

Accredited Standards Committee*

National Committee for Information Technology Standards (NCITS)

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Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: SCSI Working Group Meeting -- July 15, 1998
Portland, ME

Agenda

1. Opening Remarks
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 - 6.12 Considerations for mode pages common to several LUNs (98-187r0) [Houlder]
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 - 6.14 Disable read scan in Informational Exceptions mode page (98-205) [Williams]
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7. Other Topics
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NCITS Secretariat, Information Technology Industry Council (ITI)
1250 Eve Street NW, Suite 200, Washington, DC 20005-3922

Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Wednesday July 15, 1998. He thanked Doug Hagerman of Compaq 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:

- 4.1 SPI-2 Topics
 - 5.2.1 Flat Address Space and LUN 1
 - 6.5.2 Modification Proposal (98-206) [Snively]
 - 6.5.3 FCP-2 Initial Changes (97-266r1) [Snively]
 - 6.14 Disable read scan in Informational Exceptions mode page (98-205) [Williams]
 - 6.15 Persistent Reservations (98-203) [Penokie/Snively]
 - 6.16 ASC/ASCQ Assignments for RBC [Weber]

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 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:

Name	S	Organization	Electronic Mail Address
Mr. Lawrence J. Lamers	P	Adaptec, Inc.	ljlammers@ieee.org
Mr. Edward Haske	O	CMD Technology	haske@cmd.com
Mr. Robert C. Elliott	P	Compaq Computer Corp.	Robert.Elliott@compaq.com
Mr. Douglas Hagerman	A#	Compaq Computer Corp.	douglas.hagerman@digital.com
Mr. Sid Snyder	A#	Compaq Computer Corp.	sid.snyder@digital.com
Mr. Tom Coughlan	V	Compaq Computer Corp.	tom.coughlan@digital.com
Mr. Roger Cummings	P	Distributed Processing Tech.	cummings_roger@dpt.com
Mr. Tom Jackson	P	Exabyte Corp.	thomasj@exabyte.com
Mr. Frank Wang	A	Exabyte Corp.	frankw@exabyte.com
Mr. Mark Hammang	A	FCPA Intellistor (Fujitsu)	mhammang@intellistor.com
Mr. George Penokie	P	IBM Corp.	gop@us.ibm.com
Mr. Dan Colegrove	A#	IBM Corp.	colegrov@us.ibm.com
Mr. Dennis Moore	P	KnowledgeTek, Inc.	dmoore@ix.netcom.com
Mr. Pete McLean	P	Maxtor Corp.	pete_mclean@maxtor.com
Mr. Brian McKean	P	Mylex Corp.	brianm@mylexboulder.com
Mr. Edward A. Gardner	P	Ophidian Designs	eag@ophidian.com
Mr. Mark Evans	P	Quantum Corp.	mark.evans@quantum.com
Mr. Patrick McGarrah	A	Quantum Corp.	pat.mcgarrah@quantum.com
Mr. Pak Seto	V	Quantum Corp.	pseto@tdh.qntm.com

Mr. Neil Wanamaker	V	rossroads Systems, Inc.	ntw@crossroads.com
Mr. Gerald Houlder	A	Seagate Technology	Gerry_Houlder@notes. seagate.com
Mr. Dave Guss	P	Silicon Systems, Inc.	dave.guss@tus.ssil.com
Mr. Erich Oetting	P	Storage Technology Corp.	erich_oetting@stortek.com
Mr. David Peterson	O	StorageTek Network Sys. Grp	dap@network.com
Mr. Robert N. Snively	P	Sun Microsystems Computer Co	bob.snively@sun.com
Mr. John Lohmeyer	P	Symbios, Inc.	lohmeier@ix.netcom.com
Mr. Ralph O. Weber	A	Symbios, Inc.	roweber@acm.org
Ms. Dora M. Deivert	O	The JPM Company	dmdeivert@jpmsj.com
Mr. Glen McCord	O	The JPM Company	emccord@jpmsj.com
Mr. Kenneth J. Hallam	P	UNISYS Corporation	ken.hallam@unisys.com
Mr. Paul D. Aloisi	P	Unitrode Corporation	aloisi@unitrode.com
Mr. Jeffrey L. Williams	P	Western Digital Corporation	Jeffrey.L.Williams@wdc. com

32 People Present

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

4. Physical Topics

4.1 SPI-2 Topics

This topic was a continuation of the discussion at the SPI-3 working group meeting (minutes in 98-200).

George Penokie reported that review of the synchronous data transfer topic discussed in the SPI-3 working group has determined that the wording in SPI-2 revision 20a (apparently taken from SCSI-2) should be replaced with the equivalent wording from SPI. The current SPI-2 wording does not work because of differences in how SCSI-2 and SPI documented setup and hold timing. The group unanimously recommended that the T10 plenary approve 98-204r0 that includes changing the synchronous transfer description as a non-substantive change to SPI-2 (which can be made subsequent to public review) and authorize the T10 chair to replace SPI-2 revision 20a with SPI-2 revision 20b (which includes only those changes listed in 98-204r0) for NCITS processing following public review, provided no public review comments are received.

5. Protocol Topics

5.1 LFP INQUIRY and MODE SENSE data format (97-241r2) [Lamers]

George Penokie reported that the issues covered by this topic will be included in the next revision of the Parallel Protocol Request proposal (98-180r2).

5.2 SAM-2 Revision 7 Review [Weber]

Ralph Weber reported that clause 7.8.5 (in SAM-2 revision 7) needs to be removed as a result of the decision to make the Terminate Task task management function obsolete. The group discussed the report and concluded that no other practical set of circumstances can be developed to produce the conditions shown in the example in clause 7.8.5. Ralph agreed to remove the clause in the next revision of SAM-2.

5.2.1 Flat Address Space and LUN 1

The group discussed requiring that all logical unit number values conform to the hierarchical address model in SAM-2. It was agreed that a flat (single level) addressing example must be added to clarify the simple case as part of requiring the hierarchical model. With that caveat, the working group unanimously recommended that the T10 plenary approve changing the 'should' to a 'shall'.

6. Command Set Topics

6.1 SCSI Socket/SSL Services (SSS) Review () [Parker]

In the absence of Keith Parker, discussion of this topic was deferred to the September meeting.

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.

6.3 High-Availability Profile (HAP) [Hagerman]

Doug Hagerman requested that discussion of this topic be deferred to the September meeting.

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

In the absence of Rob Sims, discussion of this topic was deferred to the September meeting.

6.5 FCP-2 [Snively]

6.5.1 FCP-2 Enhancements for Tape (98-165r3) [Wanamaker]

Neil Wanamaker gave a presentation of FCP-2 enhancements proposed for tapes (98-165r3). He reviewed the changes discussed in the Joint T10/T11.3 Tape working group meeting. His presentation focused on the Command Reference Number (CRN) proposal. Neil reported that the information he described will be written into an annex in the FC-Tape document and into changes made between FCP and FCP-2.

6.5.2 Modification Proposal (98-206) [Snively]

Bob Snively gave a presentation (98-206r0) describing a problem with changing AL_PA values after a LIP (Loop Initialization Primitive) and how persistent reservations can be adjusted to survive intact. The group discussed the proposal. Some of those present felt that the ideas might apply to parallel SCSI too, if SCAM were being used.

6.5.3 FCP-2 Initial Changes (97-266r2) [Snively]

Bob Snively reviewed a list of changes planned for FCP-2. The group discussed several changes. Bob agreed to revise the document listing planned FCP-2 changes and provide the revised document for the next T10 mailing.

Bob reported that the first draft of FCP-2 will appear no sooner than the end of September (not in time for the September committee meetings).

6.6 Proposal for Writable Device Identifiers (98-112r1) [Coughlan]

Tom Coughlan presented a proposal for a host writable identifier. Tom accepted several suggestions for changes in the proposal. Concerns were raised about assigning op codes to the two new commands in Tom's proposal.

Several options were discussed for selecting op codes, but no agreement was reached. Tom agreed to prepare a revised proposal for the September meeting.

6.7 Discovering if this is SES Port A or Port B (98-145r1) [Weber]

Ralph Weber presented a revised proposal to add A and B port identification to the VPD data. Questions were raised about the added complexity introduced by the proposal and how the requirements stated in the proposal are restricted to Identifier type code value 4. After these questions were addressed, the group unanimously recommended that 98-145r1 be approved for inclusion in SPC-2.

6.8 SCSI Extensions for Networked Attached Storage (98-163) [Houlder]

Gerry Houlder asked that this item be removed from this and future agendas.

6.9 Proposal to Obsolete Extent Reservations [Snively]

George Penokie reported that the proposal to make extent reservations obsolete was announced on the T10 Reflector by John Lohmeyer. John reported that no one raised any objections to the proposal. The group unanimously agreed to recommend that the T10 plenary make extent reservations obsolete for both Reserve/Release and Persistent Reservations.

6.10 Proposal to Obsolete CHANGE DEFINITION command in SPC-2 [Snively]

George Penokie reported that the proposal to make the CHANGE DEFINITION command obsolete was announced on the T10 Reflector by John Lohmeyer. John reported that no one raised any objections to the proposal. The group unanimously agreed to recommend that the T10 plenary make the CHANGE DEFINITION command obsolete.

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

George Penokie presented a detailed discussion of OUI usage and the "canonical form". He requested that mention of the "canonical form" be added to SPC-2, but did not specify the exact location for the addition. The working group unanimously recommended that the T10 plenary authorize George and Ralph to add "canonical form" to SPC-2 in the proper location(s).

6.12 Considerations for mode pages common to several LUNs (98-187r0) [Houlder]

Gerry Houlder presented a proposal for specific changes in SPC-2 to support mode pages that are common to several logical units. The group discussed the proposal. Two camps formed around having read/write access to a LUN-common mode page via only LUN 0 versus having access via all LUNs. A straw poll favored the LUN 0 only choice by 7 to 4. Gerry agreed to reconsider his proposal based on the results of the straw poll.

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

Gerry Houlder presented a proposal for long CDB sizes, suggesting that a 52 byte CDB might be an acceptable. Gerry also discussed data encryption, including encryption of the CDB. The group discussed the proposed CDB format, offering several suggestions for future efforts. Using one operation code in the currently reserved group (group 3) was thought to be the best way to implement the large, variable sized CDBs described in the proposal. It was suggested that Gerry prepare a specific proposal for changes to SAM-2. Ralph Weber, SAM-2 technical editor, offered to assist in preparing the proposal.

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

Jeff Williams presented a proposal for adding a newly defined bit to the Informational Exceptions mode page. Editorial corrections were proposed and Jeff agreed to prepare a revised proposal. The working group unanimously recommended that 98-205r1 (r0 as revised) be approved for inclusion in SPC-2.

6.15 Persistent Reservations (98-203) [Penokie/Snively]

George Penokie presented a first revision of a proposal to substantially change the description and definition of persistent reservations. The group suggested many changes and George agreed to prepare a new revision for the next meeting.

Bob Snively presented the table of allowed commands for reservation types (98-164r0, and a preliminary r1 draft). The group discussed all the command entries in the tables, modifying several entries. Bob agreed to provide a revised draft for the next T10 mailing.

6.16 ASC/ASCQ Assignments for RBC [Weber]

Ralph Weber requested that the working group recommend approval of the following ASC/ASCQ assignments in SPC-2 to support RBC:

2C/05 ILLEGAL POWER CONDITION REQUEST

38/00 EVENT STATUS NOTIFICATION
38/02 ESN - POWER MANAGEMENT CLASS EVENT
38/04 ESN - MEDIA CLASS EVENT
38/06 ESN - DEVICE BUSY CLASS EVENT

5E/41 POWER STATE CHANGE TO ACTIVE
5E/42 POWER STATE CHANGE TO IDLE
5E/43 POWER STATE CHANGE TO STANDBY
5E/45 POWER STATE CHANGE TO SLEEP
5E/47 POWER STATE CHANGE TO DEVICE CONTROL

The group discussed whether the proposed ASC/ASCQ definitions are appropriate or repetitive of some already defined. The group recommended that the T10 plenary approve the ASC/ASCQ codes for addition to SPC-2.

7. Other Topics

7.1 Optical Memory Card International Issues (98-151) [Smith] {September meeting}

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

8. Meeting Schedule

The next meeting of SCSI Working Group will be September 16, 1998 in St. Petersburg Beach, FL hosted by AMP, Inc. at the Tradewinds Hotel (800-808-9833 / 813-367-6461). The meeting will begin at 9:00 a.m. on Wednesday.

9. Adjournment

The meeting was adjourned at 6:15 p.m. on Wednesday July 15, 1998.