

# Quantum<sup>®</sup>

## RAS Events and FRU Reference Guide

# StorNext



StorNext RAS Events and FRU Reference Guide, 6-68318-01 Rev B, March 2016, Product of USA.

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# Preface

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This document provides all possible relationships between RAS Event References and relevant components (for example, FC Switch, StorNext Storage manager, etc.).

The table on page 1 associates a RAS Event Reference with the component to which the RAS event corresponds and the severity of the issue. References (in the form of links) to additional information are also provided for each issue.

Each RAS Event Reference contains information on its numerical ID and a brief description of the event.

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**i Note:** This document applies to all versions of StorNext.

## Audience

This manual is written for StorNext operators, system administrators, and field service engineers.

## Notational Conventions

This manual uses the following conventions:


Convention	Example
User input is shown in bold monospace font.	<b>./DARTinstall</b>

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Convention	Example
Computer output and command line examples are shown in monospace font.	<code>./DARTinstall</code>
User input variables are enclosed in angle brackets.	<code>http://&lt;ip_address&gt;/cgi-bin/stats</code>
For UNIX and Linux commands, the command prompt is implied.	<code>./DARTinstall</code> is the same as <code># ./DARTinstall</code>
File and directory names, menu commands, button names, and window names are shown in bold font.	<b>/data/upload</b>
Menu names separated by arrows indicate a sequence of menus to be navigated.	<b>Utilities &gt; Firmware</b>

The following formats indicate important information:

 **Note:** Note emphasizes important information related to the main topic.

 **Caution:** Caution indicates potential hazards to equipment or data.


 **WARNING:** Warning indicates potential hazards to personal safety.


- Right side of the system - Refers to the right side as you face the component being described.
- Left side of the system - Refers to the left side as you face the component being described.
- Data sizes are reported in base 1000 rather than base 1024. For example:
  - 1 MB = 1,000,000 bytes
  - 1 GB = 1,000,000,000 bytes
  - 1 TB = 1,000,000,000,000 bytes

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**VARNING:** Läs igenom alla instruktioner och varningar i detta dokument och i *Quantums produktsystem, säkerhet och reglerande informationsguide* innan denna produkt används.

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For the most up to date information on StorNext, see:

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<http://www.quantum.com/serviceandsupport/index.aspx>

# RAS Event Information

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
[0] SL_EVT_UNKNOWN_ERR (Unknown error)	Unknown	critical	<a href="#">Quantum Technical Assistance Center</a>
[1] SL_EVT_TASK_DIED (Process/Task died (not restarted))	StorNext Storage Manager component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	StorNext File System component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	Virtual Library Interface component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	RAS component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	FC blade firmware	critical	<a href="#">Troubleshooting the StorNext Software</a>
	UM firmware	critical	<a href="#">Troubleshooting the StorNext Software</a>
	Database component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	I/O Server cluster	critical	<a href="#">Quantum Technical Assistance Center</a>
[2] SL_EVT_SYS_RES_FAIL (System resource failure)	StorNext File System component	minor	<a href="#">System Resource Failure</a>
	OS component	critical	<a href="#">Troubleshooting the StorNext Software</a>
[3] SL_EVT_MEM_CORRUPT (Memory corruption may occur)	I/O Server	major	<a href="#">Node Issues</a>
	FC blade firmware	critical	<a href="#">Quantum Technical Assistance Center</a>
[5] SL_EVT_SYS_BACKUP_FAIL (System backup failed)	QUANTUM software	critical	<a href="#">Quantum Technical Assistance Center</a>
	StorNext Storage Manager component	critical	<a href="#">Backup Errors</a>
[6] SL_EVT_POST_FAIL (POST Failure)	I/O Server	critical	<a href="#">Node Issues</a>
[7] SL_EVT_HW_FAULT (Hardware fault)	I/O Server	critical	<a href="#">Node Issues</a>
	FC switch	critical	<a href="#">Fibre Channel Hardware Faults</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	storage subsystem chassis	critical	<a href="#">Storage Subsystem Chassis Conditions</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	JBOD chassis	critical	<a href="#">Quantum Technical Assistance Center</a>
	Compression card	critical	<a href="#">Quantum Technical Assistance Center</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	Control processor	critical	<a href="#">Fibre Channel Hardware Faults</a>
	Switchblade	critical	<a href="#">Fibre Channel Hardware Faults</a>
	Worldwide net	critical	<a href="#">Fibre Channel Hardware Faults</a>
	Temperature sensor	critical	<a href="#">Fibre Channel Temperature Issues</a>
	IPMI Controller	critical	<a href="#">IPMI Controller Failure</a>
	storage subsystem tray	critical	<a href="#">Storage Subsystem Tray Hardware Faults</a>
	Ethernet switch	critical	<a href="#">Port Failure</a>
	Temperature sensor	critical	<a href="#">Network Temperature Issues</a>
<b>[8] SL_EVT_SW_FAULT (Software fault)</b>	Compression card	critical	<a href="#">Quantum Technical Assistance Center</a>
	StorNext Storage Manager component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	I/O Server	minor	<a href="#">Node Issues</a>
<b>[9] SL_EVT_NOT_PRESENT (Not present)</b>	I/O Server drive	critical	<a href="#">Boot Disk Absent</a>
	power supply	critical	<a href="#">System Board Power Supply Missing</a>
	fan	critical	<a href="#">Quantum Technical Assistance Center</a>
	power supply	critical	<a href="#">Fibre Channel Switch Power Supply Missing</a>
	fan	critical	<a href="#">Fibre Channel Switch Fan</a>
	SFP	critical	<a href="#">Fibre Channel Switch - SFP Not Present</a>
	power supply	critical	<a href="#">Storage Subsystem Power Supply Conditions</a>
	fan	critical	<a href="#">Storage Subsystem Fan Conditions</a>
	power supply	critical	<a href="#">Quantum Technical Assistance Center</a>
	fan	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC blade	critical	<a href="#">Quantum Technical Assistance Center</a>
	UM	critical	<a href="#">Quantum Technical Assistance Center</a>
	SFP	critical	<a href="#">Quantum Technical Assistance Center</a>
	SFP	critical	<a href="#">0408-TP001.htm</a>
	cleaning media with barcode	minor	<a href="#">Cleaning Media - No Cleaning Media Available</a>



[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	Compression card	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	Control processor	critical	<a href="#">Fibre Channel Switch Issues</a>
	Switchblade	critical	<a href="#">Fibre Channel Switch Issues</a>
	Worldwide net	critical	<a href="#">Fibre Channel Switch Issues</a>
	Temperature sensor	critical	<a href="#">Fibre Channel Temperature Issues</a>
	I/O Server Scsi device	critical	<a href="#">SAS/Fibre Channel HBA Issues</a>
	IPMI Controller	critical	<a href="#">IPMI Controller Failure</a>
	I/O Server	minor	<a href="#">Node Issues</a>
	NIC ethernet port	critical	<a href="#">NIC Ethernet Issues</a>
	Ethernet switch	critical	<a href="#">Network Link Failure</a>
	Temperature sensor	critical	<a href="#">Network Temperature Issues</a>
	fan	critical	<a href="#">Fan Not Found</a>
	power supply	critical	<a href="#">Power Supply Not Found</a>
<b>[10] SL_EVT_OVERVOLTAGE (Over voltage)</b>	I/O Server	minor	<a href="#">Node Voltage Levels</a>
	power supply	critical	<a href="#">Fibre Channel Switch Supply Voltage</a>
	power supply	critical	<a href="#">Power Supply Voltage Issues</a>
<b>[11] SL_EVT_UNDERVOLTAGE (Under voltage)</b>	I/O Server	minor	<a href="#">Node Voltage Levels</a>
	power supply	minor	<a href="#">Fibre Channel Switch Supply Voltage</a>
	power supply	major	<a href="#">Power Supply Voltage Issues</a>
<b>[12] SL_EVT_FC_SYNC_FAIL (Sync failure)</b>	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
<b>[13] SL_EVT_FC_DIAG_FAIL (Diag failure)</b>	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
<b>[14] SL_EVT_LINK_FAIL (Link failure)</b>	Ethernet port	critical	<a href="#">I/O Server Ethernet Issues</a>
	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	FC blade	critical	<a href="#">Quantum Technical Assistance Center</a>
	generic storage subsystem	critical	<a href="#">Quantum Technical Assistance Center</a>
	Physical Media Changer	critical	<a href="#">Quantum Technical Assistance Center</a>
	tape drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	NIC ethernet port	critical	<a href="#">NIC Ethernet Issues</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	IPS switch	critical	<a href="#">Quantum Technical Assistance Center</a>
	I/O Server	minor	<a href="#">Node Issues</a>
	Ethernet switch	critical	<a href="#">Network Link Failure</a>
	storage subsystem fiber channel link	critical	<a href="#">Storage Subsystem Fibre Channel Link Conditions</a>
<b>[15] SL_EVT_PORT_FAIL (Port failure)</b>	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	Ethernet switch	critical	<a href="#">Port Failure</a>
	StorNext File System component	critical	<a href="#">SNFS Port Failure</a>
<b>[16] SL_EVT_DEV_DISCONNECT (Device disconnected)</b>	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	FC blade	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[17] SL_EVT_PWR_FAIL (Power supply failure)</b>	power supply	critical	<a href="#">System Board Power Supply Failure</a>
	power supply	critical	<a href="#">Fibre Channel Switch Power Supply Failure</a>
	power supply	critical	<a href="#">Storage Subsystem Power Supply Conditions</a>
	power supply	critical	<a href="#">Quantum Technical Assistance Center</a>
	power supply	critical	<a href="#">Power Supply Failure</a>
<b>[18] SL_EVT_FAN_LOW_SPEED (Low speed (tach counts))</b>	fan	major	<a href="#">Node Fan Speed</a>
	fan	major	<a href="#">Quantum Technical Assistance Center</a>
	fan	minor	<a href="#">Fibre Channel Switch Fan Speed</a>
	fan	major	<a href="#">Fan Speed Issues</a>
<b>[19] SL_EVT_FAN_FAIL (Fan failure)</b>	fan	critical	<a href="#">Fibre Channel Switch Fan Failure</a>
	fan	critical	<a href="#">Storage Subsystem Fan Conditions</a>
	fan	critical	<a href="#">Quantum Technical Assistance Center</a>
	fan	critical	<a href="#">Fan Failure</a>
<b>[20] SL_EVT_SWITCH_INVALID (Invalid switch type (non-QUANTUM))</b>	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	Ethernet switch	critical	<a href="#">Network Configuration Issues</a>
<b>[21] SL_EVT_RAID_INVALID (Invalid storage subsystem type (non-QUANTUM))</b>	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[22] SL_EVT_DRV_FAIL (Drive failure)</b>	drive	critical	<a href="#">Quantum Technical Assistance Center</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	I/O Server drive	critical	<a href="#">Boot Disk Failure Detected</a>
<b>[23] SL_EVT_DRV_REMOVED (Drive removed)</b>	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	tape drive	critical	<a href="#">Tape Drive - Drive Removed</a>
<b>[24] SL_EVT_IO_ERR (IO Error)</b>	I/O Server drive	minor	<a href="#">Boot Disk Absent</a>
	StorNext File System component	minor	<a href="#">I/O Error</a>
<b>[25] SL_EVT_COMM_FAIL (Communication failure)</b>	StorNext File System component	minor	<a href="#">Communication Failure</a>
	Virtual Library Interface component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	SCSI Enclosure Services module	critical	<a href="#">Quantum Technical Assistance Center</a>
	generic storage subsystem	critical	<a href="#">Quantum Technical Assistance Center</a>
	Database component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	I/O Server	critical	<a href="#">Node Issues</a>
	Ethernet switch	critical	<a href="#">Network Switch Communication Error</a>
	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
<b>[26] SL_EVT_COMM_ETHER_FAIL (Ethernet communication failure)</b>	Ethernet port	critical	<a href="#">I/O Server Ethernet Issues</a>
	FC switch	major	<a href="#">Quantum Technical Assistance Center</a>
	FC blade	critical	<a href="#">Quantum Technical Assistance Center</a>
	UM	critical	<a href="#">Quantum Technical Assistance Center</a>
	generic storage subsystem	critical	<a href="#">Quantum Technical Assistance Center</a>
	NIC ethernet port	critical	<a href="#">NIC Ethernet Issues</a>
	IPS switch	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[27] SL_EVT_COMM_SERIAL_FAIL (Serial communication failure)</b>	UM	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[29] SL_EVT_COMM_BUS_FAIL (Communication failure (internal bus))</b>	Ethernet port	critical	<a href="#">I/O Server Ethernet Issues</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	NIC ethernet port	critical	<a href="#">NIC Ethernet Issues</a>
[30] SL_EVT_WRONG_FW_LEVEL (Wrong firmware level)	FC switch	critical	<a href="#">Quantum Technical Assistance Center</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC blade firmware	critical	<a href="#">Quantum Technical Assistance Center</a>
	UM firmware	critical	<a href="#">Quantum Technical Assistance Center</a>
	Physical Media Changer	critical	<a href="#">Robotics - Wrong Firmware Level/Invalid Library Type/Configuration Failed</a>
	tape drive	critical	<a href="#">Tape Drive - Wrong Firmware Level/Invalid Drive Type</a>
	IPS switch	critical	<a href="#">Quantum Technical Assistance Center</a>
	Ethernet switch	critical	<a href="#">Switch Firmware Version</a>
[31] SL_EVT_LOWVOLTAGE (Low voltage)	I/O Server	critical	<a href="#">Node Voltage Levels</a>
[32] SL_EVT_HIGHVOLTAGE (High voltage)	I/O Server	critical	<a href="#">Node Voltage Levels</a>
[33] SL_EVT_LOWTEMP (Low temperature)	I/O Server	minor	<a href="#">Node Temperature</a>
[34] SL_EVT_HIGHTEMP (High temperature)	I/O Server	critical	<a href="#">Node Temperature</a>
	storage subsystem temperature sensor	critical	<a href="#">Quantum Technical Assistance Center</a>
[35] SL_EVT_UNDERTEMP (Under temperature)	FC switch	minor	<a href="#">Fibre Channel Switch Temperature Errors</a>
	controller	minor	<a href="#">Quantum Technical Assistance Center</a>
	controller	minor	<a href="#">Quantum Technical Assistance Center</a>
	Temperature sensor	minor	<a href="#">Fibre Channel Temperature Issues</a>
	storage subsystem temperature sensor	minor	<a href="#">Quantum Technical Assistance Center</a>
	I/O Server	minor	<a href="#">Node Temperature</a>
	Temperature sensor	major	<a href="#">Network Temperature Issues</a>
[36] SL_EVT_OVERTEMP (Over temperature)	I/O Server	minor	<a href="#">Node Temperature</a>
	FC switch	minor	<a href="#">Fibre Channel Switch Temperature Errors</a>
	controller	minor	<a href="#">Quantum Technical Assistance Center</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	controller	minor	<a href="#">Quantum Technical Assistance Center</a>
	FC blade	minor	<a href="#">Quantum Technical Assistance Center</a>
	UM	minor	<a href="#">Quantum Technical Assistance Center</a>
	Temperature sensor	major	<a href="#">Fibre Channel Temperature Issues</a>
	storage subsystem temperature sensor	minor	<a href="#">Quantum Technical Assistance Center</a>
	Temperature sensor	critical	<a href="#">Network Temperature Issues</a>
<b>[37] SL_EVT_PMC_INVALID (Invalid physical media changer)</b>	Physical Media Changer	critical	<a href="#">Robotics - Wrong Firmware Level/Invalid Library Type/Configuration Failed</a>
<b>[38] SL_EVT_TAPEDRV_INVALID (Invalid physical tape drive)</b>	tape drive	critical	<a href="#">Tape Drive - Wrong Firmware Level/Invalid Drive Type</a>
<b>[39] SL_EVT_DEV_INVALID (Invalid device detected)</b>	FC switch	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[40] SL_EVT_CFG_NOT_REC (Configuration not recommended)</b>	generic storage subsystem	minor	<a href="#">Quantum Technical Assistance Center</a>
<b>[41] SL_EVT_BADCFG_NOT_SUP (Configuration not supported)</b>	QUANTUM software	minor	<a href="#">Quantum Technical Assistance Center</a>
	StorNext Storage Manager component	critical	<a href="#">Affinity Configuration Violations</a>
	StorNext File System component	critical	<a href="#">Configuration Not Supported</a>
	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	generic storage subsystem	critical	<a href="#">Quantum Technical Assistance Center</a>
	IPS switch	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[42] SL_EVT_BADCFG_EVPS (Bad EVPS configuration)</b>	FC blade firmware	critical	<a href="#">Quantum Technical Assistance Center</a>
	Physical Media Changer	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[43] SL_EVT_BADCFG_FC_PORT (Bad FC port configuration)</b>	FC blade	minor	<a href="#">Quantum Technical Assistance Center</a>
	FC blade firmware	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
<b>[44] SL_EVT_CABLE_FAIL (Cable failure)</b>	FC cable	critical	<a href="#">Quantum Technical Assistance Center</a>
	Ethernet cable	critical	<a href="#">Quantum Technical Assistance Center</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	Ethernet cable	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC cable	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC cable	critical	<a href="#">Quantum Technical Assistance Center</a>
	FC cable	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[45] SL_EVT_NO_GLOB_SPARE (Global spare not detected)</b>	drive	major	<a href="#">Quantum Technical Assistance Center</a>
	drive	major	<a href="#">Quantum Technical Assistance Center</a>
	generic storage subsystem	major	<a href="#">Quantum Technical Assistance Center</a>
<b>[46] SL_EVT_DRV_RBLD_FAIL (Drive rebuild failure)</b>	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	I/O Server drive	critical	<a href="#">Boot Disk Failure Detected</a>
<b>[47] SL_EVT_LOGDRV_FAIL (Logical drive failure (data loss))</b>	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	drive	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[48] SL_EVT_COMM_LUN_FAIL (LUN communication failure)</b>	StorNext File System component	critical	<a href="#">I/O Error</a>
	controller	critical	<a href="#">Quantum Technical Assistance Center</a>
	generic storage subsystem	critical	<a href="#">Quantum Technical Assistance Center</a>
	Physical Media Changer	critical	<a href="#">Robotics - Not Ready</a>
	tape drive	critical	<a href="#">Tape Drive Alerts</a>
<b>[50] SL_EVT_PERF_DEGRADED (Performance degraded)</b>	StorNext File System component	major	<a href="#">Troubleshooting the StorNext Software</a>
	generic storage subsystem	major	<a href="#">Quantum Technical Assistance Center</a>
	Database component	major	<a href="#">Quantum Technical Assistance Center</a>
<b>[51] SL_EVT_OP_FAIL (Operation failure)</b>	StorNext Storage Manager component	critical	<a href="#">Software Resource Warning</a>
	OS component	critical	<a href="#">Quantum Technical Assistance Center</a>
	Database component	critical	<a href="#">Quantum Technical Assistance Center</a>
	Blockpool	critical	<a href="#">Blockpool Errors</a>
	General DXI Software	critical	<a href="#">Software Component Failure</a>
	NAS services	critical	<a href="#">NAS Conditions</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
[52] SL_EVT_NO_RESPONSE (Not responding)	I/O Server	critical	<a href="#">Node Issues</a>
	StorNext File System component	critical	<a href="#">Troubleshooting the StorNext Software</a>
	I/O Server cluster	critical	<a href="#">Quantum Technical Assistance Center</a>
[53] SL_EVT_REPORT_ERR (Error reported)	generic storage subsystem	minor	<a href="#">Quantum Technical Assistance Center</a>
	tape drive	critical	<a href="#">Tape Drive - Drive Reported Drive Error</a>
	media with barcode	minor	<a href="#">Tape - Drive Reported Media Error</a>
[54] SL_EVT_MOVE_FAIL (Move failure)	Physical Media Changer	major	<a href="#">Robotics - Move Failure</a>
[55] SL_EVT_NOT_READY (Not ready)	Physical Media Changer	major	<a href="#">Robotics - Not Ready</a>
	tape drive	major	<a href="#">Tape Drive Alerts</a>
[56] SL_EVT_MAINT_FAIL (Maintenance operation failure)	tape drive	critical	<a href="#">Tape Drive - Cleaning of Drive Failed</a>
[57] SL_EVT_MEDIA_EXPIRED (Expired media)	cleaning media with barcode	major	<a href="#">Cleaning Media - Expired</a>
[58] SL_EVT_TAPE_ALERT (Tape alert)	tape drive	minor	<a href="#">Tape Drive Alerts</a>
	media with barcode	minor	<a href="#">Tape - Drive Reported Media Error</a>
[59] SL_EVT_DEV_CFG_FAIL (Failure to configure device)	Physical Media Changer	major	<a href="#">Robotics - Wrong Firmware Level/Invalid Library Type/Configuration Failed</a>
	tape drive	major	<a href="#">Quantum Technical Assistance Center</a>
[60] SL_EVT_VOLTAGE (Voltage outside specification)	power supply	minor	<a href="#">Quantum Technical Assistance Center</a>
[61] SL_EVT_DB_CORRUPT (Database corruption)	Database component	critical	<a href="#">Quantum Technical Assistance Center</a>
[62] SL_EVT_PMC_REMOVED (Physical media changer removed)	Physical Media Changer	critical	<a href="#">Robotics - Physical Tape Library Removed</a>
[63] SL_EVT_MEDIA_DUPLICATE (Duplicate barcode)	StorNext Storage Manager component	critical	<a href="#">Duplicate Physical Media Found</a>
	Replication	minor	<a href="#">Replication Conditions</a>
[64] SL_EVT_MEDIA_UNKNOWN (Unknown media)	Physical Media Changer	minor	<a href="#">Possible Drive/Media Mount Discrepancy</a>
[65] SL_EVT_SYS_RES_WARN (System resource warning)	StorNext Storage Manager component	minor	<a href="#">Software Resource Warning</a>
	StorNext File System component	minor	<a href="#">Quota Limit or Fragmentation Warnings</a>
	General DXI Software	minor	<a href="#">Resource Warning</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	Space Manager daemon	minor	<a href="#">Disk Space Conditions</a>
[66] SL_EVT_REPORT_WARN (Warning reported)	generic storage subsystem	minor	<a href="#">Quantum Technical Assistance Center</a>
[67] SL_EVT_NOT_SUP (Not supported)	SFP	minor	<a href="#">Quantum Technical Assistance Center</a>
	FC blade	minor	<a href="#">Quantum Technical Assistance Center</a>
[68] SL_EVT_EMERG_TRUNCATION (Emergency truncation activated)	StorNext Storage Manager component	minor	<a href="#">Software Resource Warning</a>
[69] SL_EVT_FILE_NOT_PRESENT (File not found)	QUANTUM software	minor	<a href="#">Quantum Technical Assistance Center</a>
[70] SL_EVT_FILESYS_NOT_PRESENT (Filesystem not found)	QUANTUM software	minor	<a href="#">Quantum Technical Assistance Center</a>
	StorNext File System component	critical	<a href="#">Quantum Technical Assistance Center</a>
[71] SL_EVT_TAKEN_OFFLINE (taken offline)	tape drive	critical	<a href="#">Tape Drive Alerts</a>
	Storage disk	critical	<a href="#">Storage Disk Taken Offline</a>
	Object Storage	critical	<a href="#">Object Storage Component Taken Offline</a>
[72] SL_EVT_LICENSE_FAIL (License failed)	StorNext Storage Manager component	critical	<a href="#">License Failure</a>
	StorNext File System component	critical	<a href="#">SNFS License Failure</a>
	Physical Media Changer	critical	<a href="#">License Failure</a>
	tape drive	critical	<a href="#">License Failure</a>
	FC switch	critical	<a href="#">Fibre Channel License Failure</a>
	General DXI Software	critical	<a href="#">Exceeded License Capacity</a>
[73] SL_EVT_FS_META_BAD (Filesystem metadata dump bad)	StorNext Storage Manager component	critical	<a href="#">Metadata Dump Failure</a>
	StorNext File System component	minor	<a href="#">Bad File System Metadata Dump</a>
[74] SL_EVT_VAULT_FAIL (Vaulting operation failure)	StorNext Storage Manager component	critical	<a href="#">Vault Failure</a>
[75] SL_EVT_NO_MEDIA (No media found to satisfy request)	StorNext Storage Manager component	critical	<a href="#">Software Resource Warning</a>
[76] SL_EVT_CKSUM_FAIL (A Checksum error has occurred)	StorNext Storage Manager component	critical	<a href="#">Checksum Error</a>
[77] SL_EVT_CONFIGURATION_MISMATCH (Configuration mismatch)	I/O Server	critical	<a href="#">I/O Server - Configuration Mismatch</a>



[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
	I/O Server drive	critical	<a href="#">Quantum Technical Assistance Center</a>
	StorNext Storage Manager component	critical	<a href="#">Invalid Configuration</a>
	FC switch	critical	<a href="#">Fibre Channel Switch Issues</a>
	IPS switch	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[78] SL_EVT_INITIALIZATION_FAIL (Initialization failure)</b>	StorNext File System component	critical	<a href="#">Initialization Failure</a>
	General DXI Software	critical	<a href="#">Software Component Initialization Failure</a>
<b>[79] SL_EVT_FAILOVER_ERROR (Error during failover operation)</b>	I/O Server cluster	critical	<a href="#">Quantum Technical Assistance Center</a>
<b>[80] SL_EVT_LICENCE_REQUIRED (Licence required)</b>	StorNext File System component	minor	<a href="#">SNFS License Required</a>
	FC switch	critical	<a href="#">Fibre Channel License Failure</a>
	General DXI Software	critical	<a href="#">License Failure</a>
<b>[81] SL_EVT_MEDIA_NOT_FOUND (Media not found)</b>	StorNext Storage Manager component	minor	<a href="#">Media Not Found</a>
<b>[82] SL_EVT_INVALID_LABEL (Label validation failure)</b>	StorNext File System component	major	<a href="#">Label Validation Failure</a>
	media with barcode	critical	<a href="#">Invalid Media Label Detected</a>
<b>[83] SL_EVT_ERROR_THRESHOLD (Error threshold exceeded)</b>	media with barcode	critical	<a href="#">Media Suspect Threshold Count Exceeded</a>
<b>[84] SL_EVT_FORMAT_FAIL (Format Failure)</b>	media with barcode	minor	<a href="#">Media Format Failure</a>
<b>[85] SL_EVT_FILE_ROLL_ERROR (An error occurred rolling the file)</b>	StorNext Storage Manager component	minor	<a href="#">File Processing Failure</a>
<b>[86] SL_EVT_CORRUPT_FILE (A corrupt file was found)</b>	StorNext Storage Manager component	minor	<a href="#">File Processing Failure</a>
<b>[87] SL_EVT_FAIL_OVER (Fail-over has occurred)</b>	StorNext File System component	minor	<a href="#">File System Failover</a>
<b>[88] SL_EVT_LUN_CHANGE (LUN mapping changed)</b>	StorNext File System component	minor	<a href="#">LUN Mapping Changed</a>
<b>[89] SL_EVT_DISK_ALLOC_FAIL (Failed to allocate disk space)</b>	StorNext File System component	critical	<a href="#">Disk Space Allocation Failure</a>
<b>[90] SL_EVT_META_ERR (Metadata error)</b>	StorNext File System component	minor	<a href="#">Metadata Inconsistency Detected</a>
<b>[91] SL_EVT_JOURNAL_ERR (Journaling error)</b>	StorNext File System component	critical	<a href="#">Journaling Error Detected</a>
<b>[92] SL_EVT_SHUTDOWN_ERR (Error shutting down)</b>	StorNext File System component	minor	<a href="#">Shutdown Error</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
[93] SL_EVT_CONNECTION_FAIL (Connection rejected)	StorNext File System component	major	<a href="#">Connection Rejected</a>
[94] SL_EVT_LUN_NOT_FOUND (Missing LUNs)	StorNext File System component	critical	<a href="#">Missing LUNs</a>
[95] SL_EVT_TEMP_DEGRADE (Nonrecoverable temperature)	I/O Server	critical	<a href="#">Node Temperature</a>
[96] SL_EVT_VOLTAGE_DEGRADE (Nonrecoverable voltage)	I/O Server	critical	<a href="#">Node Voltage Levels</a>
[97] SL_EVT_FAN_HIGH_SPEED (High speed (tach counts))	fan	critical	<a href="#">Fibre Channel Switch Fan Speed</a>
	fan	minor	<a href="#">Node Fan Speed</a>
	fan	critical	<a href="#">Fan Speed Issues</a>
[98] SL_EVT_SPEED_CRITICAL (Critical speed)	fan	critical	<a href="#">Node Fan Speed</a>
[99] SL_EVT_SPEED_DEGRADE (Nonrecoverable speed)	fan	critical	<a href="#">Node Fan Speed</a>
[100] SL_EVT_INTRUSION (Intrusion)	I/O Server	minor	<a href="#">System Controller Accessed</a>
[101] SL_EVT_STOPPED (Stopped)	I/O Server	critical	<a href="#">Node Issues</a>
	I/O Server cluster	critical	<a href="#">Quantum Technical Assistance Center</a>
[102] SL_EVT_CONFIG_FAIL (Configuration failure)	Ethernet switch	critical	<a href="#">Network Configuration Issues</a>
[103] SL_EVT_AUTH_FAILED (Authentication failure)	Ethernet switch	critical	<a href="#">Network Authentication</a>
[104] SL_EVT_EGP_FAIL (EGP failure)	Ethernet switch	critical	<a href="#">Network EGP Failure</a>
[105] SL_EVT_MAC_CHANGED (MAC address variation)	Ethernet switch	critical	<a href="#">Network MAC Address Changed</a>
[106] SL_EVT_REBOOT (Reboot)	Ethernet switch	minor	<a href="#">Network Reboot Issues</a>
	FC switch	minor	<a href="#">Fibre Channel Reboot</a>
	OS component	major	<a href="#">Operating System Delay</a>
[107] SL_EVT_METADUMP_FAIL (Metadump failure)	Replication	critical	<a href="#">Replication Conditions</a>
[108] SL_EVT_REPL_FAIL (Namespace replication failure)	Replication	critical	<a href="#">Replication Conditions</a>
[109] SL_EVT_REPL_PAUSE (Replication paused)	Replication	critical	<a href="#">Replication Conditions</a>
[110] SL_EVT_REPL_QBFS_FAIL (Replication QBFS failure)	Replication	critical	<a href="#">Replication Conditions</a>
[111] SL_EVT_TRUNCATE (Truncation to free space started)	Space Manager daemon	minor	<a href="#">Disk Space Conditions</a>
[112] SL_EVT_THROTTLE (I/O Write Low Threshold state)	Space Manager daemon	minor	<a href="#">Disk Space Conditions</a>
[113] SL_EVT_NOSPACE (Stop IO due to no space)	Space Manager daemon	critical	<a href="#">Disk Space Conditions</a>
	StorNext Storage Manager component	critical	<a href="#">Software Resource Warning</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
[114] SL_EVT_CTRL_PARITY (RPA Parity error)	controller	major	<a href="#">Storage Subsystem Controller Notifications</a>
[115] SL_EVT_DEGRADED (Component is degraded)	storage subsystem volume	major	<a href="#">Storage Subsystem Volume Notifications</a>
	I/O Server	minor	<a href="#">Node Issues</a>
[116] SL_EVT_DISABLED (Component is disabled)	storage subsystem alarm	minor	<a href="#">Storage Subsystem Controller Alarm Conditions</a>
[117] SL_EVT_DRV_BYPASSED (Drive is bypassed)	drive	minor	<a href="#">Storage Subsystem Drive Conditions</a>
[118] SL_EVT_DRV_REPLACED (Drive is replaced)	drive	minor	<a href="#">Storage Subsystem Drive Conditions</a>
[119] SL_EVT_DRV_UNRESPONSIVE (Drive is unresponsive)	drive	critical	<a href="#">Storage Subsystem Drive Conditions</a>
[120] SL_EVT_FAILED (Component is failed)	controller	critical	<a href="#">Storage Subsystem Controller Notifications</a>
	storage subsystem volume	critical	<a href="#">Storage Subsystem Volume Notifications</a>
	storage subsystem ESM	critical	<a href="#">Storage Subsystem Enclosure Service Module (ESM) Conditions</a>
	storage subsystem SFP	critical	<a href="#">Storage Subsystem Fibre Channel SFP Conditions</a>
	storage subsystem battery	critical	<a href="#">Storage Subsystem Controller Battery Conditions</a>
	storage subsystem GBIC	critical	<a href="#">Storage Subsystem Gigabit Interface Connector (GBIC) Conditions</a>
	storage subsystem support CRU	critical	<a href="#">Storage Subsystem Customer Replaceable Unit (CRU) Conditions</a>
[121] SL_EVT_IMPAIRED (Component is impaired)	storage subsystem volume	minor	<a href="#">Storage Subsystem Volume Notifications</a>
[122] SL_EVT_LINK_DOWN (Link is down)	storage subsystem fiber channel link	critical	<a href="#">Storage Subsystem Fibre Channel Link Conditions</a>
[123] SL_EVT_NEAR_EXPIRATION (Component is near expiration)	storage subsystem battery	minor	<a href="#">Storage Subsystem Controller Battery Conditions</a>
[124] SL_EVT_NEEDS_ATTENTION (Needs attention)	controller	minor	<a href="#">Storage Subsystem Controller Notifications</a>
	storage subsystem alarm	minor	<a href="#">Storage Subsystem Controller Alarm Conditions</a>
[125] SL_EVT_NO_INPUT (Component is receiving no input)	storage subsystem support CRU	minor	<a href="#">Storage Subsystem Customer Replaceable Unit (CRU) Conditions</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
[126] SL_EVT_REMOVED (Component is removed)	controller	critical	<a href="#">Storage Subsystem Controller Notifications</a>
	storage subsystem temperature sensor	minor	<a href="#">Storage Subsystem Sensor Conditions</a>
	storage subsystem ESM	critical	<a href="#">Storage Subsystem Enclosure Service Module (ESM) Conditions</a>
	storage subsystem SFP	critical	<a href="#">Storage Subsystem Fibre Channel SFP Conditions</a>
	storage subsystem battery	critical	<a href="#">Storage Subsystem Controller Battery Conditions</a>
	storage subsystem GBIC	critical	<a href="#">Storage Subsystem Gigabit Interface Connector (GBIC) Conditions</a>
	storage subsystem alarm	critical	<a href="#">Storage Subsystem Controller Alarm Conditions</a>
	storage subsystem support CRU	critical	<a href="#">Storage Subsystem Customer Replaceable Unit (CRU) Conditions</a>
[127] SL_EVT_SERVICE_MODE (Component in service mode)	controller	major	<a href="#">Storage Subsystem Controller Notifications</a>
[128] SL_EVT_SUSPENDED (Component is suspended)	controller	minor	<a href="#">Storage Subsystem Controller Notifications</a>
[129] SL_EVT_SYS_RES_CRIT (System resource critical)	StorNext File System component	minor	<a href="#">File System or Metadata Capacity Warning</a>
[130] SL_EVT_MUTED (Muted)	storage subsystem alarm	minor	<a href="#">Storage Subsystem Controller Alarm Conditions</a>
[131] SL_EVT_DELAYED (Delayed)	NAS services	minor	<a href="#">NAS Conditions</a>
	OS component	minor	<a href="#">Operating System Delay</a>
[132] SL_EVT_REPL_TB_OST_FILE_ACTIVE (Trigger replication file was active so replication failed)	Replication	minor	<a href="#">Replication Conditions</a>
[133] SL_EVT_REPL_TB_TD_FAILED (Trigger replication failed)	Replication	minor	<a href="#">Replication Conditions</a>
[134] SL_EVT_REPL_TB_AUD_FAILED (Trigger replication recovery failed)	Replication	minor	<a href="#">Replication Conditions</a>
[135] SL_EVT_REPL_TB_MSG_FAILED (Trigger replication message notification failed)	Replication	minor	<a href="#">Replication Conditions</a>
[136] SL_EVT_LOW_SPACE (System is nearing full capacity)	Space Manager daemon	minor	<a href="#">Disk Space Conditions</a>
[137] SL_EVT_HARESET_STATE_ERROR (HA Manager detected an unprotected mode)	StorNext File System component	minor	<a href="#">High Availability Administration Warnings</a>

[ID] EVENT REFERENCE (Description)	COMPONENT	SEVERITY	MORE INFO
[138] SL_EVT_HARESET_UNEXPECTED_COMM (Unexpected or lost HA Manager communication between MDCs)	StorNext File System component	minor	<a href="#">High Availability: Communication Error</a>
[139] SL_EVT_VIP_CONFIG (An error in ha_vip.txt file or vip_control)	StorNext File System component	minor	<a href="#">Virtual IP Configuration Warnings</a>
[140] SL_EVT_REP_DEDUPE_COMM (Replication/Deduplication connectivity or comm. issue)	StorNext File System component	minor	<a href="#">Replication and Deduplication Communication Issues</a>
[141] SL_EVT_REP_DEDUPE_SNPOLICY (Snpolicy reported error/warning)	StorNext File System component	minor	<a href="#">Snpolicy Issues</a>
[142] SL_EVT_REP_DEDUPE_BFST (Interaction with blockpool error condition)	StorNext File System component	minor	<a href="#">Deduplication Blockpool Warnings</a>
[143] SL_EVT_RVIO_CONFIG (An error in rvio config file(fsname_rvio.opt))	StorNext File System component	minor	<a href="#">Non-Rtio Bandwidth (RVIO) Central Configuration Warnings</a>
[144] SL_EVT_WAS_CONFIG (An error in parsing OBJS config file (objs.conf))	StorNext File System component	critical	<a href="#">Object Storage (OBJS) Configuration Errors</a>
[145] SL_EVT_WAS_COMM (Object Storage connectivity or communication issue)	StorNext File System component	critical	<a href="#">Object Storage (OBJS) Communication Errors</a>
[146] SL_EVT_POLICY_TIMEOUT_CANCEL (Policy has timed out and is being cancelled)	StorNext Storage Manager component	minor	<a href="#">Policy Errors</a>
[147] SL_EVT_DISK_CAP_FAIL (Disk usage exceeds capacity licenses)	StorNext File System component	major	<a href="#">Disk License Errors</a>
[148] SL_EVT_BAD_DISK_CATALOG (Disk catalog missing or bad format)	StorNext File System component	major	<a href="#">Bad Disk Catalog Errors</a>
[149] SL_EVT_NEED_NTP (Required time synchronization service is not running)	StorNext File System component	minor	<a href="#">Time Synchronization</a>
[150] SL_EVT_LICENSE_CAPACITY_WARN (License capacity warning)	StorNext File System component	minor	<a href="#">SNFS License Failure</a>

## Affinity Configuration Violations

When a configuration violation occurs in the StorNext application, it must be repaired by stopping the system, editing the configuration, and then restarting the system. Below are specific configuration violations and recommended actions to repair each specific issue.

IF	THEN
There is more than one affinity on one stripe group:	You cannot have more than one affinity on one stripe group.  Examine all DSM configuration files (/usr/adic/DSM/config/*.cfgx). In any file that has the Storage Manager Flag set to <b>true</b> , and for every stripe group with more than one affinity, remove the extra affinities.

<p>The file system does not contain at least one non-exclusive data stripe group:</p>	<p>The file system has at least one affinity, and therefore must contain at least one non-exclusive data stripe group.</p> <p>Examine all DSM configuration files (/usr/adic/DSM/config/*.cfgx). In any file that has the Storage Manager Flag set to <b>true</b>, make sure at least one stripe group has the following configuration:</p> <p style="text-align: center;"> <b>Metadata No</b>  <b>Journal No</b>  <b>Exclusive No</b> </p>
<p>A file system contains both data stripe groups with affinities and data stripe groups without affinities:</p>	<p>A file system can contain data stripe groups with affinities, or data stripe groups without affinities, but it cannot contain both.</p> <p>Examine all DSM configuration files (/usr/adic/DSM/config/*.cfgx). In any file that has the Storage Manager Flag set to <b>true</b>, make sure that either every stripe group has an affinity, or that every stripe group does not have an affinity.</p>
<p>There are more than two affinities across all managed file systems:</p>	<p>No more than two affinities across all managed file systems are allowed.</p> <p>Examine all DSM configuration files (/usr/adic/DSM/config/*.cfgx). For all of the configuration files that have the Storage Manager Flag set to <b>true</b>, change the stripe group Affinities so there are no more than a total of two.</p>
<p>The number of affinities on managed file systems do not match for TSM and CVFS:</p>	<p>Examine all DSM configuration files (/usr/adic/DSM/config/*.cfgx). For all of the configuration files that have the Storage Manager Flag set to <b>true</b>, make sure the complete list of affinities matches the TSM affinity names found in the TIERDEF database table.</p>
<p>TSM does not recognize the CVFS managed file system affinity name:</p>	<p>Examine all DSM configuration files (/usr/adic/DSM/config/*.cfgx). For all of the configuration files that have the Storage Manager Flag set to <b>true</b>, make sure the complete list of affinities matches the TIERNAME fields found in the TSM TIERDEF database table.</p>
<p>An affinity in a policy class is not found in the TIERDEF table:</p>	<p>Make sure the non-zero elements in the TIERLIST field of the TSM CLASSDEF tables all match the TIERNUM fields in the TSM TIERDEF table.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p style="text-align: center;">Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: center;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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## Analyzing Service Tickets

Use this procedure to add information to a service ticket related to system troubleshooting, and to view the current status of a problem reported by StorNext. All modified entries are kept with the ticket number and ticket summary when the service ticket is closed.

1. Open and view a service ticket.

Refer to [Viewing Service Tickets](#).

2. Click **Analysis**.

The **Ticket Analysis** screen appears.

3. Enter all relevant information regarding actions taken to resolve the issue, and then click **Apply**.

The Progress window appears, showing the status of the ticket being modified.

**i** NOTE: Once the Progress window appears, you cannot cancel or stop this action. However, you can close the window by clicking the **X** in the upper-right corner of the window, but confirmation of success or failure is NOT shown.

IF	THEN
The Progress window shows <b>Success</b> :	The service ticket was successfully modified.
The Progress window shows <b>Failure</b> :	The ticket was NOT modified. To view the troubleshooting procedures, click <b>View Recommended Actions</b> . To view the error details, click <b>Error Logs</b> for information on why the ticket was not modified. To modify a service ticket, repeat Step 1 through Step 3.

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## Backup Errors

The backup status can be obtained on any currently running or last completed backup by running the `snbackup -s` command. The first line shows the overall status; the status line contains the same string viewed in the RAS message. The log file associated with that backup is shown beneath the status line, and shows any errors that have occurred. All errors in the log file are prefaced with ERR.

Below is a list of individual errors and recommended actions.

IF	THEN
Backup execution could not complete:	This is a generic failure message. Run the <code>snbackup -s</code> command and examine the failure.
There was an error connecting to database:	The database has not been started or is in a state that does not allow communication. Restart the database software.
There was an error opening the <code>fs_sysparm</code> file:	the <code>/usr/adic/TSM/config/fs_sysparm</code> file cannot be located. Contact the Quantum Technical Assistance Center for assistance.
TSM software is not running:	The StorNext TSM software is down. Restart the software.

The backup staging directory could not be created:	<ul style="list-style-type: none"> <li>• Verify that the file system used by the snbackup command is active and mounted.</li> <li>• Make sure root user has permission to create new directories.</li> </ul>
The system could not store exclude on <b>&lt;file system&gt;</b> :	Contact the Quantum Technical Assistance Center.
The backup temporary directory could not be created:	<ul style="list-style-type: none"> <li>• Verify that the file system used by the snbackup command is active and mounted.</li> <li>• Make sure root user has permission to create new directories.</li> </ul>
There were invalid arguments:	Check the usage by issuing the snbackup -h command, or through the man page.
Application of metadata journals failed:	The metadata for a file system might be corrupt. Contact the Quantum Technical Assistance Center.
The file /usr/adic/DSM/config/fsmlist is missing:	A configuration file is missing from the file system software directory. Contact the Quantum Technical Assistance Center.
The file /usr/adic/DSM/config/ <b>&lt;file system&gt;</b> .cfg is missing:	A configuration file is missing from the file system software directory. Correct or provide a configuration file for this file system.
The metadata dump file for <b>&lt;file system&gt;</b> is missing:	A new file system metadata dump must be generated for the file system. Use the GUI to create the metadata dump file. (From the SNFS Home Page, choose <b>Metadata Dump</b> from the <b>Admin</b> menu.)
<ul style="list-style-type: none"> <li>• All copies of files not stored:</li> <li>• Store files to media failed:</li> <li>• Store failed for backup files:</li> </ul>	<p>Run either the snbackup -s or the snbkpreport command, or through the GUI run a Backup Report to see which copy of the backups failed. Check all media and archives associated with that copy to determine the failure.</p> <p>To run a Backup Report from the GUI:</p> <ol style="list-style-type: none"> <li>1. Access the SNFS home page.</li> <li>2. Choose <b>Backups</b> from the <b>Reports</b> menu.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>



# Backup Failed

Backup failure errors typically fall into one of three categories:

- Media Issues (for example, out of media, archive offline, no drives available, and so on)
- System Software Issues (for example, metadata could not be applied)
- File System Issues (for example, file system not mounted, fsm not running, and so on)

To determine the exact cause of the backup failure, see the error log included in the RAS notification, or the email notification. The error log contains the actual output of the snbackup command, and will help the Quantum Technical Assistance Center determine the exact cause of the backup failure.

The following table lists some common backup failure errors and the corresponding recommended actions. For errors not listed, contact the Quantum Technical Assistance Center.

IF	THEN
You receive one of the following media errors: "All copies of files not stored" "Store files to media failed" "Store failed for backup files"	Check all media, drives, and archives.
You receive one of the following system software errors: (1) "Error connecting to database" (2) "Error opening fs_sysparm file" (3) "TSM software not running" (4) "Cannot run backup on standby server"	Restart the StorNext software via the GUI. Before you can do a backup, the storage manager, the database, and the file system must be running.  (1) This error indicates that the mysql database is not running.  (2) This error indicates that SNFS was not installed correctly, or that the Configuraiton Wizard was terminated prematurely.  (3) This error indicates that the storage manager is not running.  (4) This error indicates an HA problem where a backup was run on the standby system.

<p>You receive one of the following file system errors:</p> <p>"Could not set store exclude on \$stagingArea"</p> <p>"Backup staging directory could not be created"</p> <p>"Backup temporary directory could not be created"</p> <p>"Invalid arguments" (Caused during manual CLI invocation when incorrect syntax is used)</p> <p>"Application of metadata journals failed"</p> <p>"Missing \$ENV{'DSM_DIR'}/config/fsmlist file" (SNFS installation issue or corrupt filesystem)</p> <p>"Missing \$ENV{'DSM_DIR'}/config/\$fileSystem.cfg file" (Backup file system is missing or was deleted)</p> <p>"Missing or bad metadata dump file for "</p>	<ol style="list-style-type: none"> <li>1. Make sure the file system exists and is mounted, and that the file system manager (FSM) is running. (This might require restarting the file system to get FSM running and the file system mounted.)</li> <li>2. Metadata issues might require re-dumping metadata. This process involves unmounting the file system, stopping the file system, dumping metadata, restarting the file system, and remounting the file system.</li> <li>3. If there is access loss to the file system (for example, you cannot create a directory,) repeat step 1.</li> </ol>
<p>You receive the error "backup execution could not complete":</p>	<ol style="list-style-type: none"> <li>1. Make sure you have the email notification you received after the backup failed.</li> <li>2. Contact the Quantum Assistance Center and send them the email notification so they can determine the cause of the backup failure.</li> </ol>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Assistance Center.</li> </ol> <p><b>In the USA:</b>1+800-284-5101  <b>UK, France</b>  <b>and</b> 00800 4 QUANTUM  <b>Germany:</b>  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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**Recommended Actions**

# Bad Disk Catalog Errors

IF	THEN
The StorNext disk catalog, quantum_disk_catalog.dat, is missing or incorrectly formatted.	<ul style="list-style-type: none"> <li>Please contact the Quantum Technical Assistance Center to get a free correctly formatted disk catalog.</li> </ul>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Bad File System Metadata Dump

IF	THEN
The system has detected that a new metadata dump is required:	<p>Run snmetadump for the affected file system as soon as possible.</p> <p>Note: This condition could occur if cvfsck or cvupdatefs was recently run, or if a Restore Journal error occurred and the Restore Journal was shut down.</p>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Blockpool Errors

IF	THEN
BLOB or blocklet data is missing or corrupt	Contact the Quantum Technical Assistance Center.
Cluster body (or file)... is missing	Contact the Quantum Technical Assistance Center.
Cluster directory... is missing	Contact the Quantum Technical Assistance Center.
Bulk file allocation failed	Contact the Quantum Technical Assistance Center.
Cluster reuse table reached cluster limit	Contact the Quantum Technical Assistance Center.
BLOB sub-tree... repair failed	Contact the Quantum Technical Assistance Center.
You receive a replication error message:	<ol style="list-style-type: none"> <li>1. Check the network connection between the source and the target machine. (An automatic attempt is made periodically to re-establish communication.)</li> <li>2. Check the status of the target machine. If the blockpool is down the target machine might be in degraded mode, so check for any RAS tickets related to degradation on the target.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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## Boot Disk Absent

IF	THEN
A boot disk is not present on the node:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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## Boot Disk Failure Detected

IF	THEN
A boot disk has failed on the node:  OR  A rebuild failed for the boot disk:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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## Capturing a System State


Use the Capture System State feature to obtain and preserve detailed information about the current StorNext state. The Capture State feature includes all viable logs for the hardware and software components. Use the [Downloading a System State Capture](#) feature to save the captured system state to a local or network drive for troubleshooting purposes.

1. Access the StorNext home page.
2. Choose **Capture State** from the **Service** menu.

The **Service - Capture System State** screen appears.

3. Click **Capture**.

The Progress window appears.

 **NOTE:** Once the Progress window appears, you cannot cancel or stop this action. However, you can close the window by clicking the **X** in the upper-right corner of the window, but confirmation of operation success or failure is NOT shown.

IF	THEN
The Progress window shows <b>Success</b> :	The system state was successfully captured.
The Progress window shows <b>Failure</b> :	The system state was NOT captured. To view the troubleshooting procedures, click <b>View Recommended Actions</b> . To view the error details, click <b>Error Logs</b> for information on why the system state was not captured. To capture an additional system state, repeat Steps 1 - 3.

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## Recommended Actions

# Checksum Error

When a checksum error occurs during a file retrieve operation, the error is generally due to a hardware failure in a tape drive, host bus adapter, or the cabling between them. The error can also be caused by damaged media. If the checksum error is due to a drive or media failure, there might be an associated "Tape Alert" service ticket.

IF	THEN
The drive or media is suspected:	<ol style="list-style-type: none"> <li>1. Close the ticket and retry the read/write operation on the original drive and media.</li> <li>2. Monitor operation for a reoccurrence of the ticket.</li> <li>3. Insert the suspect media into an alternate drive and retry the read/write operation.</li> <li>4. If the error follows the media, retire the media.</li> <li>5. If the error stays with the drive, contact the Quantum Technical Assistance Center to replace the drive.</li> </ol>

The media is bad:	<ol style="list-style-type: none"> <li>1. Copy the data to another piece of media.</li> <li>2. Remove the original media from the library and discard.</li> </ol>
The host bus adapter is suspected:	<ol style="list-style-type: none"> <li>1. Check the host's system log for HBA-related errors.</li> <li>2. Replace the HBA with a spare.</li> <li>3. Close the ticket and retry the read/write operation on the original drive and media.</li> <li>4. Monitor operation for a reoccurrence of the ticket.</li> <li>5. If the problem is unresolved, contact the Quantum Technical Assistance Center.</li> </ol>
Cabling is suspected:	<ol style="list-style-type: none"> <li>1. Check the cabling between the drive and the host bus adapter.</li> <li>2. If the problem is unresolved, contact the Quantum Technical Assistance Center.</li> </ol>
There is an associated "Tape Alert" service ticket:	<ol style="list-style-type: none"> <li>1. Follow the instructions in the Tape Alert service ticket.</li> <li>2. If the problem is unresolved, contact the Quantum Technical Assistance Center.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Cleaning Media - Expired

IF	THEN
The service ticket indicates the cleaning media for the tape library has expired:	<ol style="list-style-type: none"> <li>1. If the tape library has exported the cleaning media to the entry port, remove the cleaning media.</li> <li>2. If the tape library has <b>NOT</b> exported the cleaning media to the entry port, export it.</li> <li>3. If no other cleaning media is available in the tape library, add a new one.</li> </ol>
The problem <b>IS</b> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <b>NOT</b> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </li> </ol>

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# Cleaning Media - No Cleaning Media Available



IF	THEN
The service ticket indicates the tape library does not have any available cleaning media:	Add new cleaning media to the tape library.
The problem <b>IS</b> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <b>NOT</b> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </li> </ol>

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# Closing Service Tickets

Use this procedure to close a service ticket.

-  NOTE: You can analyze a service ticket after it has been closed. For more information, refer to [Analyzing Service Tickets](#).
-  NOTE: Once the Progress window appears, you cannot cancel or stop this action. However, you can close the window by clicking on the **X** in the upper-right corner of the window, but confirmation of success or failure is NOT shown.

IF	THEN
The Progress window shows <b>Success</b> :	The service ticket was successfully closed.
The Progress window shows <b>Failure</b> :	The service ticket was NOT closed. To view the troubleshooting procedures, click <b>View Recommended Actions</b> . To view the error details, click <b>Error Logs</b> for information on why the ticket was not closed. To close a service ticket, repeat Step 1 through Step 3.

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# Communication Failure

IF	THEN
A client has disconnected unexpectedly:	<p>Check the health of the network used for metadata traffic.</p> <p>Also, inspect the FSM log and the system logs on the clients and metadata controller to determine the root cause.</p>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> <li>Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="margin-left: 40px;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Configuration Not Supported

IF	THEN
<p>The file system configuration file is corrupt, missing, or causes a syntax error to be reported:</p>	<p>Verify that a valid file system configuration file exists for the specified file system.</p> <p>Also, check the system logs for additional configuration file error details.</p>
<p>The total number of FSMs running on metadata controllers under one fsnameservers domain exceeds the capacity limit of the heartbeat protocol.</p>	<p>Shorten file system names to seven characters or fewer to free up space for more FSMs, or reduce the number of FSMs.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Connection Rejected

IF	THEN
A client connection has been rejected unexpectedly:	<p>Check the system logs to determine the root cause.</p> <p>If the problem is caused by exceeding the maximum number of connections, increase MaxConnections in the file system configuration file.</p>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# Deduplication Blockpool Warnings

IF	THEN
You receive notification of blockpool failed to start:	<p>The specific failure is referenced in this message. Ensure that the filesystem of the blockpool is mounted, communication with host is established, and that blockpool is properly configured.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive notification of blockpool link failure:	<p>The specific replication error is referenced in this message. Verify the communication linkage with target is stable. Also verify that the blockpool software is running properly.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive notification of VIP config while blockpool configured as localhost	<p>In order for replication to function properly after a failover the blockpool must be configured to use the VIP address. For each managed file system's global policy, set "Address for Replication and Deduplication" to be the VIP address. This edit should be done whether deduplication is enabled or not.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive notification concerning blockpool license capacity threshold:	<p>Please contact Quantum for assistance.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
The problem <u>IS</u> resolved:	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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## Recommended Actions

# Disk License Errors

IF	THEN
<p>An MDC has exceeded the licensed disk storage capacity for the StorNext file systems. StorNext disk capacity licenses are required when using Quantum certified disks and for any disks not certified by Quantum. Quantum branded disks do not require a license. Please ensure that you have up to date licenses for the disk capacity managed by this MDC. This will help Quantum support understand your StorNext MDC configuration.</p>	<ul style="list-style-type: none"> <li>o Please visit <a href="http://www.quantum.com/StorNextDiskLicense">http://www.quantum.com/StorNextDiskLicense</a> to request updated disk capacity licenses. These disk capacity licenses will be provided free of charge.</li> </ul>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Disk Space Allocation Failure

IF	THEN
<p>A disk space allocation has failed:</p>	<p>Free up disk space by removing unnecessary disk copies of files, or add disk capacity.</p> <p>It is possible that the metadata or userdata LUNs are full and need to have capacity added. Use cvadmin to check LUN/Stripe Group capacity.</p> <p>If the allocation failure is unexpected, contact the Quantum Technical Assistance Center.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Disk Space Conditions

IF	THEN
The device is approaching a low available disk space condition:	Increase storage capacity by freeing up disk space (deleting or moving files) or by adding additional disk capacity.
The device is critically low on available disk space:	Increase storage capacity by freeing up disk space (deleting or moving files) or by adding additional disk capacity.
The available disk space has crossed a soft or hard limit:	Increase storage capacity by freeing up disk space (by deleting or moving files) or by adding additional disk capacity.
The problem is <u>NOT</u> resolved:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Downloading a System State Capture

Use the [Capturing a System State](#) feature to obtain and preserve detailed information about the current StorNext state. When the system state is captured, all viable logs for StorNext software components are saved and available for review and analysis. Use the Downloading a System State Capture feature to save the capture state to a local or network drive for system troubleshooting.

1. Access the StorNext home page.
2. Choose **Capture State** from the **Service** menu.

The **Service - Capture System State** screen appears.

3. Select a captured system state to download.
4. Click **Download**.

The **File Download** screen appears.

5. Click **Save** to save the zipped file to a local or network drive.

The **Save As** screen appears.

6. Click **Save**.

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## Duplicate Physical Media Found

IF	THEN								
If the service ticket indicates that duplicate physical media has been found:	Remove the duplicate media using the library's operator panel. Refer to your library's reference manual for operator panel instructions.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.  <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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## Exceeded License Capacity

IF	THEN								
A replication license violation is detected:	Contact the Quantum Technical Assistance Center to purchase additional licenses.								
OR									
A deduplication license violation is detected:	<table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Fan Failure

IF	THEN
The fan fails:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fan Not Found

IF	THEN
The fan is not found:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fan Speed Issues

IF	THEN
<p>The fan speed is low according to tach counts:</p> <p>OR</p> <p>The fan speed is high according to tach counts:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Hardware Faults

IF	THEN
<p>Your system detects a hardware fault on a fibre channel switch blade:</p> <p>OR</p> <p>Your system detects a hardware fault on a fibre channel switch:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel License Failure

IF	THEN
<p>The requested feature is not licensed on the fibre channel switch:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Reboot

IF	THEN
<p>A fibre channel switch is rebooting:</p>	<p>Wait a few minutes, and then retry the operation.</p>
<p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Switch - SFP Not Present

IF	THEN
The service ticket indicates that an SFP is not present in the Fibre Channel switch:	<ol style="list-style-type: none"> <li>1. Check the LED status of the Fibre Channel (FC) switch.</li> <li>2. Verify that the Fibre Channel cable is seated tightly.</li> <li>3. Try an available FC port.</li> <li>4. Try a different FC cable.</li> <li>5. Try an available SFP module:               <ol style="list-style-type: none"> <li>a. Unplug the FC cable from the appropriate FC port.</li> <li>b. Remove the SFP module from the FC switch port.</li> <li>c. Position the SFP module so that it is oriented correctly, and then insert it into the appropriate port until the latching mechanism clicks.</li> <li>d. Plug the FC cable into the appropriate port.</li> </ol> </li> </ol>
The problem is <u>NOT</u> resolved:	<p>Contact the Quantum Technical Assistance Center.</p> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Fibre Channel Switch Fan Failure

IF	THEN
A fibre channel switch fan fails:	<p>Contact the Quantum Technical Assistance Center.</p> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Fibre Channel Switch Fan Speed

IF	THEN
<p>A fibre channel switch fan speed has reached a critically low level:</p> <p>OR</p> <p>A fibre channel switch fan speed has reached a degraded state:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Switch Fan

IF	THEN
<p>A fibre channel switch fan is not present:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Switch Issues

IF	THEN
<p>The World Wide Name is missing on a fibre channel switch:</p> <p>OR</p> <p>A fibre channel switch blade is missing:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Fibre Channel Switch Power Supply Failure

IF	THEN
A fibre channel switch power supply fails:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Fibre Channel Switch Power Supply Missing

IF	THEN
A power supply for the fiber channel switch is missing:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Fibre Channel Switch Supply Voltage

IF	THEN
<p>A fibre channel switch power supply voltage has reached a critically low level:</p> <p>OR</p> <p>A fibre channel switch power supply voltage has reached a critically high level:</p>	<p>Contact the ©2017 Quantum Corporation – All rights reserved. Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Switch Temperature Errors

IF	THEN
<p>A fibre channel switch temperature has reached a critically low level:</p> <p>OR</p> <p>A fibre channel switch temperature has reached a critically high level:</p>	<ol style="list-style-type: none"> <li>1. Check the ambient temperature of the room where the system is installed to ensure that it falls within the specified range.</li> <li>2. When a component reports a temperature problem, verify that the fan(s), if any, spin freely and do not have excessive dust.</li> </ol>
<p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p style="text-align: center;"><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Fibre Channel Temperature Issues

IF	THEN
<p>A fibre channel temperature sensor is missing:</p> <p>OR</p> <p>A fibre channel switch temperature has reached a critically low level:</p> <p>OR</p> <p>A fibre channel switch temperature has reached a critically high level:</p> <p>OR</p> <p>The system detects a hardware fault on a fibre channel switch temperature sensor:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p style="text-align: center;"><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# File Processing Failure

IF	THEN
A failure occurred while trying to process an internal file.	<p>See the error details for more complete information about the failure.</p> <p>Possible reasons for the failure:</p> <ul style="list-style-type: none"> <li>• An attempt to roll the file (close the current file and open a new one for use) failed</li> <li>• A corruption in the file was detected</li> </ul> <p>In general, the system can continue without intervention after one of these errors occurs. However, if you experience these failures on a regular basis it could be indicative of a more serious situation, and you should contact the Quantum Technical Assistance Center.</p>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# File System Failover

IF	THEN
A file system failed over unexpectedly:	Inspect the system log and the FSM cvlog to determine the root cause.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## File System or Metadata Capacity Warning

IF	THEN								
You receive a warning about your file system exceeding FsCapacityThreshold:	Add additional storage capacity or reduce file system usage.								
You receive a warning that the file system is running out of metadata capacity:	Add additional metadata storage capacity.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"><li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li><li>2. Contact the Quantum Technical Assistance Center.  <table><tr><td><b>In the USA:</b></td><td>1+800-284-5101</td></tr><tr><td><b>UK, France and Germany:</b></td><td>00800 4 QUANTUM</td></tr><tr><td><b>EMEA:</b></td><td>+44 1256 848 766</td></tr><tr><td><b>On the Web:</b></td><td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td></tr></table></li></ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# High Availability Administration Warnings

IF	THEN
<p>You receive a warning that HA reset timers are misconfigured:</p>	<p>For StorNext HA to function properly, the reset timer intervals must be equal on both HA peer machines. Reconfigure the incorrect value and restart Storage Manager. The HA Reset interval file is <code>/usr/cvfs/config/ha_smith_interval</code>.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
<p>You receive a warning that HA configuration has an invalid mode:</p>	<p>The StorNext HA manager, <code>snhamgr</code>, has detected an invalid mode. This can be caused by tampering or corruption of the mode file located on the system.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
<p>You receive a warning that HA configuration detected peer has peerdown set:</p>	<p>The StorNext HA manager, <code>snhamgr</code>, has detected a peer with peerdown set and has taken the action to lock the local node.</p> <p>The peerdown mode is stored locally but refers to the HA peer. If communication is received from the peer in this mode, both nodes take corrective action to transition out of config or single mode and to stop StorNext.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem is <u>NOT</u> resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# High Availability: Communication Error

IF	THEN
You receive a warning that HA communication occurred in error:	<p>The StorNext HA manager, snhamgr, has received communication from a peer machine in peerdown mode. To protect your data, the HA Reset action may have been triggered.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive a warning that HA communication <b>did not</b> occur as expected:	<p>The StorNext HA manager, snhamgr, has failed to receive communication it expected to receive from its HA peer and the HA peer is in locked mode. When the secondary HA peer is in any mode other than peerdown, it will continue to communicate with the primary.</p> <p>To protect data, the local server must assume the peer to be in default mode and transitions out of config or single mode and stops StorNext.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# I/O Error

IF	THEN								
<p>An I/O error has occurred or data flush has failed:</p>	<p>Check LUN and disk path health, as well as overall SAN integrity.</p> <p>The cvfsdb "rpl" command can be used on the MDC to display the path to the file experiencing errors. For example, for inode 0x45d3909 on file system snfs1, use the command:</p> <pre>echo 'rpl 0x45d3909'   cvfsdb snfs1</pre> <p>Also, inspect the system logs for driver-level I/O errors.</p> <p>If the affected system is a Distributed Lan Client, also inspect the system logs on the Gateway systems.</p> <p>Note that RAS events for these errors are throttled so no further events from the specified system will be generated for one hour unless services are restarted. Therefore, system logs must be carefully monitored during this period for additional errors.</p>								
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>								
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <table data-bbox="619 1104 1398 1245"> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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## I/O Server - Configuration Mismatch

IF	THEN
The service ticket indicates that there is an I/O server configuration mismatch:	<p>One or more hardware components are either missing, inoperable or misconfigured.</p> <ol style="list-style-type: none"> <li>1. Check all external Ethernet and Fibre Channel connections.</li> <li>2. Ensure all external hardware devices are powered On and placed on-line.</li> </ol>
The problem is <u>NOT</u> resolved:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## I/O Server Ethernet Issues

IF	THEN
<p>A node's Ethernet link is down:</p> <p>OR</p> <p>A communication error occurred on a node's Ethernet port:</p> <p>OR</p> <p>You receive a message that an Ethernet port is not present:</p>	<ol style="list-style-type: none"> <li>1. Check all Ethernet cables and make sure they are connected.</li> <li>2. Replace the cable.</li> </ol>
The problem is <u>NOT</u> resolved:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# IPMI Controller Failure

IF	THEN
The IPMI controller fails:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Initialization Failure

IF	THEN
<p>An FSM or FSMPM process has failed to start:</p> <p>OR</p> <p>An attempt to mount an SNFS file system has failed:</p>	<p>Correct the system configuration as suggested by the event detail, or examine system logs to determine the root cause.</p> <p>If the detail text suggests a problem with starting the fsmprm process, run "cvlabel -l" to verify that disk scanning is working properly.</p>
All CVFS file systems are not mounted:	Mount the file systems that are not mounted.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Invalid Configuration

IF	THEN
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<p>The configuration file containing the error is <code>filesystems.config</code>, and the error indicates that an entry is missing:</p>	<p>Examine the configuration file to identify the missing entry.</p> <ul style="list-style-type: none"> <li>• If the entry should be included in the configuration file, add it to the file.</li> <li>• If the entry should <b>not</b> be included in the configuration file, contact the Quantum Technical Assistance Center to clean up the database entries.</li> </ul>
<p>The list of managed file system names do not match for TSM and CVFS:</p>	<p>If the file system is supposed to be managed by TSM but is listed as not managed, do the following:</p> <ol style="list-style-type: none"> <li>1. Stop StorNext.</li> <li>2. Change the <code>/usr/adic/DSM/config/</code> configuration file for that file system. Change the “storageManager” property from “false” to “true” <b>Note:</b> Verify with your system administrator that other settings in the configuration file are valid.</li> <li>3. Restart StorNext.</li> </ol> <p>If the file system is not supposed to be managed by TSM but is listed as managed, contact the Quantum Technical Assistance Center for assistance locating and deleting all StorNext management data for all data on that file system.</p>
<p>Multiple tape drives have the same serial number and device path:</p>	<ol style="list-style-type: none"> <li>1. Restart the StorNext software system, which will correct the internal records of the device path and serial number.</li> <li>2. If the problem persists, contact the Quantum Technical Assistance Center.</li> </ol>
<p>A configured tape drive has an invalid slot identifier:</p>	<ol style="list-style-type: none"> <li>1. Use the StorNext GUI to delete and then re-add the drive.</li> </ol> <p style="text-align: center;"><b>OR</b></p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol>
<p>A configured tape drive has no detectable SCSI device path:</p>	<ol style="list-style-type: none"> <li>1. Verify that the device is powered on.</li> <li>2. Verify that the device has not registered any errors.</li> <li>3. Verify that the device is physically connected by checking all cabling and connections.</li> <li>4. Verify that the device is correctly mapped to the host server. (<b>Caution:</b> If your system configuration allows you to logically remap all devices, verify that StorNext has been stopped prior to beginning the remapping. Restart StorNext after the remapping is complete.</li> </ol>
<p>A managed tape drive does not have a corresponding TSM <code>CfgDir</code> element:</p>	<ol style="list-style-type: none"> <li>1. Use the StorNext GUI to delete and then re-add the drive.</li> </ol> <p style="text-align: center;"><b>OR</b></p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol>

<p>You receive one of the following “Invalid Media Configuration” messages:</p> <ul style="list-style-type: none"> <li>• MSM does not have any Data media classes</li> <li>• A TSM Media type could not be converted to an MSM media type</li> <li>• MSM does not have any MediaCriteria for managed media</li> </ul>	<p>Contact the Quantum Technical Assistance Center for help further diagnosing the invalid media configuration.</p>
<p>There are no archives, Object Storage namespaces or storage disks configured:</p>	<p>Use the StorNext GUI to add at least one physical archive, Object Storage namespace or storage disk to the system.</p>
<p>A TSM Data Policy media type does not match any media existing in the system:</p>	<ul style="list-style-type: none"> <li>• If the data policy media type is correct, add that type of media to an archive that supports that media type.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• If the data policy media type is incorrect, change that policy’s media type to the correct media type.</li> </ul>
<p>A media ID that exists in TSM does not exist in MSM:</p>	<ol style="list-style-type: none"> <li>1. Visually locate the medium in a specific archive.</li> <li>2. Run the <code>vsaudit</code> command and verify that the medium now appears as a New Medium.</li> <li>3. Run the <code>vsreclassify</code> command, converting the medium from the ADDBLANK to the DATA media class.</li> </ol> <p>If the medium does not physically exist in any archive or if the above commands fail, contact the Quantum Technical Assistance Center.</p>
<p>The SNAPi configuration file is not valid:</p>	<p>Correct the errors in the configuration file <code>/usr/adic/SNAPI/config/snapi.cfg</code>.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Invalid Media Label Detected

IF	THEN
<p>A specific piece of media fails label validation:</p>	<p>Run <code>fsCheckSlotMapping</code> to ensure that all paths to tape drives are configured properly.</p> <p>If <code>fsCheckSlotMapping</code> fails (indicating that tape drive paths are not configured properly):</p> <ol style="list-style-type: none"> <li>1. Reboot the server</li> <li>2. Change the media state to available using <code>fschmedstate</code></li> <li>3. Try the failed operation again.</li> </ol> <p>If <code>fsCheckSlotMapping</code> runs successfully, determine whether the drive is not the cause of the error:</p> <ol style="list-style-type: none"> <li>1. Use <code>fschstate</code> to place offline the tape drive for which the tape label verification failed.</li> <li>2. Use <code>fschmedstate</code> to change the media state to Available.</li> <li>3. Try the failed operation again.</li> </ol> <ul style="list-style-type: none"> <li>• If the operation succeeds: <ul style="list-style-type: none"> <li>- Use <code>fschstate</code> to place the original drive back online</li> <li>- Contact the Quantum Technical Assistance Center about the suspected drive.</li> </ul> </li> <li>• If the operation fails again with a label validation failure: <ul style="list-style-type: none"> <li>- Use <code>fschstate</code> to place the original drive back online</li> <li>- Contact the Quantum Technical Assistance Center about the failed media.</li> </ul> </li> </ul> <p>If the problem persists:</p> <ol style="list-style-type: none"> <li>1. Use the <a href="#">Capturing a System State</a> feature to create a system snapshot.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Journaling Error Detected

IF	THEN								
Journal recovery has failed:	Contact the Quantum Technical Assistance Center and open a service request.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.   <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# LUN Mapping Changed

IF	THEN								
A disk scan has detected a change in an existing LUN path:	<p>If the LUN mapping change is unexpected, run the cvadmin "disks" and "paths" commands to confirm that all LUN paths are present.</p> <p>Also, check SAN integrity and inspect the system logs to determine the root cause.</p>								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.   <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Label Validation Failure

IF	THEN
Disk label verification has failed:	Use the cvlabel command to check for corrupt, incorrect, or missing disk labels. Also inspect system logs for I/O errors, and check SAN integrity.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# License Failure

IF	THEN
A replication license violation is detected:	Contact the Quantum Technical Assistance Center to purchase additional licenses.
OR	
A deduplication license violation is detected:	<ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul>

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# Media Format Failure

IF	THEN
<p>The problem indicates that a particular piece of media failed to format because the volume ID (valid) was already in use:</p>	<ol style="list-style-type: none"> <li>1. Use the <a href="#">Capturing a System State</a> feature to create a system snapshot.</li> <li>2. Contact the Quantum Technical Assistance Center immediately.</li> </ol>
<p>The problem indicates that a particular piece of media failed to format:</p>	<p>Validate that the problem was the media or the drive:</p> <ol style="list-style-type: none"> <li>1. Use <code>fschmedstate</code> to clean up the media's <i>suspect and marked</i> state.</li> <li>2. Use <code>fschstate</code> to take offline the drive in which the media failed to format.</li> <li>3. Attempt to reformat the media using <code>fsformat</code>.</li> </ol> <p>If the format fails again, the media is unusable and should be discarded. Otherwise the previous drive or connectivity might be problematic. Contact the Quantum Technical Assistance Center.</p>
<p>The problem persists:</p>	<ol style="list-style-type: none"> <li>1. Use the <a href="#">Capturing a System State</a> feature to create a system snapshot.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Media Not Found

IF	THEN								
<p>The system indicates that a particular piece of media is not found (unavailable):</p>	<p>Check the library console for the indicated media.</p> <ul style="list-style-type: none"> <li>• If the media is found in the library, issue <code>vsaudit &lt;library&gt;</code></li> <li>• If the media is NOT found in the library, locate the indicated media and insert it into the library's mailbox. Import media using the GUI. (From the StorNext home page, choose <b>Remove/Move Media</b> from the <b>Admin</b> menu.)</li> </ul> <p>If the problem persists:</p> <ol style="list-style-type: none"> <li>1. Use the <a href="#">Capturing a System State</a> feature to create a system snapshot.</li> <li>2. Restart StorNext.</li> <li>3. Contact the Quantum Technical Assistance Center.</li> </ol>								
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>								
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Media Suspect Threshold Count Exceeded

StorNext allows media to be marked suspect a certain number of times before the threshold is met. (The default threshold is 3 times.) If the suspect threshold count is exceeded, media is treated as logically write protected.

IF	THEN
If a particular piece of media was marked suspect and exceeded the suspect count threshold:	<ol style="list-style-type: none"> <li>1. Use the <a href="#">Capturing a System State</a> feature to create a system snapshot.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Metadata Dump Failure

IF	THEN

<p>The system has detected either a stale or missing metadata dump for a managed file system.</p>	<p>StorNext backup and restore operations (and also some file system scanning operations such as a rebuild policy,) require the existence of a current, valid metadata dump. Use the following procedure to perform a metadata dump.</p> <p>Unmount the system:</p> <ol style="list-style-type: none"> <li>1. From the SNFS Home Page, choose <b>Unmount</b> from the <b>Admin</b> menu.</li> <li>2. Select from the <b>Mounted File Systems</b> list the file system to unmount.</li> <li>3. Click <b>Unmount</b>.</li> </ol> <p>Stop the file system:</p> <ol style="list-style-type: none"> <li>1. From the SNFS Home Page, choose <b>Start/Stop File System</b> from the <b>Admin</b> menu.</li> <li>2. Select from the Active File Systems list the file system you want to stop.</li> <li>3. Click <b>Stop</b>.</li> </ol> <p>Perform the metadata dump:</p> <ol style="list-style-type: none"> <li>1. From the SNFS Home Page, choose <b>Metadata Dump</b> from the <b>Admin</b> menu.</li> <li>2. Select the file system on which to perform the metadata dump.</li> <li>3. Click <b>Apply</b>.</li> </ol> <p>After the dump is complete, restart and mount the file system.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Metadata Inconsistency Detected

IF	THEN
The FSM has detected a metadata inconsistency:	<p>Check SAN integrity and inspect the system logs for I/O errors.</p> <p>If the SAN is healthy, run cvfsck on the affected file system at the earliest convenient opportunity.</p>
On a managed file system, the FSM has a problem creating or rolling an event file:	<p>Check the state of the shared HA or local file system containing the event files.</p> <p>Check that the components of the provided path are intact and accessible.</p> <p>Check the system logs for other errors and more detailed information.</p> <p>In general, the system can continue without intervention after one of these errors occurs. However, if you experience these failures on a regular basis it could be indicative of a more serious situation, and you should contact the Quantum Technical Assistance Center.</p>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Missing LUNs

IF	THEN
A client fails to mount because a LUN is missing:	<p>Check the system logs to determine the root cause.</p> <p>Run the cvadmin “disks” and “paths” commands, and then check for missing LUNs.</p>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# NAS Conditions

IF	THEN
A service was delayed:	The synchronization service failed, but will be retried automatically.
<p>The NAS software component indicates failure while trying to perform the indicated operation:</p> <p>OR</p> <p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# NIC Ethernet Issues

IF	THEN
<p>A node's ethernet link is down:</p> <p>OR</p> <p>A communication error occurred on a node's ethernet port:</p> <p>OR</p> <p>You receive a message that an ethernet port is not present:</p>	<p>Check all ethernet cables.</p>
<p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Network Authentication

IF	THEN
<p>An authentication failure occurs after trying to log in to the network switch:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Network Configuration Issues

IF	THEN
<p>Your system detects an Ethernet switch configuration mismatch:</p> <p>OR</p> <p>The network switch configuration has changed and is not set to the default factory settings:</p> <p>OR</p> <p>The network switch is an invalid (non-Quantum) type:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Network EGP Failure

IF	THEN
<p>Your system detects an EGP failure on a network switch:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Network Link Failure

IF	THEN
<p>An Ethernet port link is down on the network switch:</p> <p>OR</p> <p>You receive a message that a port link is not present:</p>	<p>Check all Ethernet cables.</p>
<p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Network MAC Address Changed

IF	THEN
<p>Your system detects that the MAC address of the switch has changed:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Network Reboot Issues

IF	THEN
<p>The network switch is rebooting:</p>	<p>Wait a few minutes, and then retry the operation.</p>
<p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Network Switch Communication Error

IF	THEN
A communication error was detected on the network switch:	Check all Ethernet cables and connections, and also make sure the switch is powered up.
The problem is <u>NOT</u> resolved:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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## Network Temperature Issues

IF	THEN
There is no temperature reading:  OR  The temperature is too low:  OR  The temperature is too high:  OR  There is a temperature-related hardware fault:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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# Node Fan Speed

IF	THEN
<p>A node's fan speed has reached a critically high level:</p> <p>OR</p> <p>A node's fan has reached a degraded state:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Node Issues

IF	THEN
A node's Ethernet link is down:	Check all ethernet cables.
A node is not present in the cluster:	Check network connections between the node and switch.
A node is degraded:	Using the GUI, try to reset the node.
<p>A node has stopped or been shutdown:</p> <p>OR</p> <p>A node has a communication error:</p> <p>OR</p> <p>A node has a software fault:</p> <p>OR</p> <p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Node Temperature

IF	THEN
<p>A node's temperature has reached a critically high level:</p> <p>OR</p> <p>A node's temperature is in a degraded state:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Node Voltage Levels

IF	THEN
<p>A node's voltage level has reached a critically high level:</p> <p>OR</p> <p>A node's voltage level has reached a degraded state:</p> <p>OR</p> <p>A node's voltage level has reached a critically low level:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Non-Rtio Bandwidth (RVIO) Central Configuration Warnings

IF	THEN
You receive a warning that Parse_ClientCfg failed:	<p>Function Parse_ClientCfg parses the rvio central configuration file(fsname_rvio.opt), which is used to reserve bandwidth for non-rtio clients. A properly formatted line has client ip address, bw-type (qosios or qosmb) and a list of bandwidth reservation for stripe groups. Inspect /usr/cvfs/examples/rvio.example and correct errors.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# Object Storage (OBJS) Communication Errors

IF	THEN
You received an error indicating that the server couldn't be connected:	<p>Check whether the controller's IP address and port number in objs.conf are correct. Check whether the server and the clientdaemon on the server are reachable.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
You received an error indicating that the hostname couldn't be resolved:	<p>Check whether the access controller's hostname in the configuration file objs.conf is correct.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>

You received an error indicating that the access to a remote resource was denied:	<p>Check to make sure the user configured in objs.conf has proper permission to the accessed namespace.</p> <ul style="list-style-type: none"> <li>• Consult man page "objs.conf" for more information.</li> </ul>
You received a send or receive error:	<p>Check to make sure the network is working properly.</p>
You received an error indicating that the operation was aborted by callback:	<p>Check whether the server's clientdaemon process is running properly. If the server is too busy, increase the value of parameter objs_transfertimeout in objs.conf. Then run snpolicy command "/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs" to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
You received a SSL connect error:	<p>Check whether https is supported on the controller. If it is not supported, change the parameter use_https in objs.conf to false and change other related parameters. Once the configuration parameters are corrected, run snpolicy command "/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs" to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
You received an error that indicated a certificate problem or verification failure:	<p>Check to make sure the correct certificate is imported to local system and the certificate parameters cacert or cacertfile are properly configured. If the certificate doesn't have the ip or hostname configured in objs.conf in the common name or alternative subject name list, set parameter server_auth to 2 so only peer but not host is verified. Reload the configuration if parameters in objs.conf have been changed.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
The problem <u>IS</u> resolved:	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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## Object Storage (OBJS) Configuration Errors

IF	THEN



<p>You received an error that OBJS config file open or read failed:</p>	<p>Check the config file <code>/usr/cvfs/config/objs.conf</code>. Ensure it is a regular text file that can be opened and read by the root user.</p>
<p>You received an error that OBJS config failed due to verification failure:</p>	<p>Function <code>parse_objfs_config_file</code> parses the Object Storage configuration file(<code>/usr/cvfs/config/objs.conf</code>), which is used to define OBJS configuration information for StorNext Snpolicyd daemon to access. Check whether the Object Storage Provider is supported, access hosts and namespaces are properly configured. Once the configuration parameters are corrected, run snpolicy command <code>"/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs"</code> to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
<p>You received an error that indicated unknown Object Storage provider:</p>	<p>Function <code>parse_objfs_config_file</code> parses the Object Storage configuration file. Check whether there is any spelling error in the provider's name. Currently only "lattus" is supported. Once the configuration parameter is corrected, run snpolicy command <code>"/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs"</code> to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult man page "objs.conf" for more information.</li> </ul>
<p>You received an error that too many hosts specified in OBJS config:</p>	<p>Function <code>parse_objfs_config_file</code> parses the Object Storage configuration file. Reduce the number of access hosts in the config file. Currently the number of access hosts can reach up to 64. Once the configuration parameter is corrected, run snpolicy command <code>"/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs"</code> to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
<p>You received an error that indicated incorrect ports specified:</p>	<p>Function <code>parse_objfs_config_file</code> parses the Object Storage configuration file. Check any spelling errors for port number. You can specify a range of ports separated by "-", but the second port should not be less than the first one. Once the configuration parameter is corrected, run snpolicy command <code>"/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs"</code> to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
<p>You received an error that too many namespaces specified in OBJS config:</p>	<p>Function <code>parse_objfs_config_file</code> parses the Object Storage configuration file. Reduce the number of namespaces in the config file. The max number of namespaces is 16. Once the configuration parameter is corrected, run snpolicy command <code>"/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs"</code> to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>
<p>You received an error that indicated unknown authentication method:</p>	<p>Function <code>parse_objfs_config_file</code> parses the Object Storage configuration file. Check whether there is any spelling error. Currently the supported authentication methods are none and digest. Once the configuration parameter is corrected, run snpolicy command <code>"/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs"</code> to reload the configuration.</p> <ul style="list-style-type: none"> <li>• Consult the man page "objs.conf" for more information.</li> </ul>

You received an error that OBJS ID should be defined first:	<p>Function parse_objs_config_file parses the Object Storage configuration file. For every OBJS configuration in the config file, parameter "objs_id" should be configured first. Once the configuration parameter is corrected, run snpolicy command "/usr/cvfs/bin/snpolicy -reloadconfig=pathname -config=objs" to reload the configuration.</p> <ul style="list-style-type: none"> <li>Consult the man page "objs.conf" for more information.</li> </ul>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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## Object Storage Component Taken Offline

IF	THEN
An Object Storage component exceeds its failure threshold and is taken offline:	<ol style="list-style-type: none"> <li>Attempt to bring the component back online. This will verify connectivity to the device.</li> <li>Verify the Object Storage components have been configured properly within Stornext.</li> <li>Verify the Object Storage appliance is still running.</li> <li>Make sure the connections to the Object Storage appliance are secure.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Operating System Delay

IF	THEN								
An unclean shutdown was detected.	The host has been restarted. Verify that all applications are running as expected.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.   <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Operating System Delay

IF	THEN								
A long delay was observed when performing host resolution:	Ensure that name resolution services (DNS, NIS, etc.) are accessible and properly configured for looking up the IP address or hostname specified in the event detail.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.   <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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## Recommended Actions

# Policy Errors

IF	THEN
<p>If the service ticket indicates that the policy has timed out and is being cancelled, and the system performance is temporarily degraded, which is causing slow I/O such that a mover is taking longer than expected to complete</p>	<ul style="list-style-type: none"> <li>◦ Identify and fix the cause of system performance degradation.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>◦ For store policies (fspolicy -s), increase the POL_STORE_RESP_ABORT_TIME system parameter setting. Reference the /usr/adic/TSM/config/fs_sysparm.README file for instructions on changing the parameter.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>◦ For relocate policies (fspolicy -r), increase the POL_RELOC_RESP_ABORT_TIME system parameter setting. Reference the /usr/adic/TSM/config/fs_sysparm.README file for instructions on changing the parameter.</li> </ul>
<p>If the service ticket indicates that the policy has timed out and is being cancelled, and a file is too large, such that it will always take longer than policy waits for I/O operations to complete</p>	<ul style="list-style-type: none"> <li>◦ Decrease the MED_SEG_OVER_XXX system parameter where XXX is the media type that the file is being stored to.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>◦ For store policies (fspolicy -s), increase the POL_STORE_RESP_ABORT_TIME system parameter setting. Reference the /usr/adic/TSM/config/fs_sysparm.README file for instructions on changing the parameter.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>◦ For relocate policies (fspolicy -r), increase the POL_RELOC_RESP_ABORT_TIME system parameter setting. Reference the /usr/adic/TSM/config/fs_sysparm.README file for instructions on changing the parameter.</li> </ul>
<p>If the service ticket indicates that the policy has timed out and is being cancelled, and a mover process is hung, such that it can no longer perform I/O</p>	<ul style="list-style-type: none"> <li>◦ Run the fs_fmoverc process manually, to kill and recover from the hung fs_fmover process. Reference the fs_fmoverc(1) man page for further information.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>◦ Restart the TSM subsystem. All needed fs_fmoverc processes will automatically be launched at that time, to kill and recover from all hung fs_fmover processes.</li> </ul>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Port Failure

IF	THEN
Your system detects an Ethernet port failure on the network switch:  OR  Your system detects a hardware fault:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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# Possible Drive/Media Mount Discrepancy

IF	THEN
<p>A service ticket indicates the drive is mounted and the media mounted in the drive cannot be verified:</p>	<p>This is a caution regarding drive and media mounts, and might require user intervention. In this situation, StorNext assigns to the unverified media the barcode (media ID) of the last tape mounted in the drive, and continues to operate.</p> <p>If StorNext cannot dismount this drive at a later time, dismount it manually.</p> <ol style="list-style-type: none"> <li>1. Check the drive to see if the media has been ejected.</li> <li>2. If the media has not been ejected, press <b>Eject</b> on the drive.</li> <li>3. Try to dismount the drive again using the GUI. (From the SNSM home page, choose <b>Library &gt; Dismount</b> from the <b>Media</b> menu.)</li> <li>4. If the dismount fails using the GUI, dismount the drive using the operator panel on the physical library.</li> <li>5. Using the GUI, perform an audit to make sure that the <b>Remap Audit</b> checkbox is selected. (From the SNSM home page, choose <b>Library &gt; Audit Library</b> from the <b>Admin</b> menu.)</li> </ol>
<p>A service ticket indicates the drive is NOT mounted and the media mounted in the drive cannot be verified:</p>	<ol style="list-style-type: none"> <li>1. Dismount the drive via the operator panel on the physical library.</li> <li>2. Using the GUI, perform an audit to making sure that the <b>Remap Audit</b> checkbox is selected. (From the SNSM home page, choose <b>Library &gt; Audit Library</b> from the <b>Admin</b> menu.)</li> </ol>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# Power Supply Failure

IF	THEN
The power supply fails:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Power Supply Not Found

IF	THEN
A power supply is not found:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Power Supply Voltage Issues

IF	THEN
<p>The power supply voltage is too low:</p> <p>OR</p> <p>The power supply voltage is too high:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Quota Limit or Fragmentation Warnings

IF	THEN
You receive a warning that the quota hard limit is reached for a user:	Either increase the user's quota, or notify the user.
You receive a warning that fragmentation has been detected in an inode:	<ol style="list-style-type: none"> <li>1. Consult the snfsdefrag man page for instructions on performing fragmentation analysis and defragmenting files.</li> <li>2. See ExtentCountThreshold in the cvfs_config documentation for information on adjusting this RAS event.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Quantum Technical Assistance Center

If you require product assistance beyond the recommendations provided, contact the Quantum Technical Assistance Center.

**In the USA:** 1+800-284-5101  
**UK, France and Germany:** 00800 4 QUANTUM  
**EMEA:** +44 1256 848 766  
**On the Web:** <http://www.quantum.com/support>

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# Replication Conditions

IF	THEN
A failure is detected during replication:	If there is additional information in this event to describe the reason for the failure, correct the problem and restart the replication.



<p>Replication is paused:</p>	<p>If the pause is initiated by the user, this should be expected. If this is a programmatic pause, check the replication target system to verify the following:</p> <ul style="list-style-type: none"> <li>• the target system is reachable from the source system</li> <li>• the target system allows replication from the source system</li> <li>• the replication service is active on the target system</li> <li>• the target system is not in critical low disk space</li> </ul>
<p>Replication failed due to a file system call:</p> <p>OR</p> <p>A failure is detected during the file scan operation of replication:</p>	<p>Restart the replication.</p>
<p>Replication detects that duplicate media are being replicated to a target from different partitions on the same or different host:</p>	<p>This alert informs you that media barcodes are not unique system wide. Therefore, there is a chance during replication recovery that duplicate media will be detected. (These media will not be recovered.)</p> <p>Remedy the situation by using unique barcodes on media throughout all source systems that replicate to the same target system.</p>
<p>The cartridge-based replication (for VTL) or directory/file-based replication (for NAS shares) file was active, causing replication to fail:</p>	<p>Restart the cartridge-based or directory/file-based replication task.</p>
<p>Cartridge-based replication or directory/file-based replication fails:</p>	<p>Verify the share or partition is enabled as a directory/file-based or cartridge-based replication source.</p> <p>- If the failure was due to Linter database errors, verify the following:</p> <ul style="list-style-type: none"> <li>• The Linter database process is running</li> <li>• The version in <code>/opt/DXi/redb_schema/ReplicationDBSchemaVersion</code> matches the output of the command <code>/opt/DXi/redb_schema/ReplicationDBScript.sh version</code></li> </ul> <p>If there is a mismatch, it suggests there is an installation problem. If this occurs, contact the Quantum Technical Assistance Center.</p> <p>- If synchronization failed due to namespace replication error, verify the replication section of this document.</p> <p>- If cartridge-based replication or directory/file-based replication is not making progress, verify the following:</p> <ul style="list-style-type: none"> <li>• The files are getting deduped on the system</li> <li>• Replication is not paused on the system</li> </ul>
<p>Cartridge-based replication or directory/file-based replication recovery fails:</p>	<p>Verify the following:</p> <ul style="list-style-type: none"> <li>• The share or partition is enabled as a directory/file-based or cartridge-based replication target</li> <li>• The Sync ID of the share or partition matches the Sync ID on the source</li> <li>• There are no duplicate barcodes in the system</li> <li>• The host lock for the share or partition is available. (Verify this by checking the lock status in the GUI.)</li> </ul>

<p>Cartridge-based replication or directory/file-based replication message notification fails:</p>	<p>Verify the following:</p> <ul style="list-style-type: none"> <li>• The webguid and replication processes are running on the source system</li> <li>• The aud and vmm processes are running on the target</li> <li>• The target system is accessible</li> </ul>								
<p>Cartridge-based replication fails because the cartridge is not in a valid state:</p>	<p>Verify the cartridge state. The tape cartridge must be in one of the following states before cartridge-based replication can complete successfully:</p> <ul style="list-style-type: none"> <li>• Scratch State</li> <li>• Scratch State, Physical Present</li> <li>• Virtual State</li> <li>• Virtual State, Physical Present</li> <li>• Early Realize Pending State</li> <li>• Identical State</li> </ul> <p>Note: If synchronization is enabled on your systems and you have physical cartridges associated with virtual cartridges on your Target system, you <b>MUST</b> export the physical cartridges and remove them from the physical library prior to performing the synchronization if virtual cartridges will be deleted on the Target system by the synchronization process.</p>								
<p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;"><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Replication and Deduplication Communication Issues

IF	THEN
You received notification of failed parse of configuration file:	<p>An error exists in the configuration file for snpolicyd Verify the contents of the snpolicyd.conf file in /usr/cvfs/config.</p> <ul style="list-style-type: none"> <li>Consult the User's Guide for more information.</li> </ul>
You received notification of an unparseable policy:	<p>Verify the policy settings for the path and name specified. The message may specify the option or syntax in error. Verify the correctness of policy database and configuration files.</p> <ul style="list-style-type: none"> <li>Consult the User's Guide for more information.</li> </ul>
You received notification of a policy validation error:	<p>A policy failed validation. The message specifies the option or syntax in error. Correct the error and redo the action.</p> <ul style="list-style-type: none"> <li>Consult the User's Guide for more information.</li> </ul>
You received notification of a target connection error:	<p>A replication event was attempted but was unable to connect with target. Verify the target status, connectivity, and system health.</p> <ul style="list-style-type: none"> <li>Consult the User's Guide for more information.</li> </ul>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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## Resource Warning

IF	THEN
You receive a system resource warning:	<p>Contact the Quantum Technical Assistance Center.</p> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

## Robotics - Move Failure

IF	THEN
The service ticket indicates that the tape library's robotics has experienced a move failure:	<ol style="list-style-type: none"><li>1. Verify that the tape library is online and ready.</li><li>2. Verify the state of the tape library component that failed.</li><li>3. Verify the media is in the slot.</li><li>4. Verify the drive/library is online using the StorNext GUI.</li></ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"><li>1. Note any codes displayed on the tape library's control panel.</li><li>2. Modify the ticket according to the troubleshooting steps taken.</li></ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"><li>3. Contact the Quantum Technical Assistance Center. <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li></ol>

# Robotics - Not Ready

IF	THEN
The service ticket indicates that the tape library's robotics is not ready:	<ol style="list-style-type: none"> <li>1. Verify that the tape library is online and ready.</li> <li>2. Verify that the tape library is online and ready through the StorNext GUI.</li> <li>3. Verify that the tape library is connected to the server.</li> </ol>
No archives or storage disks exist:	Use the StorNext GUI to add at least one physical archive or storage disk to the system.
An archive is off-line:	<ol style="list-style-type: none"> <li>1. Use <code>vsarchivevary</code> to change the archive state to online.</li> <li>2. Run <code>fsstate</code> and verify that all drives are listed correctly. In particular, no drive state should be listed as 'Unknown.'</li> <li>3. If running <code>fsstate</code> shows 'Unknown' for every drive state, do the following:               <ul style="list-style-type: none"> <li>◦ Run <code>tsmstop; tsmstart</code> to reinitialize software communication pathways.</li> <li>◦ Repeat step 2 above.</li> </ul> </li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Note any codes displayed on the tape library's control panel.</li> <li>2. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p style="text-align: center;">Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>3. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Robotics - Physical Tape Library Removed

IF	THEN								
The service ticket indicates that a physical tape library was removed:	<ol style="list-style-type: none"> <li>1. Make sure the connections (for example, fibre or SCSI) to the physical tape library are secure.</li> <li>2. Make sure the physical tape library is powered ON, placed Online, and is at Ready status.</li> </ol>								
The problem is <u>NOT</u> resolved:	<p>Contact the Quantum Technical Assistance Center.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;"><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Robotics - Wrong Firmware Level/Invalid Library Type/Configuration Failed

IF	THEN
The service ticket indicates the tape library's firmware level is wrong:	Use the tape library's control panel to verify the firmware level for this release against the <a href="#">StorNext Release Notes</a> . Contact your library vendor to obtain the proper firmware.
The service ticket indicates the tape library type is invalid:	Disconnect the tape library and contact the Quantum Technical Assistance Center using the contact information below.
The service ticket indicates an error configuring the tape library:	Contact the Quantum Technical Assistance Center using the contact information below.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# SAS/Fibre Channel HBA Issues

IF	THEN
The hardware device attached to one or more of your SAS or Fibre Channel ports is not detected:	Make sure the device is powered on, and that you have a connection to that device.
One or more SAS/FC HBA cards is missing:  OR  One or more SAS/FC HBA cards has a hardware fault:  OR  The problem is <u>NOT</u> resolved:	Contact the Quantum Technical Assistance Center.  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>In the USA:</b></p> <p><b>UK, France and Germany:</b></p> <p><b>EMEA:</b></p> <p><b>On the Web:</b></p> </div> <div style="width: 45%;"> <p>1+800-284-5101</p> <p>00800 4 QUANTUM</p> <p>+44 1256 848 766</p> <p><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p> </div> </div>

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# SNFS License Failure

IF	THEN
You receive a warning that your SNFS license will expire within 48 hours:  OR  Your SNFS license has expired:	Contact the Quantum Technical Assistance Center to obtain a valid license.



<p>You receive a capacity failure or warning indicator for one of the following features:</p> <p>Manager  Flex_quantum_tape  Flex_sdisk  Flex_lattus  Flex_private_cloud  Flex_public_cloud  Snsn_capacity</p>	<p>If you have user data on a file system configured as a storage disk, consider moving that data to an alternate location. <i>All data</i> on the storage disk file system counts against the Manager capacity, not just files copied to the disk by Storage Manager.</p> <p>If you are unsure about the location of the Storage Manager data on a file system, run the fsdiskcfg command with no arguments. This command reports on the configured storage disks and the location of the managed data on each file system. The 'Path' column in the command output indicates the directory containing the managed data.</p> <p>If this is not the issue, contact Quantum Technical Assistance Center to obtain the needed license with increased capacity.</p>
<p>You receive a capacity failure or warning indicator for the 'Deduplication' (Storage Manager) feature:</p>	<p>If you have user data on a file system configured for Deduplication, consider moving some of that data to an alternate, non-Deduplication file system location.</p> <p>Additionally, contact Quantum Technical Assistance Center to obtain a Deduplication license with increased capacity.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# SNFS License Required

IF	THEN
<p>You receive a warning that your SNFS license will expire within 48 hours:</p>	<p>Contact the Quantum Technical Assistance Center to obtain a valid license.</p>
<p>You receive a capacity failure or warning indicator for one of the following features:</p> <p>Manager Flex_quantum_tape Flex_sdisk Flex_lattus Flex_private_cloud Flex_public_cloud Snsn_capacity</p>	<p>If you have user data on a file system configured as a storage disk, consider moving that data to an alternate location. <i>All data</i> on the storage disk file system counts against the Manager capacity, not just files copied to the disk by Storage Manager.</p> <p>If you are unsure about the location of the Storage Manager data on a file system, run the fsdiskcfg command with no arguments. This command reports on the configured storage disks and the location of the managed data on each file system. The 'Path' column in the command output indicates the directory containing the managed data.</p> <p>If this is not the issue, contact Quantum Technical Assistance Center to obtain the needed license with increased capacity.</p>
<p>You receive a capacity failure or warning indicator for the 'Deduplication' (Storage Manager) feature:</p>	<p>If you have user data on a file system configured for Deduplication, consider moving some of that data to an alternate, non-Deduplication file system location.</p> <p>Additionally, contact Quantum Technical Assistance Center to obtain a Deduplication license with increased capacity.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# SNFS Port Failure

IF	THEN
StorNext cannot resolve the IP address of the coordinator <name server> after 600 seconds:	Check the name in the fsnameservers file.
The name server <name server> (<IP address>) heartbeat is lost for 600 seconds:	The name server may not be reachable. Verify that the name server machine is running, can be reached on the network, and that SNFS is running on it.
The problem is <u>NOT</u> resolved:	<p>Contact the Quantum Technical Assistance Center.</p> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Shutdown Error

IF	THEN
SNFS shutdown errors have occurred:	Inspect the file system and system logs to determine the root cause.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p style="text-align: center;">Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Snpolicy Issues

IF	THEN
You received notification of a target connection error:	<p>A replication event was attempted but was unable to connect to target. Verify the target status, connectivity, and system health.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You received notification that snpolicyd failed to start:	<p>Snpolicyd is failed to start, verify that there isn't an existing snpolicyd . running on the system. This message may have been generated by a blockpool initialization failure. Check log at /usr/cvfs/debug/snpolicy.log for details.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You received notification of unserviced target events:	<p>A replication request was not completely serviced. . Files affected reside on the specified path. .</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Software Component Failure

IF	THEN
The software component indicated failure while trying to perform the indicated operation:	<p>The operation will be retried automatically. If the operation fails again, contact the Quantum Technical Assistance Center.</p> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Software Component Initialization Failure

IF	THEN
The software component indicated failure while preparing to perform the indicated operation:	<p>The operation will be retried automatically. If the operation fails again, contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Software Resource Warning

IF	THEN
<p>If the service ticket indicates to Stop IO due to no space:</p>	<ul style="list-style-type: none"> <li>• Run <code>fsclean</code> to remove obsolete versions of files. If this is a Storage Disk destination, run <code>fsdiskcfg</code> with the <code>-r</code> option to refresh the new capacity of the device. If this is a Lattus Object Storage destination, run <code>fsobjcfg</code> with the <code>-r</code> option to refresh the new capacity of the media.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• Remove files that are not managed by StorNext. If this is a Storage Disk destination, run <code>fsdiskcfg</code> with the <code>-r</code> option to refresh the new capacity of the device.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• If this is a StorageDisk destination, add storage disk capacity. Run <code>fsdiskcfg</code> with the <code>-r</code> option to refresh the new capacity of the device.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• If this is a Lattus Object Storage destination, add Lattus disk capacity. Run <code>fsobjcfg</code> with the <code>-r</code> option to refresh the new capacity of the media.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• If this is an snfs filesystem, it is possible that the metadata or userdata LUNs are full and need to have capacity added. Run <code>cvadmin</code> to check LUN/Stripe Group capacity.</li> </ul>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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## Storage Disk Taken Offline

IF	THEN								
A storage disk exceeds its failure threshold and is taken offline:	<ol style="list-style-type: none"> <li>1. Verify that the file system can be reached (NFS), and is still mounted and accessible.</li> <li>2. If the storage disk is located on a CVFS file system, check the File System Manager (FSM).</li> </ol>								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.   <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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## Storage Subsystem Chassis Conditions

IF	THEN								
The tray failed:	<p>Contact the Quantum Technical Assistance Center.</p> <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Storage Subsystem Controller Alarm Conditions

IF	THEN
A storage subsystem controller alarm is muted:	Turn on the alarm so it will sound when a failure occurs.
A storage subsystem controller alarm needs attention:	The alarm is sounding, so the storage subsystem should be examined for disk failures.
<p>A storage subsystem controller alarm is disabled:</p> <p>OR</p> <p>A storage subsystem controller alarm is missing or has been removed:</p> <p>OR</p> <p>The problem is <u>NOT</u> resolved:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Controller Battery Conditions

IF	THEN
<p>A controller battery fails:</p> <p>OR</p> <p>A controller battery is missing or has been removed:</p> <p>OR</p> <p>A controller battery is near expiration:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Controller Notifications

IF	THEN
A communication error was detected:	Check all Ethernet cables and connections..
<p>You receive one of the following notifications:</p> <ul style="list-style-type: none"> <li>• A Premium Feature Key (PFK) is not installed.</li> <li>• A storage subsystem controller failed.</li> <li>• Invalid storage subsystem type.</li> <li>• The controller is running the wrong firmware version.</li> <li>• LUN communication failure.</li> <li>• A storage subsystem controller failed.</li> <li>• A storage subsystem controller is missing or has been removed.</li> <li>• A storage subsystem controller has parity errors.</li> <li>• A storage subsystem controller is operating in Service mode.</li> <li>• A storage subsystem controller is suspended.</li> <li>• A storage subsystem controller needs attention.</li> </ul>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Customer Replaceable Unit (CRU) Conditions

IF	THEN
<p>A support customer replaceable unit fails:</p> <p>OR</p> <p>A support customer replaceable unit is missing or has been removed:</p> <p>OR</p> <p>A support customer replaceable unit has no input:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Drive Conditions

IF	THEN
<p>A drive failed:</p> <p>OR</p> <p>A drive was replaced, removed, bypassed, or unresponsive:</p> <p>OR</p> <p>A drive rebuild failed:</p> <p>OR</p> <p>A global spare drive was not detected:</p> <p>OR</p> <p>A logical drive failed:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Enclosure Service Module (ESM) Conditions

IF	THEN								
An Enclosure Service Module fails:  OR  An Enclosure Service Module supply is missing or has been removed:	Contact the Quantum Technical Assistance Center.  <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Storage Subsystem Fan Conditions

IF	THEN								
A fan fails:  OR  A fan is missing or has been removed:	Contact the Quantum Technical Assistance Center.  <table> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Storage Subsystem Fibre Channel Link Conditions

IF	THEN
A fibre channel link fails:  OR  A fibre channel link is down:	Check your fibre channel cabling.
The problem is <u>NOT</u> resolved:	Contact the Quantum Technical Assistance Center.  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>In the USA:</b></p> <p><b>UK, France and Germany:</b></p> <p><b>EMEA:</b></p> <p><b>On the Web:</b></p> </div> <div style="width: 45%;"> <p>1+800-284-5101</p> <p>00800 4 QUANTUM</p> <p>+44 1256 848 766</p> <p><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p> </div> </div>

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# Storage Subsystem Fibre Channel SFP Conditions

IF	THEN
A fibre channel SFP fails:	Replace the failed SFP.
A fibre channel SFP is missing or has been removed:	Replace the missing or removed SFP.
The problem is <u>NOT</u> resolved:	Contact the Quantum Technical Assistance Center.  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>In the USA:</b></p> <p><b>UK, France and Germany:</b></p> <p><b>EMEA:</b></p> <p><b>On the Web:</b></p> </div> <div style="width: 45%;"> <p>1+800-284-5101</p> <p>00800 4 QUANTUM</p> <p>+44 1256 848 766</p> <p><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p> </div> </div>

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## Storage Subsystem Gigabit Interface Connector (GBIC) Conditions

IF	THEN
A fibre channel Gigabit Interface Connector fails:  OR  A fibre channel Gigabit Interface Connector is missing or has been removed:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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## Storage Subsystem Power Supply Conditions

IF	THEN
A power supply fails:  OR  A power supply is missing or has been removed:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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# Storage Subsystem Sensor Conditions

IF	THEN
A storage subsystem array's temperature exceeds the nominal limit:	Check ventilation and fans to ensure adequate air flow.
A storage subsystem array's temperature exceeds the max limit allowed:	Shut down the affected storage subsystem array and contact the Quantum Technical Assistance Center.
One of more thermal sensors is missing or has been removed:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Tray Hardware Faults

IF	THEN
Your system detects a hardware fault on a storage subsystem tray:	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101</p> <p><b>UK, France and Germany:</b> 00800 4 QUANTUM</p> <p><b>EMEA:</b> +44 1256 848 766</p> <p><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Storage Subsystem Volume Notifications

IF	THEN
<p>One or more volumes is operating in degraded mode due to one or more drive failures:</p> <p>OR</p> <p>One or more volumes failed due to excessive drive failures:</p> <p>OR</p> <p>Inconsistent parity was detected on one or more volumes during a media scan:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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# Switch Firmware Version

IF	THEN
<p>Your system detects an Ethernet switch firmware version mismatch (an unsupported firmware version):</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## System Board Power Supply Failure

IF	THEN
A power supply for the system board fails:	Verify that AC power is present and that the power cable is plugged in securely.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> resolved:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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## System Board Power Supply Missing

IF	THEN
A power supply for the system board is missing:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>

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## System Controller Accessed

IF	THEN
The system enclosure has been accessed:	Reset the system intrusion sensor through the Web user interface.
The problem is <u>NOT</u> resolved:	Contact the Quantum Technical Assistance Center.  <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a>



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## System Resource Failure

IF	THEN								
SNFS has failed to allocate memory:	<p>Determine the cause of memory depletion and correct the condition by adding memory or paging space to your system.</p> <p>If SNFS is using excessive amounts of memory, adjusting the configuration parameters might resolve the problem. For information about adjusting parameters, refer to the Release Notes, the <code>cvfs_config(4)</code> and <code>mount_cvfs(1)</code> man pages, and the SNFS Tuning Guide.</p>								
The FSM detects exhaustion of a resource controlled by an adjustable parameter:	Modify the file system configuration file as needed, and then restart the file system.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"><li>1. Modify the ticket according to the troubleshooting steps taken.</li></ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"><li>2. Contact the Quantum Technical Assistance Center.</li></ol> <table><tr><td><b>In the USA:</b></td><td>1+800-284-5101</td></tr><tr><td><b>UK, France and Germany:</b></td><td>00800 4 QUANTUM</td></tr><tr><td><b>EMEA:</b></td><td>+44 1256 848 766</td></tr><tr><td><b>On the Web:</b></td><td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td></tr></table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# System Resource Warning

IF	THEN								
If the number of mounted Virtual Tape Drives exceeds the mount limit:	Unload Virtual Tape Drives until the number of mounted Virtual Tape Drives is under the mount limit.								
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .								
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;"><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Tape - Drive Reported Media Error

IF	THEN								
<p>The drive reported a media error (sense data, tape alert):</p>	<ol style="list-style-type: none"> <li>1. Check the tape library's control panel to determine if any other errors exist.               <ul style="list-style-type: none"> <li>◦ If other errors exist, correct them before proceeding. Refer to the documentation for this type of tape library.</li> <li>◦ If no other errors exist and the media is mounted, dismount the media.</li> </ul> </li> <li>2. If the media is not dismounted, check the drive to see if it has been ejected.</li> <li>3. If the media has not been ejected:               <ul style="list-style-type: none"> <li>◦ Press the <b>Eject</b> button on the drive to eject the media.</li> <li>◦ Try to dismount the media again.</li> </ul> </li> </ol>								
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>								
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.           <table style="margin-left: 20px;"> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Tape Drive - Cleaning of Drive Failed

IF	THEN
Drive cleaning failed:	<p>The cleaning media might be defective or expired, or there is a problem with the drive.</p> <ol style="list-style-type: none"> <li>1. Replace existing cleaning media.</li> <li>2. Attempt to clean the drive using the StorNext GUI. (From the SNSM home page, choose <b>Drive &gt; Clean Drive</b> from the <b>Admin</b> menu.)</li> <li>3. If the drive still indicates that cleaning is required, contact the Quantum Technical Assistance Center using the contact information below.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# Tape Drive - Configuration Failed

IF	THEN
Drive configuration failed:	<ol style="list-style-type: none"> <li>1. Capture the StorNext system state.  Refer to <a href="#">Capturing a System State</a>.</li> <li>2. Contact Quantum Technical Assistance Center using the information below.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# Tape Drive - Drive Removed

IF	THEN
The service ticket indicates a tape drive was removed:	<ol style="list-style-type: none"> <li>1. Make sure the connections to the physical drive (for example, fibre, SCSI) are secure.</li> <li>2. Make sure the physical (tape) library can see the drive.</li> </ol>
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken. Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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# Tape Drive - Drive Reported Drive Error

IF	THEN								
<p>The service ticket indicates the tape drive reported a drive error:</p>	<ol style="list-style-type: none"> <li>1. Check the tape library's control panel to determine if any other errors exist.               <ul style="list-style-type: none"> <li>◦ If other errors exist, correct them before proceeding. Refer to the documentation for this type of tape library.</li> <li>◦ If no other errors exist and the media is mounted, dismount the media.</li> </ul> </li> <li>2. If the media is not dismounted, check the drive to see if it has been ejected.</li> <li>3. If the media has not been ejected:               <ul style="list-style-type: none"> <li>◦ Press the <b>Eject</b> button on the drive to eject the media.</li> <li>◦ Try to dismount the media again.</li> </ul> </li> </ol>								
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>								
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.           <table style="margin-left: 20px; border: none;"> <tr> <td style="padding-right: 10px;"><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table> </li> </ol>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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# Tape Drive - Wrong Firmware Level/Invalid Drive Type

IF	THEN
The service ticket indicates the tape drive's firmware level is wrong:	Contact the Quantum Technical Assistance Center using the contact information below.
The service ticket indicates the drive type is invalid:	Disconnect the drive, and then contact the Quantum Technical Assistance Center using the contact information below.
The problem <u>IS</u> resolved:	Close the service ticket. Refer to <a href="#">Closing Service Tickets</a> .
The problem has <u>NOT</u> been resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center. <ul style="list-style-type: none"> <li><b>In the USA:</b> 1+800-284-5101</li> <li><b>UK, France and Germany:</b> 00800 4 QUANTUM</li> <li><b>EMEA:</b> +44 1256 848 766</li> <li><b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li> </ul> </li> </ol>

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## Tape Drive Alerts

Follow the recommendations below after the tape drive has issued a tape alert. Some alerts are fatal and indicate that the drive is no longer useful. Other alerts indicate that user intervention (such as cleaning) will correct the problem. Note the flag number from the ticket for use in troubleshooting.

The host application should have received the same tape alert message. Not all host applications respond with the same behavior.

The recommendations below are based on best practices for a typical host application.

Flag 56 (38h) - Unrecoverable load failure

Flag 58 (3Ah) - Firmware failure

Flag 59 (3Bh) - WORM medium integrity check failed

Flag 60 (3Ch) - WORM medium overwrite attempted

IF	THEN
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Flag 1 (01h) - Read warning Flag 2 (02h) - Write warning	Contact the Quantum Technical Assistance Center.
Flag 3 (03h) - Hard Error The problem could be the tape or the drive. The drive cannot isolate the source.	<ol style="list-style-type: none"> <li>1. Close the ticket and retry the read/write operation on the original drive and media.</li> <li>2. Monitor operation for a reoccurrence of the ticket.</li> <li>3. Insert the suspect media into an alternate drive and retry the read/write operation.</li> <li>4. If the error follows the media, retire the media.</li> <li>5. If the error stays with the drive, contact the Quantum Technical Assistance Center to replace the drive.</li> </ol>
Flag 4 (04h) - Media	<ol style="list-style-type: none"> <li>1. Copy the data to another piece of media.</li> <li>2. Remove the original media from the library and discard.</li> </ol>
Flag 5 (05h) - Read Failure Flag 6 (06h) - Write Failure The problem could be the tape or the drive. The drive cannot isolate the source.	<ol style="list-style-type: none"> <li>1. Close the ticket and retry the read/write operation on the original drive and media.</li> <li>2. Monitor operation for a reoccurrence of the ticket.</li> <li>3. Insert the suspect media into an alternate drive and retry the read/write operation.</li> <li>4. If the error follows the media, retire the media.</li> <li>5. If the error stays with the drive, contact the Quantum Technical Assistance Center to replace the drive.</li> </ol>
Flag 7 (07h) - Media life	<ol style="list-style-type: none"> <li>1. Copy the data to another piece of media.</li> <li>2. Remove the original media from the library and discard.</li> </ol>
Flag 9 (09h) - Write protect	If the media is used for writing data, adjust the write-protect tab on the media and clear the write-protect setting.
Flag 10 (0Ah) - No removal	The prevent media removal flag is on, so it must be turned off.
Flag 11 (0Bh) - Cleaning media	If cleaning media does not reside in the cleaning media pool, move it there.
Flag 12 (0Ch) - Unsupported format	The media is not supported by the drive. If the media is blank, remove it. Otherwise, contact the Quantum Technical Assistance Center.
Flag 13 (0Dh) - Recoverable snapped tape Flag 14 (0Eh) - Unrecoverable snapped tape	Contact the Quantum Technical Assistance Center.

Flag 15 (0Fh) - Memory chip in cartridge failure	<ol style="list-style-type: none"> <li>1. Write protect the media.</li> <li>2. Copy the data to a new piece of media.</li> <li>3. Discard the old media.</li> </ol>
Flag 16 (10h) - Forced eject	Investigate whether the StorNext administrator's actions might have initiated an eject operation.
Flag 17 (11h) - Read-only format	The loaded cartridge is a read-only type in this drive. If the media contains data, write protect it.
Flag 18 (12h) - Tape directory corrupted on load	The tape directory must be rebuilt. Contact the Quantum Technical Assistance Center.
Flag 19 (13h) - Nearing media life	<ol style="list-style-type: none"> <li>1. Copy the data to another piece of media.</li> <li>2. Remove the original media from the library and discard.</li> </ol>
Flag 20 (14h) - Clean now Flag 21 (15h) - Clean periodic	Clean the drive.
Flag 22 (16h) - Expired cleaning media Flag 23 (17h) - Invalid cleaning media	<ol style="list-style-type: none"> <li>1. Remove the media.</li> <li>2. Add new media.</li> </ol>
Flag 24 (18h) - Retension requested Flag 25 (19h) - Dual-port interface error Flag 26 (1Ah) - Cooling fan failure Flag 27 (1Bh) - Power supply failure Flag 28 (1Ch) - Power consumption Flag 29 (1Dh) - Drive maintenance	Contact the Quantum Technical Assistance Center.
Flag 30 (1Eh) - Hardware A Flag 31 (1Fh) - Hardware B A hardware error has occurred that should be captured and returned for failure analysis.	Contact the Quantum Technical Assistance Center.

Flag 32 (20h) - Interface	<ol style="list-style-type: none"> <li>1. Check the cabling between the library and the attached tape library.</li> <li>2. If the problem is unresolved, contact the Quantum Technical Assistance Center.</li> </ol>
Flag 33 (21h) - Eject media  The drive has experienced an issue that can be resolved by unloading and reloading media.	<ol style="list-style-type: none"> <li>1. Retry the operation.</li> <li>2. If the problem persists, contact the Quantum Technical Assistance Center.</li> </ol>
Flag 34 (22h) - Firmware download via SCSI or FC has failed	StorNext does not support user firmware updates. Contact the Quantum Technical Assistance Center for upgrade information.
Flag 35 (23h) - Drive Humidity  Flag 36 (24h) - Drive Temperature  Flag 37 (25h) - Drive Voltage  Flag 38 (26h) - Predictive Failure  Flag 39 (27h) - Diagnostics Required  Flag 40 (28h) - Loader hardware A  Flag 41 (29h) - Loader stray tape  Flag 42 (2Ah) - Loader Hardware B  Flag 43 (2Bh) - Loader door  Flag 44 (2Ch) - Loader hardware C  Flag 45 (2Dh) - Loader magazine  Flag 46 (2Eh) - Loader predictive failure	Contact the Quantum Technical Assistance Center.
Flag 51 (33h) - Tape directory invalid at unload	The tape directory must be rebuilt. Contact the Quantum Technical Assistance Center.

<p>Flag 52 (34h) - Tape system area</p> <p>Flag 53 (35h) - Tape system area read failure</p> <p>Flag 54 (36h) - No start of data</p> <p>Flag 55 (37h) - Loading failure</p>	<p>Contact the Quantum Technical Assistance Center.</p>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem has <u>NOT</u> been resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p><b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></p>

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## Time Synchronization

IF	THEN

<p>You receive messages saying that the time synchronization service is not running:</p>	<p>Quantum strongly recommends using an NTP server to keep the time synchronized between both nodes of the HA pair and the metadata on the shared file system, alleviating data mismatches due to incorrect time stamps. If date and time between the two MDC nodes becomes inconsistent, it will also cause HA to become unreliable.</p> <p>In addition, consistent time synchronization is also important when using StorNext with Quantum QCloud and Quantum Lattus S3 products. An out-of-sync system will produce errors similar to "The difference between the request time and the current time is too large". In order to avoid this situation, it is important that all the StorNext MDC nodes operating in the same network are synchronized to the same time.</p> <p>If an Internet connection is available, Quantum strongly recommends you use an public NTP server pool. If there is no outside connection available, set up an internal NTP server on another node and use that server as the server for StorNext MDC nodes that server. That way the time and date stamps will be consistent for data.</p> <p>Consult your OS documentation on how to start and administer NTP. Some OSs use other time synchronization programs by default (e.g. Chronyd). Those are acceptable too.</p> <p>If you really cannot run a time synchronization service and are willing to accept the consequences, you can turn off this RAS message by running the command below on the machine in question.</p> <pre>echo VERIFY_NTP=0 &gt;&gt; /usr/cvfs/config/cvsetenv ; chown root:root /usr/cvfs/config/cvsetenv ; chmod 700 /usr/cvfs/config/cvsetenv</pre>								
<p>If you require further assistance:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <table border="0"> <tr> <td><b>In the USA:</b></td> <td>1+800-284-5101</td> </tr> <tr> <td><b>UK, France and Germany:</b></td> <td>00800 4 QUANTUM</td> </tr> <tr> <td><b>EMEA:</b></td> <td>+44 1256 848 766</td> </tr> <tr> <td><b>On the Web:</b></td> <td><a href="http://www.quantum.com/support">http://www.quantum.com/support</a></td> </tr> </table>	<b>In the USA:</b>	1+800-284-5101	<b>UK, France and Germany:</b>	00800 4 QUANTUM	<b>EMEA:</b>	+44 1256 848 766	<b>On the Web:</b>	<a href="http://www.quantum.com/support">http://www.quantum.com/support</a>
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## Troubleshooting the StorNext Software

IF	THEN
<p>A service ticket indicates software issues including incorrect firmware levels:</p>	<ol style="list-style-type: none"> <li>Capture the StorNext system state. Refer to <a href="#">Capturing a System State</a>.</li> <li>Download the captured state. Refer to <a href="#">Downloading a System State Capture</a>.</li> <li>Stop and restart the StorNext software.</li> </ol>

<p>An I/O error occurs on a path in a multipath environment (LUN communication failure):</p>	<p>Check the system and storage subsystem logs for SAN integrity.</p>
<p>A process or task dies and does not restart:</p>	<p>Determine the Component of the failed process/task (the Component will be indicated in the Event Summary).</p> <p>If the Component is a Storage Manager component:</p> <ol style="list-style-type: none"> <li>1. If the Event Details indicate a database problem then stop the Storage Manager software. (On the command line, run "adic_control stop".)</li> <li>2. Start any stopped Storage Manager components. (On the command line, run "adic_control start".)</li> </ol> <p>If the Component is NOT a Storage Manager component:</p> <ol style="list-style-type: none"> <li>1. Check the FSM logs and system logs to determine the root cause.</li> <li>2. If possible, take corrective action.</li> </ol> <p>If the problem persists:</p> <ol style="list-style-type: none"> <li>1. Contact the Quantum Technical Assistance Center.</li> </ol>
<p>You receive a message that the FSM is delayed or the file system is not responding:</p>	<p>Verify that the FSM process for the specified file system is running on the metadata controller. Also check the health of the metadata network.</p>
<p>A health check operation is launched with invalid command arguments:</p>	<p>Contact the Quantum Technical Assistance Center.</p> <p>To temporarily disable the invalid health check operation until a fix is delivered, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Locate the 'filelist' file under /usr/adic that contains the health check entry for the failed operation.</li> <li>2. Place a "#" character at the front of that health check entry line.</li> </ol>
<p>You receive an "Internal Software Error" message describing one of the following conditions:</p> <ul style="list-style-type: none"> <li>• Process initialization failed</li> <li>• A database operation failed</li> <li>• An unhandled software error has occurred</li> <li>• A CLI command failure has caused the process that invoked it to abort</li> <li>• A Blockpool Verify command failed to complete successfully</li> </ul>	<ol style="list-style-type: none"> <li>1. If you suspect there might have been a temporary problem with system resources, rerun the health check operation via the StorNext GUI's Health Check Service.</li> <li>2. If the problem persists, contact the Quantum Technical Assistance Center.</li> </ol>

<p>You receive one of the following “TSM Control Error” messages:</p> <ul style="list-style-type: none"> <li>• The TSM software could not be started</li> <li>• The TSM software could not be stopped</li> </ul>	<ol style="list-style-type: none"> <li>1. Try restarting the TSM software. (On the command line, run “tmsstop; tmsstart”.) If restarting succeeds, rerun the Health Check using the StorNext GUI.</li> <li>2. If restarting does not succeed, contact the Quantum Technical Assistance Center.</li> </ol>
<p>You cannot connect to the SNAPI server process:</p>	<ol style="list-style-type: none"> <li>1. Restart the system software.</li> <li>2. Run the Health Check service using the StorNext GUI.</li> <li>3. If the problem persists, contact the Quantum Technical Assistance Center.</li> </ol>
<p>You receive a message about a timeout occurring when the FSM process forces a file flush:</p>	<ol style="list-style-type: none"> <li>1. Confirm that the data path is working properly on the system specified in the event detail.</li> <li>2. If the problem persists, contact the Quantum Technical Assistance Center.</li> </ol>
<p>The problem <u>IS</u> resolved:</p>	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
<p>The problem is <u>NOT</u> resolved:</p>	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.</li> </ol> <p>Refer to <a href="#">Analyzing Service Tickets</a>.</p> <ol style="list-style-type: none"> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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# Vault Failure

IF	THEN
The problem indicates that vaulting has failed:	<ol style="list-style-type: none"><li data-bbox="539 277 1002 309">1. Capture the StorNext system state.  Refer to <a href="#">Capturing a System State</a>.</li><li data-bbox="539 383 1241 414">2. Download the captured state to a local or network drive.  Refer to <a href="#">Downloading a System State Capture</a>.</li><li data-bbox="539 510 1398 719">3. Contact the Quantum Technical Assistance Center. <b>In the USA:</b> 1+800-284-5101 <b>UK, France and Germany:</b> 00800 4 QUANTUM <b>EMEA:</b> +44 1256 848 766 <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a></li></ol>

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## Viewing Service Tickets



View StorNext service tickets to view details of the System Status notification and a suggested resolution of the reported problem.

Do one of the following:

- Click **System Status** at the bottom of the screen.

OR


- Access the StorNext home page and choose **System Status** from the **Service** menu.

The **Tools - System Status** screen appears.

- **Ticket** – View service ticket numbers, which can be listed in ascending or descending order by clicking the top of the column.
  - **State** – View the service ticket's current state. The state can be either **Open** or **Closed**.
  - **Last Updated** – This is the date when the service ticket was last accessed, either opened or closed depending on the selected sort order.
  - **Summary** – View a summary of the problem reported by the StorNext.
2. Scroll through the list of service tickets, select the ticket to be viewed, and click **Details**.

The **Ticket Details** screen appears. This screen details the service ticket number, date and time when the ticket was last accessed (either opened or closed), ticket status, and problem description.

3. Click **Cancel** to close the screen.

 NOTE: For information on analyzing service tickets and obtaining additional information about a reported problem, refer to [Analyzing Service Tickets](#).

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# Virtual IP Configuration Warnings

IF	THEN
You receive a warning that your vip config file has invalid syntax:	<p>A VIP configuration file is required on HA configurations with replication enabled. A properly formatted line has macaddr, IPv4 addr, netmask, IPv6 addr, prefix_len. Inspect /usr/cvfs/config/ha_vip.txt and correct errors.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive a warning that your vip config file has an invalid line:	<p>A VIP configuration file is required on HA configurations with replication enabled. This indicates that a line in the file is malformed in some fashion.</p> <p>Check for missing values or illegal characters, formats, or values.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive an activation or deactivation message:	<p>The 'ifconfig' command was attempted to configure an ethernet port. Check the mentioned ethernet port to verify its configuration and health.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
You receive an unable to takeover IP message:	<p>An attempt to send an arp packet to route a specific IP to the indicated ethernet port was made but failed.</p> <ul style="list-style-type: none"> <li>• Consult the User's Guide for more information.</li> </ul>
The problem <u>IS</u> resolved:	<p>Close the service ticket. Refer to <a href="#">Closing Service Tickets</a>.</p>
The problem is <u>NOT</u> resolved:	<ol style="list-style-type: none"> <li>1. Modify the ticket according to the troubleshooting steps taken.  Refer to <a href="#">Analyzing Service Tickets</a>.</li> <li>2. Contact the Quantum Technical Assistance Center.</li> </ol> <p style="text-align: right;"> <b>In the USA:</b> 1+800-284-5101  <b>UK, France and Germany:</b> 00800 4 QUANTUM  <b>EMEA:</b> +44 1256 848 766  <b>On the Web:</b> <a href="http://www.quantum.com/support">http://www.quantum.com/support</a> </p>

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