Feedback on Tape Alert (& specifically 05-154r1)

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Topics

- TAPLSD bit definition issues
- Cleaning flags status
- Deactivation without reading
- Other Tape Alert Ideas
- Proposal
- Questions re Predictive Failure Flag

TAPLSD Bit

- On Page 10, TAPLSD is defined as:
  - 1 - shall not alter implemented flag parameters on page 2e Log Sense
  - 0 - deactivate every flag on page 2e Log Sense
- On Page 7, states:
  - 1 - <u>may</u> de-activate flags on a per I_T nexus basis
  - 0 - <u>should</u> de-activate flags on a per I_T nexus basis
- We don't think that this "should" and "may" is useful
  - Per nexus basis has been a "shall" since SSC, yet how many products actually implement it?
  - We can either choose to perpetuate this fiction or face reality – either is acceptable, but should/may isn't!

Cleaning Flags Status

- In SSC, the Clean Now (14h) and Expired Cleaning Media (16h) flags were Mandatory
  - This was changed in SSC-2
- We'd like to see those bits returned to Mandatory status
  - Plus Cleaning Media (0Bh) also made Mandatory

Deactivation

- SYMC believes it's OK if a condition causes a flag to be deactivated before our apps read the Tape Alert page

Other Tape Alert Ideas

- We've talked in SYMC about recommending Tape Alert changes like:
  - Define a new command that doesn't go thru Reserves
  - Define sticky bits that stay until media is unloaded
  - Define protocol to clear specific flags
  - Make some of the flags counters etc.
- Have concluded most of this not worth it
  - Nothing protects us against something else on the same server reading the Tape Alert flags
  - And there are existing OS tape drivers that do just that!
  - However we had an idea…

Proposal

- Can we make the "deactivate all flags" behavior of Page Code 2Eh Log Sense dependent on the presence of Reserve (or Persistent Reserve)

  - If no reserve or PR it just reads the flag status!
  - Make TAPLSD bit a 2 bit field….

TAPLSD 2 bit field

Value	Description
00	As part of the processing of a LOG SENSE command with the PAGE CODE field set to 2Eh, the device server shall deactivate every supported TapeAlert flag.
01	Shall not alter the value of implemented TapeAlert FLAG parameters (see 8.2.3) due to processing of a LOG SENSE command with the PAGE CODE field set to 2Eh when no reservation or Persistent Reservation exists for the device
10	reserved
11	Shall not alter the value of implemented TapeAlert FLAG parameters (see 8.2.3) due to processing of a LOG SENSE command with the PAGE CODE field set to 2Eh.

Questions

- Is the Predictive Failure flag (26h) associated with the drive or the media?

- Any interest in associating a "certainty level", probably a percentage, with that indication?