IBM

Removable Media Storage Solutions Storage Systems Division 9000 South Rita Road, Tucson, AZ 85744

09/21/2021

IBM has released a firmware update N9M0 (Half High code N9M1). This firmware affects all Gen 7 Full High and HH Drives. This update is intended, among other things, to increase overall reliability, improve tape handling, further reduce any possibility of error, and provide continued enhancements to diagnostic capabilities. Firmware fixes since N4Q0 (Half High code N4Q1) follow:

Fixes That Affect All Drives

- **Properly preserve dump across code change**: The drive did not properly handle dump collection after a code update which caused a corrupted drive dump.
- **Drive fails with FSC 7060 during Read:** Improved the iterative ERPs process to reduce 7060 failures and eliminate occasional drive hangs. Also **35426.10** and **35426.10.1**.
- **Fix transfer permission release issue.** Due to a code bug, the drive couldn't release transfer permission correctly so other transfers could not occur.
- Fix Drive Panic: Drive was not properly handling some repositing which caused the drive to Panic when detected
- **Drive failed UNLOAD with FSC 2E13:** Due to a firmware issue, the drive might draw more current than expected and cause the drive to fail a LTU unload.
- **Drive fails with 601D on READ:** Areas with poor read quality can lead to mis correction iterative error recovery process methods. Adding code to reset miscorrection counter. Also **37457.14.**
- **7C30 on load of WORM Cartridge:** Due to a code bug, WORM Tampering error occurred by mistake when no HKDS is read on load.
- Drive timed out on READ command: Changed the read command sequence to avoid timeout.
- **Drive failed with FSC 78D1.** The drive reel motors stalled on a direction change. Added a check for motor motion at tape direction change.
- **Drive failed with an incorrect FSC 7246:** The drive incorrectly posted an FSC for recovered operation (SCSI SK1). The drive should post the FSC of the initiating operation instead.
- **FSC 7076 on a LOCATE/SPACE:** A drive used the incorrect position when it started to read during a locate/space to near BOT. Changed code to set the correct position to start reading.
- **Drive failed with FSC 7060.** In an area that was poorly written, the drive did not properly maintain the position and failed the recovery.
- A SPACE/LOCATE is fenced incorrectly after a WRITE failure: When a dive has a FSC 7410 on write, the drive could fail a subsequent reposition if the error is deferred.

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Fixes That Affect Only Certain Drives

SAS Drives

Host interface hang: Incoming frame processing stopped due to a task management conflict and did not resume processing after the conflict cleared. Changed the code to check for transfer permission after the task management response was provided.

Front Panel LED light change: Made some LED light behaviors on an OEM specific HH implementation