

Accredited Standards Committee*

National Committee for Information Technology Standards (NCITS)

Doc. No.: T10/99-136r0

Date: March 23, 1999

Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: SCSI Working Group Meeting -- March 10, 1999
Harrisburg, PA

Agenda

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 - 6.13 Interaction of persistent & legacy reservations (99-146) [Snively]
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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

George Penokie, the T10 Vice-Chair, called the meeting to order at 10:35 a.m., Wednesday March 10, 1999. He thanked John Hill and Beth Shutt 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:

- 6.12 Making TTD and CIOP obsolete (99-147) [Snively]
- 6.13 Interaction of persistent & legacy reservations (99-146) [Snively]
- 6.14 Extended Copy command (99-143) [Snively]
- 6.15 Send command for Processor devices [Lamers]
- 6.16 Fairness Bits to Control Fairness (Houlder)
- 6.17 Port Control mode page (Lamers/Weber)
- 6.18 Echo Buffer (Lamers)

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.	ljlamers@ieee.org
Mr. Elwood Parsons	V	AMP, Inc.	etparson@amp.com
Mr. Bill Mable	P	Amphenol Interconnect	bmable@spectra.net
Mr. Bill Galloway	P	BREA Technologies, Inc.	billg@breatech.com
Mr. Francesco Liburdi	V	Circuit Assembly Corp.	fliburdi@circuitassembly.com
Mr. Edward Haske	P	CMD Technology	haske@cmd.com
Mr. Robert C. Elliott	P	Compaq Computer Corp.	Robert.Elliott@compaq.com
Mr. Geoff Hoese	V	Crossroads Systems Inc.	gbh@crossroads.com
Mr. Neil Wanamaker	O	Crossroads Systems, Inc.	ntw@crossroads.com
Mr. Stephen K. Wilson	O	Crossroads Systems, Inc.	steve@crossroads.com
Mr. Ben-Koon Lin	P	Fujitsu (FCPA)	blin@fcpa.fujitsu.com
Mr. Nathan Hastad	O	General Dynamics	nathan.j.hastad@gd-is.com
Mr. Marcos Barrionuevo	P	Harting, Inc. of N. America	Marcos.Barrionuevo@harting.com
Mr. Brad Culp	T	Hewlett Packard Co.	brad-culp@hp.com
Mr. George Penokie	P	IBM Corp.	gop@us.ibm.com
Mr. Hayden Smith	P	LaserCard Systems Corp.	hsmith@laserCard.com
Mr. John Lohmeyer	P	LSI Logic Corp.	lohmeier@ix.netcom.com
Mr. Ralph O. Weber	A	LSI Logic Corp.	roweber@acm.org
Mr. Robert Bellino	V	Madison Cable Corp.	rbellino@madisoncable.com

Mr. Pete McLean	P	Maxtor Corp.	pete_mclean@maxtor.com
Mr. Charley Riegger	A	Maxtor Corp.	charles_riegger@maxtor.com
Mr. Martin Ogbuokiri	O	Molex Inc.	mogbuokiri@molex.com
Mr. Brian McKean	P	Mylex Corp.	brianm@mylexboulder.com
Mr. Edward A. Gardner	P	Ophidian Designs	eag@ophidian.com
Mr. Skip Jones	P	QLogic Corp.	sk_jones@qlc.com
Mr. Mark Evans	P	Quantum Corp.	mark.evans@quantum.com
Mr. Gene Milligan	P	Seagate Technology	Gene_Milligan@notes.seagate.com
Mr. Gerald Houlder	A	Seagate Technology	Gerry_Houlder@notes.seagate.com
Mr. Robert Morris	P	Silicon Systems, Inc.	bob.morris@ti.com
Mr. Paresh Sheth	V	Silicon Systems, Inc.	paresh.sheth@ti.com
Mr. Erich Oetting	P	Storage Technology Corp.	erich_oetting@stortek.com
Mr. Robert N. Snively	P	Sun Microsystems Computer Co	bob.snively@sun.com
Mr. Vit Novak	A	Sun Microsystems, Inc.	vit.novak@sun.com
Mr. Kenneth J. Hallam	P	UNISYS Corporation	ken.hallam@unisys.com
Mr. Paul D. Aloisi	P	Unitrode Corporation	aloisi@unitrode.com
Mr. Donald R. Getty	A	Unitrode Corporation	gettd@unitrode.com

36 People Present

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

4. Physical Topics

4.1 Bus Width Determination (98-236r0) [Sippy]

Skip Jones reported no additional information on this topic. The group agreed to defer this topic to the May meeting, after which it will be dropped if there is no further activity.

5. Protocol Topics

5.1 SAM-2 Review [Weber]

Ralph Weber reported no progress on SAM-2 and requested that this topic be deferred to the next meeting.

6. Command Set Topics

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

John Lohmeyer reported that Keith Parker stated an intention to attend this meeting. The group expressed concerns that no real progress has been made on this project. The group discussed canceling the project if no progress is made by the May meetings.

6.2 Considerations for mode pages common to several LUNs (98-187r2) [Houlder]

Gerry Houlder reported that the creation of separate mode pages for port and LUN control mode pages renders further discussion on this topic unnecessary.

6.3 Method for defining very long command blocks (98-188r2/99-158r0) [Houlder/Snively]

Bob Snively presented an overview of potential FCP-2 and SPI-3 changes to support long CDBs. The group discussed the data formats presented and generally agreed with them. Bob agreed to document his proposal in 99-158r0. In the absence of any objections, the working group recommended that 99-158r0 be approved by T10 for inclusion in SPI-3 and FCP-2.

Gerry Houlder reviewed his proposal for changes in SAM-2 and SPC-2. It was agreed that unused Encryption Identifier values would be reserved. In the absence of any objections, the working group recommended that 98-188r2 be approved by T10 for inclusion in SAM-2 and SPC-2, with the editor making the change agreed to by the group.

6.4 Device locks command (98-225r1) [Houlder]

Gerry Houlder reported on desired changes in the proposal to meet needs identified during prototype development. He stated that delivery of a final proposal would be deferred pending completion of the development work. The group agreed to consider this topic at the May meetings.

6.5 Machine readable version control in SPC-2 (99-110r1) [Milligan]

Gene reviewed the proposal, starting with changes to the Inquiry data version field. The group discussed the proposal and how it would be incorporated in SPC-2. In the absence of any objections, the working group recommended that 99-110r1 be approved by T10 for inclusion in SPC-2, with the editor making the changes agreed to by the group.

6.6 Obsolete Communications Device Type [Oetting]

Erich described a recommendation from the SSC working group that the communications device type be made obsolete in SSC. No one present objected. It was noted that removing the communications device type from SCC would leave SCSI-2 as the definition for the device type.

6.7 Obsolete Flag Bit (98-241r1) [Snively]

Bob Snively reviewed the proposal to make the Flag bit obsolete in SAM-2. In the absence of any objections, the group recommended 98-241r1 be approved by T10 for inclusion in SAM-2.

6.8 ECC Correction Spans \geq 255 Bytes (reflector messages) [Houlder]

Gerry Houlder described a problem he encountered with the one-byte correction span field in the Read-Write Error Recovery mode page and the Verify Error Recovery mode page. The number of bits corrected is increasing to a size larger than the field will accommodate. Reflector discussions have suggested using 255 as an indication that the size is larger than can be reported. He noted that use of 255 would mean that determination of the real value would lie outside the scope of the standard. The group expressed no concerns with such a limitation.

The group discussed the problems with changing SBC, when there is no SBC-2 project proposal. The group suggested handling this problem in a vendor-specific manner until an SBC-2 project is initiated.

6.9 Conflicting Reserved Definitions (98-247) [Elliott]

Rob Elliott presented detailed concerns with the meaning of the "reserved" keyword. His two concerns were lack of consistency in the definition and definitions that prohibit validity checking in RBC, MMC-2, and SBP-2. The group discussed whether and how Rob might resolve his concerns. Ralph Weber agreed to adopt the SPI-3 wording for the 'reserved' keyword in SPC-2 and SAM-2.

6.10 Changes to INQUIRY (99-130) [Penokie]

George Penokie presented a proposal to add SPI-3 information to the standard Inquiry data. The group noted that the CRCS field was no longer needed, due to the fact that doing DT requires CRC. George accepted corrections to the proposal. In the absence of any objections, the working group recommended that the revised proposal (99-130r1) be approved by T10 for inclusion in SPC-2.

At the request of Gene Milligan and others, George was directed to change QA to QAS in SPI-3, and Ralph was directed to edit 99-130 in a similar manner.

6.11 Making REPORT LUNS act more like INQUIRY (99-144) [Snively]

Bob Snively proposed SPC-2 and SAM-2 changes concerning the REPORT LUNS command. The group proposed corrections to the proposal. Bob agreed to revise the proposal and present it with revisions at the next working group meeting.

6.12 Making TTD and CIOP obsolete (99-147) [Snively]

Bob Snively proposed that Target Transfer Disable and Continue I/O Process messages be made obsolete in SPI-3. Larry Lamers stated that CIOP is an anticipated requirement in the next generation parallel protocol. George Penokie noted that use of CIOP without TTD would be a violation of the standard. Larry needed additional research to describe the specifics of the proposed CIOP usage. Bob and Larry agreed to defer final handling of the proposal to the May meetings.

6.13 Interaction of persistent & legacy reservations (99-146) [Snively]

Bob Snively described the history through which requirements on the conflicts between RESERVE/RELEASE and Persistent Reservations explicitly stated in SPC had not been brought forward in the text recently incorporated in SPC-2. The group requested that the words "mutually exclusive" be struck from the proposal and Bob agreed. In the absence of any objections, the working group recommended that the revised proposal (99-146r1) be approved by T10 for inclusion in SPC-2.

6.14 Extended Copy command (99-143) [Snively]

Steve Wilson described the consideration given to the proposal in the FC-Tape meeting. After discussing the effects of incorporating the changes in SSC or SPC-2, the group decided that SPC-2 would be the better location. Ralph recommended 83h and 84h for operation codes and 0Eh for the mode page, leaving the function available to all device types except CD-ROM and DVD (MMC-2) devices. In the absence of any objections, the working group recommended that 99-143r0 be approved by T10 for inclusion in SPC-2.

Chair's note: At T10, the two-week rule was invoked, blocking action on this proposal until the May meeting.

6.15 Send command for Processor devices [Lamers]

Larry described an instance where a processor device implementation does not implement the Send command. He requested the group support making the Send command optional in the Processor device type model. The group discussed known implementations of processor devices. It was noted that the processor device type is the

SCSI equivalent of the "other" device type. Larry agreed to study the need more completely, and if appropriate, bring a written proposal to the next working group meeting.

6.16 Fairness Bits to Control Fairness [Houlder]

Gerry Houlder informed the group of a proposal for SPI-3 to require the FARd, FAWrt, and FASat to all have the same value (zero or one) in SPI-3 uses of the Disconnect/Reconnect mode pages. George Penokie requested that a written proposal be available for consideration at the April SPI-3 working group meeting.

6.17 Port Control mode page [Lamers/Weber]

Larry Lamers described the Synchronous Transfer Timer field and his plans for including the mode page and field in SPI-3. George Penokie noted that action on this proposal needs to be brought forward at the April SPI-3 working group meeting.

Ralph Weber and Larry Lamers reminded the group of a discussion regarding the addition of a protocol type field to the two protocol specific mode pages. Ralph noted that generic definitions of the two protocol specific mode pages have been added to SPC-2. He requested and received a working group recommendation to add a protocol identifier field to the two generic mode page definitions.

6.18 Echo Buffer (98-184r6) [Lamers]

Larry Lamers reviewed the history of the echo buffer proposal, including changing the location of the buffer capacity field which produced 98-184r6. In the absence of any objections, the working group recommended that 98-184r6 be approved by T10 for inclusion in SPC-2.

7. Other Topics

7.1 Comments on Draft 14776-381 (SCSI OMC) (99-128) [Smith]

Hayden Smith presented the comments resolution document for ISO 14776-381, the optical card memory device. The group suggested improvements for some of the comments resolutions. In the absence of any objections, the working group unanimously recommended that the revised comments resolution document (99-128r1) be approved by T10 as a basis for the ballot comments on CD 14776-381.

8. Meeting Schedule

The next meeting of the SCSI Working Group will be Wednesday, May 5, 1999 from 9 a.m. to 7 p.m. (or until all agenda items are completed). The meeting will be at the Holiday Inn "The Center of NH" (603-625-1000) in Manchester, NH hosted by Hitachi Cable Manchester.

9. Adjournment

The meeting was adjourned at 5:00 p.m. on Wednesday March 10, 1999.