

Storage Automated Diagnostic Environment Event Advisor Dictionary

Event Count: 1390

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

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 <ctd#> -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 <ctd#> -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 <ctd#> -B to verify age.

Event: a3500fc.AuditEvent

Component:

EventCode: 2.10.16

Severity: Info
Action_required: No

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] storage device.

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**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

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: 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 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: 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.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:

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

Recommended Action:

1. Replace disk
2. 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_ITW

Component:

EventCode: 2.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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.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: 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.mpx

EventCode: 3.5.151

Severity: Error
Action_required: Yes

Sample Description

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: 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.AuditEvent

Component:

EventCode: 3.10.16

Severity: Info
Action_required: No

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: a5ksestest

EventCode: 3.13.303

Severity: Error
Action_required: No

Sample Description

a5ksestest ([Host_Name]) on [Array_Name] (wwn=[WWN]) failed

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.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 very first time the agent probes a storage device.

Event: a5k.LocationChangeEvent

Component:

EventCode: 3.19.16

Severity: Info
Action_required: No

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])

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.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: 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: 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: 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-Available'.

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: 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.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.ConnectivityLostEvent

Component:

EventCode: 3.36.16

Severity: Error
Action_required: Yes

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_ITW

Component:

EventCode: 3.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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

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

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

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_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.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

Service:

se.extract

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 generate

Probable Cause:

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

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] (using udp ping)

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:

Each run of the master agent pings every slave and reports this event when ping fails.

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.

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: 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.ConfigureEvent

Component:

EventCode: 4.46.16

Severity: Warning
Action_required: No

Sample Description

Configure device [device_name] on Sun Solution

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: 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.

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

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.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), c

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.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.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.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: 5.5.97

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.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.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.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] ([IP_Address]) WWN

Information:

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

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: 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.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.QuiesceEndEvent

Component:

EventCode: 5.22.16

Severity: Info
Action_required: No

Sample Description

Quiesce End on [Array_Name] ([IP_Address])

Information:

Quiescing a device is done using the GUI 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.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:

Port on switch is now available

Recommended Action:

Port is online.

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: 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.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.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_ITW

Component:

EventCode: 5.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on switch [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: 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: 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.

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 with ID:d2.da106_004

Information:

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

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])

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.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: 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.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.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_ITW

Component:

EventCode: 6.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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(200000e08b026e2a) in host diag-4500c.central.sun.com changed from 'ISP2200 FC-AL Host Adapter Driver: 1.8 00/04/11' to 'ISP2200 FC-AL Host Adapter Driver: 1.10 00/07

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.Storage_3510

EventCode: 7.4.217

Severity: Error
Action_required: Yes

Sample Description

The state of 'lun.Storage_3510.c18t60020F2000000AD83BD90309000AC1FE0s2.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.c9t600015D000208A000000000000002708d0s2.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.T300

EventCode: 7.4.27

Severity: Error
Action_required: Yes

Sample Description

The state of 'lun.T300.c18t60020F2000000AD83BD90309000AC1FE0s2.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: 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.T4

EventCode: 7.4.121

Severity: Error
Action_required: Yes**Sample Description**

The state of 'lun.T4.c18t60020F2000000AD83BD90309000AC1FE0s2.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: lun.StorageA3500FCd
EventCode: 7.4.216

Severity: Error
Action_required: Yes

Sample Description

The state of 'lun.StorageA3500FCd.c18t60020F2000000AD83BD90309000AC1FE0s2.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.VE

EventCode: 7.5.28

Severity: Error
Action_required: Yes

Sample Description

The state of lun.VE.c14t50020F2300003EE5d0s2.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: lun.Storage_3510

EventCode: 7.5.217

Severity: Error
Action_required: Yes**Sample Description**

The state of lun.Storage_3510.c7t2B00006022004188d0s2.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.StorageA3500FCd
EventCode: 7.5.216

Severity: Error
Action_required: Yes

Sample Description

The state of lun.StorageA3500FCd.c7t2B00006022004188d0s2.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.SE6320

EventCode: 7.5.195

Severity: Error
Action_required: Yes**Sample Description**

The state of 'lun.SE6320.c9t600015D000208A00000000000000230Bd0s2.statusA' on diag230.central.sun.com 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: 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
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.Storage_3511

EventCode: 7.5.269

Severity: Error
Action_required: Yes**Sample Description**

The state of lun.Storage_3511.c7t2B00006022004188d0s2.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.T300

EventCode: 7.5.27

Severity: Error
Action_required: Yes**Sample Description**

The state of lun.T300.c7t2B00006022004188d0s2.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.SE6920

EventCode: 7.5.196

Severity: Error
Action_required: Yes**Sample Description**

The 'State' of 'lun.SE6920.c9t600015D000208A000000000000002708d0s2.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: 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.T4

EventCode: 7.5.121

Severity: Error
Action_required: Yes**Sample Description**

The state of lun.T4.c7t2B00006022004188d0s2.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.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.DiagnosticTest-

Component: socaltest

EventCode: 7.13.337

Severity: Error
Action_required: No

Sample Description

socaltest ([Host_Name] on host failed

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: 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.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.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.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.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.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.

Recommended Action:

1. Check for fiber channel errors.
2. Check to see if the qlctest was running at time of the failure.
3. Check the Storage A.D.E GUI Topology for attached devices to the HBA.
4. Run a link test diagnostic between the devices found in the topology.
5. Replace the component most likely to have caused this message.
 - . GBIC
 - . HBA
 - . Controller (if applicable)
 - . Cable

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: driver.SF_RETRY

EventCode: 7.20.328

Severity: Warning

Action_required: Yes

Sample Description

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

Information:

Target and Loop ELS Retry

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: 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] SCHD[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.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:

Found Loop OFFLINE message in the host logfile.
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.
3. Check to see if the qlctest was running at time of the failure.

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.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]

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: 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.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: 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.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: 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.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: 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: 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: 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.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: 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: 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.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: 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: 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.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.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.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 a problem with the SSD device.
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 the threshold.

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: 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: 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: 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.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: 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: 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: 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.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:

EventCode: 7.31.16

Severity: Info
Action_required: No

Sample Description

Agent Backup

Information:

Backup of the configuration file of the agent.

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.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_ITW

Component:

EventCode: 7.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on host [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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: 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 very first time the agent probes a storage device.

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: 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_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 '172.20.67.154'.

Destination: port 15 on switch 'switch197/172.20.67.197':

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: 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: 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|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: 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: 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: 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 an event 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|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_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: 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|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_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: 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: 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: 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 '172.20.67.154'.
Destination: port 15 on switch 'switch197/172.20.67.197':

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|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: 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: 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: 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|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 '172.20.67.154'.
Destination: port 15 on switch 'switch197/172.20.67.197':

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: 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: 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: 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: 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: 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.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: 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.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: 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 switchs' power grid.

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.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] ([IP_Address]) WWN

Information:

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

Probable Cause:

Storage A.D.E requires a starting point for monitoring the device.

Recommended Action:

Check Storage A.D.E device status for any anomalies that may have been detected during the discovery.

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])

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.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:

Port on switch is now available

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: 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.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.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_ITW

Component:

EventCode: 11.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on switch [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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 switchs' power grid.

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: 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.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. 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: 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.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: 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.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.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] ([IP_Address]) WWN

Information:

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

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])

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: 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:

Port on switch is now available

Recommended Action:

No action required.

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 <-> 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_ITW

Component:

EventCode: 12.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on switch [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: 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: 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: 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: add_initiators

EventCode: 13.3.113

Severity: Warning
Action_required: No

Sample Description

Added 10 initiators to [Array_Name]

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: remove_initiators

EventCode: 13.3.114

Severity: Warning
Action_required: No

Sample Description

Removed 10 initiators to [Array_Name]

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: device_path

EventCode: 13.3.112

Severity: Error
Action_required: Yes**Sample Description**

Path 50020f230000dde 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: backend_loop

EventCode: 13.3.111

Severity: Error
Action_required: Yes**Sample Description**

The state of 'loop.u1lp1.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: 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: 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: initiators

EventCode: 13.3.78

Severity: Warning
Action_required: No

Sample Description

initiator changed from old_value to new_value

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: 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: 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: 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: 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: 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: 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: 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: 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: backend_loop_split

EventCode: 13.4.144

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: 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: backend_loop

EventCode: 13.4.111

Severity: Info
Action_required: No

Sample Description

The state of 'loop.u1lp1.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: 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.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: 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: 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: 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: 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: 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: 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: interface.loopcard.cable

EventCode: 13.5.25

Severity: Warning**Action_required: Yes****Sample Description**

The state of loopcard.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: 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.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.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: 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.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: 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##t#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.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.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 Utilities -> System -> System-Timeouts. 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: vverify

EventCode: 13.13.140

Severity: Error
Action_required: No**Sample Description**

t3vverify (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: t3test

EventCode: 13.13.345

Severity: Error
Action_required: No

Sample Description

t3test (HOST) on [Array_Name] ([IP_Address]) failed

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.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.DiscoveryEvent

Component:

EventCode: 13.14.16

Severity: Info
Action_required: No

Sample Description

Discovered a new T3 called [Array_Name] ([IP_Address]) slr-mi.370-3990-01-e-e1.003239

Probable Cause:

Occurs 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 new about.

Recommended Action:

No action required.

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: 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: disk.error5

EventCode: 13.20.211

Severity: Error
Action_required: Yes**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Probable Cause:

Disk information indicating an illegal Logical Block Address has been encountered.

Recommended Action:

Contact Support Provider for Corrective Action.

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.bypassed

EventCode: 13.20.212

Severity: Warning
Action_required: No

Sample Description

N: u1d01: Bypassed on loop 1

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: 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: 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

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.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: 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] SCHD[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: 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.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.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 enviroment 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: disk.error

EventCode: 13.20.107

Severity: Info
Action_required: No**Sample Description**

1 array_error(s) found in logfile [Array_Message_Logfile] (indicating problem with t3
Array_Name/IP_Address): Jan 30 16:28:05 ARRAY_NAME ISR1[1]: N: u1d1 sid YYYY stype XXXX disk err

Probable Cause:

Disk information indicating command status.

Recommended Action:

No action required

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: fru_disabled

EventCode: 13.20.168

Severity: Error
Action_required: Yes**Sample Description**

Warnings found in logfile [Array_Message_Logfile] (indicating problem with '6120
Array_Name/IP_Address'): SVD_PATH_FAILOVER

Information:

A message stating "FRU is disabled" was found in mirrored log file.

Probable Cause:

- A hardware failure with the FRU in question.
- 2. Administrative or remedial maintenance taking place.

Recommended Action:

Service the Fru

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: 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: 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: disk.error4

EventCode: 13.20.210

Severity: Error
Action_required: Yes**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Probable Cause:

Disk information indicating command retries have exhausted on this disk.

Recommended Action:

1. Monitor this disk for excessive occurrences of this error.
2. Contact Support Provider if necesesary.

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: 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.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.QuiesceEndEvent

Component:

EventCode: 13.22.16

Severity: Info
Action_required: No**Sample Description**

Quiesce End 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.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: 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: 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: 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: 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: interface.loopcard

EventCode: 13.25.24

Severity: Info
Action_required: No

Sample Description

'loopcard.u1l1'(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: 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 -dmpnstlog' from a serial port session on affected controller
 - * The output from logger will only go to the syslog facility.
5. Replace controller as indicated by the NVRAM failure code.

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)l[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

Recommended Action:

1. Check Power Supply and Cables
2. Check with onsite administration/service for expected occurrence
3. Replace PCU
4. Replace Battery

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.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: 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.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: 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: 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.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.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: 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: 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: 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.

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_ITW

Component:

EventCode: 13.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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] 10002000007a609

Information:

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

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])

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.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_ITW

Component:

EventCode: 14.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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.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.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 very first time the agent probes a storage device.

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])

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.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: 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: 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

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:

Invalid command or slicd daemon problem.

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

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 very first time the agent probes a storage device.

Probable Cause:

Storage A.D.E compares the configuration file to its cache and queries devices for entire FRU information when there

Recommended Action:

1. Check the Storage A.D.E GUI for proper information and for any outstanding events that may have occurred.
2. Ensure the Storage A.D.E GUI shows the proper topology for the new device.

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])

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.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_ITW

Component:

EventCode: 16.44.16

Severity: Error
Action_required: Yes

Sample Description

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on device [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: mcdata.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: 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: 17.4.37

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: 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. The switch is bad.

Recommended Action:

1. Replace the fan if possible.
- 2 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: mcdata.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 ras [Array_Name] ([IP_Address]): 10002000007a609

Information:

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

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: mcdata.LogEvent

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: mcddata.QuiesceEndEvent

Component:

EventCode: 17.22.16

Severity: Info
Action_required: No

Sample Description

Quiesce End on [Array_Name] ([IP_Address])

Information:

Quiescing a device is done using the GUI 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.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:

Port on switch is now available

Recommended Action:

Port is online.

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:

EventCode: 17.36.16

Severity: Error
Action_required: Yes

Sample Description

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

Information:

Fault Event

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 <-> sw

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_ITW

Component:

EventCode: 17.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on switch [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: 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: 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: 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: 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_status

EventCode: 18.3.230

Severity: Info**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: 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: fan

EventCode: 18.3.19

Severity: Warning
Action_required: Yes

Sample Description

Fan status has been changed.

Probable Cause:

Fan status changed.

Recommended Action:

Check power to the fan.

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: 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: 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: 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: 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: 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: 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 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: 3310.ValueChangeEvent-

Component: volume

EventCode: 18.5.53

Severity: Error
Action_required: Yes

Sample Description

Recommended Action:

1. Telnet to affected 3310.

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: 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: 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. Rebuild the logical drive 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: 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: 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: 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.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.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.CommunicationLostEvent**Severity: Err/Critical**

Component: e

Action_required: Yes

EventCode: 18.12.118

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 StorADE

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.

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 StorADE

Event: 3310.DiscoveryEvent

Component:

EventCode: 18.14.16

Severity: Info
Action_required: No**Sample Description**

Discovered a new 3310 called ras [Array_Name] ([IP_Address])
slr-mi.370-3990-01-e-e1.003239.

Probable Cause:

Device discovery.

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: 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: 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: 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: controller

EventCode: 18.20.12

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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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.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. UI for current health status on the device as well as 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: 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: 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: 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 terminoator board, as identified by it's serial#, has been installed on the 3310.

Recommended Action:

No action required.

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.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: 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: 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.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: EMU_BOARD

EventCode: 18.41.271

Severity: Error
Action_required: Yes

Sample Description**Information:**

The 3310 has reported that a raid EMU module 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 EMU board if necessary

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: 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: Yes****Sample Description**

was removed from 3310 diag-3310 (wwn=SUN.3310.07ed10) (sn=SUN.3511.07ed10).

Information:

1. Execute 'sccli <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.

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 in 30 minnutes

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.AggregatedEvent

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: 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.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: 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.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: 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.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.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_ITW

Component:

EventCode: 19.44.16

Severity: Error
Action_required: Yes

Sample Description

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: core_file

EventCode: 20.3.261

Severity: Warning
Action_required: No

Sample Description

New core file /var/crash/array01/core.1 added to /var/crash

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: 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.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.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.
- Call support provider for additional assistance.

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 a problem with the SSD device.
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 the threshold.

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.MPXIO_offline

EventCode: 20.20.313

Severity: Warning
Action_required: No**Sample Description**

Found in logfile /var/adm/messages on crashme41.central.sun.com (related to se2

6920-sp0/172.20.32.210:6789): Jan 9 09:44:16, WWN:273800015d204b00, crashme41 mpzio: [ID 779286 k

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.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])

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: 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.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: 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.ComponentInsertEvent

Component: lun

EventCode: 20.40.66

Severity: Info
Action_required: No

Sample Description

lun.2(0103001060020F200000580E3D32BE17000389D8) was added to 3910 [Host_Name]

Event: se2.ComponentRemoveEvent

Component: slot

EventCode: 20.41.84

Severity: Error
Action_required: Yes

Sample Description

slot.1(slr-mi.370-3990-01-e-f0.027582) was removed from [Host_Name]

Event: se2.ComponentRemoveEvent

Component: lun

EventCode: 20.41.66

Severity: Error
Action_required: Yes**Sample Description**

lun.2(0103001060020F200000580E3D32BE17000389D8) 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_ITW

Component:

EventCode: 20.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: 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: backend_loop

EventCode: 21.3.111

Severity: Error
Action_required: Yes**Sample Description**

The state of 'loop.u1lp1.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: initiators

EventCode: 21.3.78

Severity: Warning
Action_required: No

Sample Description

initiator changed from old_value to new_value

Event: 6120.ValueChangeEvent

Component: device_path

EventCode: 21.3.112

Severity: Error
Action_required: Yes**Sample Description**

Path 50020f230000dde 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: 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: 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

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: 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: 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: 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: 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: 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: 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: 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.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: 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: 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.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: 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: 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: 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: 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: 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: 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.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: 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: 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.ValueChangeEvent-

Component: backend_loop_split

EventCode: 21.5.144

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: 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: 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: 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: 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: 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)l[1|2])
5. Replace loopcard if necessary

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: 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: 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.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: 6120test

EventCode: 21.13.349

Severity: Error
Action_required: No

Sample Description

6120test ([Host_Name] on [Array_Name] ([IP_Address]) failed

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: 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.DiscoveryEvent

Component:

EventCode: 21.14.16

Severity: Info
Action_required: No

Sample Description

Discovered a new 6120 called ras [Array_Name] ([IP_Address])
slr-mi.370-3990-01-e-e1.003239

Information:

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

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: disk.error

EventCode: 21.20.107

Severity: Info
Action_required: No**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Information:Storage A.D.E has detected a possible problem contained in a message of the 6120
Message Log.**Probable Cause:**

Disk information indicating command status.

Recommended Action:

No action required

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: 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: 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: 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] SCHD[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: 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.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: 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: 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: 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] SCHD[1]: W: u1pcu1 37 days battery life left, F

Information:

refresh battery

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: 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: 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: 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

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: 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: 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.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: 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: 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] SCHD[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: 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] SCHD[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.error4

EventCode: 21.20.210

Severity: Error
Action_required: Yes**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Information:

Storage A.D.E has detected a possible problem contained in a message of the 6120 Message Log.

Probable Cause:

Disk information indicating command retries have exhausted on this disk.

Recommended Action:

1. Monitor this disk for excessive occurrences of this error.
2. Contact Support Provider if necesesary.

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.error5

EventCode: 21.20.211

Severity: Error
Action_required: Yes**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Information:Storage A.D.E has detected a possible problem contained in a message of the 6120
Message Log.**Probable Cause:**

Disk information indicating an illegal Logical Block Address has been encountered.

Recommended Action:

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: fru_disabled

EventCode: 21.20.168

Severity: Error
Action_required: Yes**Sample Description**

Warnings found in logfile [Array_Message_Logfile] (indicating problem with '6120
Array_Name/IP_Address)': Nov 07 13:20:06 array00 ROOT[2]: W: u1ctr: Disabled

Information:

Storage A.D.E has detected a log message indicating a disabled FRU.

Recommended Action:

1. Check the status of the indicated FRU in the Storage A.D.E GUI.
2. Replace FRU if necessary.

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: 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.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.QuiesceEndEvent

Component:

EventCode: 21.22.16

Severity: Info
Action_required: No**Sample Description**

Quiesce End 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.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: 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: 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.u1l1'(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: 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: 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: 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: 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: 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.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.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: 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.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: 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: 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.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_ITW

Component:

EventCode: 21.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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.

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: 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: 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: 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: 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. Can not get FRU status

Recommended Action:

Check the 3510 device setup and battery or FRU status.

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: fan

EventCode: 26.3.19

Severity: Warning
Action_required: Yes

Sample Description

Fan status has been changed.

Probable Cause:

Fan status change.

Recommended Action:

Check power to the fan.

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: battery_expiredW

EventCode: 26.3.215

Severity: Warning
Action_required: No

Sample Description

Battery is expired.

Event: 3510.ValueChangeEvent

Component: fru_status

EventCode: 26.3.230

Severity: Info**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.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: channel_mode

EventCode: 26.3.415

Severity: Error
Action_required: Yes**Sample Description**

Channel mode is changed.

Probable Cause:

1.Channel mode may be changed.

Recommended Action:

1.Execute 'sccli <device-path> show channels' to check the current channel information .

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: 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: 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: 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: 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: 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: 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: 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: 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. Rebuild the logical drive to Good status.

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: 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: 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: 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.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.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.CommunicationLostEvent**Severity: Err/Critical**

Component: e

Action_required: Yes

EventCode: 26.12.118

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 StorADE

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 StorADE

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.

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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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.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: 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_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: 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.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:

No action required.

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_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: 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_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_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.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: 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.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 'sccli <device-path> show FRUs' to check the current fru information

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 caused by 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: logical_drive

EventCode: 26.41.188

Severity: Info**Action_required: Yes****Sample Description**

was removed from 3510 diag-3510 (wwn=SUN.3510.07ed10) (sn=SUN.3510.07ed10).

Information:

1. Execute 'sccli <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.

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 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.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: 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: 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 in 30 minnutes

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.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_ITW

Component:

EventCode: 26.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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.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.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.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: 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.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.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.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.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: 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.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: 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: 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.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: Err/Critical**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.QuiesceEndEvent

Component:

EventCode: 27.22.16

Severity: Info
Action_required: No

Sample Description

Quiesce End on [Array_Name] ([IP_Address])

Information:

Quiescing a device is done using the GUI 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: 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

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: 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: log

EventCode: 28.3.55

Severity: Warning
Action_required: No

Sample Description

Change in Port Statistics on Virtualization Device '[Device_Name]'

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.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.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.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.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.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.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 very first time the agent probes a storage device.

Probable Cause:

Storage A.D.E compares the configuration file to its cache and queries devices for entire FRU information when there

Recommended Action:

1. Check the Storage A.D.E GUI for proper information and for any outstanding events that may have occurred.
2. Ensure the Storage A.D.E GUI shows the proper topology for the new device.

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])

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.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_ITW

Component:

EventCode: 36.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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: 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 <ctd#> -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 <ctd#> -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 <ctd#> -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 with ID:a1000.[Array_Name]

Information:

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

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])

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.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: 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.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.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_ITW

Component:

EventCode: 29.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: 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 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: 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.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: 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: 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: loop_reset

EventCode: 30.3.224

Severity: Warning
Action_required: No

Sample Description

fibrePort.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: 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: 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: 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: 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: 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: 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: 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: 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] ([IP_Address]) WWN

Probable Cause:

Discovery events occur the very first time the agent probes a storage DSP.

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: 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: 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: 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: 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: 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: 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: 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_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: 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.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: 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: 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.QuiesceEndEvent

Component:

EventCode: 30.22.16

Severity: Info
Action_required: No

Sample Description

Quiesce End on dsp [DSP_Name] ([IP_Address])

Information:

The monitoring of a previously quiesced device has resumed.

Probable Cause:

The monitoring status of the device called out in the event message
has be re-enabled.

The device has gone from a degraded state to a normal operating condition.

Recommended Action:

No Action is Required.

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: 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: 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: 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: 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: 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: 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: 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: 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

[\[Click here to access the service Advisor\]](#)

Service:

dsp.src

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: 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:

se.extract

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: 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 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: 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: 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.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.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.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.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: 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: SRC

EventCode: 30.40.174

Severity: Info
Action_required: No**Sample Description**

SRC.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 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.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] -> [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.
Use the Storage A.D.E. UI "Command Viewer" section to execute:
'redund -c'

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] -> [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.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] -> [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 procede 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.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] -> [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 procede 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.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_ITW

Component:

EventCode: 30.44.16

Severity: Error
Action_required: Yes

Sample Description

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on dsp [device_id], Link: port 1 on [device_id]'.

Information:

An increase in the Invalid Transmition Word (ITW) 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.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: 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.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 switchs' power grid.

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.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.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: 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.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.DiagnosticTest-

Component: inrangetest

EventCode: 31.13.353

Severity: Error
Action_required: No

Sample Description

inrangetest (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] ([IP_Address]) WWN

Information:

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

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])

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: 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 expect.

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: 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 <-> sw

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.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_ITW

Component:

EventCode: 31.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on switch [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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: 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: 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: 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 volumes 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: 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: 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.

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: volOwner

EventCode: 38.3.76

Severity: Error
Action_required: Yes**Sample Description**

Volume owner for u1vol1 changed from 'u1' to 'u2'

Probable Cause:

The array volume 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: 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 volumes reported by the array has changed.

Probable Cause:

Possibly administration activity.

Recommended Action:

No Action is Required.

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: 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: 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: 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: 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: 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: backend_loop_split

EventCode: 38.4.144

Severity: Info
Action_required: No

Sample Description

The state of 'loop.u1lp1.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: 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: 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 volume status has changed from negative to positive.

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: 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: 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: 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: backend_loop_split

EventCode: 38.5.144

Severity: Warning
Action_required: No

Sample Description

The state of 'loop.u1lp1.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.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: 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: 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: 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: 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:

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: 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: 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: 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:

Caching 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: 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: 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 volume 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: 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.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: 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.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.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 ras [Array_Name] ([IP_Address])
slr-mi.370-3990-01-e-e1.003239

Probable Cause:

Discovery events occur the very 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: disk.error

EventCode: 38.20.107

Severity: Info
Action_required: No**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Information:Storage A.D.E has detected a possible problem contained in a message of the 6020
Message Log.**Probable Cause:**

Disk information indicating command status.

Recommended Action:

No action required

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.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: fru_disabled

EventCode: 38.20.168

Severity: Error
Action_required: Yes**Sample Description**

2 device_error(s) found in logfile /var/adm/messages.array (related to 6020
sp7-array00/192.168.0.40): Dec 02 05:33:50 array00 LPCT[1]: W: u111: Disabled:

Probable Cause:

A FRU has been disabled.

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.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: 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 temperature

Information:

Array disk has exceeded normal operating temperature review environmental conditions

Service:

se.extract

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: 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: 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: 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: 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] SCHD[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: 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: 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] SCHD[1]: Battery Refreshing

Probable Cause:

The PCU Battery is refreshing

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] SCHD[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: 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: 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: 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.error5

EventCode: 38.20.211

Severity: Error
Action_required: Yes**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Information:Storage A.D.E has detected a possible problem contained in a message of the 6020
Message Log.**Probable Cause:**

Disk information indicating an illegal Logical Block Address has been encountered.

Recommended Action:

Contact Support Provider for Corrective Action.

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: 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: 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: disk.bypassed

EventCode: 38.20.212

Severity: Warning
Action_required: No

Sample Description

N: u1d01: Bypassed on loop 1

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: disk.error4

EventCode: 38.20.210

Severity: Error
Action_required: Yes**Sample Description**

Oct 22 18:30:45 ARRAY ISR1[1]: N: u1d4 SCSI Disk Error Occurred (path = 0x0):

Information:

Storage A.D.E has detected a possible problem contained in a message of the 6020 Message Log.

Probable Cause:

Disk information indicating command retries have exhausted on this disk.

Recommended Action:

1. Monitor this disk for excessive occurrences of this error.
2. Contact Support Provider if necesesary.

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.QuiesceEndEvent

Component:

EventCode: 38.22.16

Severity: Info
Action_required: No

Sample Description

Quiesce End on 6020 [Array_Name] ([IP_Address])

Probable Cause:

The monitoring of a previously quiesced device has resumed.

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: 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: interface.loopcard

EventCode: 38.25.24

Severity: Info
Action_required: No

Sample Description

'loopcard.u1l1'(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: 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: 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: 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: 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:

Volume state changes can be the cause of potential hardware problems with:

Disk Drive

Controller

Power Supply

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: 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: 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: 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.ComponentInsertEvent

Component: interface.loopcard.cable

EventCode: 38.40.25

Severity: Info
Action_required: No**Sample Description**

Cable between 'u1l1' and 'u2l1' on array00 was inserted

Probable Cause:

The 6020 has inserted a loopcard cable.

Recommended Action:

No Action is Required.

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.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: 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

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: 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.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_ITW

Component:

EventCode: 38.44.16

Severity: Error
Action_required: Yes

Sample Description

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An increase in the Invalid Transmission Word (ITW) 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.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: 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: 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: 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_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: 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: 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.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: 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.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.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.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.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.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.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: 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.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: 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.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.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: 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: 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: 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: 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.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.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. UI to reformat the drive.
Service -> Utilities -> Command Viewer -> sp -> rmformat -> Run Command
 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.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.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: 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.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.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: 3120.ValueChangeEvent

Component: fru_status

EventCode: 42.3.230

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 indicated FRU if necessary.

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: ps

EventCode: 43.3.227

Severity: Info

Action_required: Yes

Sample Description

'component.ps' [fru-sn] status is changed from OK to Unknown.

Probable Cause:

The power supply status is changed

Recommended Action:

1.Execute 'sccli <device-path> show config' and check ps component status.

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 'sccli <device-path> show config' and check disk_slot status.

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_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: 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: 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: 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: 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: 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: 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: 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: 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.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 diod (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: 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: 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: 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.
2. 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.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: 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.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.DiscoveryEvent

Component:

EventCode: 43.14.16

Severity: Info
Action_required: No

Sample Description

Discovered a new 3120jbod called ras [Array_Name] slr-mi.370-3990-01-e-e1.003239.

Probable Cause:

Device discovery.

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. UI for current health status on the device as well as 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: fan

EventCode: 44.3.19

Severity: Info

Action_required: Yes

Sample Description

'component.fan' [fru-sn] status is changed from OK to Unknown.

Probable Cause:

The disk_slot status is changed

Recommended Action:

1.Execute 'sccli <device-path> show config' and check fan 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: 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 <device-path> show FRUs' to check the current fru information .

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: ps

EventCode: 44.3.227

Severity: Error
Action_required: Yes**Sample Description**

'component.ps' [fru-sn] status is changed from OK to Unknown.

Probable Cause:

The power supply status is changed

Recommended Action:

1.Execute 'sccli <device-path> show config' and check ps component status.

Event: 3310jbod.ValueChangeEvent

Component: fru_status

EventCode: 44.3.230

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 .
3. Replace the bad fru

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: 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 'sccli <device-path> show config' and check disk_slot status.

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: 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: 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: 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: 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: 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: 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 diod (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: 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 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: 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: 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: 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.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: 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.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.DiscoveryEvent

Component:

EventCode: 44.14.16

Severity: Info
Action_required: No

Sample Description

Discovered a new 3310jbod called ras [Array_Name] slr-mi.370-3990-01-e-e1.003239.

Probable Cause:

Device discovery.

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. UI for current health status on the device as well as 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: 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_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: 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.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_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.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: 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 'sccli <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: 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])

Recommended Action:

1. Execute 'sccli <device-path> show FRUs' to check the current chassis fru information

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: 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: 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: 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. Can not get FRU status

Recommended Action:

Check the 3511 device setup and battery or FRU status.

Event: 3511.ValueChangeEvent

Component: fan

EventCode: 45.3.19

Severity: Warning
Action_required: Yes

Sample Description

Fan status has been changed.

Probable Cause:

Fan status change.

Recommended Action:

Check power to the fan.

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: 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: 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: 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: 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: 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: channel_mode

EventCode: 45.3.415

Severity: Error
Action_required: Yes**Sample Description**

Channel mode is changed.

Probable Cause:

1.Channel mode may be changed.

Recommended Action:

1.Execute 'sccli <device-path> show channels' to check the current channel information .

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_status

EventCode: 45.3.230

Severity: Info**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: battery_expiredW

EventCode: 45.3.215

Severity: Warning
Action_required: No

Sample Description

Battery is expired.

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: 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: 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: 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: 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: 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. Rebuild the logical drive to Good status.

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: 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: 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 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.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: 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.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.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.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.

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 StorADE

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 StorADE

Event: 3511.DiscoveryEvent

Component:

EventCode: 45.14.16

Severity: Info
Action_required: No

Sample Description

Discovered a new 3511 called ras [Array_Name] ([IP_Address])
slr-mi.370-3990-01-e-e1.003239.

Probable Cause:

Device discovery.

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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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.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: 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: 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: 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: 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: 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: 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.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:

No action required.

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: 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.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: 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: 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_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: 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.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: 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 caused by 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: 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 'sccli <device-path> show FRUs' to check the current fru information

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 in 30 minnutes

Event: 3511.ComponentRemoveEvent

Component: logical_drive

EventCode: 45.41.188

Severity: Info**Action_required: Yes****Sample Description**

was removed from 3511 diag-3511b (wwn=SUN.3511.07ed10) (sn=SUN.3511.07ed10.

Information:

1. Execute 'sccli <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.

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: 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.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_ITW

Component:

EventCode: 45.44.16

Severity: Error
Action_required: Yes**Sample Description**

12-14 06:35:25 ITW-ERROR (33288 in 1 mins): Detector: port 2 on array [device_id], Link: port 1 on [device_id]'.

Information:

An invalid transmission word (ITW) 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.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:

- 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]).

Probable Cause:

Device discovery.

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_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_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.RaidPowerSupplyFail

EventCode: 47.20.395

Severity: Error
Action_required: Yes**Sample Description**

StorADe has discovered that at least one power supply module in the RAID controller has failed.

Probable Cause:

StorADe 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.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_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.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.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.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.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.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_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.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_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_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: driver.NFS_write

EventCode: 47.20.357

Severity: Warning
Action_required: No**Sample Description**

Found in logfile /var/adm/messages on octothorp.central.sun.com (related to 5210 diag219):

Sep 28 07:33:39 Received 14 'NFS_write' message(s) (in 5210:diag219) in 1.0 mins [threshold is 10 in 24h

Probable Cause:

NFS error

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_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.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.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_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_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_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_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.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.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_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.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.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.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. UI for current health status on the device as well as 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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.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: 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: 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

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.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 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.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: 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: 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 serial#, has been installed on the 5210.

Recommended Action:

No action required.

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]).

Recommended Action:

Replace power supply if necessary.

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: partition

EventCode: 47.41.243

Severity: Error
Action_required: Yes**Sample Description**

'Partition.1' was removed from [Array_Name] ([IP_Address]).

Recommended Action:

1. Check volume integrity associated with the component in question.

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]).

Recommended Action:

Replace power supply if necessary.

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: 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: 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 preferred Controller is now accessible

Recommended Action:

1. No action 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: 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 fiber optic cable was damaged or removed.

The preferred Controller is offline or removed

There is a problem in a component along the I/O Path. (HBA, FC Switch, SFP)

Recommended Action:

1. Check the FC RAID Controller LED status (Green is good)
2. Check the SAN Topology for other failing components in the SAN.
3. Replace the fiber optic cable connected to the preferred Controller
4. Use the 6130 Configuration Service or other management software to redistribute the volumes.

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, or a cable is not installed/seated properly

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. Check the status of the fiber optic or drive interconnect cables.

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.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: 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.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.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.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#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: 6130.DiscoveryEvent

Component:

EventCode: 48.14.16

Severity: Info
Action_required: No**Sample Description**

Discovered a new 6130 called ras [Array_Name] ([IP_Address])
slr-mi.370-3990-01-e-e1.003239

Probable Cause:

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

Recommended Action:

1. 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: 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: 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: 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: 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: 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: 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: 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: 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_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: 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: 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: 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 unfail the drive.
2. Follow the Service Procedures for replacing a Drive if needed.

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: 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: 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: 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: 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: 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: 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, 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.

5. Caution: The data on the affected volumes will be lost once you perform this step. Be sure you have backed up your data before performing this step.

6. Remove the failed drive (its fault indicator light should be on).

7. 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.

8. Wait for the initialization process is complete for the affected volumes.

When initialization is completed, all volumes in the vdisk are Optimal.

9. 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.

10. 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.

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4. Wait 30 seconds, then insert the new drive. Its fault indicator light may

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: 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: 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 ctrlrDiag task was unable to obtain the Mode Select lock.

Recommended Action:

1. Contact your Service Provider for proper corrective action.

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: 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: 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: 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: 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: 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: 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: 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: 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

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. Check the status of the fiber optic or drive interconnect cables.

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: 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: 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: 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: 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: 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: 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: 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: 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_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_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: 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: 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: 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: 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: 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: 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: 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: 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_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: 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: 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: 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: 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: 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.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: 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: 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: 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: 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: 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: snapshot_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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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.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 by clicking the 'Monitor' button on the Inventory page.

Recommended Action:

1. Verify with the administrator that this is an expected action.

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 by clicking the 'Unmonitor' button on the Inventory page.

Recommended Action:

1. Verify with the administrator that this is an expected action.

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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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 on 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: 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: 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: 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: 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: 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.

This could be caused by a failed I/O Module

Recommended Action:

1. Follow the Service Procedure for replacing a failed I/O Module.

Service:

6130.iom

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: 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: 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.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: 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: 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.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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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.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.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: 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 I/O Module.

Service:

6130.iom

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: 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: 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: 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: 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: 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 is usually caused by losing both links from a CRM to a CEM.

This could also be caused by a dual failing RAID Controllers,
IOMs, SFPs cables or a combination of the above.

Recommended Action:

1. Check the seating of the SFPs in the controllers and the IOMs.
2. Check the seating of the Controllers and the IOMs.
3. Replace the midplane if appropriate.

Service:

6130.raidcontroller

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: 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: 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: 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])

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: 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 expect.

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])

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: 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.