

Accredited Standards Committee\*

## InterNational Committee for Information Technology Standards (INCITS)

**Doc. No.:** T10/04-289r0

**Date:** September 22, 2004

**Reply to:** John Lohmeyer

To: T10 Membership  
From: Ralph Weber / John Lohmeyer  
Subject: Minutes of T10 Plenary Meeting #63 -- September 16, 2004  
Nashua, NH

### Agenda

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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., Thursday September 16, 2004. He thanked Zane Daggett of Hitachi Cable Mancheser 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 following items were added/revised during the course of the meeting:

<none>

### 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 member-

ship 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 2004 membership form (available at [ftp://ftp.t10.org/t10/mem\\_form.txt](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 6 people from 3 organizations informing them that their membership was in jeopardy due to non-attendance (see 04-238r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Amphenol Interconnect  
General Dynamics  
Hitachi Cable Manchester

All the organizations in attendance jeopardy were present.

Had any of the organizations in jeopardy failed to attend the meeting, the members from that organization would have had their membership changed to non-voting status.

The following organizations became voting members of T10 at this meeting:

Western Digital

Prior to the meeting, Dot Hill Systems Corp. requested that their voting membership be changed to Advisory.

The T10 membership during the meeting was 41 organizations up from the 40 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 no organizations are currently in letter ballot jeopardy. However, four organizations will be in letter ballot jeopardy if they do not vote on the next letter ballot:

T10 Letter Ballot Jeopardy Report -- 2004/09/15

Ballot:	04-106r0	04-109r0	04-241r0
Report:	04-107r0	04-110r0	04-242r0
Acronym:	MMC-4	ADT	SBC-2

Organization

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Agilent Technologies	DNV	Yes	No
General Dynamics	Yes	Yes	DNV
Hitachi Cable Manchester	Yes	Yes	DNV
Philips Electronics	Yes	Yes	DNV
QLogic Corp.	Yes	Yes	DNV

Key:

Yes Organization voted Yes  
 No Organization voted No  
 Abs Organization voted Abstain  
 DNV Organization failed to return letter ballot  
 -- Organization was not a voting member for the letter ballot  
 (\*) Organization is in letter ballot jeopardy

#### 4. Approval of Minutes - July 2004 Meeting - Colorado Springs, CO (T10/04-216r1)

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 September 23, 2004. 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](mailto: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

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](http://www.incits.org/help/ansi_sdo.html). Section 1.2.11 contains the ANSI patent policy. Patricia Griffin manages patent issues for ANSI and can be contacted at [pgriffin@ansi.org](mailto:pgriffin@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.

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

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

- 545 David Black will ensure that RFCs are written defining URLs for SNMP, CIM over HTTP/HTTPS, and SSH. *Complete.*
- 571 Gary Robinson will notify the JTC1/SC25 TAG that T10 has reviewed project 1.25.13.11.13: FCD 14776-351: SCSI SMC, and recommends that the JTC1/SC25 TAG vote to approve said FCD. *Complete*
- 572 After the T10 Letter Ballot on SBC-2 has closed, Gary Robinson will inform the JTC1/SC25 TAG that T10 has reviewed the new work item proposal, and recommends the NWIP for SBC-2 (T10/04-125r0) 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. *Complete.*
- 573 Ralph Weber will prepare OSD r10. *Complete.*

- 574 John Lohmeyer will forward OSD r10 to INCITS for further processing towards first public review. *Complete.*
- 575 John Lohmeyer will forward 04-174r2 to INCITS for further processing as a new project proposal for SAT. *Complete.*
- 576 John Lohmeyer will communicate the recommendation to approve FDIS 14776-220 to INCITS today. *Complete.*
- 577 John Lohmeyer will communicate the recommendation to approve FCD SMC 1.25.13.11.13: 14776-351 to INCITS. *Complete.*
- 578 John Lohmeyer will forward 04-125r0, an ISO NWIP for SBC-2, to INCITS. *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.

#### 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 OSD Rev 10 is in first Public Review, which closes September 27, 2004. Comments have been received from the ANSI Editor (see T10/04-315r0), and all the comments need to be incorporated.

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

John Lohmeyer reported that SMC-2 should be approved by the INCITS Executive Board this week and should be sent to ANSI next week. Publication should occur yet this year.

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

Ralph Weber reported that SPC-3 revision 21 will be prepared based on proposals approved by this meeting and will be posted before the end of the month. On behalf of the CAP working group, Ralph requested that a Letter Ballot be conducted on the question of forwarding SPC-3 revision 21 to first Public Review.

Ralph Weber took an action item to prepare SPC-3 revision 21. John Lohmeyer took an action item to conduct a Letter Ballot on forwarding SPC-3 revision 21 to Public Review.

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

Rob Elliott reported that the letter ballot had passed 26:6:4:5=40. Comments were received from 15 organizations. Rob stated that revision 15b will be prepared containing the proposed comments resolutions for review and approval at the November meeting.

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

In the absence of Cris Simpson, no report was available. John stated that Cris had contacted him by email and he expects to be able to give an update on the SRP-2 status by the November meeting.

**8.7 SCSI Management Server Commands (MSC) {Project 1528-D} [Elliott]**

Rob Elliott moved that name of the project be changed to Bridge Controller Commands (BCC). Bob Snively seconded the motion. The motion passed 26:1:3:11=41. John Lohmeyer said his no vote was that it is a lot of work to find and make all the necessary changes to the scripts supporting the T10 web site.

John Lohmeyer took an action item to communicate to INCITS that the name of the MSC project has changed to Bridge Controller Commands (BCC).

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

Bill McFerrin reported that MMC-4 working group has coordinated the resolution the Letter Ballot comments with the CAP working group.

Bill McFerrin moved that 04-191r1 be accepted as resolving the MMC-4 Letter Ballot comments, that MMC-4 revision 3d be accepted as incorporating the MMC-4 Letter Ballot comments resolutions, and that MMC-4 revision 3d be forwarded to INCITS for further processing towards first Public Review. John Lohmeyer seconded the motion. The motion passed 32:0:0:9=41.

Based on the successful resolution of the MMC-4 Letter Ballot comments Ralph Weber requested that the ENDL Texas No vote be changed to Yes. Based on the successful resolution of the MMC-4 Letter Ballot comments Rob Elliott requested that the HP No vote be changed to Yes. Based on the successful resolution of the MMC-4 Letter Ballot comments George Penokie requested that the IBM No vote be changed to Yes. Based on the successful resolution of the MMC-4 Letter Ballot comments Mark Evans requested that the Maxtor No vote be changed to Yes.

John Lohmeyer took an action item to forward MMC-4 revision 3d to INCITS for further processing toward first Public Review.

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

Paul Entzel reported on the activities of the ADI working group (minutes in 04-304).

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

Paul Entzel reported on the activities of the ADI working group (minutes in 04-304).

Paul Entzel moved that 03-385r5 be accepted as resolving the ADC Letter Ballot comments, that ADC revision 7 be accepted as incorporating the ADC Letter Ballot comments resolutions, and that ADC revision 7 be forwarded to INCITS for further processing towards first Public Review. David Hawks seconded the motion. The motion passed 26:0:3:12=41.

Based on the successful resolution of the ADC Letter Ballot comments Ralph Weber requested that the ENDL Texas No vote be changed to Yes. Based on the successful resolution of the ADC Letter Ballot comments Rob

Elliott requested that the HP No vote be changed to Yes. Based on the successful resolution of the ADC Letter Ballot comments Paul Entzel requested that the Quantum No vote be changed to Yes. Based on the successful resolution of the ADC Letter Ballot comments Jim Coomes requested that the Seagate No vote be changed to Yes. Following the meeting, George Penokie requested by email that the IBM vote be changed to Yes.

Rod Wideman took an action item to prepare ADC revision 7. John Lohmeyer took an action item to forward ADC revision 7 to INCITS for further processing toward first Public Review.

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

Rob Elliott reported that SES-2 revision 10 will be prepared including the proposal approved by this meeting in time for the mailing.

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

Bob Nixon reported on the activities of the FCP-3 working group (minutes in 04-309).

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

Ralph Weber reported that the CAP working group recommended accepting 04-116r5 as resolving the SAM-3 Letter Ballot comments (see T10/04-103).

Ralph Weber moved that 04-116r5 be accepted as resolving the SAM-3 Letter Ballot comments, that SAM-3 revision 14 be accepted as incorporating the Letter Ballot comment resolutions, and that SAM-3 revision 14 be forwarded to INCITS for further processing towards first Public Review. Mark Evans seconded the motion. The motion passed 32:0:1:8=41.

Based on the successful resolution of the SAM-3 Letter Ballot comments Rob Elliott asked that the HP No vote be changed to Yes. Based on the successful resolution of the SAM-3 Letter Ballot comments George Penokie asked that the IBM No vote be changed to Yes.

Ralph Weber took an action item to prepare SAM-3 revision 14. John Lohmeyer took an action item to forward SAM-3 revision 14 to INCITS for further processing towards first Public Review.

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

Rob Elliott reported that SAS-1.1 revision 6 will incorporate all the proposals approved by this meeting. He stated that the target date for forwarding letter ballot is January 2005.

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

In the absence of Dave Peterson, the secretary read a brief report on the activities of the SSC-3 working group (minutes in 04-311) to the committee.

#### **8.16 MultiMedia Command Set - 5 (MMC-5) {Project 1675-D} [McFerrin]**

Bill McFerrin reported that the working group has set a cutoff date for new feature proposals of March 2005 with forwarding letter ballot planned for July or September.

#### **8.17 SCSI Architecture Model - 4 (SAM-4) {Project 1683-D} [Penokie]**

George Penokie reported that work on SAM-4 is awaiting delivery of a stable SAM-3 source.



### **8.18 SCSI / ATA Translation (SAT) {Project 1711-D} [Sheffield]**

John Lohmeyer said that INCITS had approved the SAT project proposal and assigned it project number 1711-D. The SAT minutes from August 26-27 are in 04-276 and from September 14 are in 04-286.

Bob Sheffield reported that revision 1 will be posted late next week.

## **9. Old Business**

There was no old business.

## **10. New Business**

### **10.1 Project Proposal for Object-Based Storage Devices - 2 (OSD-2) (04-173) [Weber]**

Ralph Weber presented the OSD-2 project proposal, 04-173r1. Ralph Weber moved that 04-173r1 be approved as a new project proposal for Object-Based Storage Devices - 2 (OSD-2). Bob Snively seconded the motion.

The motion passed on a two-thirds vote of 24:0:4:13=41.

John Lohmeyer took an action item to forward 04-173r1 to INCITS for further processing as a new project proposal for OSD-2.

### **10.2 Project Proposal for SCSI Primary Commands - 4 (SPC-4) (04-252) [Weber]**

Ralph Weber presented the SPC-4 project proposal, 04-252r0. Ralph Weber moved that 04-252r0 be approved as a new project proposal for SCSI Primary Commands - 4 (SPC-4). George Penokie seconded the motion.

The motion passed on a two-thirds vote of 32:0:1:8=41.

John Lohmeyer took an action item to forward 04-252r0 to INCITS for further processing as a new project proposal for SPC-4.

### **10.3 Project Proposal for SCSI Media Changer Command Set - 3 (SMC-3) (04-279) [Banther]**

Michael Banther presented the SMC-3 project proposal, 04-279r0. Rob Elliott moved that 04-279r0 be approved as a new project proposal for SCSI Media Changer Command Set - 3 (SMC-3). Paul Entzel seconded the motion.

The motion passed on a two-thirds vote of 21:3:6:11=41.

George Penokie, Mark Evans, and Bob Snively stated that they voted no because no editor has been identified for the project.

John Lohmeyer took an action item to forward 04-279r0 to INCITS for further processing as a new project proposal for SMC-3.

#### **10.4 Actions on SAS Protocol Working Group Recommendations**

The recommendations from the SAS-1.1 working group (minutes in 04-287) were presented to the committee.

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

- 04-167r2 (Invalid dword handling) [Elliott]
- 04-243r0 (Annex A modifications) [Evans]
- 04-042r4 (UML Corrections) [Penokie]
- 04-247r0 (XL6 and idle dwords) [Elliott]
- 04-251r0 (Clarification for completion of a START STOP UNIT command) [Evans]
- 04-305r1 (READY LED MEANING bit is always shared) [Elliott]
- 04-277r1 (ST\_I (transport layer for SSP initiator ports) state machines) [Evans]
- 04-245r1 (Phy reset problem count clarification) [Evans]
- 04-246r1 (Send AIP multiple times) [Elliott]

and the following proposal recommended for inclusion in SAS-1.1 and SPC-3:

- 04-181r2 (SAS phy test functions diagnostic page) [Evans]

Mark Evans moved that 04-167r2, 04-243r0, 04-042r4, 04-247r0, 04-251r0, 04-305r1, 04-277r1, 04-245r1, and 04-246r1 be approved for inclusion in SAS-1.1 and that 04-181r2 be approved for inclusion in SAS-1.1 and SPC-3. Jim Coomes seconded the motion. The motion passed on a vote of 28:0:3:10=41.

#### **10.5 Actions on SAS PHY Working Group Recommendations**

The recommendations from the SAS PHY working group (minutes in 04-299) were presented to the committee.

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

- 03-240r6 (Internal wide connector and cable) [Elliott]
- 04-195r5 (Internal Wide Connector/Cable Electrical Requirements) [Olawsky]

Jim Coomes moved that 03-240r6 and 04-195r5 be approved for inclusion in SAS-1.1. Kevin Marks seconded the motion. The motion passed on a vote of 30:0:1:10=41.

## 10.6 Actions on CAP Working Group Recommendations

The recommendations from the CAP working group (minutes in 04-288) were presented to the committee.

George Penokie and Ralph Weber reviewed the following proposals recommended for inclusion in SPC-3:

- 04-257r0 (Mandatory Service Action Out (16) Command) [Banther]
- 04-273r0 (Offline Additional Sense Code) [Banther]
- 04-310r1 (Implicit HEAD OF QUEUE and ORDERED task attributes) [Elliott]
- 04-288r0 (Assign an ASC/ASCQ for CAPACITY DATA HAS CHANGED)
- 04-269r1 (Persistent Reserve Out Functionality for Reserve/Release Replacement) [Peterson]
- 04-268r3 (Change 'mapping' to 'associating' in Persistent Resv. Registration Model) [Weber]
- 04-249r0 (WORM and Optical variable length CDB service actions) [Weber]
- 04-291r0 (SPC-3 Device Type definition) [Weber]
- 04-295r0 (SPC-3 Self-Test and I\_T nexus loss) [Weber]
- 04-282r0 (SPC-3 Power conditions wording changes) [Elliott]
- 04-313r1 (Mandatory REPORT LUNS Support) [Peterson]
- 04-281r1 (Group Supported Bit) [Penokie]
- 04-186r2 (Standard Data Collection Trigger) [Penokie]

Ralph Weber moved that 04-257r0, 04-273r0, 04-310r1, 04-228r0, 04-269r1, 04-268r3, 04-249r0, 04-291r0, 04-295r0, 04-282r0, 04-313r1, 04-281r1, and 04-186r2 be approved for inclusion in SPC-3. Rob Elliott seconded the motion. The motion passed on a vote of 29:0:1:11=41.

George Penokie reviewed 04-290r1 (Condition and event definitions) [Elliott], a proposal recommended for inclusion in SPC-3, SSC-3, SES-2, and OSD-2.

George Penokie reviewed 04-296r1 (Numbering conventions description) [Evans], a proposal recommended for inclusion in SPC-3, SAS-1.1, and the T10 Style Guide.

Mark Evans moved that 04-290r1 be approved for inclusion in SPC-3, SSC-3, SES-2, and OSD-2 and that 04-296r1 be approved for inclusion in SPC-3, SAS-1.1, and the T10 Style Guide. Rob Elliott seconded the motion. The motion passed on a vote of 29:0:1:11=41.

## 10.7 Actions on Other Working Group Recommendations

The recommendations from the SAT working group (minutes in 04-286) were presented to the committee.

George Penokie reviewed 04-260r2 (SAT command mapping format) [Stevens], a proposal recommended for inclusion in SAT.

George Penokie reviewed 04-219r3 (ATA Information VPD page) [Elliott], a proposal recommended for inclusion in SAT and SPC-3

The recommendations from the FCP-3 working group (minutes in 04-309) were presented to the committee.

Bob Nixon reviewed the following proposals recommended for inclusion in FCP-3:

- 04-292r2 (Logical Unit Control mode page cleanup) [Peterson]
- 04-293r1 (RR\_TOV Timer(s)) [Peterson]

Bob Sheffield moved that 04-260r2 be approved for inclusion in SAT, that 04-219r3 be approved for inclusion in SAT and SPC-3, and that 04-292r2 and 04-293r1 be approved for inclusion in FCP-3. Bob Snively seconded the motion. The motion passed on a vote of 29:0:1:11=41.

## 11. ISO/IEC

### 11.1 ISO/IEC Report [Robinson]

Since Gary Robinson was unable to attend, John Lohmeyer presented the ISO/IEC report (04-308r0).

### 11.2 ISO/IEC Business [Robinson]

#### 11.2.1 NWIP for SAS-1.1 (04-126) [Elliott]

John Lohmeyer requested that this agenda item be carried over until the November meeting since SAS-1.1 has not been sent to letter ballot.

#### 11.2.2 NWIP for SAM-3 (04-254) [Robinson]

John Lohmeyer moved to approve the NWIP, SCSI Architecture Model - 3, 14776-413, SAM-3 (T10/04-254r0) 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. Rob Elliott seconded the motion.

The motion passed with a roll call vote of 30:0:0:11=41. Details of the roll call vote were as follows:

Organization	Voter	Vote
Adaptec, Inc.		(not present)
Agilent Technologies		(not present)
Amphenol Interconnect	Michael Wingard	Yes
Brocade	Robert Snively	Yes
Cisco Systems, Inc.	Claudio DeSanti	Yes
CNT		(not present)
Crossroads Systems, Inc.	John Tyndall	Yes
Dallas Semiconductor	James A. Lott, Jr.	Yes
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	David Black	Yes
Emulex	Robert H. Nixon	Yes
ENDL	Ralph O. Weber	Yes
FCI	Douglas Wagner	Yes
Foxconn Electronics		(not present)
Fujitsu	Mike Fitzpatrick	Yes
General Dynamics	Nathan Hastad	Yes
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester		(not present)
Hitachi Global Storage Tech.	Dan Colegrove	Yes
IBM Corp.	George O. Penokie	Yes
Intel Corp.	Robert Sheffield	Yes
Iomega Corp.	David Hawks	Yes
LSI Logic Corp.	John Lohmeyer	Yes
Maxtor Corp.	Mark Evans	Yes
Microsoft Corp.	Emily Hill	Yes
Molex Inc.		(not present)
Panasonic Technologies, Inc	Terence J. Nelson	Yes
Philips Electronics	William P. McFerrin	Yes
Pivot3, Inc.		(not present)
PMC-Sierra	Rachelle Trent	Yes
QLogic Corp.		(not present)
Quantum Corp.	Paul Entzel	Yes

Seagate Technology Storage Technology Corp.	Jim Coomes	Yes (not present)
Sun Microsystems, Inc.	Charles Binford	Yes
Texas Instruments	Paul D. Aloisi	Yes
Toshiba	Yutaka Arakawa	Yes
TycoElectronics	Ashlie Fan	Yes
UNISYS		(not present)
Veritas Software		(not present)
Western Digital	Curtis Stevens	Yes

This two-thirds roll call vote passed (30:0:0:11=41).

John Lohmeyer took an action item to forward 04-254r0, an ISO NWIP for SAM-3, to INCITS.

## 12. Liaison Reports

### 12.1 T11 Liaison Report [Snively]

Bob Snively presented the T11 liaison report contained in T10/04-278r0.

### 12.2 T13 Liaison Report [Colegrove]

Dan Colegrove provided an oral report to the committee on the activities of T13. For details regarding T13 activities see [www.t13.org](http://www.t13.org). He noted that T13 support for trusted computing will be based on the details defined by T10, meaning that close cooperation between the two groups is critical in this area.

### 12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, no report was available.

### 12.4 IEEE 1394 [Johansson]

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

### 12.5 SCSI Trade Association (STA) [Czekalski]

In the absence of Marty Czekalski, Mark Evans presented an electronic report on the activities of the SCSI Trade Association prepared by Marty. The report is available in 04-316r0.

### 12.6 IETF SCSI over IP [Black/Robinson]

David Black reported that iSCSI basic RFCs are published and the remaining RFCs have cleared most hurdles. New work items related to RDMA are being taken up the IPS working group with the acronyms iSER and iWarp.

### 12.7 SNIA [Cummings]

In the absence of Roger Cummings, David Black and George Penokie reported that SNIA is looking at breaking SMI-S in to smaller documents. The document is expected to be functionally complete.

Note: Roger Cummings prepared an electronic SNIA liaison report (04-319), which arrived just after the meeting.

### **12.8 SATA II [Cox/open]**

In the absence of Alvin Cox, Rob Elliott reported that a new SATA organization is being formed, called the SATA International. There have some delays in getting work restarted in the new organization.

### **12.9 Trusted Computing Group [Fitzpatrick]**

Mike Fitzpatrick reported that the TCG will be meeting face-to-face next week in Orlando, FL. The results of that meeting will include policies regarding specification coordination with T10.

## **13. Review of Action Items**

- 579 Ralph Weber will prepare SPC-3 revision 21.
- 580 John Lohmeyer will conduct a Letter Ballot on forwarding SPC-3 revision 21 to Public Review.
- 581 John Lohmeyer will communicate to INCITS that the name of the MSC project has changed to Bridge Controller Commands (BCC).
- 582 John Lohmeyer will forward MMC-4 revision 3d to INCITS for further processing toward first Public Review.
- 583 Rod Wideman will prepare ADC revision 7.
- 584 John Lohmeyer will forward ADC revision 7 to INCITS for further processing toward first Public Review.
- 585 Ralph Weber will prepare SAM-3 revision 14.
- 586 John Lohmeyer will forward SAM-3 revision 14 to INCITS for further processing towards first Public Review.
- 587 John Lohmeyer will forward 04-173r1 to INCITS for further processing as a new project proposal for OSD-2.
- 588 John Lohmeyer will forward 04-252r0 to INCITS for further processing as a new project proposal for SPC-4.
- 589 John Lohmeyer will forward 04-279r0 to INCITS for further processing as a new project proposal for SMC-3.
- 590 John Lohmeyer will forward 04-254r0, an ISO NWIP for SAM-3, to INCITS.

## **14. Meeting Schedule**

The next plenary meeting of T10 will be Thursday November 11, 2004 in Austin, TX at the Driskill Hotel (512-474-5911), hosted by Crossroads Systems, Inc.. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

November 2004 Meeting Map

Monday 11/8	9	10	11	12	1	2	3	4	5	6	7	8		
	+-----+													
	ADI WG /SMC-3 SG												(10)	
	+-----+													
	SAS Protocol WG / CSMI SG												(40)	
	+-----+													
Tuesday 11/9	8	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+													
	SAS Physical WG													(25)
	+-----+													
	SCSI/ATA Trans WG  CAP WG													(40)
	+-----+													
	FCP-3 WG   STA Marcom *													(20)
	+-----+													
	T11 Ad hoc (?)													(30)
	+-----+													
Wednesday 11/10	9	10	11	12	1	2	3	4	5	6	7	8		
	+-----+													
	CAP WG												(40)	
	+-----+													
	MMC WG												(25)	
	+-----+													
	SSC-3   SFF												(30)	
	+-----+													
	STA Plenary * /Adm*/ TCC*												(20)	
	+-----+													
	T11 Ad hoc (?)												(20)	
	+-----+													
Thursday 11/11	8	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+													
	T10 Plenary   SPC-3 LB/SAS-1.1 Edit													(45/15)
	+-----+													
	FCIA Board Meeting *													(12)
	+-----+													
Friday 11/12	8	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+													
	SPC-3 LB/SAS-1.1												(15)	
	+-----+													

/ means the next meeting starts when the previous meeting concludes  
 Meetings marked with == are T10-authorized meetings.  
 Meetings marked with -- are other groups and may change without notice.  
 Meetings marked with (\*) are closed meetings of other groups.

## Other T10-authorized meetings:

Meeting	Date	Location / Contact
ADI Calls	TBD	To be announced via T10 reflector
ADI Call	Oct 7	To be announced via T10 reflector
SAS PHY Calls	Bi-weekly	TBA via T10 reflector / Cox
SAS PHY Call	Sep 30 10:00 CDT	Notice (TBA) / Alvin Cox
SAT WG Call	Sep 30 9:00 PDT	Notice (TBA) / Bob Sheffield
SAT WG Call	Oct 14 9:00 PDT	Notice (TBA) / Bob Sheffield
SAT WG	Oct 21-22, 2004	With T13 in Las Vegas / Sumit Puri
SAT WG	Dec 16-17, 2004	With T13 in Las Vegas / Colegrove

## 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
SBC-2, SES-2, SAS-1.1, BCC	Rob Elliott	(281) 518-5037 Elliott@hp.com
MMC-4, MMC-5	Bill McFerrin	(325) 423-1560 billmc@tstar.net
SBP-3	Peter Johansson	(510) 527-3926 PJohansson@ACM.org
SAM-4	George Penokie	(507) 253-5208 gpenokie@tivoli.com
SMC-2	Erich Oetting	(303) 673-2178 Erich_Oetting@Stortek.com
SPC-3, SAM-3, OSD	Ralph Weber	(214) 912-1373 roweber@acm.org
SSC-3, FCP-3	Dave Peterson	(763) 268-6139 david.peterson@cnt.com
SRP-2	Cris Simpson	(503) 712-4333 cris.simpson@intel.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Nov 8-12, 2004	Austin, TX	Crossroads
Jan 17-21, 2005	Las Vegas, NV	Hitachi GST
Mar 7-11, 2005	Dana Point, CA	QLogic
May 2-6, 2005	Oklahoma City, OK	Fujitsu
Jul 11-15, 2005	Colorado Springs, CO	LSI Logic
Sep 12-16, 2005	Vancouver, BC	PMC Sierra
Nov 7-11, 2005	Austin, TX	Crossroads
Approved dates for 2006:		
Jan 9-13, 2006		
Mar 6-10, 2006		
May 8-12, 2006		
Jul 10-14, 2006		
Sep 11-15, 2006		
Nov 6-10, 2006		

John Lohmeyer asked people interested hosting one of the meetings in 2006 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.

Curtis Stevens moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of October 2004. Bob Snively seconded the motion. In the absence of any objections, the motion passed unanimously.

## **15. Adjournment**

John Lohmeyer moved and Ralph Weber seconded that the meeting be adjourned. In the absence of any objections, the motion passed unanimously. The meeting was adjourned at 11:10 a.m. on Thursday September 16, 2004.

**Enclosure(1) -- Meeting Attendees**

Name	S	Organization
Mr. Michael Wingard	P	Amphenol Interconnect
Mr. Robert Snively	P	Brocade Comm. Systems, Inc.
Dr. Claudio DeSanti	P	Cisco Systems, Inc.
Mr. John Tyndall	A	Crossroads Systems, Inc.
Mr. James A. Lott, Jr.	P	Dallas Semiconductor
Mr. Kevin Marks	P	Dell, Inc.
Mr. David Black	A	EMC Corp.
Mr. Robert H. Nixon	P	Emulex
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Douglas Wagner	P	FCI
Mr. Mike Fitzpatrick	P	Fujitsu
Mr. Nathan Hastad	P	General Dynamics
Mr. Michael Banther	V	Hewlett Packard Co.
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Zane Daggett	P	Hitachi Cable Manchester
Mr. Dan Colegrove	P	Hitachi Global Storage Tech.
Mr. George O. Penokie	P	IBM / Tivoli Systems
Mr. Robert Sheffield	P	Intel Corp.
Mr. David Hawks	P	Iomega Corp.
Mr. Dennis Moore	V	KnowledgeTek, Inc.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Mark Evans	P	Maxtor Corp.
Ms. Emily Hill	P	Microsoft Corp.
Mr. Jay Neer	P	Molex Inc.
Dr. Terence J. Nelson	P	Panasonic Technologies, Inc
Mr. William P. McFerrin	P	Philips Electronics/CD Edge
Ms. Rachelle Trent	P	PMC-Sierra
Mr. Paul Entzel	P	Quantum Corp.
Mr. Jim Coomes	A	Seagate Technology
Mr. William Martin	V	Sierra Logic
Mr. Charles Binford	A	Sun Microsystems, Inc.
Mr. Paul D. Aloisi	P	Texas Instruments
Mr. Yutaka Arakawa	P	Toshiba
Ms. Ashlie Fan	P	TycoElectronics
Mr. Dan Gorenc	A#	TycoElectronics
Mr. Curtis Stevens	P	Western Digital

36 People Present

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

**Enclosure(2) -- T10 Attendance Database**

Generated on 2004/09/20 at 13:39:22

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