

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

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Date: June 20, 2005

Reply to: John Lohmeyer

To: T10 Membership
From: John Lohmeyer
Subject: SAT Working Group -- June 20, 2005
Irvine, CA

Agenda

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Results of Meeting

1. Opening Remarks

John Lohmeyer called the meeting to order at 9:00 a.m. Wednesday, June 20, 2005. He thanked Curtis Stevens of Western Digital for hosting the meeting. As usual, the people present introduced themselves.

2. Approval of Agenda

The draft agenda was approved with no changes.

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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. Ron Roberts	A	Broadcom Corp.
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. Owen Parry	V	LSI Logic Corp.
Mr. Steve Johnson	V	LSI Logic Corp.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Avraham Shimor	P	M-Systems
Mr. Mark Overby	P	Nvidia Corp.
Mr. Joseph Chen	V	Samsung
Mr. Jim Hatfield	V	Seagate Technology
Mr. Curtis Stevens	P	Western Digital

14 People Present

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

4. Old Business

4.1 SAT Work Items List (04-391r7) [Sheffield]

Bob Sheffield reviewed the status of work items remaining in SAT (04-391r7).

Ron Roberts noted that a statement to the effect that a SATA COMRST needs to be translated into a SCSI unit attention condition with an ASC of 29h unless the SATL implements savable mode page parameters and restores critical SATA settings in response to the COMRST. Mark Overby agreed to write a proposal on this.

4.2 SAT - LOG SENSE command and SMART (05-142r1) [Bellamy]

Wayne Bellamy asked that this item be deferred to the next meeting.

4.3 SAT, START STOP UNIT command mapping (05-226r0) [Evans]

In the absence of Mark Evans, this item was deferred to the next meeting.

4.4 SAT READ MEDIA SERIAL NUMBER proposal (05-227r1) [Overby]

Mark Overby presented 05-227r1, SAT READ MEDIA SERIAL NUMBER proposal. Mark Overby moved and Ron Roberts seconded that 05-227r2, r1 as revised, be recommended for inclusion in SAT. In absence of objection, the motion passed unanimously.

5. New Business

5.1 WRITE BUFFER / Download Microcode [Hatfield]

Wayne Bellamy noted that he had requested a document number (05-246), but had not yet posted his proposal on SAT - SCSI WRITE BUFFER to ATA DOWNLOAD MICROCODE.

The discussion drifted into a separate topic of whether SAT should map WRITE LONG into the ATA WRITE WRONG command. In most SCSI cases, WRITE LONG is used to force an ECC error on a logical block. The ATA WRITE WRONG command accomplishes the same thing. The ATA WRITE LONG and READ LONG commands are obsolete and do not deal with 48-bit addresses. The conclusion of the digression was that this topic should be deferred to SAT-2.

5.2 SAT: Remove Persistent Reservation Commands (05-229r0) [Lohmeyer]

John Lohmeyer presented 05-229r0, SAT: Remove Persistent Reservation Commands. He noted that while his proposal was pessimistic about being able to efficiently emulate these commands with existing hardware support, it is not impossible. Affiliations could be used. The difficulty is in getting multiple SATL layers in different machines to work together. The time to develop this inter-SATL protocol is not consistent with the target schedule for SAT. Persistent Reservation commands should be a SAT-2 topic.

John Lohmeyer moved that 05-229r0 be recommended for inclusion in SAT. Curtis Stevens seconded the motion. In absence of objection, the motion passed unanimously.

5.3 SAT - REASSIGN BLOCKS command (05-136r2) [Bellamy]

Wayne Bellamy briefly presented 05-136r2, SAT - REASSIGN BLOCKS command. This proposal had been previously recommended for inclusion at the June 1 meeting.

5.4 SAT - ATA Errors to SCSI Errors - Translation Map (05-233r0) [Bellamy]

Wayne Bellamy presented 05-233r0, SAT - ATA Errors to SCSI Errors - Translation Map. The group provided significant feedback and Wayne agreed to prepare a new revision for consideration at the next meeting.

5.5 SAT - Informational Exceptions Control mode page (05-238r0) [Bellamy]

Wayne Bellamy presented 05-238r0, SAT - Informational Exceptions Control mode page. The group provided input and Wayne agreed to prepare a new revision for consideration at the next meeting.

5.6 SAT - Caching mode page (05-239r0) [Bellamy]

Wayne Bellamy presented 05-239r0, SAT - Caching mode page. The group provided minor input and Wayne agreed to prepare a new revision. Wayne Bellamy moved and Bob Sheffield seconded that 05-239r1, r0 as revised, be recommended for inclusion in SAT. In absence of objection, the motion passed unanimously.

5.7 SAT - Read-Write Error Recovery mode page (05-241r0) [Bellamy]

Wayne Bellamy presented 05-241r0, SAT - Read-Write Error Recovery mode page. The group provided input and Wayne agreed to prepare a new revision for consideration at the next meeting.

5.8 SAT: Add 16-byte CDBs and PIO modes (05-247r0) [Sheffield]

Bob Sheffield reviewed 05-247r0, SAT: Add 16-byte CDBs and PIO modes. The group provided input and Bob agreed to prepare a new revision for consideration at the next meeting.

6. Review of (SAT) Working Draft

Due to the late hour, this item was not covered.

7. Review of Recommendations

John Lohmeyer noted that the working group made the following recommendations to the T10 plenary:

For inclusion in SAT (from June 1):
05-136r2 (REASSIGN BLOCKS command) [Bellamy]
05-177r2 (Write Same Translation) [Stevens]

For inclusion in SAT (from June 20):
05-239r1 (Caching mode page) [Bellamy]
05-229r0 (Remove Persistent Reservation Commands) [Lohmeyer]
05-227r2 (READ MEDIA SERIAL NUMBER proposal) [Overby]

8. Meeting Schedule

A SAT Working Group meeting is scheduled for:

Tuesday, July 12, 2005 from 9:00 a.m. to 6:00 p.m. in Colorado Springs, CO, at the Antlers Hilton Hotel (719-955-5600), hosted by LSI.

A teleconference call is scheduled for:

Thursday, June 30, 2005 at 9:00 a.m. to noon PDT. Bob Sheffield will post an announcement to the T10 reflector.

9. Adjournment

The meeting was adjourned at 5:28 p.m. on Monday, June 20, 2005.