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 - may de-activate flags on a per I_T nexus basis
  – 0 - should 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

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>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.</td>
</tr>
<tr>
<td>01</td>
<td>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</td>
</tr>
<tr>
<td>10</td>
<td>reserved</td>
</tr>
<tr>
<td>11</td>
<td>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.</td>
</tr>
</tbody>
</table>
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?