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

To: T10 Membership
From: Mark A. Overby
Subject: SAT Working Group Meeting -- June 7-8, 2006
            Phoenix, AZ

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Old Business
     4.1   SAT Revision 8 letter ballot comment resolution (06-121r1) [Sheffield]
     4.2   SAT - Fix Task Management Functions (06-179r0) [Sheffield]
     4.3   SAT - Block Mapping Issues (06-216r0) [Sheffield]
     4.4   SAT - Device Server Password Security (06-070r0) [Stevens]
5. New Business
     5.1   SAT - Example Configurations (06-262r1) [Sheffield]
     5.2   SAT - ATA resets and ATA nexus loss (06-270r0) [Sheffield]
6. Review of Recommendations
7. Meeting Schedule   Next Meeting Announcement   Next Meeting Map
8. Adjournment

Results of Meeting

1.   Opening Remarks

John Lohmeyer called the meeting to order at 0900 June 7, 2006. John thanked Bob Sheffield and Intel for hosting the meeting.

2.   Approval of Agenda

The draft agenda was approved, by unanimous consent, after removing Kevin's already approved VPD proposal.

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:

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               Name                   S        Organization
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Mr. Kevin Marks                       P  Dell, Inc.
Mr. Kenneth Hirata                    A  Emulex
Mr. Wayne Bellamy                     V  Hewlett Packard Co.
Mr. Robert Sheffield                  P  Intel Corp.
Mr. John Lohmeyer                     P  LSI Logic Corp.
Mr. Owen Parry                        V  LSI Logic Corp.
Mr. Mark Overby                       P  Nvidia Corp.


7 People Present

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

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

This item was deferred to the next meeting. However, Bob did note that he would attempt to post a new revision of the document before the June 19th meeting.

4.2　SAT - Fix Task Management Functions (06-179r1) [Sheffield]

Bob Sheffield reviewed the latest revision of his proposal to correct the task management section based on letter ballot comments and letter ballot comments made in other sections of the SAT standard.

A discussion ensued about the need for a change in the ASC/ASCQ that talks about commands that are cleared because of a collateral abort. Wayne Bellamy stated that he was concerned that returning this code when there isn't another initiator is inaccurate. There was discussion of simplifying the existing text, however Ralph Weber (by phone) stated that was not feasible. Instead it was suggested that we have a new ASC/ASCQ to indicate the behavior that Wayne wanted to see. Mark Overby agreed to bring a proposal to the July CAP meeting to request a new ASC/ASCQ for COMMANDS CLEARED BY DEVICE SERVER.

It was also noted that if a SATL does not support ATA abort retry than it cannot comply with the SAM requirement that ABORT TASK SET only affect the I_T_L nexus that issued that task management command. A note was added to the standard to reflect this.

In discussion of CLEAR TASK SET it was noted that letting commands complete was not needed and that the SATL should just abort all the commands and return function complete. There was discussion of if this was needed for ABORT TASK SET and the general consensus was that this was still needed for ABORT TASK SET because of flexibility to avoid clearing commands for another initiator.

By unanimous consent, the group agreed to use this proposal as the letter ballot comment resolution for the comments in the task management section.

The group reviewed the document and gave numerous editorial suggestions to Bob.

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

Bob Sheffield reviewed his proposal to create two block mapping models - a direct block mapping model and an indirect model. These models would codify the sections in the SAT standard that allow the SATL to map blocks on a non 1:1 basis. After lengthy discussion definitions were created for the direct block mapping and the indirect block mapping models were created.

The rest of the block mapping proposal was discussed and Bob made further changes to incorporate.

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

As Curtis Stevens was not present this item was deferred to the next meeting.

5.   New Business

5.1   SAT - Example Configurations (06-262r1) [Sheffield]

Bob Sheffield reviewed proposed changes to the examples section in the models clause to resolve letter ballot comments and confusion around the examples. Bob took the unordered list of examples and figures were added for each example.

Mark Overby raised the question of if the port in the expander really is a ATA host port or not. Lengthy discussion was held and the definitions from ATA-AAM, SAS, and SAT were all compared. It was noted that SAS does not describe that port in their diagrams that are similar. Bob agreed to remove the host port from that diagram.

By unanimous consent, the group agreed that this document would resolve letter ballot comments in the standard and would be so incorporated.

5.2   SAT - ATA resets and ATA nexus loss (06-270r0) [Sheffield]

Bob Sheffield reviewed proposed changes to describe ATA resets and what to do on nexus loss.

A significant discussion was held about what an ATA nexus loss means and what the SATL has to do and what it should report to the SCSI application client. There was debate over if the SCSI application client needs to be notified of events such as ASR and what the SATL should do to handle the mode parameters. Further discussion revolved around how to report the LUN that was lost on the ATA side. There were revisions made to the proposal made to indicate the correct status to return as well as the additional sense codes to return.

Changes were also made to handling the I_T nexus loss section to clarify the behavior and make it consistent with other sections in the document.

By unanimous consent, the group agreed that this document would resolve letter ballot comments in the standard and would be so incorporated.

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

Monday June 19, 2006 from 9:00 a.m. to 5:00 p.m. in Santa Clara, CA at NVIDIA. An announcement was posted to the T10 and T13 reflectors prior to this meeting.

8.   Adjournment

The meeting was adjourned at 1150 June 8, 2006.