this vdisk (the fault indicator lights on the failed drives should be lit). To determine the associated drives, go to the details page for the affected volumes/vdisks

4. Wait 30 seconds, then insert the new drives. The fault indicator light on the replaced drives may be lit for a short time (one minute or less).

Note: Wait until the replaced drives are ready (fault indicator light off) before going to step 6.

5. Monitor the status of the volumes. When they are Optimal, the procedure is complete.

**Event: 6130.StateChangeEvent-**

Component: CacheBattery

EventCode: 48.26.244

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

'CacheBattery' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

### Probable Cause:

- The Battery in the FC RAID Controller is no longer in an optimal condition.
- The Battery could be recharging.
- The Battery could be near its expiration date.
- The Battery could have failed.

### Recommended Action:

1. If the Battery is Recharging, no action is required.
2. If the Battery is nearing its expiration date please follow the procedure for replacing a failed Battery.  
If this procedure cannot be done immediately, a risk of losing write cache data exists.  
Use the Management Software to disable write caching until the battery can be replaced.
3. If the Battery has failed, follow the procedure for replacing a failed Battery.

### Service:

6130.cachebattery

**Event: 6130.StateChangeEvent-**

Component: DiskDrive

EventCode: 48.26.245

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

'DiskDrive' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The Disk been bypassed or has failed.

**Recommended Action:**

1. Check LED status of the affected drive.

**Service:**

6130.drive

**Event: 6130.StateChangeEvent-**

Component: Fan

EventCode: 48.26.247

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'Fan' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The state of a Fan module is no longer optimal.  
This could be the result of a service action or a failure.

**Recommended Action:**

1. If Fan Module Status is Unknown, check the I/O Module Status  
If I/O Module Status is failed, follow the Service Procedure for replacing the I/O Module.
2. If the Status is Removed then then the Fan needs to be replaced or reseated.
3. Follow the Service Procedure for replacing the Fan Module.

**Service:**

6130.fan

**Event: 6130.StateChangeEvent-**

Component: Vdisk

EventCode: 48.26.372

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

'Vdisk' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

### Probable Cause:

A Storage Pool has gone offline or another degraded state.  
This could be caused by Administrator intervention.  
Volumes associated with the Storage Pool have failed.  
Other Errors

### Recommended Action:

1. Verify that this is the result of Administrative or Service Action.
2. Check status of associated volumes.
3. Check the Storage A.D.E GUI for other Alarms that may be related.

**Event: 6130.StateChangeEvent-**

Component: PowerSupply

EventCode: 48.26.250

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'PowerSupply' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

One or more Power Supply Modules have failed or gone into a degraded state.

If a second Power Supply Module fails, the tray will shut down. Therefore, replace the Power Supply Module as soon as possible.

This could also be the result of a failed I/O Module

**Recommended Action:**

1. If the Power Supply Module Status is Unknown, check the I/O Module Status
  - If I/O Module Status is failed, follow the Service Procedure for replacing the I/O Module.
2. If Power Supply Module Status is 'failed'
  - Turn off the failed Power Supply Module's power switch
  - Unplug the AC cord
  - Follow the Service Procedures to replace a Power Supply Module.
3. If Power Supply Module Status is 'removed'
  - Replace any missing Power Supply Canisters
  - If canisters are present, reseal the canisters by removing and reinserting.

**Caution:**

If more than one Power Supply is removed at the same time, the tray will shut down. If no Power Supply Canisters are missing, reseal all Power Supply Canisters in the tray one at a time by turning off the Power Supply's power switch, removing the canister, securely reinserting the canister into place and turning on the Power Supply's power switch.

**Service:**

6130.powersupply

**Event: 6130.StateChangeEvent-**

Component: Midplane

EventCode: 48.26.412

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

'Midplane' in 6130 [Array\_Name] ([IP\_Address]) is now in Error (status changed from 'OK' to 'Error')

**Probable Cause:**

The state of the midplane has changed.  
This could be caused by a cable miswire

**Recommended Action:**

1. Check the cabling to the affected enclosure.

**Event: 6130.StateChangeEvent-**

Component: FibrePort

EventCode: 48.26.248

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'FibrePort' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

A Fibre Port has failed or is down.

This could be the result of a pulled or damaged fibre channel cable.

This could also be caused by a failed RAID Controller

**Recommended Action:**

1. Check the fibre channel cable connected to this port and reseal or replace as needed.
2. Check for related alarms affecting the fibre channel path.
3. Check the status of the RAID Controller. The status can be viewed under the Controller Components Summary page.
4. If indicated by the previous step, follow the Service Procedure for replacing a failed RAID Controller.

**Service:**

6130.raidcontroller

**Event: 6130.StateChangeEvent-**

Component: RaidController

EventCode: 48.26.251

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'RaidController' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The FC RAID Controller was placed offline as a result of failing a diagnostic test.  
This could also be cause by an Administrator manually offlining the FC RAID Controller.

**Recommended Action:**

1. Attempt to place the controller online using the Service Advisor.  
- If onlining the controller fails, go to Step 2.
2. Follow the Service Procedures for replacing a FC RAID Controller.

**Service:**

6130.raidcontroller

**Event: 6130.StateChangeEvent-**

Component: SFP

EventCode: 48.26.252

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'SFP' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

One or more SFPs have failed.

This could also be caused by improper seating of the SFP.

Path Redundancy may be lost, causing a performance degradation.

**Recommended Action:**

1. Reseat the SFP.
2. Follow the Service Procedure for replacing a failed SFP.

**Service:**

6130.sfp

**Event: 6130.StateChangeEvent-**

Component: TemperatureSensor

EventCode: 48.26.253

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

'TemperatureSensor' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

**Probable Cause:**

The TemperatureSensor has failed.

**Recommended Action:**

1. Follow the Service Procedure for replacing a failed I/O Module.

**Service:**

6130.iom

**Event: 6130.StateChangeEvent-**

Component: IOM

EventCode: 48.26.258

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

#### Probable Cause:

One or more I/O Modules have failed in a drive tray.

#### Recommended Action:

1. Check the LED status on the rear of the I/O Module.
2. Replace the I/O Module if needed.

#### Service:

6130.iom

**Event: 6130.StateChangeEvent-**

Component: StoragePool

EventCode: 48.26.259

**Severity: Error**  
**Action\_required: Yes**

---

### Sample Description

'StoragePool' in 6130 [Array\_Name] ([IP\_Address]) is now Available (status-state changed from 'disabled' to 'ready-enabled')

### Probable Cause:

A Storage Pool has gone offline or another degraded state.  
This could be caused by Administrator intervention.  
Volumes associated with the Storage Pool have failed.  
Other Errors

### Recommended Action:

1. Verify that this is the result of Administrative or Service Action.
2. Check status of associated volumes.
3. Check the Storage A.D.E GUI for other Alarms that may be related.

**Event: 6130.ComponentInsertEvent**

Component: Volume

EventCode: 48.40.260

**Severity: Info**  
**Action\_required: No****Sample Description**

'Volume'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new Volume, as identified by it's wwn, has been created on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: CacheBattery

EventCode: 48.40.244

**Severity: Info**  
**Action\_required: No****Sample Description**

'CacheBattery'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new CacheBattery, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: DiskDrive

EventCode: 48.40.245

**Severity: Info**  
**Action\_required: No****Sample Description**

'DiskDrive'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new DiskDrive, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: Fan

EventCode: 48.40.247

**Severity: Info**  
**Action\_required: No****Sample Description**

'Fan'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new Fan, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: FibrePort

EventCode: 48.40.248

**Severity: Info**  
**Action\_required: No****Sample Description**

'FibrePort'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new FibrePort, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: Midplane

EventCode: 48.40.412

**Severity: Info**  
**Action\_required: No****Sample Description**

'Midplane'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new Midplane, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: PowerSupply

EventCode: 48.40.250

**Severity: Info**  
**Action\_required: No****Sample Description**

'PowerSupply'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new PowerSupply, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: RaidController

EventCode: 48.40.251

**Severity: Info**  
**Action\_required: No****Sample Description**

'RaidController'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new RaidController, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: SFP

EventCode: 48.40.252

**Severity: Info**  
**Action\_required: No****Sample Description**

'SFP'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new SFP, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: TemperatureSensor

EventCode: 48.40.253

**Severity: Info**  
**Action\_required: No****Sample Description**

'TemperatureSensor'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new TemperatureSensor, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: IOM

EventCode: 48.40.258

**Severity: Info**  
**Action\_required: No****Sample Description**

'I/O Module'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new I/O Module, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: Vdisk

EventCode: 48.40.372

**Severity: Info**  
**Action\_required: No****Sample Description**

'Vdisk'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new Vdisk, as identified by it's id, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentInsertEvent**

Component: StoragePool

EventCode: 48.40.259

**Severity: Info**  
**Action\_required: No****Sample Description**

'StoragePool'(id) was added to 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

A new StoragePool, as identified by it's serial#, has been installed on the array.

**Recommended Action:**

1. No action required.

**Event: 6130.ComponentRemoveEvent**

Component: Fan

EventCode: 48.41.247

**Severity: Warning**  
**Action\_required: No****Sample Description**

'Fan'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a fan was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing Fan Module in the array.

This could also be caused by a failing I/O Module in the array.

**Caution:**

A failed or removed Fan may cause the tray to reach an unsafe operating temperature and shut down (you may already see an over-temperature failure being reported. Always replace the failed fan canisters as soon as possible.

There is a time limit (5-15 minutes) beyond which you should not operate the affected trays with a fan canister removed from the trays. This time limit depends on the model of the tray. To reduce the possibility of overheating, refer to the applicable hardware manual for the specific time limit.

**Recommended Action:**

1. If the status is removed, check to see if the Fan is installed. If Fan is installed, continue to Step 2, if Fan is not installed, install a Fan.
2. Check if Fan amber LED is lit. If LED is lit, follow the Service Procedures to replace the Fan. If LED is not lit, go to Step 3.
3. If Fan status is 'Unknown', check the status of the I/O Module. If I/O Module status is 'ok', follow the Service Procedures to replace the Fan.

**Service:**

6130.fan

**Event: 6130.ComponentRemoveEvent**

Component: FibrePort

EventCode: 48.41.248

**Severity: Warning**  
**Action\_required: No****Sample Description**

'FibrePort'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a fibre port was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing Fibre Port, SFP, controller or I/O Module

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Check the Storage A.D.E GUI to for other Alarms that may be related.
3. Follow the Service Procedure for replacing a failed RAID Controller.

**Service:**

6130.raidcontroller

**Event: 6130.ComponentRemoveEvent**

Component: Volume

EventCode: 48.41.260

**Severity: Warning**  
**Action\_required: No****Sample Description**

'Logical Drive'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a volume has been deleted

This is usually caused by Administrative or Service Action.

This could also be caused by a failing drive or other FRU in the array.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Check the Storage A.D.E GUI for other Alarms that may be related.

**Event: 6130.ComponentRemoveEvent**

Component: Vdisk

EventCode: 48.41.372

**Severity: Warning**  
**Action\_required: No****Sample Description**

'Vdisk'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a vdisk was deleted.

This is usually caused by Administrative or Service Action.

This could also be caused by one or more disk drives failing.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Check the Storage A.D.E GUI for other Alarms that may be related.
3. Bring the Storage Pool back online via the Management Software.

**Event: 6130.ComponentRemoveEvent**

Component: RaidController

EventCode: 48.41.251

**Severity: Warning**  
**Action\_required: No****Sample Description**

'RaidController'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a controller was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing FC RAID Controller.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Follow the Service Procedure for replacing a FC RAID Controller if needed.

**Service:**

6130.raidcontroller

**Event: 6130.ComponentRemoveEvent**

Component: PowerSupply

EventCode: 48.41.250

**Severity: Warning**  
**Action\_required: No****Sample Description**

'PowerSupply'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a power supply was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing Fan Module in the array.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Follow the Service Procedure for replacing the Power Supply Module.

**Service:**

6130.powersupply

**Event: 6130.ComponentRemoveEvent**

Component: TemperatureSensor

EventCode: 48.41.253

**Severity: Warning**  
**Action\_required: No****Sample Description**

'TemperatureSensor'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a temperature sensor was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing TemperatureSensor, controller or I/O Module

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Check the Storage A.D.E GUI to for other Alarms that may be related.
- 3 Follow the Service Procedure for replacing a failed I/O Module.

**Service:**

6130.iom

**Event: 6130.ComponentRemoveEvent**

Component: DiskDrive

EventCode: 48.41.245

**Severity: Warning**  
**Action\_required: No****Sample Description**

'DiskDrive'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a disk drive was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing Drive in the array.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Follow the Service Procedure for replacing the Drive.

**Service:**

6130.drive

**Event: 6130.ComponentRemoveEvent**

Component: SFP

EventCode: 48.41.252

**Severity: Warning**  
**Action\_required: No****Sample Description**

'SFP'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a SFP was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing SFP

Path Redundancy may be lost, causing a performance degradation.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Check the Storage A.D.E GUI for other Alarms that may be related.
3. Follow the Service Procedure for replacing a failed SFP.

**Service:**

6130.sfp

**Event: 6130.ComponentRemoveEvent**

Component: CacheBattery

EventCode: 48.41.244

**Severity: Warning**  
**Action\_required: No****Sample Description**

'CacheBattery'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a battery was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing battery or controller.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Follow the Service Procedure for replacing a Battery if needed.

**Event: 6130.ComponentRemoveEvent**

Component: Midplane

EventCode: 48.41.412

**Severity: Warning**  
**Action\_required: No****Sample Description**

'Midplane'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a midplane was removed from the chassis

This can be caused by losing power in a CEM.

This can be caused by losing both links from a CRM to a CEM.

This can also be caused by dual failing RAID Controllers, IOMs, SFPs cables or a combination of the above.

**Recommended Action:**

1. Check for proper installation/seating of the power cords to the affected CEM.
2. Check the switches on the power supplies in the affected CEM.
3. Check the seating of the SFPs in the controllers and the IOMs.
4. Check the seating of the Controllers and the IOMs.
5. Replace the midplane if appropriate.

**Service:**

6130.raidcontroller

**Event: 6130.ComponentRemoveEvent**

Component: IOM

EventCode: 48.41.258

**Severity: Warning**  
**Action\_required: No****Sample Description**

'I/O Module'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that an I/O Module was removed from the chassis

This is usually caused by Administrative or Service Action.

This could also be caused by a failing I/O Module.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Follow the Service Procedure for replacing a I/O Module if needed.

**Service:**

6130.iom

**Event: 6130.ComponentRemoveEvent**

Component: StoragePool

EventCode: 48.41.259

**Severity: Warning**  
**Action\_required: No****Sample Description**

'StoragePool'(id) was removed from 6130 [Array\_Name] ([IP\_Address])

**Probable Cause:**

The array has reported that a vdisk was deleted.

This is usually caused by Administrative or Service Action.

This could also be caused by one or more disk drives failing.

**Recommended Action:**

1. Verify that this is the result of Administrative or Service Action.
2. Check the Storage A.D.E GUI for other Alarms that may be related.
3. Bring the Storage Pool back online via the Management Software.

**Event: hbaswitch.ValueChangeEvent**

Component: revision

EventCode: 51.3.42

**Severity: Warning**  
**Action\_required: No**

---

Sample Description

Revision of switch svc-18 changed from V4.2.0.1 to V4.2.0.2

**Event: hbaswitch.AuditEvent**

Component:

EventCode: 51.10.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Auditing a new hbaswitch called [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E performs a full device audit once per week.

**Recommended Action:**

1. No Action Needed.

**Event: hbaswitch.DiscoveryEvent**

Component:

EventCode: 51.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new hbaswitch called [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Discovery events occur the very first time the agent probes a storage device.

**Event: hbaswitch.LocationChangeEvent**

Component:

EventCode: 51.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of hbaswitch [Switch\_Name] ([IP\_Address]) was changed

**Event: hbaswitch.QuiesceEndEvent**

Component:

EventCode: 51.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: hbaswitch.QuiesceStartEvent**

Component:

EventCode: 51.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Check with the administrator that this is in fact expected.

**Event: hbaswitch.StateChangeEvent+**

Component: port

EventCode: 51.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

Port on switch is now available

**Recommended Action:**

No action required.

**Event: hbastorage.ValueChangeEvent**

Component: revision

EventCode: 52.3.42

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Revision of storage svc-18 changed from V4.2.0.1 to V4.2.0.2

**Event: hbastorage.AuditEvent**

Component:

EventCode: 52.10.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Auditing a new hbastorage called [Storage\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E performs a full device audit once per week.

**Recommended Action:**

1. No Action Needed.

**Event: hbastorage.DiscoveryEvent**

Component:

EventCode: 52.14.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Discovered a new hbastorage called [Storage\_Name] ([IP\_Address]) WWN

**Information:**

Discovery events occur the very first time the agent probes a storage device.

**Event: hbastorage.LocationChangeEvent**

Component:

EventCode: 52.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of hbastorage [Storage\_Name] ([IP\_Address]) was changed

**Event: hbastorage.QuiesceEndEvent**

Component:

EventCode: 52.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: hbastorage.QuiesceStartEvent**

Component:

EventCode: 52.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Check with the administrator that this is in fact expect.

**Event: hbastorage.StateChangeEvent+**

Component: port

EventCode: 52.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in STORAGE [Storage\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

Port on storage is now available

**Recommended Action:**

No action required.

**Event: qlogicsw.ValueChangeEvent**

Component: port.statistics

EventCode: 53.3.36

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch [Switch\_Name] ([IP\_Address]), port-7: Received 64516890 'InvalidTxWds' in 10 mins (value=3193037062 )

**Information:**

The Fibre Channel counter values retrieved from the switch exceeded a threshold value warranting notification.

**Probable Cause:**

1. An intermittent/bad GBIC in the port of the switch specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.

**Recommended Action:**

1. Check Storage A.D.E status of device for events about the switch named in the event.
2. Run the link test to isolate the GBIC, cable, switch, etc.
3. Check Storage A.D.E topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: qlogicsw.ValueChangeEvent**

Component: system\_reboot

EventCode: 53.3.47

**Severity: Warning**  
**Action\_required: No****Sample Description**

Switch uptime decreased on [Switch\_Name] ([IP\_Address]) from 774396s to 524848s

**Information:**

Storage A.D.E checks the uptime information coming from the switch and found it to be less than the previous uptime of the switch. The uptime information is the number of seconds since the last reset or power cycle.

**Probable Cause:**

This could be an indication that the switch has been reset either by a user or loss of power.

**Recommended Action:**

1. Check to see if the switch has been reset by anyone.
2. Check the power going to the switch.
3. Check other devices that may be common to this switch's power grid.

**Event: qlogicsw.ValueChangeEvent-**

Component: chassis.fan

EventCode: 53.5.8

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.fan.1.status' on [Switch\_Name] ([IP\_Address]) changed from 'ok' to 'failed'

**Information:**

Storage A.D.E queries each Device to get the current status of each component. In the example Storage A.D.E has d

**Probable Cause:**

This is an indication that the fan is no longer functional.

**Recommended Action:**

1. Check the Storage A.D.E GUI for similar messages on other components.
2. Ensure proper airflow in and around the switch.
3. Ensure proper operation of the fan.
4. Where applicable, replace fan and/or temp sensor.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

5. Replace switch.

**Event: qlogicsw.ValueChangeEvent-**

Component: chassis.power

EventCode: 53.5.9

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.power-supply.1.status' on [Switch\_Name] ([IP\_Address]) is 'invalid'

**Information:**

Storage A.D.E queries each Device to get the current status of each component. In the example Storage A.D.E has d

**Probable Cause:**

This is an indication that the power supply may no longer be functional.

**Recommended Action:**

1. Check the power switch
2. Check power going to switch
3. Replace power supply if needed
4. Replace switch.

Slot	CLI Descr	SNMP Descr
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: qlogicsw.ValueChangeEvent-**

Component: chassis.board

EventCode: 53.5.7

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

The state of 'sensor.board.7.status' on [Switch\_Name] ([IP\_Address]) changed from 'ok' to 'failed'.

**Information:**

Storage A.D.E queries each Device to obtain the current status of each component. In the example Storage A.D.E de

**Probable Cause:**

1. This is an indication of a component gone bad or going bad.
2. There may also be environmental problems in the datacenter.

**Recommended Action:**

1. Check the Storage A.D.E GUI for current state and status of the sensors.  
Monitor Devices -> <device> -> Health
2. Refer to the device service manual for specifics about the sensor location and its meaning.
3. Replace failed component.
4. Replace switch.

Slot	CLI Descr	SNMP Descr
----	-----	-----
0	PS-0	Temperature Status 1
1	IO-0	Temperature Status 2
2	IO-1	Temperature Status 3
3	IO-2	Temperature Status 4
4	IO-3	Temperature Status 5
5	CPU-0	Temperature Status 6
6	IO-4	Temperature Status 7
7	IO-5	Temperature Status 8
8	IO-6	Temperature Status 9
9	IO-7	Temperature Status 10
10	PS-1	Temperature Status 11
11	CC-0	Temperature Status 12
12	CC-1	Temperature Status 13

**Event: qllogicsw.AuditEvent**

Component:

EventCode: 53.10.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Auditing a new Qlogic FC Switch called [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E performs a full device audit once per week.

**Recommended Action:**

1. No Action Needed.

**Event: qllogicsw.CommunicationEstablishedEvent**

Component: oob

EventCode: 53.11.31

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Communication regained with [Switch\_Name] ([IP\_Address])

**Event: qlogicsw.CommunicationLostEvent**

Component: oob

EventCode: 53.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication with [Switch\_Name] ([IP\_Address])

**Probable Cause:**

Ethernet connectivity to the switch has been lost

**Recommended Action:**

1. Check Power on switch
2. Check Ethernet connectivity to switch
3. Verify switch is booted correctly with no POST errors.
4. Verify switch Test Mode is set for normal operations
5. Verify TCP/IP settings on switch via Forced Prom Mode access
6. Replace switch if needed

**Event: qllogicsw.CommunicationLostEvent**

Component: fsa

EventCode: 53.12.63

**Severity: Err/Critical**

**Action\_required: Yes**

---

### Sample Description

Node Qlogic FC Switch:[Switch\_Name] is not available anymore, this was confirmed inband/outOfBand by 5 sub-events.

### Information:

This switch is not available anymore. This problem was found outOfBand and confirmed by other inBand events.

**Event: qllogicsw.DiagnosticTest-**

Component: Switch2test

EventCode: 53.13.360

**Severity: Error**  
**Action\_required: No**

---

Sample Description

Switch2test (Qlogic FC Switch) on [Switch\_Name] ([IP\_Address]) WWN

**Event: qllogicsw.DiscoveryEvent**

Component:

EventCode: 53.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new Qlogic FC Switch called [Switch\_Name]

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: qllogicsw.LocationChangeEvent**

Component:

EventCode: 53.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of Qlogic FC Switch [Switch\_Name] ([IP\_Address]) was changed

**Event: qllogicsw.QuiesceEndEvent**

Component:

EventCode: 53.22.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce End on [Array\_Name] ([IP\_Address])

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: qllogicsw.QuiesceStartEvent**

Component:

EventCode: 53.23.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Quiesce Start on [Array\_Name] ([IP\_Address])

**Information:**

Quiescing a device is done using the GUI and means that the monitoring has been temporarily stopped.

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Check with the administrator that this is in fact expect.

**Event: qlogicsw.StateChangeEvent+**

Component: port

EventCode: 53.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Available (status-state changed from 'Offline' to 'Online')

**Information:**

Port on switch is now available

**Recommended Action:**

No action required.

**Event: qllogicsw.StateChangeEvent-**

Component: port

EventCode: 53.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in SWITCH [Switch\_Name] ([IP\_Address]) is now Not-Available (status-state changed from 'Online' to 'Offline')

**Probable Cause:**

A port on the switch has logged out of the fabric and gone offline.

**Recommended Action:**

1. Check Storage A.D.E status of device for additional events about the switch named in the event.
2. Verify cables, GBICs and connections along Fibre Channel path.
3. Check Storage A.D.E Topology GUI to identify failing segment of the data path.
4. Run linktest or switchtest to isolate the failing component.

**Event: qlogicsw.Statistics**

Component:

EventCode: 53.27.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Statistics about Qlogic FC Switch [Switch\_Name] ([IP\_Address]) WWN

**Information:**

Storage A.D.E periodically gathers all the port traffic information from a switch.

**Probable Cause:**

This information can be used to generate a report possibling detecting a trend (good or bad).

**Recommended Action:**

No action required.

**Event: qlogicsw.ConnectivityLostEvent**

Component:

EventCode: 53.36.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Lost connectivity between [device] [port] and [device2] [port2]

**Information:**

Fault Event

**Event: qllogicsw.ConnectivityLostEvent**

Component: aggregate

EventCode: 53.36.71

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Lost connectivity between Qlogic FC Switch [Switch\_Name] port-2 and t3 [ARRAY] ctrl-1

**Information:**

This event is generated when switch-ports go offline and other events are confirming it. This can be a link host &lt;-&gt; sw

**Event: qllogicsw.LinkEvent\_CRC**

Component:

EventCode: 53.43.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 CRC-ERROR (33288 in 1 mins): Detector: port 2 on [device\_id], Link: port 1 on [device\_id]

**Information:**

CRC are Cyclic Reduncy Checks

An increase of the CRC counter on a Fibre Channel device was detected by Storage A.D.E. and has generated an event based on predetermined thresholds.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.



**Event: qlogicsw.LinkEvent\_SIG**

Component:

EventCode: 53.45.16

**Severity: Error**  
**Action\_required: Yes****Sample Description**

12-14 06:35:25 SIG-ERROR (33288 in 1 mins): Detector: port 2 on switch [device\_id], Link: port 1 on [device\_id]

**Information:**

A signal loss count (SIG) was detected between two components.

**Probable Cause:**

1. An intermittent/bad GBIC in the Fibre Channel path of the device specified in the event.
2. An intermittent/bad cable connection or a poorly routed cable.
3. Someone removed an unused GBIC.

**Recommended Action:**

1. Check Storage A.D.E. status of device for events about the component named in the event description.
2. Run linktest to isolate the GBIC, cable, component, etc.
3. Check Storage A.D.E. topology for direction of counter activity and replace appropriate GBIC.
4. Reroute/replace cable as needed.

**Event: qllogicsw.LoopCableDisconnect**

Component:

EventCode: 53.50.16

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

Loop Interconnect Cable [device-port] was disconnected on [device]

**Information:**

fault event

**Event: 5310.ValueChangeEvent**

Component: system\_reboot

EventCode: 54.3.47

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

5310 reboot, uptime decreased on \$id from 'Timeticks: (600261) 1:02.61' to 'Timeticks: (0250) 02.50'

**Information:**

Event is generated when the System uptime changes.

**Probable Cause:**

A power hit.  
Purposely rebooted.

**Recommended Action:**

1. Verify if a reboot was on purpose and was successful.
2. Check power source(s) to ensure solid connections throughout.

**Event: 5310.ValueChangeEvent**

Component: firmware\_version

EventCode: 54.3.119

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

Firmware\_version changed from [Old\_Version] to [New\_Version].

**Probable Cause:**

Firmware upgrade.

**Recommended Action:**

No action required.

**Event: 5310.ValueChangeEvent**

Component: raid\_level

EventCode: 54.3.69

**Severity: Warning**  
**Action\_required: No****Sample Description**

Raid level of [lun\_name] is changed from [old\_value] to [new\_value]

**Probable Cause:**

User changed the Raid Level of Lun.

**Recommended Action:**

No action required.

**Event: 5310.ValueChangeEvent+**

Component: RaidSystemDriveCachePolicy

EventCode: 54.4.413

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The State of 'logicaldrive.1.lun\_cachePolicy' on [Array\_Name] is [New\_Value] previous State was [Old\_Value].

**Probable Cause:**

Installation of TBBU or UPS battery.

**Recommended Action:**

No action required.

**Event: 5310.ValueChangeEvent-**  
Component: RaidSystemDriveCachePolicy  
EventCode: 54.5.413

---

**Severity: Error**  
**Action\_required: Yes**

### Sample Description

The State of 'logicaldrive.1.lun\_cachePolicy' on [Array\_Name] is [New\_Value] previous State was [Old\_Value].

### Probable Cause:

1. TBBU battery is not installed or failed.
2. UPS Battery is not installed or failed.

### Recommended Action:

1. Check the Status of the battery and replace it if necessary.
2. Check the Status of the RAID Controller card and replace it if necessary.
3. Contact your Service Provider for proper corrective action.

**Event: 5310.CommunicationEstablishedEvent**

Component: oob

EventCode: 54.11.31

**Severity: Info**  
**Action\_required: No****Sample Description**

Communication regained (OutOfBand([Host\_Name])) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Communication to array has been reestablished.

**Recommended Action:**

No action required.

**Event: 5310.CommunicationLostEvent**

Component: oob

EventCode: 54.12.31

**Severity: Err/Critical****Action\_required: Yes****Sample Description**

Lost communication (OutOfBand(Host\_Name)) with [Array\_Name] ([IP\_Address]).

**Probable Cause:**

This problem can also be caused by:

- A very slow network.
- The Ethernet connection to this array was lost or is very slow.
- A bad chassis.

**Recommended Action:**

1. Check power on array.
2. Check Ethernet connectivity to the affected array.

**Event: 5310.DiscoveryEvent**

Component:

EventCode: 54.14.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Discovered a new 5310 called [Array\_Name] ([IP\_Address]).

**Information:**

Discovery events occur the first time the agent probes a storage device.

**Recommended Action:**

No action required.

**Event: 5310.LocationChangeEvent**

Component:

EventCode: 54.19.16

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Location of 5310 [Array\_Name] ([IP\_Address]) was changed.

**Probable Cause:**

Device location changed.

**Recommended Action:**

No action required.

**Event: 5310.LogEvent**

Component: trap\_error.BondFailed

EventCode: 54.20.380

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the High Availability (HA) Bond on a port is down.

**Probable Cause:**

Storage A.D.E. has discovered that the High Availability (HA) Bond on a port is down.

**Recommended Action:**

1. Check Status of NICs on System.
2. Check Status of any switches or routers in the network.
3. Check ethernet cabling.

**Event: 5310.LogEvent**

Component: trap\_error.EnvFanFail

EventCode: 54.20.405

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a system fan is not working properly. e.g. EnvFanRPM == 0.

**Probable Cause:**

Storage A.D.E. has discovered that a system fan is not working properly.  
e.g. EnvFanRPM == 0.  
If the temperature begins to rise, the situation could become critical.

**Recommended Action:**

1. Check the fan status and replace if necessary.

**Event: 5310.LogEvent**

Component: trap\_error.EnvPowerSupplyFail

EventCode: 54.20.381

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a Power Supply Module has failed.

**Probable Cause:**

Storage A.D.E. has discovered that a Power Supply Module has failed.

**Recommended Action:**

1. Replace the Power Supply Module as soon as possible.

**Event: 5310.LogEvent**

Component: trap\_error.MirrorLogAlert

EventCode: 54.20.406

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the utilization of a mirror log has exceeded a predefined threshold.

**Probable Cause:**

Storage A.D.E. has discovered that the utilization of a mirror log has exceeded a predefined threshold.

**Recommended Action:**

1. Increase the file size on the host.
2. Add file volume extension segments to existing file volumes.
3. Contact your Service Provider for further corrective action.

**Event: 5310.LogEvent**

Component: trap\_error.EnvTemperatureError

EventCode: 54.20.382

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that at least one temperature sensor has

**Probable Cause:**

Storage A.D.E. has discovered that at least one temperature sensor has reported a temperature that is out of normal range.

**Recommended Action:**

1. Check data center cooling and air flow around array.
2. Check for any Fan Failures.
3. Contact your Service Provider for further corrective action.

**Event: 5310.LogEvent**

Component: trap\_error.EnvUpsFail

EventCode: 54.20.383

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the communication to the UPS unit has been lost after such communication has been established. The UPS monitoring thread will terminate itself under the occurrence of such failure.

**Probable Cause:**

Storage A.D.E. has discovered that the communication to the UPS unit has been lost after such communication has been established. The UPS monitoring thread will terminate itself under the occurrence of such failure.

**Recommended Action:**

1. Check the serial cable connecting UPS unit to one of the CPU enclosures.
2. Check UPS unit and replace if necessary.

**Event: 5310.LogEvent**

Component: trap\_error.EnvUpsOnBattery

EventCode: 54.20.384

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS status 'UpsStatus' is 'on-battery' and the transfer cause is not 'in response to UPS-Link control command or activation of the UPS'.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS status 'UpsStatus' is on-battery' and the transfer cause is not 'in response to UPS-Link control command or activation of the UPS'.

**Recommended Action:**

1. Check the condition of the UPS if no 'envUpsOffBattery' message is received shortly (e.g. in 30 seconds) after the a
2. Contact the facilities group to have the UPS input power checked.

**Event: 5310.LogEvent**

Component: trap\_error.EnvUpsReplaceBattery

EventCode: 54.20.385

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS battery should be replaced.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS battery should be replaced.

**Recommended Action:**

1. Contact the facilities group to check and replace the UPS battery if necessary.

**Event: 5310.LogEvent**

Component: trap\_error.FsErrors

EventCode: 54.20.386

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has detected filesystem errors.

**Probable Cause:**

Storage A.D.E. has detected filesystem errors.

**Recommended Action:**

1. Run fsck on the filesystem.
2. Contact your Service Provider for proper corrective action.

**Event: 5310.LogEvent**

Component: trap\_error.FsPartitionFull

EventCode: 54.20.387

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The server has discovered that the utilization of a partion

**Probable Cause:**

The server has discovered that the utilization of a partion exceeds a predefined threshold. This threshold is not user selectable.

**Recommended Action:**

1. Delete any unused or temporary files.
2. Extend the partition by using an unused partition.
3. Add addition disk drives and extend the partition after creating a new partition.

**Event: 5310.LogEvent**

Component: trap\_error.MirrorLinkDown

EventCode: 54.20.388

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a mirror link to a remote host is down.

**Probable Cause:**

Storage A.D.E. has discovered that a mirror link to a remote host is down.

**Recommended Action:**

1. Check Status of NICs on System.
2. Check Status of any switches or routers in the network.
3. Check ethernet cabling.
4. Check Status of the remote host.
5. Contact your Service Provider for proper corrective action.

**Event: 5310.LogEvent**

Component: trap\_error.MirrorLogFull

EventCode: 54.20.389

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the utilization of a mirror log has reached 100%

**Probable Cause:**

Storage A.D.E. has discovered that the utilization of a mirror log has reached 100%

**Recommended Action:**

1. Increase the file size on the host.
2. Add file volume extension segments to existing file volumes.
3. Contact your Service Provider for further corrective action.

**Event: 5310.LogEvent**

Component: trap\_error.RaidAlarmOn

EventCode: 54.20.444

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has detected a JBOD component failure.

**Probable Cause:**

Storage A.D.E. has detected a JBOD component failure.

**Recommended Action:**

1. Check the status of your system.
2. Contact your Service Provider for proper corrective action.

**Event: 5310.LogEvent**  
Component: trap\_critical  
EventCode: 54.20.234

---

**Severity: Error**  
**Action\_required: Yes**

**Sample Description**

1 log\_critical(s) found in logfile /var/adm/trap\_messages (related to 5310:10.8.11.107):

**Probable Cause:**

5310 has reported that the application or hardware device has encountered an error.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: 5310.LogEvent**

Component: trap\_error

EventCode: 54.20.235

**Severity: Error**  
**Action\_required: Yes****Sample Description**

1 log\_error(s) found in logfile /var/adm/trap\_messages (related to 5310:10.8.11.107):

**Probable Cause:**

5310 has reported that the application or hardware device has encountered an error.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: 5310.LogEvent**

Component: trap\_warning

EventCode: 54.20.236

**Severity: Warning**  
**Action\_required: No**

---

**Sample Description**

1 device\_warning(s) found in logfile /var/adm/trap\_messages (related to 5310:10.8.11.107):

**Probable Cause:**

5310 has reported that the application or hardware device has issued a warning.

**Recommended Action:**

Refer to the description in this alarm for further details.

**Event: 5310.LogEvent**

Component: trap\_error.MirrorOutOfSync

EventCode: 54.20.390

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Stor A.D.E has discovered that a mirror is out of sync.

**Probable Cause:**

Stor A.D.E has discovered that a mirror is out of sync.

**Recommended Action:**

1. Check Status of NICs on System.
2. Check Status of any switches or routers in the network.
3. Check ethernet cabling.
4. Check the logs for errors during mirroring.
5. Check the capacity of file systems on the hosts.
6. Contact your Service Provider for further corrective action.

**Event: 5310.LogEvent**

Component: trap\_error.RaidControllerFail

EventCode: 54.20.391

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The RAID controller's status has changed to 'failed', which suggests that the corresponding RAID controller is not functioning correctly.

**Probable Cause:**

The RAID controller's status has changed to 'failed', which suggests that the corresponding RAID controller is not functioning correctly.

**Recommended Action:**

1. Check the status of the controller and replace if necessary.

**Event: 5310.LogEvent**

Component: trap\_error.RaidDiskFail

EventCode: 54.20.392

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The status of a RAID disk drive RaidPhysicalStatus has become 'dead'. This may or may not lead to a LUN fail, depending on whether there is a Hot Spare Drive available.

**Probable Cause:**

The status of a RAID disk drive RaidPhysicalStatus has become 'dead'. This may or may not lead to a LUN fail, depending on whether there is a Hot Spare Drive available.

**Recommended Action:**

1. Replace the Failed Drive
2. Rebuild the Degraded LUN if necessary using the Web Administrator GUI.

**Event: 5310.LogEvent**

Component: trap\_error.RaidFanFail

EventCode: 54.20.393

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that at least one fan in the RAID Controller has failed.

**Probable Cause:**

Storage A.D.E. has discovered that at least one fan in the RAID Controller has failed.

**Recommended Action:**

1. Check the fan status and replace if necessary.

**Event: 5310.LogEvent**

Component: trap\_error.RaidLunFail

EventCode: 54.20.394

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that a LUN on the system has failed. This is usually caused by more than one disk drive failures.

**Probable Cause:**

The server has discovered that a LUN on the system has failed. This is usually caused by more than one disk drive failures.

**Recommended Action:**

1. Replace failed drive(s).
2. Rebuild the Degraded LUN if necessary using the Web Administrator GUI.

**Event: 5310.LogEvent**

Component: trap\_error.RaidPowerSupplyFail

EventCode: 54.20.395

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E has discovered that at least one power supply module in the RAID controller has failed.

**Probable Cause:**

Storage A.D.E has discovered that at least one power supply module in the RAID controller has failed.

**Recommended Action:**

1. Replace the Power Supply Module as soon as possible.

**Event: 5310.LogEvent**

Component: trap\_warning.EnvUpsAbnormal

EventCode: 54.20.397

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS is in an abnormal state such as shutdown due to overload, or shutdown due to low battery capacity.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS is in an abnormal state such as shutdown due to overload, or shutdown due to low battery capacity.

**Recommended Action:**

1. Check the condition of the UPS.

**Event: 5310.LogEvent**

Component: trap\_error.RaidTemperatureError

EventCode: 54.20.396

**Severity: Error**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that at least one of the RAID temperature sensors has reported a temperature that is out of normal range.

**Probable Cause:**

Storage A.D.E. has discovered that at least one of the RAID temperature sensors has reported a temperature that is out of normal range.

**Recommended Action:**

1. Check data center cooling and air flow around array.
2. Check for any Fan Failures.
3. Contact your Service Provider for further corrective action.

**Event: 5310.LogEvent**

Component: trap\_warning.EnvUpsLowBattery

EventCode: 54.20.398

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the UPS is in a 'low-battery' condition.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS is in a 'low-battery' condition.

**Recommended Action:**

1. If no 'envUpsNormalBattery' message is received within 30 seconds of this message check the AC Power Supply and

**Event: 5310.LogEvent**

Component: trap\_warning.EnvUpsNormalBattery

EventCode: 54.20.399

**Severity: Info**  
**Action\_required: No****Sample Description**

Storage A.D.E. has discovered that the UPS battery is fully charged.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS battery is fully charged.

**Recommended Action:**

No action needed.

**Event: 5310.LogEvent**

Component: trap\_warning.EnvUpsOffBattery

EventCode: 54.20.400

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

Storage A.D.E. has discovered that the UPS status has switched from on-battery to another state.

**Probable Cause:**

Storage A.D.E. has discovered that the UPS status has switched from on-battery to another state.

**Recommended Action:**

1. No action required.

**Event: 5310.LogEvent**

Component: trap\_warning.NicFailover

EventCode: 54.20.401

**Severity: Info**  
**Action\_required: No****Sample Description**

Storage A.D.E. has discovered a successful NIC failover.

**Probable Cause:**

Storage A.D.E. has discovered a successful NIC failover.

**Recommended Action:**

1. No action required.

**Event: 5310.LogEvent**

Component: trap\_warning.RaidControllerBatteryLow

EventCode: 54.20.402

**Severity: Warning**  
**Action\_required: Yes****Sample Description**

Storage A.D.E. has discovered that the charge of a RAID controller battery is low.

**Probable Cause:**

Storage A.D.E. has discovered that the charge of a RAID controller battery is low.

**Recommended Action:**

1. Check the Status of the battery and replace it if necessary.
2. Check the Status of the RAID Controller card and replace it if necessary.
3. Contact your Service Provider for proper corrective action.

**Event: 5310.QuiesceEndEvent**

Component:

EventCode: 54.22.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce End on 5310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An Administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the Administrator that this is an expected action.
2. Check the Storage A.D.E GUI for current health status on the device as well any additional events that may have occurred.

**Event: 5310.QuiesceStartEvent**

Component:

EventCode: 54.23.16

**Severity: Info**  
**Action\_required: No****Sample Description**

Quiesce Start on 5310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

An administrator has changed the monitoring status of the device called out in the event message.

**Recommended Action:**

1. Verify with the administrator that this is an expected action.
2. Check the Storage A.D.E. UI for current health status on the device as well as any additional events that may have occurred.

**Event: 5310.StateChangeEvent+**

Component: powersupply

EventCode: 54.25.257

**Severity: Info**  
**Action\_required: No****Sample Description**

'powersupply.1' on the JBOD attached to [Array\_Name] ([IP\_Address]) is now Available.

**Probable Cause:**

The Power Supply has returned to Optimal Condition

**Recommended Action:**

No action required.

**Event: 5310.StateChangeEvent+**

Component: env\_powersupply

EventCode: 54.25.256

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'environment\_ps.1' in [Array\_Name] ([IP\_Address]) is now Available.

**Event: 5310.StateChangeEvent+**

Component: port

EventCode: 54.25.35

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'port.1' in 5310 [Array\_Name] ([IP\_Address]) is now Available (Operating status changed from 'down' to 'up')

**Probable Cause:**

Port on Array is now available

**Recommended Action:**

No action required.

**Event: 5310.StateChangeEvent+**

Component: env\_fan

EventCode: 54.25.255

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'environment\_fn.1' on [Array\_Name] ([IP\_Address]) changed to 'normal'.

**Probable Cause:**

The fan has returned to optimal condition.

**Recommended Action:**

No action required.

**Event: 5310.StateChangeEvent+**

Component: controller

EventCode: 54.25.12

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'controller.1' in 5310 [Array\_Name] ([IP\_Address]) is now Available

**Probable Cause:**

The controller has returned to optimal condition.

**Recommended Action:**

No action required.

**Event: 5310.StateChangeEvent+**

Component: disk

EventCode: 54.25.13

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

'physicaldisk.1-1' in 5310 [Array\_Name] ([IP\_Address]) is now Available

**Probable Cause:**

A disk has returned to Optimal condition.

**Recommended Action:**

No action required.

**Event: 5310.StateChangeEvent+**

Component: fan

EventCode: 54.25.19

**Severity: Info**  
**Action\_required: No**

---

**Sample Description**

The state of 'fan.1' on the attached JBOD changed to 'normal'

**Probable Cause:**

The fan has returned to optimal condition.

**Recommended Action:**

No action required.

**Event: 5310.StateChangeEvent-**

Component: partition

EventCode: 54.26.243

**Severity: Info**  
**Action\_required: No****Sample Description**

'partiton.1' in 5310 [Device] (sn=[Serial#]) is now Not-Available

**Probable Cause:**

Storage A.D.E. has detected removal of a partition

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.

**Event: 5310.StateChangeEvent-**

Component: controller

EventCode: 54.26.12

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The Status of controller.1 in 5310 [Array\_Name] has 'failed' (id=[Unique\_Key])

**Probable Cause:**

A controller has failed in the array due to a potential hardware problem.

**Recommended Action:**

1. Telnet to affected 5310
2. Verify controller status
3. Re-enable controller if possible
4. Replace controller if necessary.

**Event: 5310.StateChangeEvent-**

Component: env\_fan

EventCode: 54.26.255

**Severity: Error**  
**Action\_required: Yes**

---

**Sample Description**

The state of 'environment\_fn.1' on [Array\_Name] ([IP\_Address]) is Fault

**Probable Cause:**

The state of a fan on 5310 is not optimal

**Recommended Action:**

1. Replace Fan if necessary

**Event: 5310.StateChangeEvent-**

Component: fan

EventCode: 54.26.19

**Severity: Error**  
**Action\_required: Yes****Sample Description**

The state of 'fan.1' on attached JBOD of [Array\_Name] ([IP\_Address]) is Fault

**Information:**

The state of a fan on the attached JBOD is not optimal

**Probable Cause:**

Problem with the Fan Unit called out in the event.

**Recommended Action:**

1. Replace Power Supply on the JBOD if necessary

**Event: 5310.StateChangeEvent-**

Component: env\_powersupply

EventCode: 54.26.256

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'environment\_ps.1' in [Array\_Name] ([IP\_Address]) is now Not-Available.

**Information:**

The 5310 has reported that a Power Supply has failed.

**Probable Cause:**

A PCU failure can happen due to the following reasons.

1. Internal/External Power loss
2. PCU failures

**Recommended Action:**

1. Check Power Supply and Cables
2. Check with onsite administration/service for expected occurrence
3. Replace Power Supply Unit

**Event: 5310.StateChangeEvent-**

Component: powersupply

EventCode: 54.26.257

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'powersupply.1' on the JBOD attached to [Array\_Name] ([IP\_Address]) is now Not-Available.

**Information:**

The 5310 has reported that a Power Supply in the attached JDOB has failed.

**Probable Cause:**

A PCU failure can happen due to the following reasons.

1. Internal/External Power loss
2. Power switch has been turned off
3. PCU failures

**Recommended Action:**

1. Check Power Supply and Cables
2. Check with onsite administration/service for expected occurrence
3. Replace Power Supply Unit

**Event: 5310.StateChangeEvent-**

Component: port

EventCode: 54.26.35

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'port.1' in 5310 [Array\_name] is now Not-Available (Operating status changed from 'up' to 'down')

**Information:**

A port on the 5310 has gone offline

**Recommended Action:**

1. Verify cables and connections along ethernet path
2. Check your LAN monitoring software for any errors
3. Verify correct IP switch configuration
4. Verify port is enabled
5. If the ports are bonded, go to device configuration GUI. Select "Network Configuration" and click on "Recover" button

**Event: 5310.StateChangeEvent-**

Component: lun

EventCode: 54.26.66

**Severity: Info**  
**Action\_required: No****Sample Description**

'logicaldisk.1' in 5310 [Device] (sn=[Serial#]) is now Not-Available

**Probable Cause:**

Storage A.D.E. has detected a status change of the logical unit number (LUN) configured in the array.

**Recommended Action:**

1. Use the Storage A.D.E. UI log view functions to check messages before and after this one.
2. Check volume integrity associated with the component in question.
3. Refer to the Array Service Guide for additional information describing the message in more detail.

**Event: 5310.StateChangeEvent-**

Component: disk

EventCode: 54.26.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'physicaldisk.1-1'([s/n]) in 5310 [Array\_Name] (sn=SN) is now Not-Available

**Probable Cause:**

The drive may have spun down or faulted in a way to indicate this status.

**Recommended Action:**

1. Check the light-emitting diode (LED) fault indicator on the drive.
2. Replace the failed disk.

**Event: 5310.ComponentInsertEvent**

Component: env\_powersupply

EventCode: 54.40.256

**Severity: Info**  
**Action\_required: No****Sample Description**

'environment\_ps.1' was added to 5310 [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new power supply, as identified by it's id, has been installed on the 5310.

**Recommended Action:**

No action required.

**Event: 5310.ComponentInsertEvent**

Component: partition

EventCode: 54.40.243

**Severity: Info**  
**Action\_required: No****Sample Description**

'physicaldisk.1-1' was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new Partition, as identified by it's mount point, has been added on the 5310.

**Recommended Action:**

No action required.

**Event: 5310.ComponentInsertEvent**

Component: powersupply

EventCode: 54.40.257

**Severity: Info**  
**Action\_required: No****Sample Description**

'powersupply.1' was added to the JBOD on [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new power supply, as identified by it's id, has been installed on the 5310.

**Recommended Action:**

No action required.

**Event: 5310.ComponentInsertEvent**

Component: disk

EventCode: 54.40.13

**Severity: Info**  
**Action\_required: No****Sample Description**

'physicaldisk.1-1' was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new disk, as identified by it's serial#, has been installed on the 5310.

**Recommended Action:**

No action required.

**Event: 5310.ComponentInsertEvent**

Component: lun

EventCode: 54.40.66

**Severity: Info**  
**Action\_required: No****Sample Description**

'physicaldisk.1-1' was added to [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A new LUN, as identified by it's name, has been initialized on the 5310.

**Recommended Action:**

No action required.

**Event: 5310.ComponentRemoveEvent**

Component: powersupply

EventCode: 54.41.257

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'powersupply.1' was removed from the JBOD on [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Power supply from the NAS head was removed.

**Recommended Action:**

Replace power supply if necessary.

**Event: 5310.ComponentRemoveEvent**

Component: partition

EventCode: 54.41.243

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'Partition.1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Storage A.D.E. has detected removal of a partition

**Recommended Action:**

1. Check volume integrity associated with the component in question.

**Event: 5310.ComponentRemoveEvent**

Component: env\_powersupply

EventCode: 54.41.256

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'environment\_ps.1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

Power supply from the JBOD was removed.

**Recommended Action:**

Replace power supply if necessary.

**Event: 5310.ComponentRemoveEvent**

Component: disk

EventCode: 54.41.13

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'physicaldisk.1-1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A disk has been reported as being removed from the array.

This could be the result of a hardware error.

This could also be the result of administrator action.

**Recommended Action:**

1. Replace Disk if it was removed due to administrator action.
2. Re-seat disk.
3. Replace disk with a new disk if needed.
4. Check the status of the Power Supplies on the NAS head and on the expansion unit.
5. Check the SCSI cabling between the ports of the box.
6. Check the interface board on the NAS head and on the expansion unit.

**Event: 5310.ComponentRemoveEvent**

Component: lun

EventCode: 54.41.66

**Severity: Error**  
**Action\_required: Yes****Sample Description**

'logicaldisk.1' was removed from [Array\_Name] ([IP\_Address]).

**Probable Cause:**

A Logical Disk has been removed. This is usually the result of administrator action.

**Recommended Action:**

1. Check for SCSI cabling between the ports on the box.
2. Check for Power failures.
3. Check for any administrator action.