

# T10/06-423r0: Minutes of SCSI Media Changer (SMC) Working Group for September 11, 2006, 9:00 AM - 2:00 PM EDT

## 1. Introductions

Group

Michael Banther called the meeting to order at 9:00 AM EDT. He thanked Hitachi Cable Manchester for hosting the meeting. Roger Cummings agreed to serve as the secretary of the meeting.

## 2. Approval of the Agenda

Michael Banther

Michael Banther presented the agenda. Kevin Butt made a motion to accept the agenda as modified. Rod Wideman seconded the motion. The group passed the motion unanimously.

## 3. Attendance and Membership

Michael Banther

Michael Banther 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:

Name	S	Organization
Mr. Noud Snelder	V	BDT
Mr. Kevin Marks	P	Dell, Inc.
Mr. Curtis Ballard	V	Hewlett Packard
Mr. Michael Banther	V	Hewlett Packard Co.
Mr. Kevin Butt	A	IBM Corp.
Mr. Robert Payne	P	Iomega Corp.
Mr. Rod Wideman	V	Quantum
Mr. Paul Entzel	P	Quantum Corp.
Dr. Paul Suhler	A	Quantum Corp.
Mr. Roger Cummings	P	Symantec
Mr. Halvard Eriksen	AV	Tandberg Data ASA

11 People Present

Status Key: P - Principal  
A,A# - Alternate  
AV - Advisory Member  
L - Liaison  
V - Visitor

## 4. INCITS Patent Policy

Michael Banther

Michael Banther directed the group to a reading of the [T10 Short Summary](#) of the INCITS Patent Policy.

## **5. Approval of Previous Minutes**

**Group**

### 5.1 Approval of Previous Minutes

Michael Banther

Roger Cummings made a motion to accept the previous meeting and teleconference minutes (06-327r0). Michael Banther seconded the motion. The group passed the motion unanimously.

### 5.2 Secretary Discussion

Michael Banther

Michael Banther noted that Greg Wheelless was no longer @ Symantec. He and Roger Cummings had been acting as Secretary for alternate SMC-3 meetings. Roger stated that he was willing to serve as Secretary for the November and January meetings. Michael warned the group that he may to issue a call in either November or January for someone to serve as a Secretary for alternate SMC-3 meetings, and asked that anyone needing more information contact him.

## **6. Review of Action Items**

**Roger Cummings**

Roger Cummings reviewed the outstanding action items, and the status of each item was reported as listed below:

06-001 [Michael Banther] Enhanced TapeAlert capability – synchronization with SSC-3.  
Closed by 06-420

06-002 [Michael Banther] Reporting of virtual libraries / partitioning to host.  
Carryover

06-003 [Rod Wideman] Visibility of media type in storage element. Medium Domain (e.g. technology) & Medium type (e.g. WORM, Clean, Data, F/W Upgrade).  
Carryover

06-004 [Greg Wheelless] Change the 3rd paragraph of 5.3.1 to clarify addresses and volumes.  
Carryover

06-005 [Greg Wheelless] Revise 05-271r2 and post as 05-271r3.  
Carryover

06-006 [Rod Wideman] Write a proposal for items 3.2.6 and 3.2.7 in 05-315r0.  
Carryover

06-012 [Rod Wideman] Bring a proposal for a new command/framework per November discussion item 7.4.  
Carryover

06-018 [Kevin Butt] Respond to CA re 3.2.3. of 05-315r1.  
Closed

06-019 [Kevin Butt] Respond to CA re 3.2.4. of 05-315r1.  
Closed

06-020 [Robert Payne] Define a philosophy for Write Exclusive Persistent Reservations in SMC.  
Carryover

06-030 [Kevin Butt] Revise and post 05-315r2 per March discussion item 7.1.

- Closed
- 06-031 [Noud Snelder] Standardize existing conditions and events where ASC/Qs are listed with an “M” (those that apply to medium changers), per March discussion item 7.1.  
Closed by 06-397r0
- 06-040 [Noud Snelder] Incorporate 05-243r4 into the next revision of SMC-3.  
Closed
- 06-041 [Noud Snelder] Revise 05-414r2 per discussion during May agenda item 7.5 and post new revision.  
Closed by 05-414r3
- 06-043 [Michael Banther] Revise and post 05-074r1 per June discussion item 4.3.  
Carryover
- 06-044 [Greg Wheelless] Solicit additional vendor-specific sense codes from library vendors per June discussion item 4.4.  
Carryover
- 06-045 [Rod Wideman] Bring a proposal for new sense codes for SMC (06-110r0) per June discussion item 4.4.  
Carryover
- 06-047 [Curtis Ballard] bring a proposal (06-272) for a specific type of Report Element Information per June discussion item 4.6.  
Closed
- 06-048 [Curtis Ballard] Revise and post 06-046r5 per July discussion item 7.4.  
Closed
- 06-049 [Kevin Marks] Split 06-182r1 into two documents per July discussion item 7.5.  
Closed by 06-394r0 & 06-395r0
- 06-050 [Group] Participants representing automation groups will inquire about the difficulty of proposal 06-182r1 with their automation group per July discussion item.  
IBM has inquired re 06-182r2 and they are OK with that part of the proposal. BDT also checked and they do not have major issues. The AI is a carryover for the other automation companies.

## **7. Old Business**

## **Group**

- 7.1 Working List for ISV feedback (SMC/SSC/ADC/SPC) (05-315r3). Kevin Butt  
This item was deferred to the next meeting.
- 7.2 SPC-3 SPC-4 SES-2 SMC-3 Command requirements (05-074r1). Michael Banther  
This item was deferred to the next meeting.
- 7.3 SMC-3 Clarification SEND VOLUME TAG command (05-414r3) Noud Snelder  
Noud Snelder presented the changes from the previous revision of his proposal. The group discussed the proposal, and a number of clarifications were agreed and typos corrected. A suggestion was made to relate the description of the Parameter List Length field back to the

definition of common CDB fields in SPC. This led to a discussion of the appropriate versions of other standards to reference, and a consensus was reached to reference SPC-3 & SAM-3. Noud accepted an action item to update the references in the next version of SMC-3.

Noud Snelder made a motion to incorporate 05-414r4 (v3 as revised at the meeting) into the next revision of SMC-3. Rod Wideman seconded that motion. The motion passed unanimously. Action items were assigned to Noud to create and post the revision, and to incorporate that revision into SMC-3.

7.4 SMC-3 Report Supported Medium Types (06-046r6) Curtis Ballard

Curtis Ballard presented the changes from the previous revision of his proposal. The group discussed the changes, and a number of suggestions were made and accepted. The reference to ISO/IEC 10646-1 was removed, and the definition of UTF-8 in SPC-3 was referenced.

Curtis Ballard made a motion to incorporate 06-046r7 (v6 as revised at the meeting) into the next revision of SMC-3. Rod Wideman seconded that motion. The motion passed unanimously. Action Items were assigned to Curtis to create and post the revision and to Noud to incorporate that revision into SMC-3.

7.5 SMC-3: Media Changer statistics pages for SMC (06-182r2) Kevin Marks

Kevin Marks presented the changes from the previous revision of his proposal. He noted that the log format will need to be “backed off” from SPC-4 format to SPC-3 to be in line with the earlier decision.

Kevin Marks made a motion to incorporate 06-182r3 (r2 as revised at the meeting) into the next revision of SMC-3. Kevin Butt seconded that motion. The motion passed unanimously.

Action Items were assigned to Kevin Marks to create and post the new revision and to Noud to incorporate that revision into SMC-3.

**8. New Business** **Group**

8.1 SMC-3: Element Statistics log page for SMC (06-394r0) Kevin Marks

Kevin Marks requested that this item be deferred to the next meeting.

8.2 SMC-3: Diagnostics Data log page (06-395r0) Kevin Marks

Kevin Marks requested that this item be deferred to the next meeting.

8.3 SMC-3 Error codes overview (06-397r0) Noud Snelder

Noud Snelder presented a list of the Media Changer supported error codes as defined by SPC-4, as a first step in identifying the codes that required description in SMC. The group discussed this idea, and noted that this work did not overlap with Rod Wideman’s work in 06-110 that was seeking to create descriptions of commonly-used but vendor-specific codes. Rod agreed to expand the scope of his proposal to cover existing defined ASC/ASCQs that are not currently identified for use in media changers.

Noud added three columns to his table identifying the codes that need to be described in SMC-3, should be defined in SPC-4 & SMC-3, and those for which Media Changer support should

be removed. Noud accepted an Action Item to distribute the source document containing his first attempt at completing the columns, and an Action Item was also assigned to the Group to review this document and return alternative suggestions to Noud.

8.4 SMC-3, Report Element Information (06-272r0) Curtis Ballard

Curtis Ballard presented a proposal for a new media changer command named “Report Element Information”. The group discussed the proposal at length, and Paul Entzel suggested that a 16 byte CDB be used to allow a “Number Of Elements” field to be included. In this, it was agreed, that there would be no need for the Single bit. A suggestion was also made to use the 7Fh code for “Return All Supported Pages”, and Curtis agreed to consider the suggestion. Curtis agreed to create a new revision to cover the items raised in the discussion.

8.5 SMC-3 TapeAlert Enhancements (06-420r0) Michael Banther

This item was deferred to the next meeting due to a lack of time.

8.6 SMC-3 Discussion: Visibility of Volumes in Elements (06-421r0) Curtis Ballard

This item was deferred to the next meeting due to a lack of time.

8.7 SMC-3 New Additional Sense Codes for Media Changers (06-110r0) Rod Wideman

This was partially discussed under item 8.3, and Rod Wideman requested that this item be placed on the agenda for the next meeting.

**9. Next Meeting Requirements Michael Banther**

Subject to approval by the T10 Plenary, the group will hold a meeting on November 6, 2006 during the T10 plenary week in Las Vegas, NV beginning upon the completion of the ADI Working Group and completing no later than 7PM PST. The group discussed the need for an interim teleconference, and concluded that none was needed.

**10. Review New and Outstanding Action Items Roger Cummings**

Roger Cummings reviewed the following items with the meeting:

- 06-002 [Michael Banther] Reporting of virtual libraries / partitioning to host.
- 06-003 [Rod Wideman] Visibility of media type in storage element. Medium Domain (e.g. technology) & Medium type (e.g. WORM, Clean, Data, F/W Upgrade).
- 06-004 [Roger Cummings] Change the 3rd paragraph of 5.3.1 to clarify addresses and volumes.
- 06-005 [Roger Cummings] Revise 05-271r2 and post as 05-271r3.
- 06-006 [Rod Wideman] Write a proposal for items 3.2.6 and 3.2.7 in 05-315r0.
- 06-012 [Rod Wideman] Bring a proposal for a new command/framework per November discussion item 7.4.
- 06-020 [Robert Payne] Define a philosophy for Write Exclusive Persistent Reservations in SMC.
- 06-043 [Michael Banther] Revise and post 05-074r1 per June discussion item 4.3.

- 06-044 [Roger Cummings] Solicit additional vendor-specific sense codes from library vendors per June discussion item 4.4.
- 06-045 [Rod Wideman] Bring a proposal for new sense codes for SMC (06-110r0) per June discussion item 4.4.
- 06-050 [Group] Participants representing automation groups will inquire about the difficulty of proposal 06-182r1 with their automation group per July discussion item 7.6.
- 06-051 [Noud Snelder] Update references in SMC-3 to point to SPC-3 and SAM-3.
- 06-052 [Noud Snelder] Create and post 05-414r4 (r3 as revised at the September meeting).
- 06-053 [Noud Snelder] Incorporate 05-414r4 into the next revision of SMC-3.
- 06-054 [Curtis Ballard] Create and post 06-046r7 (r6 as revised at the September meeting).
- 06-055 [Noud Snelder] Incorporate 06-046r7 into the next revision of SMC-3.
- 06-056 [Noud Snelder] Distribute the source of 06-397r1 (r0 with columns as created at the September meeting) with initial column contents.
- 06-057 [Group] Review 06-397r1 and return alternative column contents to Noud where there is disagreement.
- 06-058 [Kevin Marks] Create and post 06-182r3 (r2 as revised at the September meeting).
- 06-059 [Noud Snelder] Incorporate 06-182r3 into the next revision of SMC-3.
- 06-060 [Curtis Ballard] Create and post 06-272r1 (r0 as revised at the September meeting).

## **11. Adjournment**

**Group**

Kevin Butt made a motion for adjournment. Rod Wideman seconded the motion. The group passed the motion unanimously. Michael Banther adjourned the group at 3:50 PM EDT.