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

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #58 -- November 6, 2003
            Austin, TX

Agenda

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Results of Meeting

1.   Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:05 a.m., Thursday November 6, 2003. He thanked Bob Griswold of Crossroads Systems for hosting the meeting.

John said that INCITS subgroup membership forms and the T10 document subscription forms are available on the meeting web site. He said that people should use these forms to ensure the INCITS Secretariat has the latest membership information. These forms should be mailed directly to the INCITS Secretariat.

As is customary, the people attending introduced themselves. Attendance was taken electronically via the meeting web site.

2.   Approval of Agenda

No additions/changes were made to the draft agenda.

John Lohmeyer moved and Ralph Weber seconded that the agenda be approved. In the absence of any objections, the motion passed unanimously.

The items were added/revised during the course of the meeting:

  11.2.1 NWIP for SBP-3 (03-301r0) [Robinson]
  11.2.2 FCD Ballot for FCD 14776-452: IT - Small Computer System Interface (SCSI) -Part 452: SCSI Primary
          Commands -2 (SPC-2)

3.   Attendance and Membership

The membership requirements were reviewed. INCITS rules permit one vote per organization. An individual from a new organization must attend two out of three consecutive plenary meetings. He/she may apply for voting membership the second meeting via a letter to the Chair of T10. The individual may begin voting at the beginning of his/her second meeting.

To maintain membership, organizations must pay the INCITS Service Fee ($800).

John briefly discussed the mailing fees. Complete pricing information is contained in the 2003 membership form (available at ftp://ftp.t10.org/t10/mem_form.txt).

There are also minimum attendance requirements to maintain voting membership on T10. If a member organization fails to attend two of the last three T10 meetings, they are warned that failing to attend the next T10 meeting would result in their membership being terminated.

The Chair said he had sent letters to 8 people from 5 organizations informing them that their membership was in jeopardy due to non-attendance (see 03-332r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Brocade Comm. Systems, Inc.
Congruent Software, Inc.
Hitachi Cable Manchester
Network Appliance Inc.
Pivot3, Inc.

The following organizations were not present at the meeting:

Congruent Software, Inc.
Network Appliance Inc.

The members from the organizations that failed to attend will have their membership changed to non-voting status.

No organizations joined the committee at this meeting.

The T10 membership during the meeting was 39 organizations down from the 41 member organizations prior to the meeting. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T10 membership list.

John Lohmeyer reminded members that failure to vote on two out of the last three letter ballots also would result in membership jeopardy and then noted that the status of companies that have not voted on recent letter ballots is as follows:

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T10 Letter Ballot Jeopardy Report -- 2003/10/27

                        Ballot:  03-144r0      03-189r0      03-282r0
                        Report:  03-145r0      03-190r0      03-283r0
                       Acronym:  SBP-3         RBCa1         ADC
Organization
-------------------------------- ------------  ------------  ------------
Adaptec, Inc.                        DNV           Yes           Yes
Fujitsu                              DNV           Yes           Yes
Network Appliance Inc.               Yes           Yes           DNV

Key:
Yes    Organization voted Yes
DNV    Organization failed to return letter ballot
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No organizations are currently in letter ballot jeopardy.

4.　Approval of Minutes - September 2003 Meeting - Seattle, WA (T10/03-306r0)

John Lohmeyer moved and Ralph Weber seconded that the minutes be approved. In the absence of any objections, the motion passed unanimously.

5.　Document Distribution

Members who have any problems with their mailing subscription should deal directly with Parthenia Purnell (ppurnell@itic.org) (202) 626-5741. A subscription form is included on the meeting disk.

John Lohmeyer requested that all documents for the next mailing be uploaded to the T10 web site by 10:30 a.m. on Thursday November 13, 2003. Documents received after this time may go into a subsequent mailing.

John reminded the committee of the requirements for document submission. Since T10 meets its document retention requirements by preparing mailings, documents included in the mailing must be suitable for archiving. This means that native-format and/or Portable Document Format (PDF) electronic originals with proper identification must be submitted.

People can obtain T10 document numbers and revised T10 document numbers by filling out a web form at http://www.t10.org/members/. The assigned T10 document number will be sent to the requestor by e-mail. The requestor may then reply to this email, including the document to be posted as an attachment. The document will be automatically posted on the T10 web site.

T10 members can complete this entire process using their personal T10 password. John explained that members who do not know their password should surf to the above URL and click on the "forgot password" link to have their password sent to them via e-mail.

John noted that non-members can also use the above document number process, but their requests will require approval by an administrator.

Minutes are available on the T10 World Wide Web page (see below), and are distributed to the T10 Reflector.

To be added to the T10 Reflector, send an e-mail to majordomo@t10.org with the line 'subscribe t10' in the message body.

The INCITS Secretariat maintains a World Wide Web page at:

　　http://www.incits.org/.

LSI Logic maintains a web site on behalf of T10 on a server donated by the SCSI Trade Association at:

　　http://www.t10.org/

There is also a mirror site at:

　　http://www.t11.org/t10/

The T10 document register is available at:

　　ftp://ftp.t10.org/t10/dr.txt

6. Call for Patents

Mark Evans questioned the copyrights for material submitted for inclusion a T10 standard and the copyrights on draft T10 standards in general. It was recommended that he work with Lynn Barra at INCITS. No answer to Mark's questions were available at the meeting.

John Lohmeyer explained that this is a regular agenda item to identify any potential patent issues with developing standards and technical reports.

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. This document is also on the WWW at http://www.incits.org/help/ansi_sdo.html. Section 1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954. Gene Milligan prepared a useful "Handy dandy Technical Committee's Patents Guide", which is available at ftp://ftp.t10.org/t10/document.99/99-291r0.pdf.

John Lohmeyer presented a summary of the ANSI patent policy prepared by Gary Robinson. The summary is also included on the Rules and Procedures (plus Patent Information) page on the T10 web site.

Cris Simpson reminded the committee that a statement of the Intel patent policy can be found in T10/01-041r0.

Bob Griswold noted that he had recently uploaded the 'Crossroads 035 Patent Letter' (03-349r0) regarding U.S. Patent No. 6,425,035 related to Access Controls in SPC-3.

Gerry Houlder noted that 03-379r0 contains a Seagate Patent Disclosure regarding OSD and data integrity.

John asked that anyone who knows of other applicable patents to contact him.

There were no other responses to the call for patents other than those mentioned above.

7. Review of Old Action Items

534   George Penokie will announce on the T10 Reflector during the September T10 meeting week the T10 intention to withdraw the MSC project unless proposals for MSC content are received by the November T10 meeting week. *Complete.*
540   Rob Elliott will send a warning message to the T10 Reflector in September regarding the removal of the SES Array Control and Array Status pages. *Complete.*
541   Rob Elliott will prepare a proposal updating the SAS Device Element Status descriptor based on discussions in the CAP working group. *Complete.*
542   Bob Snively will provide the SES PDF and sources to the IR. *Overtaken by events.*
545   David Black will ensure that RFCs are written defining URLs for SNMP, CIM over HTTP/HTTPS, and SSH. *Carryover*
546   Ralph Weber will add the additional sense code named in 03-287r0 to the lists in SPC-3. *Complete.*
547   John Lohmeyer will forward SMC-2 revision 06 for processing toward first Public Review. *Complete.*
548   Peter Johansson will prepare SBP-3 revision 05. *Complete.*
549   John Lohmeyer will forward SBP-3 revision 05 for processing toward second Public Review. *Complete.*
550   Gary Robinson will notify INCITS that T10 recommends approval of the FCD 14776-150 (SAS) to JTC/SC25 TAG. *Complete.*
551   Gary Robinson will notify INCITS that T10 recommends approval of the FDIS 14776-362 (MMC-2) to JTC/SC25 TAG. *Complete.*
552   Gary Robinson will notify INCITS that T10 recommends approval of the FDIS 14776-452 (SPC-2) to JTC/SC25 TAG. *Complete.*

553   Gary Robinson will notify INCITS that T10 recommends approval of the FDIS 14776-412 (SAM-2) to
        JTC/SC25 TAG. *Complete.*
554   Gary Robinson will notify INCITS that T10 recommends approval of the FCD 14776-115 (SPI-5) to
        JTC/SC25 TAG. *Complete.*
555   Gary Robinson will notify INCITS that T10 recommends submission of the NWIP (T10/03-301r0) as a US
        contribution to JTC1/SC25 and recommends that the NP to be issued by SC25 be approved, answering
        the 6 questions 'Yes' and naming Gary S. Robinson as project editor. *Complete.*
556   Gary Robinson will notify the INCITS Secretariat that T10 does not object to the transfer of projects listed
        in in031022 to IEEE Microprocessor TAG. *Complete.*

8.   Project Status Reports

8.1 Project Status Summary and INCITS Liaison [Lohmeyer]

John Lohmeyer said that the current T10 project status summary was included on the meeting web site and will be
included in the mailing as usual.

John said that he had presented the T10 annual report (03-333r0) to the Standards Development Board on
October 14th via teleconference. The SDB accepted the T10 annual report and informed John that SAS, SSC-2,
and RBC AM1 had been approved.

INCITS has requested that ANSI adopt a position that fees for using the contents of standards, as opposed to fees
for the purchase of the standards themselves, is inappropriate. Apparently, this was based on a 'misunderstanding'.
See http://www.iso.org/iso/en/commcentre/pressreleases/2003/Ref871.html for an ISO press release reaffirming
free-of-charge use of its country, currency and language codes.

8.1.1   INCITS Antitrust Guidelines

All T10 members should be aware of the INCITS antitrust guidelines available at http://www.incits.org/natrust.htm.

John reminded committee members that all persons present at a T10 meeting is responsible for identifying
potential violations of the antitrust guidelines and reporting them to the chair. Discussions of the following topics
are considered sensitive:

    * Any company's prices or pricing policies;
    * Specific R&D, sales and marketing plans;
    * Any company's confidential product, product development or production strategies;
    * Whether certain suppliers or customers will be served;
    * Prices paid to input sources; or
    * Complaints about individual firms or other actions that might tend to hinder a competitor in any market.

8.2 Object-based Storage Devices Commands (OSD) {Project 1355-D} [Weber]

Ralph Weber reported that revision 8 is the current OSD revision. An editing meeting will be held tomorrow and the
SNIA OSD TWG has about eight technical changes that need to be made. OSD revision 9 will be prepared from
this information, but may not be available in time for the mailing.

The SNIA OSD TWG is requesting that a Letter Ballot be held on forwarding OSD revision 9. The intention is that
the Letter Ballot complete before the end of the year.

8.3 SCSI Medium Changer Commands - 2 (SMC-2) {Project 1383-D} [Oetting]

John Lohmeyer reported that the first Public Review on SMC-2 closes 17 November 2003.

8.4   SCSI Primary Commands - 3 (SPC-3) {Project 1416-D} [Weber]

Ralph Weber reported that SPC-3 revision 16 will be prepared based on proposals approved by this meeting and will be posted before the next meeting. He stated that SPC-3 revision 16 most likely will not be available in time for the November mailing.

8.5   SCSI Block Commands - 2 (SBC-2) {Project 1417-D} [Elliott]

Rob Elliott reported that there will be an editing meeting for SBC-2 after this meeting. One or two new revisions will be prepared based on the editing meeting, changes approved by this meeting, or both. He state that the goal is to start the SBC-2 Letter Ballot sometime in the first half of next year.

8.6   SCSI Stream Commands - 2 (SSC-2) {Project 1434-D} [Peterson]

John Lohmeyer reported that SSC-2 has been approved by INCITS as is on its way to ANSI BSR.

8.7   SCSI Serial Bus Protocol -3 (SBP-3) {Project 1467-D} [Johansson]

John Lohmeyer reported that the second SBP-3 Public Review closes 17 November 2003.

8.8   SCSI RDMA Protocol - 2 (SRP-2) {Project 1524-D} [Simpson]

Cris Simpson reported that no progress has been made on SRP-2. Some proposals are expected in January and a several new proposals are expected in March.

8.9   SCSI Management Server Commands (MSC) {Project 1528-D} [Penokie/Elliott]

George Penokie reported that a proposal has been received for MSC. Therefore, development will proceed on the project.

George stated that a conference call will be held to discuss 03-364 and the time will be announced on the T10 reflector.

8.10 MultiMedia Command Set - 4 (MMC-4) {Project 1545-D} [McFerrin]

Bill McFerrin reported on the activities of the MMC-4 working group (minutes in 03-398). Development is going quite well. Decisions on stabilizing additional MMC-4 clauses have been deferred to the next meeting, owing to the absence of some members at this meeting.

Bill reported that a new project proposal has been posted for MMC-5 with the intent of acting on it in January.

8.11 Automation/Drive Interface - Transport Protocol (ADT) {Project 1557-D} [Entzel]

Paul Entzel reported on the activities of the ADI working group (minutes in 03-378). The current ADT revision is 8. He indicated that no new ADT revision will be available in time for the mailing.

8.12 Automation/Drive Interface - Commands (ADC) {Project 1558-D} [Entzel/Wideman]

John Lohmeyer reported that the letter ballot on ADC passed 30:5:5:1=41. Comments were received from 7 organizations (not including the abstention reasons). See 03-283 for complete details.

Paul Entzel reported that resolution work has begun for the comments in document 03-385.

8.13 SCSI Enclosure Services - 2 (SES-2) {Project 1559-D} [Elliott]

Rob Elliott reported on the SES-2 activities undertaken in the CAP working group (minutes in 03-371). Revision 5 of SES-2 will be prepared including the proposals approved by this meeting, but it will not be available in time for the mailing. He state that the goal is to start the SES-2 Letter Ballot sometime in the first half of next year.

8.14 Fibre Channel Protocol - 3 (FCP-3) {Project 1560-D} [Peterson]

Dave Peterson reported on the activities of the FCP-3 working group (minutes in 03-395). He thanked Bob Nixon for assuming the FCP-3 secretary duties.

8.15 SCSI Architecture Model - 3 (SAM-3) {Project 1561-D} [Weber]

Ralph Weber reported that revision 10 will be prepared following this meeting and will contain all proposals approved by this meeting. He noted that SAM-3 revision 10 may not be available in time for the November mailing.

8.16 Serial Attached SCSI (SAS) {Project 1562-D} [Elliott]

John Lohmeyer reported that the SAS has been approved by INCITS and has been forwarded to ANSI for BSR approval. Publication is expected yet this month.

8.17 Serial Attached SCSI - 1.1 (SAS-1.1) {Project 1601-D} [Elliott]

Rob Elliott reported on the activities related to SAS-1.1 of the SAS Protocol working group (minutes in 03-370). He stated that SAS-1.1 containing the proposals approved by this meeting will be available in time for the next meeting but not in time for the next mailing.

8.18 SCSI Stream Commands - 3 (SSC-3) {Project 1611-D} [Peterson]

Dave Peterson reported that SSC-3 is in limbo because of the workload in the ADI working group.

9. Old Business

9.1   ANSI INCITS 330-2000 Defect Report (03-021) (RBC AM1) [Atkinson, Roberts]

John Lohmeyer reported that the RBC Amendment #1 has been approved by INCITS and has been forwarded to ANSI for BSR approval. Publication is expected yet this month.

10. New Business

10.1 Actions on SAS Protocol Working Group Recommendations

George Penokie reviewed the following recommendations for inclusion in SAS-1.1:

    03-273r2 (Support for SATA Port Selector) [Sheffield]
    03-298r2 (Discover Algorithm Modification) [Fairchild]
    03-363r0 (SATA_TransmitALIGN state transition correction) [Hoglund]
    03-345r1 (Wide STP port livelock prevention) [Elliott]
    03-357r1 (Inverting the Disable First Burst bit) [Elliott]
    03-346r2 (Pathway recovery priority corrections) [Elliott]
    03-384r1 (Additional LED behavior) [Evans]

Mark Evans moved that 03-273r2, 03-298r2, 03-363r0, 03-345r1, 03-357r1, 03-346r2, and 03-384r1 be approved for inclusion in SAS-1.1. Bill Galloway seconded the motion. The motion passed on a vote of 27:0:2:10=39.

10.2 Actions on CAP Working Group Recommendations

George Penokie moved that 03-365r1 (r0 as modified) be approved for inclusion in SPC-3 and SBC-2. Mark Evans seconded the motion.

Keith Holt moved that the motion be amended to alter the protected data block format in Table 1 as documented in 03-336r0. Pat Thaler seconded the motion. John Lohmeyer requested a roll call vote due to the controversial nature of the topic.

Keith cited existing implementations that use the format described in 03-336r0.

It was stated that there are no technical advantages either way. Differences of opinion were expressed in both sides regarding the technical merits of each protected data block format. It was noted that the format in 03-336r0 matches the one in the original data protection proposal, but the preference of some in the group for the replacement format was also expressed.

The motion to amend failed on a roll call vote of 6:16:9:8=39 as documented below:

Organization	Name	Yes	No	Abs	NP
Adaptec, Inc.	Mr. Tim Symons		1		
Agilent Technologies	Ms. Pat Thaler	1			
Amphenol Interconnect	Mr. Michael Wingard			1	
Andiamo Systems, Inc.	Dr. Claudio DeSanti		1		
Brocade Comm. Systems, Inc.	Mr. Robert Snively		1		
Crossroads Systems, Inc.	Mr. Robert Griswold		1		
Dallas Semiconductor					1
Dell, Inc.	Mr. Kevin Marks		1		
EMC Corp.	Mr. Gary S. Robinson	1			
Emulex	Mr. Robert H. Nixon		1		
ENDL Texas	Mr. Ralph O. Weber		1		
FCI					1
Fujitsu	Mr. Mike Fitzpatrick		1		
General Dynamics					1
Hewlett Packard Co.	Mr. Rob Elliott	1			
Hitachi Cable Manchester	Mr. Zane Daggett		1		
Hitachi Global Storage Tech	Mr. Dan Colegrove		1		
IBM / Tivoli Systems	Mr. George O. Penokie		1		
Intel Corp.	Mr. Robert Sheffield	1			
Iomega Corp.	Mr. Hiromichi Oribe			1	
LSI Logic Corp.	Mr. Keith Holt	1			
Madison Cable Corp.					1
Maxtor Corp.	Mr. Mark Evans		1		
Microsoft Corp.					1
Molex Inc.	Mr. Jay Neer		1		
Panasonic Technologies, Inc					1
Philips Electronics/CD Edge	Mr. William P. McFerrin		1		
Pivot3, Inc.	Mr. Bill Galloway		1		
QLogic Corp.	Mr. Craig W. Carlson		1		
Quantum Corp.	Mr. Paul Entzel			1	
SBS Technologies	Mr. David Peterson		1		
Seagate Technology	Mr. Gerald Houlder	1			
Storage Technology Corp.	Mr. Erich Oetting		1		
Sun Microsystems, Inc.	Mr. Vit Novak		1		
Texas Instruments	Mr. Robert Kando		1		

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Toshiba                                                          1
UNISYS Corporation                                               1
Veritas Software              Mr. Roger Cummings          1
Vixel Corp.                   Mr. Kenneth Hirata          1

                                              6   16  9   8  = 39
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The un-amended original motion passed on a vote of 23:2:5:9=39.

Bob Snively moved that 03-307r5 (r4 as modified) be approved for inclusion in SBC-2. Gerry Houlder seconded the motion.

Bob explained that 03-307 had reached a level of maturity that recommends its inclusion in SBC-2 so that it can be reviewed side by side with 03-365r1. George Penokie explained that allowing the reference tag to be changed from the LBA does not have sufficient benefits to outweigh the problems of coalescing writes and protection across copy and backup operations.

Bob asked to re-present a presentation made to the CAP working group to defend the importance of the command defined by 03-307r5, but no hands were raised in response to a request for a display of interest in seeing the pre-sentation.

The motion failed on a vote of 6:15:8:10=39.

George Penokie described 03-271r2 (Obsolete untagged tasks), a proposal recommended for inclusion in SAM-3, SPC-3, SAS-1.1, FCP-3, ADT, and SRP-2. Rob Elliott moved that 03-271r2 (r1 as modified) be approved for inclu-sion in SAM-3, SPC-3, SAS-1.1, FCP-3, ADT, and SRP-2. Bill Galloway seconded the motion. The motion passed on a vote of 21:0:5:13=39.

George Penokie described 02-419r7 (Device names and VPD data), a proposal recommended for inclusion in SAM-3, SPC-3, SAS-1.1, FCP-3, and SRP-2. George Penokie moved that 02-419r7 (r6 as revised) be approved for inclusion in SAM-3, SPC-3, SAS-1.1, FCP-3, and SRP-2. Mark Evans seconded the motion. The motion passed on a vote of 24:0:5:10=39.

George Penokie described 03-335r1 (Obsolete block device linked commands), a proposal recommended for inclu-sion in SPC-3 and SBC-2. Rob Elliott moved that 03-335r1 (r0 as revised) be approved for inclusion in SPC-3 and SBC-2. Bill Galloway seconded the motion. The motion passed on a vote of 25:0:1:13=39.

George Penokie described 03-352r0 (Making the DQUE bit obsolete in SAM-3), a proposal recommended for inclu-sion in SAM-3. Ralph Weber moved that 03-352r0 be approved for inclusion in SAM-3. Bill Galloway seconded the motion. The motion passed on a vote of 25:0:1:13=39.

George Penokie described the following proposals recommended for inclusion in SPC-3:

    03-183r6 (New Inquiry VPD Page - Management Network Address) [Binford]
    03-253r0 (Persistent All Registrants Fix Part 2) [Penokie]
    03-210r4 (PERSISTENT RESERVE OUT SPEC_I_PT additional parameter data) [Weber]
    03-343r1 (Report supported asymmetric access states) [Elliott]
    03-356r0 (Protocol Identifier for ATAPI) [Elliott]
    03-359r1 (Disable implicit asymmetric logical unit access) [Elliott]
    03-350r0 (Changing Control mode page with commands in the task set) [Elliott]

Rob Elliott moved that 03-183r6, 03-253r0, 03-210r4, 03-343r1, 03-356r0, 03-359r1, and 03-350r0 be approved for inclusion in SPC-3. Bill Galloway seconded the motion. The motion passed on a vote of 27:0:0:12=39.

George Penokie described the following proposals recommended for inclusion in SBC-2:

    03-362r0 (Obsolete SEEK(10)) [Elliott]
    03-383r1 (New READ LONG (16) and WRITE LONG (16) commands) [Evans]

Mark Evans moved that 03-362r0, and 03-383r1 be approved for inclusion in SBC-2. Bill Galloway seconded the motion. The motion passed on a vote of 27:0:0:12=39.

George Penokie described 03-347r1 (Reporting peer enclosure service processes), a proposal recommended for inclusion in SES-2. Rob Elliott moved that 03-347r1 (r0 as revised) be approved for inclusion in SES-2. Mark Evans seconded the motion. The motion passed on a vote of 27:0:0:12=39.

10.3 Actions on Other Working Group Recommendations

No recommendations from other working groups were brought to this meeting.

11. ISO/IEC

11.1 ISO/IEC Report (03-390) [Robinson]

Gary Robinson presented the ISO/IEC report (03-390r0).

11.2 ISO/IEC Business [Robinson]

11.2.1   NWIP for SBP-3 (03-301r0) [Robinson]

Gary Robinson moved that T10 approve the NWIP Serial Bus Protocol -3, SBP-3, (T10/03-301r0) 1.25.13.11.39: 14776-233, as a US contribution to JTC1/SC25 and to approve the NP to be issued by SC25, answering the 6 questions 'Yes' and naming Gary S. Robinson as project editor. Dave Peterson seconded the motion.

The motion passed on a roll call vote of 30:0:0:9=39. Details of the roll call vote were as follows:

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Organization                 Name                 Yes No Abs NP
Adaptec, Inc.                Mr. Tim Symons         1
Agilent Technologies         Ms. Pat Thaler         1
Amphenol Interconnect        Mr. Michael Wingard    1
Andiamo Systems, Inc.        Dr. Claudio DeSanti    1
Brocade Comm. Systems, Inc.  Mr. Robert Snively     1
Crossroads Systems, Inc.     Mr. Robert Griswold    1
Dallas Semiconductor                                         1
Dell, Inc.                   Mr. Kevin Marks        1
EMC Corp.                    Mr. Gary S. Robinson   1
Emulex                       Mr. Robert H. Nixon    1
ENDL Texas                   Mr. Ralph O. Weber     1
FCI                                                          1
Fujitsu                      Mr. Mike Fitzpatrick   1
General Dynamics                                             1
Hewlett Packard Co.          Mr. Rob Elliott        1
Hitachi Cable Manchester     Mr. Zane Daggett       1
Hitachi Global Storage Tech  Mr. Dan Colegrove      1
IBM / Tivoli Systems         Mr. George O. Penokie  1
Intel Corp.                  Mr. Cris Simpson       1
Iomega Corp.                 Mr. Hiromichi Oribe    1
LSI Logic Corp.              Mr. John Lohmeyer      1
Madison Cable Corp.                                          1
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Maxtor Corp.                 Mr. Mark Evans          1
Microsoft Corp.                                                  1
Molex Inc.                   Mr. Jay Neer            1
Panasonic Technologies, Inc                                      1
Philips Electronics/CD Edge Mr. William P. McFerrin 1
Pivot3, Inc.                                                     1
QLogic Corp.                 Mr. Craig W. Carlson    1
Quantum Corp.                Mr. Paul Entzel         1
SBS Technologies             Mr. David Peterson      1
Seagate Technology           Mr. Gerald Houlder      1
Storage Technology Corp.     Mr. Erich Oetting       1
Sun Microsystems, Inc.       Mr. Vit Novak           1
Texas Instruments            Mr. Robert Kando        1
Toshiba                                                          1
UNISYS Corporation                                               1
Veritas Software             Mr. Roger Cummings      1
Vixel Corp.                  Mr. Kenneth Hirata      1

                                          30   0   0  9 = 39
```

Gary Robinson took an action item to forward 03-301r0 as a US contribution to JTC1/SC25 as a NWIP for Serial Bus Protocol -3, SBP-3, 1.25.13.11.39: 14776-233.

11.2.2   FCD Ballot for FCD 14776-452: IT - Small Computer System Interface (SCSI) -Part 452: SCSI Primary Commands -2 (SPC-2)

INCITS requested that T10 vote to approve the FCD 14776-452 SPC-2. It was noted that the vote was taken at the September meeting (agenda item 11.2.3 in 03-306r0) and the tally was 34:0:0:7=41.

Gary Robinson took an action item to report to INCITS that T10 recommended approval of FCD 14776-452 SPC-2 during the September meeting (minutes in 03-306r0). The approval was under agenda item 11.2.3 and the vote was 34:0:0:7=41. The September action item was incorrectly written for an FDIS instead of an FCD.

12. Liaison Reports

12.1 T11 Liaison Report (03-366) [Snively]

Bob Snively presented the T11 liaison report contained in T10/03-366r0.

12.2 T13 Liaison Report [Colegrove]

Dan Colegrove provided an oral report to the committee on the activities of T13. The only T13 activity is completing the ATA/ATAPI-7, which does include SATA standardization.

For details regarding T13 activities see www.t13.org.

12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, Vit Novak reported that both SFF working group and SFF plenary meetings were held this week. The single voltage drive proposal title was changed to 12 V single voltage drive. A four-lane connector project had a first draft submitted for review.

12.4 IEEE 1394 [Johansson]

In the absence of Peter Johansson, no report was available.

12.5 SCSI Trade Association (STA) [Czekalski]

Marty Czekalski provided an electronic report on the activities of the SCSI Trade Association that can be found in 03-397r0.

12.6 IETF SCSI over IP [Black/Robinson]

In the absence of David Black, Roger Cummings reported that the IP Storage working group is not meeting with the IETF in Minneapolis. iSCSI over RDMA is being discussed in the RDDP working group. Roger also described the IMSS working group that is working on storage-related MIBs.

12.7 SNIA (03-396) [Cummings]

Roger Cummings reported orally to the committee and provided an electronic report in 03-396r0.

12.8 SATA II [Cox/open]

The SATA II group has not yet designated an official liaison to T10.

Alvin Cox reported that on the activities of the SATA face-to-face last week. He repeated Dan Colegrove's reminder about the ATA/ATAPI-7 work being held in T13. He closed by noting that the internal 4x cable will be available for testing soon.

13. Review of Action Items

545   David Black will ensure that RFCs are written defining URLs for SNMP, CIM over HTTP/HTTPS, and SSH.
557   Gary Robinson will forward 03-301r0 as a US contribution to JTC1/SC25 as a NWIP for Serial Bus
        Protocol -3, SBP-3, 1.25.13.11.39: 14776-233.
558   Gary Robinson will report to INCITS that T10 recommended approval of FCD 14776-452 SPC-2 during the
        September meeting (minutes in 03-306r0). The approval was under agenda item 11.2.3 and the vote was
        34:0:0:7=41. The September action item was incorrectly written for an FDIS instead of an FCD.

14. Meeting Schedule

The next plenary meeting of T10 will be Thursday January 15, 2004 in Chandler, AZ at the Wyndham Garden Hotel (480-961-4444), hosted by Intel Corp. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

```
                January 2004 Meeting Map
                  (2003/11/06 Version)
Monday 1/12       9   10  11  12  1   2   3   4   5   6   7   8
                +=====================================+
                | ADI WG                              |         (15)
                +=====================================+
                | SAS Protocol WG                     |         (40)
                +=====================================+
```

```
Tuesday 1/13   8   9   10  11  12  1   2   3   4   5   6   7   8
                  +========+=====================+
                  | ADI WG | SCSI CAP WG         |                (40)
                  +========+=====================+===+
                  | MMC WG                           |            (10)
                  +==============================+---+
                  | T11.5 FAIS WG                    |            (30)
                  +--------------+---------------+---+
                  | Plugfest Adm *| STA Marcom *  |               (20)
                  +--------------+---------------+

Wednesday 1/14     9   10  11  12  1   2   3   4   5   6   7   8   9
                  +=======================================+
                  | SCSI Commands, Arch., & Protocol WG    |       (35)
                  +==================================+==========+
                  | MMC WG                           |            (10)
                  +=====================+=======+---+
                                        |SFF        |             (20)
              +----------------+-------+-------+---+
              | STA Plenary *   / Plugfest TCC *|                  (20)
              +----------------+---------------+

Thursday 1/15  8   9   10  11  12  1   2   3   4   5   6   7   8
                  +================+==================+
                  | T10 Plenary    | SBC-2/SES-2 Edit |           (45/10)
                  +================+==================+

Friday 1/16    8   9   10  11  12  1   2   3   4   5   6   7   8
                  (No meetings planned on Friday)
```

Meetings marked with == are T10-authorized meetings.
Meetings marked with -- are other groups and may change without notice.
Meetings marked with (*) are STA closed meetings.

 Other T10-authorized meetings:

Meeting	Date	Location / Contact
ADI Call	tentative Nov 17th	To be announced via T10 reflector
ADI Call	tentative Dec 15th	To be announced via T10 reflector
MSC Call	TBD	To be announced via T10 reflector
SAS Prot Calls		To be announced via T10 reflector
SAS PHY Calls		To be announced via T10 reflector
3rd party persistent reservations	TBD	Rob Elliott

 Map Abbreviation Key:

ADI:	Automation Drive Interface (tape library interface)
Amnd:	Amendment
CAP:	Commands, Architecture, and Protocols
Fast-80:	Data Transfer at 80 Mega-transfers/sec. (a.k.a., Ultra3,Ultra160)
Fast-160:	Data Transfer at 160 Mega-transfers/sec. (a.k.a., Ultra320)
FC:	Fibre Channel
I/F:	Interface
IETF:	Internet Engineering Task Force (the group that sets Internet standards)
iFC:	Internet Fibre Channel

```
IPS:          Internet Protocol SCSI
iSCSI:        Internet SCSI
LB:           Letter Ballot
MMC:          Multimedia Commands (CD-ROM, DVD, etc.)
OSD:          Object-based Storage Device
Par.:         Parallel (e.g., SPI-n)
PH or PHY:    Physical (Connectors, Cables, Transceivers, etc.)
PIP:          (SCSI) Passive Interconnect Performance
Plenary:      Full Committee Meeting
Res:          Resolution
SAS:          Serial Attached SCSI
SBC-2:        SCSI Block Commands - 2
SBP-3:        Serial Bus Protocol - 3
SCSI:         Small Computer System Interface
SES:          SCSI Enclosure Services
SFF:          SFF Industry Group (not an INCITS activity)
SG:           Study Group
SMC-2:        SCSI Medium Changer - 2 Commands
SPC-3:        SCSI Primary Commands - 2 (3rd generation)
SPI-4:        Fourth Generation SCSI Parallel Interface
SPI-5:        Fifth Generation SCSI Parallel Interface
SRP:          SCSI RDMA Protocol (was SVP)
SRP-2:        SCSI RDMA Protocol (2nd generation)
SSC-2:        SCSI Stream Commands - 2 (includes Tape)
SSM-2:        SCSI Signal Modeling (2nd generation)
SSWGs:        Specific-Subject Working Groups
STA:          SCSI Trade Association (Closed meeting -- not an INCITS activity)
STA Marcom:   STA Marketing Communications (Closed meeting -- not an INCITS activity)
STA Tech:     STA Technical Meeting (T10 members invited)
STP:          Serial ATA Tunneled Protocol
T10:          SCSI Storage Interfaces Technical Committee
T11:          Device Level Interfaces Technical Committee
WG:           Working Group (same as Ad Hoc Group)
```

For more information about T10 activities, please contact the following people:

```
Activity                       Contact          Telephone/Email
---------------------------    --------------   ------------------------------
ADT                            Paul Entzel      (720) 406-5782
                                                paul.entzel@quantum.com
ADC                            Rod Wideman      (720) 249-5796
                                                rod.wideman@adic.com
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                                                Elliott@hp.com
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                                                bmcferrin@aol.com
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                                                gpenokie@tivoli.com
SMC-2                          Erich Oetting    (303) 673-2178
                                                Erich_Oetting@Stortek.com
SPC-3, SAM-2, SAM-3, OSD       Ralph Weber      (214) 912-1373
                                                roweber@acm.org
SSC-2, SSC-3, FCP-2, FCP-3     Dave Peterson    (612) 802-3299
                                                dap@sbs.com
SRP-2                          Cris Simpson     (503) 712-4333
                                                cris.simpson@intel.com
Other Activities               John Lohmeyer    (719) 533-7560
                                                lohmeyer@t10.org
```

The long-term T10 meeting week schedule is:

```
Date                Location                 Host/Comments
------------------  -----------------------  -----------------------------
Jan 12-16, 2004     Chandler, AZ             Intel
Mar 8-12, 2004      Dana Point, CA           QLogic
May 3-7, 2004       Monterey, CA             Brocade
Jul 12-16, 2004     Colorado Springs, CO     LSI Logic
Sep 13-17, 2004     Nashua, NH               Hitachi Cable
Nov 8-12, 2004      Austin, TX               Crossroads
Approved 2005 dates, tentative hosts and locations:
Jan 17-21, 2005
Mar 7-11, 2005      Dana Point, CA           QLogic
May 2-6, 2005
Jul 11-15, 2005     Colorado Springs, CO     LSI Logic
Sep 12-16, 2005
Nov 7-11, 2005      Austin, TX               Crossroads
```

John Lohmeyer asked organizations interested hosting one of the meetings in 2005 to contact him.

14.1 Authorization of Working Group Meetings

John noted that the working group meetings are required to operate under the same voting procedures as does T10 (that is, one vote per organization) and the results of a working group are not binding on the parent committee. Ad hoc groups should strive to achieve consensus prior to bringing issues to T10.

Erich Oetting moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of December 2003. Mark Evans seconded the motion. In the absence of any objections, the motion passed unanimously.

15. Adjournment

Bob Griswold moved and Mark Evans seconded that the meeting be adjourned. In the absence of any objections, the motion passed unanimously. The meeting was adjourned at 11:15 a.m. on Thursday November 6, 2003.

Enclosure(1) -- Meeting Attendees

```
        Name           S       Organization        Electronic Mail Address
---------------------- -- ------------------------ ------------------------
Mr. Tim Symons         P  Adaptec, Inc.            Timothy_Symons@adaptec.
                                                   com
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Dr. Claudio DeSanti    P  Andiamo Systems, Inc.    cds@andiamo.com
Mr. Robert Snively     P  Brocade Comm. Systems,   rsnively@brocade.com
                          Inc.
Mr. Robert Griswold    P  Crossroads Systems, Inc. rgriswold@crossroads.com
Mr. Kevin Marks        P  Dell, Inc.               kevin_marks@dell.com
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Mr. Ralph O. Weber     P  ENDL Texas               roweber@ieee.org
Mr. Mike Fitzpatrick   P  Fujitsu                  mfitzpatrick@fcpa.
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                                                   com
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Mr. John Lohmeyer      P  LSI Logic Corp.          lohmeyer@t10.org
Mr. Martin Czekalski   A  Maxtor Corp.             marty_czekalski@maxtor.
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Mr. Mark Evans         P  Maxtor Corp.             mark_evans@maxtor.com
Mr. Edward A. Gardner  AV Ophidian Designs         eag@ophidian.com
Mr. William P.         P  Philips Electronics/CD   billmc@tstar.net
McFerrin                  Edge
Mr. Bill Galloway      P  Pivot3, Inc.             billg@pivot3.com
Mr. Greg Elkins        V  QLogic                   greg.elkins@qlogic.com
Mr. Craig W. Carlson   A# QLogic Corp.             craig.carlson@qlogic.com
Mr. Paul Entzel        P  Quantum Corp.            paul.entzel@quantum.com
Mr. David Peterson     P  SBS Technologies         dap@sbs.com
Mr. Alvin Cox          V  Seagate Technology       Alvin.Cox@seagate.com
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Mr. Gary D. Moorhead   V  Seagate Technology       gary.moorhead@seagate.com
Dr. Paul Suhler        V  Seagate Technology       Paul.A.Suhler@certance.
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Mr. Vit Novak          P  Sun Microsystems, Inc.   vit.novak@sun.com
Mr. Robert Kando       A  Texas Instruments        Robert_Kando@ti.com
Mr. Roger Cummings     P  Veritas Software         roger.cummings@veritas.
                                                   com
Mr. Rich Ramos         V  Xyratex                  rich_ramos@us.xyratex.com


38 People Present


Status Key:  P    -  Principal
             A,A# -  Alternate
             AV   -  Advisory Member
             L    -  Liaison
             V    -  Visitor
```

Enclosure(2) -- T10 Attendance Database
       Generated on 2003/11/04 at 09:27:03

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