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

To: T10 Membership
From: Ralph Weber and John Lohmeyer
Subject: SCSI Commands, Architecture, & Protocol Working Group Meeting -- March 8, 2006
            Hilton Head, SC

Agenda

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5. Command Set Topics
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        5.2.5 SPC-4: Add security protocol and additional sense for tape encryption (06-108) [Entzel]
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    8.2   SCSI interface for IEEE P1667 (06-111) [Shimor]
    8.3   Coordination of Security Protocol field values with T13 (06-131) [Houlder]
    8.4   Key Encryption as per T10/06-103r2 (06-144r0) [Black]
9. Review of Working Drafts
10. Review of Recommendations to the Plenary
11. Meeting Schedule
12. Adjournment

Results of Meeting

1.   Opening Remarks

John Lohmeyer called the meeting to order at 9:00 a.m. Wednesday, March 8, 2006. He thanked Chris Lyon of the SCSI Trade Association for hosting the meeting. As usual, the people present introduced themselves.

2.   Approval of Agenda

The draft agenda was approved with no additions or changes.

The following items were added/revised during the course of the meeting.

   5.2.9   SPC-4: ALL_TG_PT clarification (06-147) [Ramos]

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. Chris  Fore                     A# Adaptec, Inc.
Mr. Ron Roberts                     A  Broadcom Corp.
Mr. Gideon Avida                    AV Decru
Mr. Kevin Marks                     P  Dell, Inc.
Mr. Gary S. Robinson                P  EMC Corp.
Mr. Robert H. Nixon                 P  Emulex
Mr. Ramez Rizk                      V  Emulex
Mr. Ralph O. Weber                  P  ENDL Texas
Mr. Walt Hubis                      V  Engenio Information Tech.
Mr. Mike Fitzpatrick                P  Fujitsu
Mr. Michael Banther                 V  Hewlett Packard Co.
Mr. Wayne Bellamy                   V  Hewlett Packard Co.
Mr. Rob Elliott                     P  Hewlett Packard Co.
Mr. Steven Fairchild                V  Hewlett Packard Co.
Mr. Kevin Butt                      A  IBM Corp.
Mr. George O. Penokie               P  IBM Corp.
Mr. Robert Sheffield                P  Intel Corp.
Mr. John Geldman                    P  Lexar Media, Inc.
Mr. Praveen Viraraghavan            V  LSI Logic Corp
Mr. John Lohmeyer                   P  LSI Logic Corp.
Mr. Avraham Shimor                  P  M-Systems
Mr. Mark Evans                      P  Maxtor Corp.
Mr. Robert Griswold                 A# Microsoft Corp.
Mr. Frederick Knight                V  Network Appliance
Mr. Mark Overby                     P  Nvidia Corp.
Mr. Thomas Grieff                   A  Pivot3, Inc.
Mr. Paul Entzel                     P  Quantum Corp.
Dr. Paul Suhler                     A  Quantum Corp.
Mr. Gerald Houlder                  P  Seagate Technology
Mr. William Martin                  P  Sierra Logic, Inc.
Mr. Charles Binford                 A  Sun Microsystems, Inc.
Mr. Vit Novak                       P  Sun Microsystems, Inc.
Mr. Roger Cummings                  P  Symantec
Mr. Anders Liverud                  AV Tandberg Storage
Mr. Curtis Stevens                  P  Western Digital
Mr. Jeff Williams                   P  Xiotech Corp.
Mr. Rich Ramos                      P  Xyratex

37 People Present

Status Key:  P    -  Principal
             A,A# -  Alternate
             AV   -  Advisory Member
             L    -  Liaison
             V    -  Visitor
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4.   SCSI Architecture Model Topics

4.1   SAM-4: Converting to UML part 1 (06-116) [Penokie]

George Penokie presented a proposal to convert SAM-4 to UML (06-116r0). The group requested numerous minor and not-so-minor changes and George agreed to prepare a new revision.

Eventually, the degree of changes and the complex relationships between changes reached a point where George felt the group's best interests would be served by holding a review of the revised proposal at the next meeting.

5.   Command Set Topics

5.1   Reservations Proposals

No persistent reservations proposals, other than the proposal in agenda item 5.2.9, were presented to the group.

5.2   SCSI Primary Commands Proposals

5.2.1   SPC-4: Log Page-Subpages (06-113) [Butt]

Kevin Butt presented a proposal to add log sub-pages (06-113r0). The group requested several significant changes and Kevin agreed to prepare a new revision for consideration at the next meeting.

5.2.2   SPC-4: Log Command Corrections (05-232) [Penokie]

George Penokie asked that discussion of this topic be deferred to the next meeting.

5.2.3   SPC-4: Statistics and Performance Log Pages (05-248) [Penokie]

George Penokie presented a proposal to define log pages for reporting statistics and performance data based on group field contents and other per-command parameters (05-248r3). The group raised several concerns about the proposal including the possibility that a zero-valued priority would cause division by zero in some calculations. Several levels of indirection were required to reach the divide-by-zero case, but it was still present.

The group requested several other mostly-editorial changes and George agreed to prepare a new revision.

George Penokie moved that 05-248r4 (r3 as revised) be recommended for inclusion in SPC-4. Kevin Marks seconded the motion. In the absence of any objections, the motion passed unanimously.

SPC-4 editor, Ralph Weber stated that the proposal, if approved by T10, will not be incorporated into SPC-4 until 06-113 (see agenda item 5.2.1) is approved.

5.2.4   SPC-4: Self Describing Command Timeouts (05-284) [Butt]

Kevin Butt asked that discussion of this topic be deferred to the next meeting.

5.2.5   SPC-4: Add security protocol and additional sense for tape encryption (06-108) [Entzel]

Paul Entzel presented a proposal to define a security protocol and several additional sense codes (06-108r0). The group requested several changes and Paul agreed to prepare a new revision for consideration at the next meeting.

5.2.6   SPC-4: More Log Page Cleanup (06-079) [Weber]

Ralph Weber presented a proposal to correct four errors in the Log Page definition that were discovered incorpora- tion of 05-242r2 (06-079r0). The group requested one major change in the text defining the DU bit and a couple of minor changes. Ralph agreed to prepare a new revision of the proposal.

Ralph Weber moved that 06-079r1 (r0 as revised) be recommended for inclusion in SPC-4. Mark Evans seconded the motion. In the absence of any objections, the motion passed unanimously.

5.2.7   SPC-4: Add automation types to MAM (06-137) [Butt]

Kevin Butt presented a proposal to add ADI-related MAM attributes (06-137r0). The group questioned the presence of another bar code.

Kevin asked that this proposal be removed from future agendas.

5.2.8   SPC-4: Device Server Password Security (06-070) [Stevens]

Curtis Stevens presented a proposal to pass ATA security functions through to SCSI as a Security Protocol (06-070r0). The group requested that the function be defined in SAT-2, not SPC-4.

Curtis Stevens moved that the SPC-4 editor be instructed to assign Security Protocol code value EFh to the ATA Device Server Password Security protocol. Mark Overby seconded the motion. The motion passed 11:1:5.

5.2.9   SPC-4: ALL_TG_PT clarification (06-147) [Ramos]

Rich Ramos asked for a clarification of what to do when the ALL_TG_PT bit is not supported (06-147r0).

Rich Ramos moved that 06-147r0 be recommended for inclusion in SPC-4. Bill Martin seconded the motion. In the absence of any objections, the motion passed unanimously.

5.3   SCSI Block Commands Proposals

5.3.1   SBC-3 Physical blocks (06-034) [Elliott]

Rob Elliott presented a proposal to add reporting actual sector size and managing such information during FORMAT UNIT commands, READ CAPACITY commands, and related places in SBC-3 (06-034r1). The group requested substantial changes, especially in the logical block offset field definition for the FORMAT UNIT command.

Rob Elliott promised a revised proposal for consideration at the next meeting.

5.4   SCSI Enclosure Services Proposals

5.4.1   SES-2 Display element enhancements (05-011) [Elliott]

Rob Elliott requested that discussion of this topic be deferred to the next meeting.

5.5   Other Proposals

No other proposals were brought before the group.

6.   SCSI Protocol Topics

No SCSI Protocol topics were presented to the meeting.

7. Old Business

No old business was presented to the group.

8. New Business

8.1 Link to TCG Storage Use Case white paper (06-095) [Houlder]

Gerry Houlder presented a proposal containing a URL reference to a TCG Storage Use Case white paper (06-095r0). The group agreed that no further discussion of the topic was necessary.

8.2 SCSI interface for IEEE P1667 (06-111) [Shimor]

Avraham Shimor presented a proposal to map IEEE 1667 to the Security Protocol In/Out commands (06-111r1). The group declined to add the proposed bit in the Standard INQUIRY Data for indicating that the Security Protocol In/Out commands are supported.

Avraham and John Geldman agreed to develop detailed proposals for changes in line with the group's positions.

8.3 Coordination of Security Protocol field values with T13 (06-131) [Houlder]

Gerry Houlder led a discussion of coordinating Security Protocol assignments between T10 and T13 (06-131r0). Curtis Stevens, Dan Colegrove, and Ralph Weber agreed to informally coordinate the assignments.

8.4 Key Encryption as per T10/06-103r2 (06-144r0) [Black]

Ralph Weber led the group in a brief discussion of David Black's concerns about transferring encryption keys in plain text (06-144r0). Ralph asked that this topic not be carried over to future agendas and stated that other propos-als should be added to future agendas to make specific SPC-4 changes.

9. Review of Working Drafts

No requests were made to review working drafts at this meeting.

10. Review of Recommendations to the Plenary

Ralph Weber noted that the following recommendations have been made to the T10 plenary:

    For inclusion in SPC-4:
    05-248r4 (Statistics and Performance Log Pages) [Penokie]
    06-079 (More Log Page Cleanup) [Weber]
    06-147r0 (ALL_TG_PT clarification) [Ramos]
    06-126r0 (Assign Security Protocol code value EFh to the ATA Device Server Password Security protocol)

11. Meeting Schedule

    The next meeting of the SCSI Commands, Architecture, and Protocols Working Group will be Wednesday, May 10, 2006 from 9 a.m. to 8 p.m. (or until all agenda items are completed). The meeting will be in San Jose, CA the Fairmont Hotel (1-408-998-1900) hosted by Nvidia Corp.

12. Adjournment

The meeting was adjourned at 6:00 p.m. on Wednesday March 8, 2006.