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

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Date: July 26, 1999
Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: SCSI Working Group Meeting -- July 14, 1999
Colorado Springs, CO

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
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5. Architecture Model and Protocol Topics
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7. New Business
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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 July 14, 1999. He thanked LSI Logic 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:

> 6.12   ASC 5Dh for SBC devices [Elliott]
> 7.   New Business
> 7.1   Domain Validation TR Project Proposal (99-214r0) [Lamers]

The following agenda items were added during the course of the meeting:

> 5.   Architecture Model and Protocol Topics
> 5.2   SAM-2 changes for queuing (99-207r0) [Weber]
> 6.5   Logical Unit Self Test (99-179r2) [Evans]
> 7.2   T10.org

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. Robert Frey        P  Advansys                 bobf@advansys.com
Mr. Elwood Parsons     A  AMP, Inc.                etparson@amp.com
Mr. Gregg Neely        P  Andataco                 greggn@andataco.com
Mr. Bill Galloway      P  BREA Technologies, Inc.  billg@breatech.com
Mr. Dennis Lang        A  Circuit Assembly Corp.   dennisl@circuitassembly.
                                                   com
Mr. Edward Haske       P  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. Stephen K. Wilson  A  Crossroads Systems, Inc. steve@crossroads.com
Mr. Dean Throop        V  Data General / Clariion  throop@dg-rtp.dg.com
Mr. Ricardo Dominguez  O  Dell Computer            ricardo_dominguez@dell.
                                                   com
Mr. Keith W. Parker    V  Diogenes SCSI            diogenes@europa.com
Mr. Roger Cummings     P  Distributed Processing   cummings_roger@dpt.com
                          Tech.
Mr. Tom Jackson        P  Exabyte Corp.            thomasj@exabyte.com
Mr. Eugene Lew         A  Fujitsu                  elew@fcpa.fujitsu.com
Mr. Ben-Koon Lin       P  Fujitsu (FCPA)           blin@fcpa.fujitsu.com
Mr. Brad Culp          O  Hewlett Packard Co.      brad-culp@hp.com
Mr. George O. Penokie  P  IBM Corp.                gop@us.ibm.com
Mr. Dennis Moore       P  KnowledgeTek, Inc.       dmoore@ix.netcom.com
Mr. John Lohmeyer      P  LSI Logic Corp.          lohmeyer@ix.netcom.com
Mr. Ralph O. Weber     A  LSI Logic Corp.          roweber@acm.org
Ms. Jie Fan            P  Madison Cable Corp.      jfan@madisoncable.com
Mr. Edward A. Gardner  P  Ophidian Designs         eag@ophidian.com
Mr. Mark Evans         P  Quantum Corp.            mark.evans@quantum.com
Mr. Gene Milligan      P  Seagate Technology       Gene_Milligan@notes.
                                                   seagate.com
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Mr. Gerald Houlder      A   Seagate Technology        Gerry_Houlder@notes.
                                                      seagate.com
Mr. Stephen Cornaby     V   Seagate Technology        stephen_r_cornaby@notes.
                                                      seagate.com
Mr. Robert Morris       P   Silicon Systems, Inc.     bob.morris@ti.com
Mr. Jeffrey Schroeder   O   ST Microelectronics       jeffrey.schroeder@st.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. Paul D. Aloisi      P   Unitrode Corporation      aloisi@unitrode.com
Mr. Donald R. Getty     A   Unitrode Corporation      gettd@unitrode.com
Mr. Jeffrey L.          P   Western Digital           Jeffrey.L.Williams@wdc.
Williams                    Corporation               com

35 People Present

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

No physical topics were presented to the group.

5.   Architecture Model and Protocol Topics

5.1 SAM-2 Review [Weber]

Ralph Weber reviewed the content of new SAM-2 clauses concerning devices with multiple service delivery ports. The group agreed on several corrections and improvements to the new text. Ralph agreed to include the results of the discussion in SAM-2 revision 11, along with other T10 approved changes to SAM-2. Ralph noted that SAM-2 revision 11 would be available for the next committee mailing.

5.2 SAM-2 changes for queuing (99-207r0) [Weber]

The group could not agree on the handling of untagged tasks in the presence of a contingent allegiance condition and Ralph withdrew the proposal.

5.3 TTD Proposal (99-195) [Renner]

John Lohmeyer reported that no proposal has been received regarding TTD. The group agreed to defer consideration of this topic to the September meeting.

6.   Command Set Topics

6.1 Device locks command (98-225) [Houlder]

Gerry Houlder reported that no new information is available on this topic at this time and requested that discussion of this topic be deferred to the September meeting.

6.2 Extended Copy command (99-163r1) [Weber]

Ralph Weber explained that the 99-163r1 proposal contained three TBD sites in need of references to Fibre Channel standards. He then reviewed the text to replace the three TBD instances. Corrections were recommended and accepted for the wording of the replacement text. Tom Coughlan noted that the contents of SPC-2 table 6 needs to be specified in the 99-163r1 proposal and Ralph agreed.

Ralph explained that expeditious inclusion of EXTENDED COPY in SPC-2 is critical because a statement needs to be made to the product development community that this definition of EXTENDED COPY is support by the standards committee. Development is in progress based on an older, incompatible version of the EXTENDED COPY proposal and T10 needs to show definitively that the older definition will not be approved for inclusion in SPC-2. Approving the new definition should send the needed message.

Ralph noted that 99-163r1 represented the consensus of the May working group and that no additional comments have been received in the intervening two months. The only changes required are those the group has already discussed.

Tom Coughlan noted that the interactions with persistent reservations are not completely defined and requested specific wording regarding the actions of the copy manager upon receipt of an abort task set request. Ralph asked that those issues be addressed in a separate proposal against SPC-2.

Ralph asked the working group to approve inclusion in SPC-2 of 99-163r2, which will be 99-163r1 modified by replacing the three TBDs with the text shown and by adding EXTENDED COPY to table 6 with the same properties as the COPY command. In the absence of any objections, the group recommended that 99-163r2 (r1 as revised) be approved by T10 for inclusion in SPC-2.

6.3 Application Client Log Page proposal (99-180) [Houlder]

Gerry Houlder presented the revised proposal for a log page to contain standard formatted, non-specific application client data. He was asked to reserve a block of parameter codes for future standardization. He agreed to prepare a r1 containing the changes agreed to by the group. In the absence of any objections, the group unanimously recommended that 99-180r1 (r0 as revised) be approved by T10 for inclusion in SPC-2.

6.4 Persistent Reservation: Register and Ignore Existing Key (99-199r0) [Coughlan]

Tom Coughlan presented a proposal to add a PERSISTENT RESERVE OUT action code that registers a key but does not require the initiator to provide the previous registered key as a check when doing so. Several editorial corrections were noted. In the absence of any objections, the group unanimously recommended 99-199r0 for inclusion in SPC-2 with the agreed editorial corrections to be made by the technical editor during incorporation.

6.5 Logical Unit Self Test (99-179r2) [Evans]

Mark Evans presented a proposal for enhancing the capabilities of the self-test features of the SEND DIAGNOSTIC command. The group noted several editorial corrections. Mark agreed to bring a revised proposal to the September working group meeting.

6.6 Remove Untagged Command Support Requirement from SAM-2 (99-207r0) [Weber]

This item was covered as item 5.2.

6.7 REPORT LUNS and small allocation lengths (99-197r0) [Elliott]

Rob Elliott described a problem where the REPORT LUNS command places restrictions on the allocation length field that differ from the restrictions used by any other command. The group requested an editorial change in the

proposal and Rob agreed to the change. In the absence of any objections, the group unanimously recommended 99-197r0 for inclusion in SPC-2 with the agreed editorial correction to be made by the technical editor during incorporation.

6.8 SCSI networking [Parker]

Keith Parker reported the history of the inaction on the SSS project, the project that T10 requested be closed at the May plenary meeting due to lack of progress reports or other signs of activity. He described the virtues of the SSS draft standard. Keith was assured that the operation codes set aside for SSS would not be reassigned anytime soon. He stated that work will proceed with prototyping the command set and addressing concerns with the current SSS document. The group agreed to support continued work on SSS drafts as a committee document. The group felt that acting to reinstate the project would be premature until such time as members could sense some assurance that a completed draft standard (or technical report) was likely.

6.9 MRIE behavior with TEST bit asserted (99-208) [Elliott]

Rob Elliott requested that action on this item be deferred to the September meeting.

6.10 New ASC/ASCQs (99-210r0) [Williams]

Jeff Williams presented a proposal for new ASC/ASCQ codes for CRC and other parity errors. The group asked for the addition of codes for a couple of cases not considered in the proposal and Jeff agreed to produce a r1 with those additions. In the absence of any objections, the group unanimously recommended 99-210r1 (r0 as revised) for inclusion in SPC-2.

6.11 Preempting exclusive type persistent reservations, allowed or not allowed? [Penokie]

The group discussed a problem with the table describing the preempt service actions. Tom Coughlan agreed to prepare a proposal (99-219) showing the changes agreed by the group for consideration at the T10 plenary.

6.12 ASC 5Dh for SBC devices [Elliott]

Rob Elliott sought a way to incorporate the ASCQs for ASC 5Dh (informational exceptions or failure prediction) in SBC. Gene Milligan stated that the objective could be achieved by creating a proposal to add the codes to SPC-2, which will have the effect of adding the codes for SBC devices. Ralph Weber was not sanguine about adding nearly 80 codes to the ASC/ASCQ table, but relented.

Rob created 99-217r0 containing a list of the new ASCQs to be defined in SPC-2. In the absence of any objections, the group recommended 99-217r0 for inclusion in SPC-2.

7.   New Business

7.1 Domain Validation TR Project Proposal (99-214r0) [Lamers]

Larry Lamers presented a project proposal for an NCITS Technical Report on the subject of Domain Validation. The group noted several corrections. Larry agreed to prepare r1 containing the corrections agreed by the working group. In the absence of any objections, the working group recommended that 99-214r1 (r0 as modified) be processed by T10 as a project proposal for a technical report.

7.2 T10.org

John Lohmeyer reported that the T10 web site has been moved from www.symbios.com/t10 to www.t10.org. He noted that the new ftp site, ftp.t10.org, requires an e-mail address as a password. People who receive 'login

incorrect' error messages should make sure their web browsers are configured to send their email address as the anonymous ftp password. John also described the spam filtering mechanism recently placed on the T10 reflector. John said that the T10 reflector would be moved to t10.org the next week.

8.   Meeting Schedule

The next meeting of the SCSI Working Group will be Wednesday, September 15, 1999 from 9 a.m. to 7 p.m. (or until all agenda items are completed). The meeting will be at the Hilton Waterfront Hotel (714-960-7873) in Huntington Beach, CA hosted by QLogic.

9.   Adjournment

The meeting was adjourned at 7:10 p.m. on Wednesday July 14, 1999.