

Accredited Standards Committee*
InterNational Committee for Information Technology Standards (INCITS)

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Date: May 12, 2006

Reply to: John Lohmeyer

To: T10 Membership
From: Mark A. Overby
Subject: SAT Working Group Meeting -- May 9-11, 2006
San Jose, CA

Agenda

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4. Old Business
 - 4.1 SAT Revision 8 letter ballot comment resolution (06-121r1) [Sheffield]
5. New Business
 - 5.1 SAT - Fix Task Management Functions (06-179r0) [Sheffield]
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 - 5.3 SAT - Block Mapping Issues (06-216r0) [Sheffield]
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Results of Meeting

1. Opening Remarks

John Lohmeyer called the meeting to order at 0900 March 7, 2006. John thanked NVIDIA for hosting the meeting.

2. Approval of Agenda

The draft agenda was approved, by unanimous consent, after adding Curtis Steven's missing proposal that was transferred from CAP to SAT (06-070r0).

3. Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for T10 membership. Working group meetings are open to any person or organization directly and materially affected by T10's scope of work. The following people attended the meeting:

Name	S	Organization
Mr. Kevin Marks	P	Dell, Inc.
Mr. Kenneth Hirata	A	Emulex
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Wayne Bellamy	V	Hewlett Packard Co.
Mr. Dan Colegrove	P	Hitachi Global Storage Tech.
Mr. Robert Sheffield	P	Intel Corp.
Mr. Robert Payne	P	Iomega Corp.
Mr. Dennis Moore	P	KnowledgeTek, Inc.
Mr. John Geldman	P	Lexar Media, Inc.
Mr. Steve Johnson	V	LSI Logic Corp.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Owen Parry	V	LSI Logic Corp.
Mr. Avraham Shimor	P	M-Systems
Mr. David Geddes	P	Marvell Semiconductor, Inc.
Mr. Mark Evans	P	Maxtor Corp.
Mr. Mark Overby	P	Nvidia Corp.
Mr. William Martin	P	Sierra Logic, Inc.
Mr. Ron Roberts	V	Sierra-Pac Technology
Mr. Wayne Gentry	V	Unisys Corporation
Mr. Curtis Stevens	P	Western Digital
Mr. Rich Ramos	P	Xyratex

21 People Present

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

4. Old Business

4.1 SAT Letter Ballot Comments Resolution (06-121r1) [Sheffield]

Bob Sheffield reviewed the results of the letter ballot comment resolution to date. He then continued the review of the unresolved letter ballot comments.

The meeting recessed at 1730 to be resumed on Thursday following the plenary. After the meeting resumed, letter ballot comment resolution continued.

During the letter ballot comment resolution it was noted that there were several conflicting comments to the default self-test section in the informational exceptional for the default self test. Some people thought that there should be no requirement, some people wanted flexibility in the implementation of a default self-test, and others thought that what was present in the current text was fine. It was suggested that this be addressed at the next face to face with a larger group of attendees.

Bob agreed to post the revision of the letter ballot comments to date.

5. New Business

5.1 SAT - Fix Task Management Functions (06-179r0) [Sheffield]

Bob Sheffield asked that this be deferred to the next meeting as no updates had been made.

5.2 SAT - Fix Mode Page VPD page in SATA (06-209r0) [Marks]

Kevin Marks reviewed a proposal that specifies that the mode page policy is unspecified by the SAT standard to allow a SATL to determine any permissible mode page policy. He stated that this proposal is designed to address multiple letter ballot comments about mode page policies. It was agreed that the proposed resolution would be noted in the letter ballot comment resolution.

5.3 SAT - Block Mapping Issues (06-216r0) [Sheffield]

Bob Sheffield reviewed his document which outlines the different potential ways of mapping SCSI to ATA for block transfers and the different approaches that have been proposed in the SAT document. Discussion was held about the merits about if the standard should allow SATLs to do translations that are not direct 1-1 translations of the block transfers or capabilities of the underlying ATA device.

A lengthy discussion ensued between Wayne Bellamy, Mark Overby, Bill Martin, and others about VPD page 89h. Wayne believed that the current definition of the VPD page does not allow an ATA host or SATL to modify the reported ATA capabilities regardless of what is reported through SCSI mechanisms. The example that was provided was an ATA host / SATL that provides write caching, but disables the write caching at the drive. Mark stated that he believed that information should be consistent such that either place you look the caching enables are consistent. Wayne stated that he believed that the VPD page should be unmodified so that it can be used as a diagnostic tool to indicate if the SATL was honoring requests from the application client to the end device. After further discussion Rich Ramos suggested text that indicates this could happen, but allows the SATL to modify.

Curtis Stevens moved, Mark Overby seconded, that the VPD page text be modified to allow for VPD modification of the IDENTIFY DEVICE or IDENTIFY PACKET DEVICE data. The motion passed with 4 ayes, 1 nay, and 6 abstentions.

Curtis and Bill both asked what a one-to-one mapping meant in the context of LBA addressing, block sizes, and such. A discussion ensued in which it was determined that one-to-one meant LBA addressing and block sizes. There was general agreement that the standard should (for this revision) define that model. Steve Johnson stated that have a model that says that everything is vendor specific doesn't need to be in the standard. There was general agreement on this point.

Bob Sheffield revised his proposal to indicate the changes necessary to use this model for the SAT 1 document and reviewed them with the group. Bob indicated that he would work on the proposal and bring back a new revision to the next meeting.

5.4 SAT - Device Server Password Security (06-070r0) [Stevens]

Curtis Stevens reviewed the draft of his proposal to bring in a method for using the ATA security commands through a SATL. He noted that this proposal had originally been reviewed by CAP and CAP determined that this proposal was best handled in SAT. A protocol ID was assigned to this function (EFh).

A discussion was held as to why this shouldn't be in SPC-4 instead of SAT. Wayne Bellamy and Kevin Marks both noted that they did not understand the rationale for putting this into SAT. Others felt that this could apply to multiple device types or be a general feature.

Several editorial changes were suggested and Curtis agreed to make those changes.

Curtis agreed to make a revision of the document and bring it to a future meeting. Curtis stated that he is also going to talk to Ralph Weber to see if the concerns of the CAP group could be addressed such that the proposal would be moved back to SPC-4.

Curtis Stevens requested a straw poll on if this functionality belongs in SAT or SPC. There were 11 people in favor of moving it to SPC. 2 were in favor of leaving it in SAT. The SAT voters stated that they felt that there was a need for a full security system instead of retrofitting an ATA feature set into the SCSI environment.

6. Review of Recommendations

There were no recommendations made to the plenary.

7. Meeting Schedule

SAT Working Group meetings are scheduled for:

Tuesday July 11, 2006 from 9:00 a.m. to 5:00 p.m. in Colorado Springs, CO at the Hilton-Antlers, hosted by LSI Logic

Wed - Thur June 7 - 8, 2006 in Phoenix, AZ hosted by Bob Sheffield of Intel. (Details to be provided by Bob Sheffield on the reflector)

A teleconference was scheduled for May 18th, 2006 at noon Pacific time. Bob Sheffield agreed to post an announcement to the reflector.

8. Adjournment

The meeting was adjourned at 1700 May 11, 2006.