

SCSI Stream Commands - 3: Working Group Minutes – Draft (T10/06-142r0)

Date: January 10, 2006

Time: 10:00 am - 5:00 pm

Location: Hilton Head, SC

Agenda

1. **Opening remarks and introductions [Peterson]**
2. **Approval of agenda (06-056r0) [Peterson]**
3. **Approval of meeting minutes (05-434r0) [Peterson]**
4. **Review of old action items [Butt]**
 - 4.1 **Dave Peterson: Bring in a White Paper on the value added with Explicit Command Set.**
 - 4.2 **Dave Peterson: Review initiator vs I_T nexus throughout document.**
 - 4.3 **Michael Banther: Bring in proposal to improve handling of cleaning and firmware upgrade cartridges.**
 - 4.4 **Michael Banther: Bring in proposal for Requested Recovery log page from ADC.**
 - 4.5 **Michael Banther: proposal against the “Cleaning Required” parameter of Sequential Access Device log page to make it consistent with TapeAlert and ADC eventually**
 - 4.6 **Michael Banther: revise and post 05-140r0**
 - 4.7 **Kevin Butt: Bring proposal following direction related to clean behavior.**
 - 4.8 **Kevin Butt: add cleaning bits from 05-213 to his proposal and find log page for them.**
 - 4.9 **Roger Cummings: produce a proposal to describe the events that shall activate and deactivate the cleaning related tape alert flags and to add a second flag for predictive failure of the medium.**
 - 4.10 **Banther: Revise and post SSC-3 Add WORM VERSION field to Sequential Access Device Capabilities VPD page (05-391r0)**
 - 4.11 **Paul Entzel: Feedback comments on ADI ADC-2 Target Device Serial Number (05-155r2) to Rod Wideman.**
 - 4.12 **Kevin Butt: Review TapeAlert flags for which mean media vs. hardware vs. firmware from 05-424r0. Add TA severity**
 - 4.13 **Dave Peterson: Incorporate 05-262r3 - ASC/ASCQ for Medium Thread Failure**
 - 4.14 **Kevin Butt: Provide associated text, inside the cleaning proposal for 2.1.1 of 05-351r2.**
 - 4.15 **Kevin Butt: revise and post Configurable EW (05-423r0)**
 - 4.16 **Micheal Banther: Create a proposal to add additional activation conditions to TapeAlert. See note in 05-154r3.**
 - 4.17 **Dave Peterson: Create a proposed document for feedback to the ISV’s.**
 - 4.18 **Dwayne Edling: revise and post SSC-3: Pass key by Reference Model (06-050r0)**

4.19 Kevin Marks: Revise SSC-3: Device Statistics log page for SSC-3 and Tape Diagnostic Data log page (05-213r3) and post

4.20 Paul Entzel: Revise and post SSC-3: Add commands to control data encryption (05-446r1)

5. Next meeting requirements (San Jose, CA)

6. Review of new action items

7. Adjournment

Attendance

SSC-3 Working Group Attendance Report - March 2006

Name	S	Organization
Mr. Chris Fore	A#	Adaptec, Inc.
Mr. Rod Wideman	V	ADIC
Mr. Noud Snelder	V	BDT
Mr. Gideon Avida	AV	Decru
Mr. Jack Harwood	V	EMC Corp.
Mr. Robert H. Nixon	P	Emulex
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Curtis Ballard	V	Hewlett Packard
Mr. Michael Banther	V	Hewlett Packard Co.
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Eric Hibbard	V	Hitachi Data Systems
Mr. David Peterson	P	McDATA
Mr. Frederick Knight	V	Network Appliance
Mr. Paul Entzel	P	Quantum Corp.
Dr. Paul Suhler	A	Quantum Corp.
Mr. Gerald Houlder	P	Seagate Technology
Mr. Dwayne Edling	A#	Sun Microsystems
Mr. Roger Cummings	P	Symantec
Mr. Greg Wheelless	A	Symantec
Mr. Anders Liverud	AV	Tandberg Storage

20 People Present

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

Results of Meeting

1. Opening remarks and introductions [Peterson]

2. Approval of agenda (06-135r0) [Peterson]

Dave Peterson made motion to approve agenda as modified. Bob Nixon seconded. Voting was unanimous.

3. Approval of meeting minutes (06-066r0, 06-093r0, 06-106r0) [Peterson]

Dave Peterson made a motion to approve the minutes. Kevin Butt seconded. Voting was unanimous.

4. Review of old action items [Butt]

4.1 Dave Peterson: Bring in a White Paper on the value added with Explicit Command Set.

Carryover,

4.2 Dave Peterson: Review initiator vs I_T nexus throughout document.

Carryover,

4.3 Michael Banther: Bring in proposal to improve handling of cleaning and firmware upgrade cartridges.

Carryover,

4.4 Michael Banther: Bring in proposal for Requested Recovery log page from ADC.

Carryover,

4.5 Michael Banther: proposal against the "Cleaning Required" parameter of Sequential Access Device log page to make it consistent with TapeAlert and ADC eventually

Carryover,

4.6 Michael Banther: revise and post 05-140r0

Carryover,

4.7 Kevin Butt: Bring proposal following direction related to clean behavior.

Carryover,

4.8 Kevin Butt: add cleaning bits from 05-213 to his proposal and find log page for them.

Carryover,

4.9 Roger Cummings: produce a proposal to describe the events that shall activate and deactivate the cleaning related tape alert flags and to add a second flag for predictive failure of the medium.

Carryover,

4.10 Banther: Revise and post SSC-3 Add WORM VERSION field to Sequential Access

Device Capabilities VPD page (05-391r0)

Carryover,

4.11 Paul Entzel: Feedback comments on ADI ADC-2 Target Device Serial Number (05-155r2) to Rod Wideman.

Closed

4.12 Kevin Butt: Review TapeAlert flags for which mean media vs. hardware vs. firmware from 05-424r0. Add TA severity

Closed - tape alert delineation.

4.13 Dave Peterson: Incorporate 05-262r3 - ASC/ASCQ for Medium Thread Failure

Closed.

4.14 Kevin Butt: Provide associated text, inside the cleaning proposal for 2.1.1 of 05-351r2.

Carry over.

4.15 Kevin Butt: revise and post Configurable EW (05-423r0)

carryover

4.16 Micheal Banther: Create a proposal to add additional activation conditions to TapeAlert. See note in 05-154r3 to bring in new proposal for this additional info.

Carry over.

4.17 Dave Peterson: Create a proposed document for feedback to the ISV's.

Carry over.

4.18 Dwayne Edling: revise and post SSC-3: Pass key by Reference Model (06-050r0)

Closed. Incorporated in 05-446r6.

4.19 Kevin Marks: Revise SSC-3: Device Statistics log page for SSC-3 and Tape Diagnostic Data log page (05-213r3) and post

Closed.

4.20 Paul Entzel: Revise and post SSC-3: Add commands to control data encryption (05-446r1)

Closed.

5. Old business

5.1 SSC-3: Physical device model (05-049r2) [Suhler]

defer

5.2 SSC-3: Device Statistics log page for SSC-3 and Tape Diagnostic Data log page (05-213r4) [Marks, Lestage, and Walczak]

A discussion on having SSC-3 reference SPC-4 was had and the group agreed that referencing SPC-4 was the correct thing to do.

The paragraph describing the REPEAT bit was discussed. Ralph Weber suggested modifications to use phrases like “If the REPEAT bit is set to zero...., and If the REPEAT bit is set to one...”.

Discussion ensued around timing of creation of the parameter. Is it when the error was detected, or is it when the Check Condition was reported. Resolved to “When the command terminated with Check Condition status with the specified sense keys”.

Change “later in time” to “at a more recent time”.

Kevin Butt moved that 05-213r4 as modified be included into SSC-3. Kevin Marks seconded the motion.

Dave Peterson, SSC-3 editor is concerned that he does not know how to incorporate this since there were too many changes.

Roger Cummings motioned to defer the vote until 4:45 this afternoon. Michael Banther seconded the motion. Voting was unanimous on the deferral.

Resumed at 5:50.

Two minor editorial changes were made from the incorporations that Kevin Marks made of previous changes in the meeting.

Motion passed unanimously.

5.3 SSC-3: Vendor Feedback (05-351r2) [Group]

Defer.

5.4 SSC-3: Add WORM VERSION field to Sequential Access Device Capabilities VPD page (05-391r0) [Banther]

Defer.

5.5 SSC-3: Target Device Serial Number subpage (05-155r3) [Wideman]

The feeling of the group is that the note should be normative and the should statement should be if the Manufacturing ID is different from the Product ID. The product ID shall be used.

Rod Wideman made a motion to incorporate 05-155r3 as modified into SSC-3. Kevin Butt seconded the motion. Approved Unanimously.

5.6 SSC-3: Configurable EW (05-423r0) [Butt]

Defer.

5.7 SSC-3: Add commands to control data encryption (05-446r6) [Entzel]

Went over 05-446r6 with Michael Banther’s comments.

Suggestion to use Cryptographic process when referring to both encryption and decryption.

Needed to modify term of Authenticate to Validate the Integrity of the decrypted block.

Discussion about “loses reservation” went around in circles for a long time.

Register and Move is probably a scenario where the initial I_T Nexus establishes the encryption and then moves the reservation. This needs to be handled.

Resolved by saying that the encryption parameters will not be cleared as long as any reservation exists. Not necessarily for the person who establishes it.

Reformatted a lot of paragraphs in the model clause to contained lettered lists.

[Kevin Butt] raised the issue that “locked” relates only to the I_T Nexus that sets the locked bit in the data encryption page. If using the copy manager scenario where one host sets up the tape and encryption parameters, then transfers the reservation to another host, that other host will not be locked and if the encryption parameters change it will not get a check condition on Write unless it had set the lock bit.

After resolving all the issues in the model clause, Dave asked EMC if they wanted to present their proposal and after some discussion they agreed to present it in CAP.

Dave asked if the group wanted to continue with this proposal or cover some other proposals. Kevin Butt wanted to cover some other proposals, the rest of the group wanted to continue with this proposal.

Discussion ensued on creating an algorithm identifier table to reside in SPC-4.

Time ran out.

5.8 The Requirement for More than One Decryption Key (06-051r4) [Edling]

Fifth paragraph in 4.2.19.3 of 05-446r6 need modified to support this proposal.

[Michael Banther] For maximum number of supplemental decryption keys, if you support multiple algorithms the keys may be different sizes. How do we resolve this. The equation that calculates this needs to be standardized to give a useful value.

[Net App] Suggested to use number of bytes for keys.

The application client cannot rely on this field so it is not useful. Perhaps just a bit that says the SDK is supported. SDKsupported is already in the encryption algorithm page.

Perhaps use a minimum guaranteed value.

Add words to be sure that it applies to all I_T Nexuses.

If you want, there is a way to do this by a new command that says I need to configure this device with x number of keys with this algorithm and let device server accept or reject.

Number of supplemental decryption keys saved field should be reserved.

The device server will do the right thing with multiple decryption keys.

[Michael Banther] There needs to be additional behavioral information in the model clause for SDK bit set to one. The list is not described well enough.

Dwayne to revise and post The Requirement for More than One Decryption Key (06-051r4).

5.9 SSC-3: Pass key by Reference Model (06-050r2) [Edling]

Already approved during telecon. Incorporated into 05-446r6

6. New Business**6.1 Email: Editorial question on SPC4R03 – table 242 [Peterson]**

Request from Ralph. Will recommend to use DEVICE VENDOR/SERIAL NUMBER.

6.2 SSC-3: Secure Data Erase (06-120r0) [Butt]

NIST 800-88 is a new draft document related to this.

6.3 SSC-3: Encrypt keys for transfer to device (06-103r2) [Black]**6.4 SSC-3: TapeAlert Delineation (06-138r0) [Butt]****7. Next Meeting Requirements (San Jose, CA)**

Conference calls Thurs. Mar 16, 23, and 30th at 11:00 Central.

Same time. Tuesday after FCP-4.

8. Review of new action items**8.1 Rod Wideman to revise and post SSC-3: Target Device Serial Number subpage (05-155r3)****8.2 Dave Peterson to incorporate SSC-3: Target Device Serial Number subpage (05-155r4) into SSC-3****8.3 Dwayne to revise and post The Requirement for More than One Decryption Key (06-051r4)****8.4 Kevin Marks SSC-3: Device Statistics log page for SSC-3 and Tape Diagnostic Data log page (05-213r4) as modified.****8.5 Dave Peterson to incorporate SSC-3: Device Statistics log page for SSC-3 and Tape Diagnostic Data log page (05-213r5)****9. Adjournment**

Dave Petereson made a motion for adjournment at 6:40 pm central. Seconded by Greg Wheelless.