

**T10/08-288r1: Minutes
SCSI Media Changer (SMC) Working Group
for 14 July 2008, 9:00 AM - 2:00 PM ADT**

1. Introductions Group

Curtis Ballard called the meeting to order at 9:05 AM ADT. He thanked Emulex for hosting the meeting. Paul Suhler served as secretary of the meeting for the first hour and a half until Kevin Butt arrived.

2. Approval of the Agenda Curtis Ballard

Curtis Ballard presented the agenda. Paul Suhler made a motion to accept the agenda. Noud Snelder seconded the motion. The group passed the motion unanimously.

3. Attendance and Membership Curtis Ballard

Curtis Ballard reviewed the T10 attendance rules with the group and directed prospective new members to John Lohmeyer. The attendance report appears below.

SMC-3 Working Group Attendance Report - July 2008

Name	S	Organization
Mr. Noud Snelder	V	BDT
Mr. Curtis Ballard	A	Hewlett Packard Co.
Mr. Eric Hibbard	V	Hitachi Data Systems
Mr. Kevin Butt	P	IBM Corp.
Mr. Geoffrey Barton	V	Overland Storage
Mr. Paul Stone	A	Quantum Corp.
Dr. Paul Suhler	P	Quantum Corp.
Mr. Roger Cummings	P	Symantec
Mr. Jorgen Walle-Jensen	V	Tandberg Storage

9 People Present

Status Key: P - Principal
A - Alternate
AV - Advisory Member
E - Emeritus
L - Liaison
V - Visitor

4. INCITS Patent Policy Curtis Ballard

Curtis Ballard pointed to the T10 website (<http://www.t10.org/patpol.htm>).

Curtis Ballard discussed that T10 needs to avoid discussions that might raise anti-trust issues and that we are all required to make sure they don't happen.

5. Approval of Previous Minutes (08-217r0) (08-251r0)

Group

28 May teleconference (08-251r0): item 7.6, second paragraph was changed as follows:

Original text:

"There was a discussion about if we make Initialize Element Status mandatory or mandatory if we support CURDATA set to zero."

Modified text:

"There was a discussion about if we make Initialize Element Status mandatory or mandatory if we support CURDATA set to zero. The working group concluded that the two were unrelated."

Paul Suhler moved approval of 08-217r0 as written and of 08-251r0 as modified; Noud Snelder seconded the motion. In the absence of abstentions and negative votes, the motion passed unanimously.

6. Review of Action Items

Kevin Butt

- 06-044 [Roger Cummings] Solicit additional vendor-specific sense codes from library vendors per June discussion item 4.4.
- 07-017 [Group] Make sure the all the functionality of Read Element Status is covered by the Report Element Information command (06-272) and the Report Volume Information command and examine if an informative annex to map the RES command onto these is appropriate. [Reminder to do as final step]
- 07-042 [Paul Suhler] Write a proposal for the commands which the cached ready state in ADC may be used.
- 05Nov07-03 Erich Oetting: Determine what actions set TapeAlert flag 19h (illegal operation) and when the flag is cleared. Also what actions does it generate? - Report to Curtis Ballard
- 14Jan08-03 Noud snelder report to Geoff when their library sets NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED sense code
closed by e-mail from Snelder to Barton
- 14Jan08-05 Erich Oetting report to Geoff when their library sets NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED sense code
- 14Jan08-08 Noud Snelder to propose meaning of LOGICAL UNIT NOT READY, OFFLINE
closed by 08-260r0
- 14Jan08-09 Curtis Ballard to propose meaning of RANDOM POSITIONING ERROR
- 14Jan08-10 Rod Wideman to propose meaning of INCOMPATIBLE MEDIUM INSTALLED
Closed by 08-270r0
- 14Jan08-11 Kevin Butt to propose meaning of OPERATOR MEDIUM REMOVAL REQUEST
- 14Jan08-12 Rod Wideman to propose meaning of LOGICAL UNIT COMMUNICATION FAILURE
Closed by 08-271r0

10Mar08-03 Noud Snelder to review use of the medium magazine error codes listed in 07-372 in their libraries and report to Kevin Butt.

closed by e-mail from Snelder to Butt

05May08-01 Curtis Ballard to discuss with John Lohmeyer the issue of the SMC-3 editor not belonging to a member company.

should have been closed earlier

28May08-01 Rod to create a tracking document for proposals coming out of 08-039r0 and post.

Closed by 08-272r0

28May08-02 Noud will revise SMC-3 Use of LOGICAL UNIT NOT READY, INITIALIZING COMMAND REQUIRED error code (08-038r1) and post

closed by 08-038r2

7. Old Business Group

7.1 Working List for ISV feedback (SMC/SSC/ADC/SPC) (07-131r0) [Butt]

Defer

7.2 SMC-3 TapeAlert Enhancements (06-420r2) [Ballard]

Defer

7.3 SMC-3: Medium Magazine Error Codes (07-372r1) [Butt]

7.4 SMC-3 Report Volume Information (08-215r1) [Ballard]

Curtis suggested that there be means by which capacities of a volume may be x for one device or y for another (e.g., virtual library). Kevin wanted to be sure that this is not keyed off of being a virtual device or physical device. That information needs to be hidden from the application. There was discussion about a volume could be instantiated to one capacity vs. or different capacity.

Kevin wants to make sure that we do not break legacy applications. Legacy expects LTO gen1 to have a specificity capacity and gen 2 a different specific capacity. We need to not break that. However, we do need to devise a way to allow the reporting of multiple “personalities” of a given entity (e.g., volume capacity).

The group struggled with how to define “static” in volume static information. Capacity and the volatility of this in virtual libraries was a sticking point.

7.5 SMC-3, Report Element Information (08-066r4) [Ballard]

Curtis reviewed his changes and took a few edits.

7.6 SMC-3 Use of LOGICAL UNIT NOT READY, INITIALIZING COMMAND REQUIRED

error code (08-038r2) [Snelder]

The group reviewed changes to the proposal, including Rod Wideman's comments to Noud.

The group discussed making INITIALIZE ELEMENT STATUS mandatory. As written, it requires a re-scan which would cause application timeouts in large libraries. Library vendors do not actually implement the physical re-scan. The group decided to make the scan optional, to reflect actual implementations. Noud will add this change to this proposal.

The group discussed INITIALIZE ELEMENT STATUS WITH RANGE. Curtis argued that this command is used to actually scan storage elements, as it can specify a subrange of the element addresses. Geoff said that his libraries spoof the command, as with I.E.S. Curtis said that he wanted Rod Wideman to review the revised proposal before voting on it.

The group discussed the need for a Force bit in either IES or IESWR. It was not clear whether this could be tested. It was also not clear whether this would actually be different from leaving the command description as it is. A Force bit will not be added to this proposal.

7.7 SMC-3 New ASC/ASCQs List (08-039r0) [Wideman]

7.8 SMC-3 New Tape Alert flags (08-047r1) [Snelder]

Noud presented this proposal and took a few edits.

7.9 SMC-3 Updated SPC-3 references to SPC-4 Curtis Ballard

The discussion resolved that we see no reason to move to SPC-4 at this time.

7.10 SMC-3 Cleaning error codes (08-201r1) [Ballard]

A model clause has been added. Please review before we discuss it.

8. New Business **Curtis Ballard**

8.1 SMC-3, Use of LOGICAL UNIT NOT READY, OFFLINE (08-260r0) [Snelder]

8.2 SMC-3 Use of INCOMPATIBLE MEDIUM INSTALLED (08-270r0) [Wideman]

8.3 SMC-3 New additional sense codes tracking document (08-272r0) [Wideman]

8.4 SMC-3 Use of LOGICAL UNIT COMMUNICATION FAILURE (08-271r0) [Wideman]

9. Plans for SMC-3 call for final technical input **Curtis Ballard**

Tentatively looking at January 2009 call for final content. We will review each meeting cycle the appropriateness of the date.

10. Next Meeting Requirements **Curtis Ballard**

Curtis suggested we hold a conference call. Aug 6 and Aug 20 at 08:00 - 10:00 PDT.

11. Review New and Outstanding Action Items **Kevin Butt**

Old Action Items:

- 06-044 [Roger Cummings] Solicit additional vendor-specific sense codes from library vendors per June discussion item 4.4.
- 07-017 [Group] Make sure the all the functionality of Read Element Status is covered by the Report Element Information command (06-272) and the Report Volume Information command and examine if an informative annex to map the RES command onto these is appropriate. [Reminder to do as final step]
- 07-042 [Paul Suhler] Write a proposal for the commands which the cached ready state in ADC may be used.
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- 14Jan08-09 Curtis Ballard to propose meaning of RANDOM POSITIONING ERROR
- 14Jan08-11 Kevin Butt to propose meaning of OPERATOR MEDIUM REMOVAL REQUEST

Kevin Butt reviewed the following new action items with the group:

- 14July08-01 Geoff Barton to create a proposal for the use of the NOT READY TO READY TRANSITION sense code.
- 14July08-02 Noud Snelder will revise and post 08-038r2.
- 14July08-03 Curtis Ballard will revise and post 08-215r1.
- 14July08-04 Noud Snelder will revise and post 08-047r1.

12. Adjournment

Group

Paul Suhler made a motion for adjournment. Roger Cummings seconded the motion. The group passed the motion unanimously. Curtis Ballard adjourned the group at 2:50 PM PDT.