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

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Date: May 5, 2005
Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber and John Lohmeyer
Subject: SCSI Commands, Architecture, & Protocol Working Group Meeting -- May 4, 2005
           Oklahoma City, OK

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
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5. Command Set Topics
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        5.2.2 VPD Page 83 Identifier s/b Designator Changes (05-003) [Weber, Penokie]
        5.2.3 SPC-4: Enable Background Operation Error Reporting Bit (04-371) [Penokie]
        5.2.4 Typo in SPC-3 (05-148) [Suhler]
        5.2.5 Error in SPC-3r22a (05-150) [Marks]
        5.2.6 More SPC-3 r22a changes (05-151) [Weber]
        5.2.7 Minor grammar error in SPC-3 r22a (05-172) [Berhan]
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        5.2.9 Response to T10 Letter Ballot comments on SPC-3 (04-355) [Weber]
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        5.3.1 SBC-2: Proposal for USB Solid State Drive Mode Sense specification (04-362) [LaVarre]
        5.3.2 SBC-2 Validation of Protection Information (05-101) [Martin]
        5.3.3 SBC-3, SPC-4: Application ownership of protection information Reference Tag (05-156) [Penokie]
    5.4   SCSI Enclosure Services Proposals
        5.4.1 SES-2 Display element enhancements (05-011) [Elliott]
        5.4.2 SES-2 Bay Number Addition (05-180) [Fairchild]
        5.4.3 SES-2 Element Index Addition (05-181) [Fairchild]
    5.5   Other Proposals
6. SCSI Protocol Topics
    6.1   Fibre Channel Protocol
7. Old Business
    7.1   Style Guide (05-085) [Penokie]
8. New Business
    8.1   Trusted Computing Group Presentation (05-161) [Thibadeau]
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, May 4, 2005. He thanked Mike Fitzpatrick of Fujitsu for hosting the meeting.

As is customary, the people attending introduced themselves.

2.   Approval of Agenda

The draft agenda was approved with no additions or changes.

No items were added/revised during the course of the meeting.

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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Ms. Pat Thaler                       P  Agilent Technologies
Mr. Ron Roberts                      A  Broadcom Corp..
Mr. Kevin Marks                      P  Dell, Inc.
Mr. Gary S. Robinson                 P  EMC Corp.
Mr. Kenneth Hirata                   A  Emulex
Mr. Ralph O. Weber                   P  ENDL Texas
Mr. Mike Fitzpatrick                 P  Fujitsu
Mr. Tim Mackley                      A  General Dynamics
Mr. Michael Banther                  V  Hewlett Packard Co.
Mr. Rob Elliott                      P  Hewlett Packard Co.
Mr. Dan Colegrove                    P  Hitachi Global Storage Tech.
Mr. George O. Penokie                P  IBM / Tivoli Systems
Mr. Schelto van Doorn                V  Intel Corp
Mr. Robert Sheffield                 P  Intel Corp.
Mr. David Hawks                      P  Iomega Corp.
Mr. Dennis Moore                    AV  KnowledgeTek, Inc.
Mr. Martin Furuhjelm                 A  Lexar Media, Inc.
Mr. John Lohmeyer                    P  LSI Logic Corp.
Mr. Avraham Shimor                  AV  M-Systems
Mr. Martin Czekalski                 A  Maxtor Corp.
Mr. Mark Evans                       P  Maxtor Corp.
Mr. Paul Entzel                      P  Quantum Corp.
Dr. Paul Suhler                      A  Quantum Corp.
Mr. Gerald Houlder                   P  Seagate Technology
Dr. Robert Thibadeau                 V  Seagate Technology
Mr. William Martin                   P  Sierra Logic, Inc.
Mr. Charles Binford                  A  Sun Microsystems, Inc.
Mr. Vit Novak                        P  Sun Microsystems, Inc.
Mr. Greg Wheeless                    A  Veritas Software
Mr. Curtis Stevens                   P  Western Digital
Mr. Jeff Williams                    P  Xiotech Corp.
Mr. Rich Ramos                       V  Xyratex

32 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 (04-023) [Penokie]

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

5. Command Set Topics

5.1 Reservations Proposals

No reservations proposals were brought before the group.

5.2 SCSI Primary Commands Proposals

5.2.1   SPC-4: Log Page-Subpages (04-389) [Butt]

Kevin Butt presented a proposal to add log parameter subpages (04-389r5). The group requested that consistent notation be used throughout.

Concerns were raised about how existing implementations relate to the proposed PCR bit definition changes.

Kevin agreed to revise the proposal for consideration at the next meeting.

5.2.2   VPD Page 83 Identifier s/b Designator Changes (05-003) [Weber, Penokie]

Ralph Weber requested that discussion of this topic be deferred to the next meeting.

5.2.3   SPC-4: Enable Background Operation Error Reporting Bit (04-371) [Penokie]

George Penokie presented a proposal to add a background error reporting to the Informational Exceptions mode page (04-371r0).

The group requested that the proposal be coordinated with the background media scan feature defined for SBC-3 and several other changes.

The group requested that the proposed table be changed to non-tabular text and that several other changes be made. George agreed to prepare a new revision for consideration at the next meeting.

5.2.4   Typo in SPC-3 (05-148) [Suhler]

This topic was covered under agenda item 5.2.9.

5.2.5   Error in SPC-3r22a (05-150) [Marks]

This topic was covered under agenda item 5.2.9.

5.2.6   More SPC-3 r22a changes (05-151) [Weber]

Most of this topic was covered under agenda item 5.2.9.

The group discussed whether to change "per initiator port" to "obsolete", or "reserved", or "vendor specific", as requested in 05-151r0. The group recommended that no change be made and that the coded value be changed to "obsolete" in SPC-4.

5.2.7   Minor grammar error in SPC-3 r22a (05-172) [Berhan]

This topic was covered under agenda item 5.2.9.

5.2.8   SPC Security Commands proposal (05-157) [Houlder]

Gerry Houlder led the group in a discussion of a detailed proposal (05-157r0) supporting the TCG (see agenda item 8.1). Concerns were raised about:

- The limited number of reserved (i.e., not currently assigned) protocol identifiers,
- The need to use well-known logical units,
- The need to process the proposed commands in target devices, logical unit, and possibly target ports, and

• Multi-initiator support.

Gerry agreed to revise the proposal for consideration at the next meeting.

5.2.9   Response to T10 Letter Ballot comments on SPC-3 (04-355) [Weber]

Ralph Weber presented the SPC-3 late letter ballot comments received since SPC-3 r22a was generated to resolve an FCP-3 additional sense code problem (04-355r8).

Ralph Weber moved that 04-355r9 be recommended as resolving the SPC-3 letter ballot comments and that SPC-3 revision 23 be recommended as containing the letter ballot comments resolutions. In the absence of any objections, the motion passed unanimously.

5.3 SCSI Block Commands Proposals

5.3.1   SBC-2: Proposal for USB Solid State Drive Mode Sense specification (04-362) [LaVarre]

Martin Furuhjelm requested that discussion of this topic be deferred to the next meeting.

5.3.2   SBC-2 Validation of Protection Information (05-101) [Martin]

Bill Martin presented a proposal to clarify that an application tag of all ones disables protection data checking (05-101r1). The group discussed the completeness of the proposed change. George Penokie offered alternative wording that the group eventually decided not to use.

Bill Martin moved that 05-101r1 be recommended for inclusion in SBC-3. Kevin Marks seconded the motion. In the absence of objections, the motion passed unanimously.

5.3.3   SBC-3, SPC-4: Application ownership of protection information Reference Tag (05-156) [Penokie]

George Penokie presented a proposal to defeat the protection information reference tag ownership requirements in SBC-2 (05-156r0). The group requested several changes and George agreed to prepare a new revision 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.

5.4.2   SES-2 Bay Number Addition (05-180) [Fairchild]

Rob Elliott presented a proposal to specify that one byte out of the extra bytes in the new Additional Element Status descriptor format be modified to contain a bay number. (05-180r0).

Rob Elliott moved that 05-180r0 be recommended for inclusion in SES-2. Kevin Marks seconded the motion. In the absence of any objections, the motion passed unanimously.

5.4.3   SES-2 Element Index Addition (05-181) [Fairchild]

Rob Elliott presented a proposal to add a bit that identifies the use of the new index format for Additional Element Status descriptors (05-181r0). Concerns were raised about the handling of the extra bytes added by the new format and Rob agreed to revise the proposal.

Rob Elliott moved that 05-181r1 (r0 as revised) be recommended for inclusion in SES-2. Kevin Marks seconded the motion. In the absence of any objections, the motion passed unanimously.

5.5 Other Proposals

No other proposals were brought before the group.

6. SCSI Protocol Topics

6.1 Fibre Channel Protocol

The working group identified no Fibre Channel protocol topics as needing consideration.

7. Old Business

7.1 Style Guide (05-085) [Penokie]

George Penokie led the group in a review of the T10 Style Guide (05-085r1). George noted necessary changes and agreed to revise the document.

8. New Business

8.1 Trusted Computing Group Presentation (05-161) [Thibadeau]

Bob Thibadeau presented an overview of Trusted Computing Group activities (05-161r0). The presentation was followed by a discussion of agenda item 5.2.8.

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:

Resolving SPC-3 Letter Ballot comments:
04-355r9 and SPC-3 r23 (Response to T10 Letter Ballot comments on SPC-3) [Weber]

For SBC-3:
05-101r1 (Validation of Protection Information) [Martin]

For inclusion in SES-2:
05-181r1 (Element Index Addition) [Fairchild]
05-180r0 (Bay Number Addition) [Fairchild]

11. Meeting Schedule

The next meeting of the SCSI Commands, Architecture, and Protocols Working Group will be Wednesday, July 13, 2005 from 9 a.m. to 6 p.m. (or until all agenda items are completed). The meeting will be in Colorado Springs, CO at the Antlers Hilton Hotel (719-955-5600), hosted by LSI Logic.

12. Adjournment

The meeting was adjourned at 5:15 p.m. on Wednesday May 4, 2004.