

HPSS Silo down time Day 1...

- When we restart ACSLS (tape silo manager) for upgrade on Monday, we encounter a few errors...
- Hardware failures
 - Pass_Through_Port(PTP) on ACS4
 - Network connection errors on all RHIC silos
 - Network connection errors on Phenix silo in BCF
 - PTP errors on Star silo in BCF
- Software failures
 - ACSLS failed to initialize (all silos down)

Library partial down time Day 2 + 3

- With HW repairment in progress, we brought HPSS service up with Star silo down (5% of Star tapes down)
- After all HW issues claimed fixed, we still couldn't bring up Star silo and demanded a multi-department conference.
- With irrefutable evidence from BNL, Oracle Software finally started troubleshooting.
- The software configuration errors were introduced when we moved Phenix silo in July and not fixable.
 - We re-installed ACS software and resolved this crisis.

How to avoid this in the future...

- Allocate complete tape down time for silo relocation
 - Since ACS configuration tools are buggy, we must bring down ACSLS manager
- Re-install ACS software after silo relocation
 - This requires several hours of down time
 - Audit is required and it may take a few hours

The future SCSI tape libraries...

- With SCSI library, we may query HW error ourselves and expedite the troubleshooting

TapeAlert Flags Supported by the TS4500 tape library			
Flag Number and Name		Description	Action Required
1	Library hardware A	The library has trouble while it is communicating with the drive.	1.Restart the operation. 2.If the problem persists, call your IBM® service representative.
2	Library hardware B	The library has a hardware failure.	1.Restart the operation. 2.If the problem persists, call your IBM service representative.
4	Library hardware D	The library has a hardware fault that is not mechanically related.	1.Restart the operation. 2.If the problem persists, call your IBM service representative.
7	Predictive failure	The library detected that a hardware component is degraded but still operational.	Call your IBM service representative.
11	Library voltage limits	A potential failure of a power supply exists.	Call your IBM Service Representative.
16	Library door	A library front door is open and prevents the library from functioning.	1.Close the library front door. <div>Note (There are 2 types of doors, front doors and rear doors.)</div> 2.If the problem persists, call your IBM service representative.
17	Library I/O station	A problem with an I/O station exists.	1.Ensure that there is no obstruction in the I/O station. 2.Restart the operation. 3.If the problem persists, call your IBM service representative.
23	Library scan retry	The operation to scan the bar code on a cartridge had to perform an excessive number of retries before it succeeds. A potential problem exists with the bar code label or the scanner hardware in the library mechanism.	1.Check for damaged, misaligned, or peeling bar code labels on cartridges. 2.If the problem persists, call your IBM service representative.
24	Library inventory	An inventory of the media was inconsistent.	1.Run a library inventory to correct the inconsistency. 2.Restart the operation. 3.If the problem persists, call your IBM service representative.
25	Library illegal operation	The library detected an illegal operation.	If the problem persists, call your IBM service representative.
28	Power supply	A redundant power supply failure exists inside the library.	Call your IBM service representative.
30	Shuttle mechanism failure	A failure occurred in the shuttle mechanism while it attempted to transfer a cartridge between two library strings.	1.Restart the operation. 2.If the problem persists, call your IBM service representative.
32	Unreadable bar code label	During an inventory or scan, the library was unable to read a bar code label on a cartridge.	1.Check for damaged, misaligned, or peeling bar code labels on the cartridge. 2.If you find a damaged, misaligned, or peeling barcode label, replace it with a new barcode label. To request a new barcode label, call your IBM Service Representative. 3.If no problem is found, call your IBM service representative.