Accredited Standards Committee*
National Committee for Information Technology Standards (NCITS)

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Date: September 29, 1998
Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: SCSI Working Group Meeting -- September 16, 1998
           St. Petersburg Beach, FL

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Physical Topics
5. Protocol Topics
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6. Command Set Topics
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   6.3   High-Availability Profile (HAP) [Hagerman]
   6.4   GET CONFIGURATION command and feature descriptions for SPC-2 (98-169 and 98-170) [Sims]
   6.5   FCP-2 [Snively]
   6.6   Proposal for Writable Device Identifiers (98-112r2) [Coughlan]
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   6.8   Considerations for mode pages common to several LUNs (98-187r1) [Houlder]
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   6.12 What happens to VPD page 81h after CHANGE DEFINITION is obsolete? [Weber]
   6.13 INQUIRY Data field to report transceiver type (98-215r0) [Lohmeyer]
   6.14 Device locks command (98-224r0, 98-225r0) [Houlder/Preslan]
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Results of Meeting

1.   Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Wednesday September 16, 1998. He thanked Chuck Brill of AMP for hosting the meeting.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated.

2.   Approval of Agenda

The draft agenda was approved with the following additions and changes:

    6.13   INQUIRY Data field to report transceiver types (98-215r0) [Lohmeyer]
    6.14   Device locks command (98-224r0, 98-225r0) [Houlder/Preslan]
    6.15   New device type code for bridging expanders (98-223r0) [Ham]

No agenda items were added during the course of the meeting.

3.   Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for T10 member-ship. 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        Electronic Mail Address
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Mr. Lawrence J. Lamers P  Adaptec, Inc.            ljlamers@ieee.org
Mr. Bill Mable         A  Amphenol Interconnect    bmable@spectra.net
Mr. Edward Haske       O  CMD Technology           haske@cmd.com
Mr. Robert C. Elliott  P  Compaq Computer Corp.    Robert.Elliott@compaq.com
Mr. Tom Coughlan       V  Compaq Computer Corp.    tom.coughlan@digital.com
Mr. Neil Wanamaker     V  Crossroads Systems, Inc. ntw@crossroads.com
Mr. Charles Tashbook   P  Dallas Semiconductor     charles.tashbook@dalsemi.
                                                   com
Mr. Ed Kavetsky        A# Distributed Processing   kavetsky@dpt.com
                          Tech.
Mr. Tom Jackson        P  Exabyte Corp.            thomasj@exabyte.com
Mr. Ben-Koon Lin       A  Fujitsu (FCPA)           blin@fcpa.fujitsu.com
Mr. Marcos Barrionuevo P  Harting, Inc. of N.      Marcos.Barrionuevo@
                          America                  harting.com
Mr. George Penokie     P  IBM Corp.                gop@us.ibm.com
Mr. John Lohmeyer      P  LSI Logic Corp.          lohmeyer@ix.netcom.com
Mr. Alan Littlewood    A  LSI Logic Corp.          alanl@lsil.com
Mr. Ralph O. Weber     A# LSI Logic Corp.          roweber@acm.org
Mr. Robert Bellino     P  Madison Cable Corp.      rbellino@madisoncable.com
Mr. Pete McLean        P  Maxtor Corp.             pete_mclean@maxtor.com
Mr. Jay Neer           A  Molex Inc.               jneer@molex.com
Mr. Martin Ogbuokiri   A# Molex Inc.               mogbuokiri@molex.com
Mr. Edward A. Gardner  P  Ophidian Designs         eag@ophidian.com
Mr. Mark Evans         P  Quantum Corp.            mark.evans@quantum.com
Mr. Bruce Leshay       V  Quantum Corp.            bleshay@tdh.qntm.com
Mr. Gene Milligan      P  Seagate Technology       Gene_Milligan@notes.
                                                   seagate.com
Mr. Gerald Houlder     A  Seagate Technology       Gerry_Houlder@notes.
                                                   seagate.com
Mr. Erich Oetting      P  Storage Technology Corp. erich_oetting@stortek.com
Mr. Robert N. Snively  P  Sun Microsystems         bob.snively@sun.com
                          Computer Co
Mr. Frank Ng           V  Sun Microsystems         franklin.ng@sun.com
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                              Computer Co
Mr. Paul D. Aloisi      P   Unitrode Corporation      aloisi@unitrode.com
Mr. Kenneth Preslan     V   University of Minnesota   kpreslan@lcse.umn.edu
Mr. Jeffrey L.          P   Western Digital           Jeffrey.L.Williams@wdc.
Williams                    Corporation               com
Mr. Doug Piper          P   Woven Electronics         doug.piper@internetmci.
                                                      com


31 People Present

Status Key:  P   -  Principal
             A,A# - Alternate
             O   -  Observer
             L   -  Liaison
             V   -  Visitor
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4. Physical Topics

5. Protocol Topics

5.1 SAM-2 Revision 8 Review [Weber]

Ralph Weber reported that the SAM Rev 8 review group on Monday afternoon requested additions to the multi-port SCSI device model, including renaming the object so that the name does not include the phrase "SCSI Device". Bob Snively questioned the possibility that multiple paths between initiators and targets might become a part of SAM-2. Ralph stated a belief that such will not be the result.

5.1.1   Address space issues (HiSupport bit wording from reflector discussion)

Gerry Houlder described an issue raised on the T10 Reflector where it was proposed that the meaning of the HiSupport bit in the standard Inquiry data be changed, or perhaps to drop the need for the HiSupport bit altogether. The group discussed the various options and concluded that no changes are necessary.

6. Command Set Topics

6.1 SCSI Socket Services (SSS) Rev 0 Review [Parker]

John Lohmeyer reported that Keith Parker has provided revision 0 of SSS, which is available on the T10 web site.

6.2 QErr Recovery in HAP (97-187) []

Based on the minutes of the March meeting (98-126), Ralph Weber reported that the issue in this area is a specific QErr code value, believed to be 01b, that should not be used in multi-initiator environments. The group reviewed the history of the problem. Since this issue will become moot should the HAP project be dropped (see next item), no further action was taken.

6.3 High-Availability Profile (HAP) [open]

John Lohmeyer reported that Doug Hagerman will not be attending many future committee meetings and that Doug cannot continue as the HAP editor. Doug has asked that the HAP project be terminated, presumably because he thinks there will be no volunteers to replace him. John said he will issue a call for volunteers to edit HAP and should there be no response, the project status will be reconsidered at the November T10 meeting.

6.4 GET CONFIGURATION command and feature descriptions for SPC-2 (98-169 and 98-170) [Sims]

Rob Sims was not present.

6.5 FCP-2 [Snively]

Bob Snively reported that no new information is available regarding FCP-2. He indicated that he still hopes to have a revision 0 of FCP-2 ready by the end of September, but not in time for the next committee mailing.

6.6 Proposal for Writable Device Identifiers (98-112r2) [Coughlan]

Tom Coughlan described his proposal that the SCC-2 REPORT DEVICE IDENTIFIER command/service action and SET DEVICE IDENTIFIER command/service action be incorporated in SPC-2 (98-112r2). Several issues associated with importing SCC-2 commands in SPC-2 were discussed and the SPC-2 technical editor was given some bounds on possible editorial changes during incorporation of the proposal.

In the absence of any objections, the working group recommended that 98-112r3 (r2 as amended) be accepted for inclusion in SPC-2.

6.7 World Wide IDs (98-186r0) [Penokie]

John Lohmeyer reported that the July working group had recommended that 98-186r0 be accepted for inclusion in SPC-2, but that the item had been overlooked so the July plenary meeting took no action on the recommendation. The recommendation is on the September plenary agenda.

6.8 Considerations for mode pages common to several LUNs (98-187r1) [Houlder]

Gerry Houlder noted that the last working group recommended that a mode page that applies to all LUNs be processed only via LUN 0. Based on that recommendation, the proposal (98-187r1) had been reduced to a couple of additional sentences to the definition of page code 19h on FCP-2.

Bob Snively raised concerns about the wording of the proposal with respect to hierarchical logical unit structures and the missing ability to sense mode page data on logical units other than zero. Substantial wording changes were recommended for the proposal, and Gerry agreed to bring a revised proposal to the November meeting.

6.9 Method for defining very long command blocks (98-188r0) [Houlder]

Questions were raised about the usage of the CDB CRC, the most substantial of which suggested that the CRC should cover only the encrypted bytes. The purpose of the CRC and how best achieve that purpose were discussed at length to clarify issues for several committee members. Gerry Houlder was also asked to provide for a larger Additional CDB Length field, if only by providing reserved bytes in strategic places.

The group agreed to assign operation code 7Fh to the new CDB. It was noted the proposal affects both SPC-2 and SAM-2.

Concerns were raised about how the larger CDB will fit into FCP-2.

Gerry agreed to bring another revision of the proposal to the November meeting.

6.10 Disable read scan in Informational Exceptions mode page (98-205r2) [Williams]

Jeff Williams described the definition of the new DBF, Disable Background Function bit in the Information Exceptions mode page. The Disable was changed to Enable. Jeff stated that the revised proposal would be ready in

time for the plenary meeting. In the absence of any objections, the working group recommended that 98-205r3 (r2 as revised) be accepted for inclusion in SPC-2.

6.11 Persistent Reservations (98-203r4, -164r1) [Penokie/Snively]

George Penokie described the changes in the most recent revision of the new Persistent Reservations proposal (98-203r4).

The persistence of reservations across Fibre Channel logout/login and across power failures was discussed. Tom Coughlan expressed concerns that reservation keys are described inadequately in the proposal. Bob Snively led a discussion on multi-port issues related to identifying a reservation. Reservation conflicts for commands other than Read and Write were discussed.

A significant difficulty was surfaced concerning a situation where a Preempt service action cannot be processed because an initiator has stopped functioning. Many different resolutions for the problem were proposed and discussed.

George noted several enhancements and corrections for the proposal. George agreed to bring a revised proposal to the November meeting.

6.12 What happens to VPD page 81h after CHANGE DEFINITION is obsolete? [Weber]

After a brief discription of the problem by Ralph Weber, the group recommended, without objections, that VPD page 81h be made obsolete in SPC-2.

6.13 INQUIRY Data field to report transceiver types (98-215r0) [Lohmeyer]

John Lohmeyer presented a proposal to add transceiver information to the standard Inquiry data. This proposal resulted from a teleconference on domain validation. It would provide a facility to detect translating expanders. However, it was noted that the proposal has little value in systems where there are no expanders (where its principal value would be in reporting other supported transceiver modes), and minimal value when expanders are present since it only helps in detecting translating expanders.

George Penokie moved that the proposal be set aside without further consideration at this time. Ed Gardner seconded the motion. John, detecting a distinct lack of support, withdrew the proposal rendering the motion moot.

6.14 Device locks command (98-224r0, 98-225r0) [Houlder/Preslan]

Ken Preslan of the Parallel Computer Systems Laboratory at the University of Minnesota presented an overview (98-224r0) of a distributed locks proposal (98-225r0). The group agreed to review the details of the proposed SCSI changes at a future meeting.

6.15 New device type code for bridging expanders (98-223r0) [Ham]

In the absence of Bill Ham, Ralph Weber presented a request that a device type code be assigned to bridging expanders. The group was unwilling to assign a device type code in the absence of a device model and command set proposal. So, the word "assigned" was changed to "reserved" and the proposal was amended accordingly. In the absence of any objections, the group recommended that the device type code be reserved (as described in 98-223r1).

7.   Other Topics

7.1   Optical Memory Card International Issues (98-151) [Smith]

In the absence of Hayden Smith, discussion of this topic was deferred to the November meeting.

8.   Meeting Schedule

The next meeting of SCSI Working Group will be Tuesday-Wednesday, November 3-4, 1998 in Palm Springs, CA hosted by Adaptec, Inc. at the Hyatt Regency Suites Hotel (619-322-9000). The meeting will begin on Tuesday afternoon following the SPI-3 Working Group meeting, but not before 1:00 p.m. It will continue on Wednesday morning at 9 a.m. until 7 p.m. (or until all agenda items are completed).

9.   Adjournment

The meeting was adjourned at 7:30 p.m. on Wednesday September 16, 1998.