

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

Doc. No.: T10/07-117r0

Date: March 23, 2007

Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #78 -- March 15, 2007
Memphis, TN

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Approval of Minutes - January 2007 - Lake Mary, FL (T10/07-034r0)
5. Document Distribution
6. Call for Patents
7. Review of Old Action Items
8. Project Status Reports
 - 8.1 Project Status Summary and INCITS Liaison [Lohmeyer]
 - 8.1.1 INCITS Antitrust Guidelines
 - 8.2 Bridge Controller Commands (BCC) Project 1528-D [Elliott]
 - 8.3 SCSI Enclosure Services - 2 (SES-2) Project 1559-D [Elliott]
 - 8.4 SCSI Stream Commands - 3 (SSC-3) Project 1611-D [Peterson]
 - 8.5 MultiMedia Command Set - 5 (MMC-5) Project 1675-D [McFerrin]
 - 8.6 SCSI Architecture Model - 4 (SAM-4) Project 1683-D [Penokie]
 - 8.7 SCSI / ATA Translation (SAT) Project 1711-D [Sheffield]
 - 8.8 Object-Based Storage Devices - 2 (OSD-2) Project 1729-D [Weber]
 - 8.9 SCSI Media Changer Command Set - 3 (SMC-3) Project 1730-D [Banther]
 - 8.10 SCSI Primary Commands - 4 (SPC-4) Project 1731-D [Weber]
 - 8.11 Serial Attached SCSI Driver Interface (SDI) Project 1740-D [Elliott]
 - 8.12 Automation/Drive Interface - Commands - 2 (ADC-2) Project 1741-D [Suhler]
 - 8.13 Automation/Drive Interface - Transport Protocol - 2 (ADT-2) Project 1742-D [Suhler]
 - 8.14 Serial Attached SCSI - 2 (SAS-2) Project 1760-D [Elliott]
 - 8.15 SCSI Block Commands - 3 (SBC-3) Project 1799-D [Penokie]
 - 8.16 SCSI / ATA Translation - 2 (SAT-2) Project 1826-D [Overby]
 - 8.17 Fibre Channel Protocol - 4 (FCP-4) Project 1828-D [Peterson]
 - 8.18 MultiMedia Command Set - 6 (MMC-6) Project 1836-D [McFerrin]
9. Old Business
10. New Business
 - 10.1 Policy for T10 Plenary Meetings and Accompanying Meeting Weeks (07-086) [Lohmeyer]
 - 10.2 Nomination for T10 Emeritus Membership for Bill Ham [Lohmeyer]
 - 10.3 Actions on SAS Protocol Working Group Recommendations
 - 10.4 Actions on SAS PHY Working Group Recommendations
 - 10.5 Actions on SAT Working Group Recommendations

*Operating under the procedures of The American National Standards Institute.

INCITS Secretariat, Information Technology Industry Council (ITI)

1250 Eye Street NW, Suite 200, Washington, DC 20005-3922

Email: incits@itic.org Telephone: 202-737-8888 FAX: 202-638-4922

- 10.6 Actions on CAP Working Group Recommendations
- 10.7 Actions on Other Working Group Recommendations
- 11. ISO/IEC
 - 11.1 ISO/IEC Report [Robinson]
 - 11.2 ISO/IEC Business [Robinson]
- 12. Liaison Reports
 - 12.1 T11 Liaison Report [Snively]
 - 12.2 T13 Liaison Report [Colegrove]
 - 12.3 SFF Industry Group [Allan]
 - 12.4 SCSI Trade Association (STA) [Czekalski]
 - 12.5 IETF SCSI over IP [Black]
 - 12.6 SNIA [open]
 - 12.7 Trusted Computing Group [Fitzpatrick]
 - 12.8 IEEE P1667 [Shimor]
 - 12.9 MIPI Alliance [Shimor]
 - 12.10 IEEE P1619 [Ball]
- 13. Review of Action Items
- 14. Meeting Schedule
 - 14.1 Authorization of Working Group Meetings
- 15. Adjournment

Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 1:30 p.m., Thursday March 15, 2007. He thanked Chris Lyon of the SCSI Trade Association for hosting the meeting.

In honor of his chairing 118 committee meetings during the past 20 years, the committee gave John Lohmeyer a standing ovation.

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 or modified in the agenda during the course of the meeting:

- 12.10 IEEE P1619 [Ball]

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 mem-

bership the second meeting via a letter to the Chair of T10. The individual may begin voting at the beginning of his/her second meeting. People who continue to attend T10 meetings are expected to join T10 and to pay INCITS Service Fees.

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

John briefly discussed the mailing fees. Complete pricing information is contained in the 2007 membership form (available at http://www.t10.org/ftp/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 emails to 9 people from 6 organizations informing them that their membership was in jeopardy due to non-attendance (see 07-054r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

- McDATA
- Panasonic Technologies, Inc.
- Philips Electronics/CD Edge
- Pivot3, Inc.
- Texas Instruments
- Xiotech Corp.

John noted that McDATA had been acquired by Brocade so they lost membership through acquisition.

Texas Instruments resigned their T10 membership prior to the meeting.

All other organizations in attendance jeopardy were present except:

- Philips Electronics/CD Edge
- Pivot3, Inc.
- Xiotech Corp.

Their representatives were changed to Advisory (non-voting) status.

John Lohmeyer called for requests to join the committee. No organizations joined at this meeting.

The T10 membership during the meeting was 41 organizations, down from the 44 member organizations extant at the time the meeting was convened. Enclosure (1) is the list of the people present at the meeting and enclosure (3) is the current T10 membership list. Note: Following the meeting, Rich Ramos requested that the Xyratex membership be changed to Advisory.

John Lohmeyer reminded members that failure to vote on two out of the last three letter ballots also would result in membership jeopardy. The current letter ballot jeopardy status is as shown:

T10 Letter Ballot Jeopardy Report -- 2006/11/03

Ballot:	06-080r0	06-184r0	06-446r0
Report:	06-081r0	06-185r0	06-447r0
Acronym:	SAT	MMC-5	ADC-2

Organization

-----	-----	-----	-----
Iomega Corp.	Yes	Yes	DNV
Nvidia Corp.	No	Yes	DNV
Vitesse Semiconductor	Abs	Abs	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 - January 2007 - Lake Mary, FL (T10/07-034r0)

John Lohmeyer moved and Ralph Weber seconded that the minutes be approved as written. 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 Barbara Bennett (bbennett@itic.org) (202) 626-5743. 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 March 22, 2007. 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 Portable Document Format (PDF) and/or native-format electronic originals with proper identification must be submitted.

People can obtain T10 document numbers for new and revised T10 documents 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

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

For additional information on ANSI procedures and the ANSI patent policy, please see the INCITS web page at <http://www.incits.org/call.htm>. The contact for INCITS patent issues is Lynn Barra (Ibarra at itic dot org) or (202) 626-5739. 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 noted that he had recently received a letter from Crossroads Systems, Inc. regarding their patents on access controls in SPC-4 (see T10/07-079r0).

John noted that he had recently received a letter from NeoScale Systems, Inc. regarding their patent licensing statement on T10 standards (see T10/07-123r0).

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

651 Bob Nixon will coordinate bi-directional read/write issues between FCP and OSD-2. *Carry Over.*

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 are 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 Bridge Controller Commands (BCC) Project 1528-D [Elliott]

Rob Elliott reported that there has been no activity on BCC.

8.3 SCSI Enclosure Services - 2 (SES-2) Project 1559-D [Elliott]

Rob Elliott reported that SES-2 r16 containing all approved proposals will be uploaded in time for the mailing.

Rob Elliott moved and Ralph Weber seconded that SES-2 r16 be accepted as a committee draft for project 1559-D. The motion passed 34:0:0:7=41.

8.4 SCSI Stream Commands - 3 (SSC-3) Project 1611-D [Peterson]

Dave Peterson reported on the activities of the SSC-3 working group (minutes in 07-133) and provided an electronic report in 07-142r0.

8.5 MultiMedia Command Set - 5 (MMC-5) Project 1675-D [McFerrin]

John Lohmeyer reported that MMC-5 is at INCITS for approval. Bill McFerrin was able to resume working as the MMC-5 project editor with a new employer.

8.6 SCSI Architecture Model - 4 (SAM-4) Project 1683-D [Penokie]

George Penokie reported that a new revision of SAM-4 will be posted, but maybe not in time for the mailing.

He notified the committee of plans to conduct a forwarding Letter Ballot on SAM-4 after the July plenary. Any proposals related security will be placed in SAM-5. Any other SAM proposals should be brought to the committee's attention before July.

The timing for processing of a SAM-5 Project Proposal was discussed but not finalized.

8.7 SCSI / ATA Translation (SAT) Project 1711-D [Sheffield]

John Lohmeyer reported that SAT is at INCITS for management review and approval.

8.8 Object-Based Storage Devices - 2 (OSD-2) Project 1729-D [Weber]

Ralph Weber reported that no new proposals have been approved for inclusion in OSD-2 so r02 will remain the current revision until at least May.

8.9 SCSI Media Changer Command Set - 3 (SMC-3) Project 1730-D [Banther]

In the absence of Michael Banther, Paul Entzel reported on the activities of the SMC-3 working group (minutes in 07-132) and reviewed the electronic report (07-137r0) provided by Michael.

8.10 SCSI Primary Commands - 4 (SPC-4) Project 1731-D [Weber]

Ralph Weber reported that SPC-4 r09 incorporating all approved proposals from the January meeting week was posted in February. SPC-4 r10 will be posted prior to the May meeting by not in time for the mailing. SPC-4 r10 will incorporate all approved proposals. He noted that there are no plans to start a Letter Ballot on SPC-4.

8.11 Serial Attached SCSI Driver Interface (SDI) Project 1740-D [Elliott]

Rob Elliott noted that there has been no activity on this project. He asked if there is still any interest in SDI. Mark Overby and Bob Sheffield indicated some interest. It was suggested that the SDI project might be withdrawn unless interest is expressed soon in the form of proposals for working draft content.

8.12 Automation/Drive Interface - Commands - 2 (ADC-2) Project 1741-D [Suhler]

In the absence of Paul Suhler, Paul Entzel reported on the activities of the ADI working group (minutes in 07-107) and provided an electronic report in 07-129r0.

8.13 Automation/Drive Interface - Transport Protocol - 2 (ADT-2) Project 1742-D [Suhler]

In the absence of Paul Suhler, Paul Entzel reported on the activities of the ADI working group (minutes in 07-107) and provided an electronic report in 07-129r0. He noted that a new revision of ADT-2 will be uploaded in time for the mailing.

8.14 Serial Attached SCSI - 2 (SAS-2) Project 1760-D [Elliott]

Rob Elliott reported that several SAS-2 protocol proposals have been recommended (minutes in 07-114). The SAS-2 physical working group (minutes in 07-140) recommendation some SAS-2 changes too. See agenda items 10.3 and 10.4.

SAS-2 revision 09 will be posted containing all approved proposals in time for the mailing.

8.15 SCSI Block Commands - 3 (SBC-3) Project 1799-D [Penokie]

George Penokie reported that a new revision of SBC-3 containing proposal approved by this meeting will be uploaded but maybe not in time for the mailing.

8.16 SCSI / ATA Translation - 2 (SAT-2) Project 1826-D [Overby]

Mark Overby reported that work is progressing well on SAT-2 (minutes in 07-076 and 07-115). SAT-2 revision 1 will be available in time for the May meeting, but maybe not in time for the mailing.

8.17 Fibre Channel Protocol - 4 (FCP-4) Project 1828-D [Peterson]

Dave Peterson reported on the activities of the FCP-4 working group (minutes in 07-136) and provided an electronic report in 07-141r0.

8.18 MultiMedia Command Set - 6 (MMC-6) Project 1836-D [McFerrin]

John Lohmeyer reported that Bill McFerrin was able to resume working as the MMC ad hoc Chair. The MMC-6 project is still looking for an editor.

9. Old Business

No old business was brought before the committee.

10. New Business**10.1 Policy for T10 Plenary Meetings and Accompanying Meeting Weeks (07-086) [Lohmeyer]**

John Lohmeyer reviewed 07-086r0 containing a proposed revision to the T10 meeting policy. The group requested a change and John agreed to prepare a new revision. John Lohmeyer moved and Bill Martin seconded that T10 replace its current policy for T10 plenary meetings and accompanying meeting weeks contained in T10/00-221r2 with T10/07-086r1. The motion passed 33:1:0:7=41.

John Lohmeyer took an action item to forward 07-086r1 to INCITS for their approval.

10.2 Nomination for T10 Emeritus Membership for Bill Ham [Lohmeyer]

John Lohmeyer recommended that T10 nominate Bill Ham for T10 Emeritus membership. He noted that Bill meets all of the qualifications, having served on X3T9.2 and T10 for 16 years, having made significant contributions to the physical layer work on SCSI, Fibre Channel, and SAS. Bill recently retired from HP, so he no longer represents an organization on T10. John Lohmeyer moved and Greg McSorley seconded that T10 nominate Bill Ham as an Emeritus member of T10. The motion passed 34:0:0:7=41.

John Lohmeyer took an action item to forward the nomination to INCITS for their approval.

10.3 Actions on SAS Protocol Working Group Recommendations

George Penokie reviewed the following proposals recommended for inclusion in SAS-2:

- 07-028r1 (Address resolved zoning) [Symons]
- 07-017r2 (More Zone Groups) [Johnson]
- 06-467r3 (Initiator handling of retransmit read DATA frames) [Sheffield]
- 07-059r1 (Update SATA references to Serial ATA 2.6) [Elliott]
- 06-478r2 (Changes to NEGOTIATED PHYSICAL LINK RATE) [Day]
- 07-082r1 (Fix target device name PIV bit) [Elliott]
- 07-085r0 (Change mode page subpage names) [Elliott]
- 07-108r1 (Transport level read fixes) [Penokie]
- 07-084r1 (ATTACHED REASON field) [Elliott]
- 07-121r1 (Add IDENTIFY Reason code to DISCOVER and DISCOVER LIST) [Johnson]

Rob Elliott moved that 06-467r3, 07-059r1, 06-478r2, 07-082r1, 07-085r0, 07-108r1, 07-084r1, and 07-121r1 be approved for inclusion in SAS-2. Kevin Marks seconded the motion. The motion passed on a vote of 27:0:2:12=41.

Tim Symons moved that 07-028r1 be approved for inclusion in SAS-2. Bill Martin seconded the motion. The motion passed on a vote of 13:1:17:10=41.

Tim Symons requested that the two-week rule be applied to 07-017r2. It will be placed on the May T10 agenda.

George Penokie reviewed the following proposals recommended for inclusion in SAS-2 and SPC-4:

- 07-027r2 (Enabling and disabling Transport Layer Retries) [Martin and Elliott]
- 07-008r8 (Expander Notification of Temporary Shutdown) [Penokie]

Rob Elliott moved that 07-027r2 be approved for inclusion in SAS-2 and SPC-4. Bob Sheffield seconded the motion. The motion passed on a vote of 20:0:11:10=41.

George Penokie moved that 07-008r8 be approved for inclusion in SAS-2 and SPC-4. Tim Symons seconded the motion. The motion passed on a vote of 11:0:21:9=41.

George Penokie reviewed 07-087r1 (Enclosure Connector Information) [Besmer] a proposal recommended for inclusion in SAS-2 and SES-2.

John Lohmeyer moved that 07-087r1 be approved for inclusion in SAS-2 and SES-2. Rob Elliott seconded the motion. The motion passed on a vote of 4:3:26:8=41.

10.4 Actions on SAS PHY Working Group Recommendations

George Penokie reviewed the following proposals recommended for inclusion in SAS-2:

- 07-058r3 (OOB and SSC) [Finch]
- 07-083r0 (Mini SAS 4i to SAS 4i cable assemblies with SGPIO) [Olawsky and Elliott]

Steve Finch moved that 07-058r3 and 07-083r0 be approved for inclusion in SAS-2. Rob Elliott seconded the motion. The motion passed on a vote of 17:0:14:10=41.

10.5 Actions on SAT Working Group Recommendations

George Penokie reviewed 06-250r1 (Application Client Specific Log Page Translation) [Overby] a proposal recommended for inclusion in SAT-2. Mark Overby moved that 06-250r1 be approved for inclusion in SAT-2. Bob Sheffield seconded the motion. The motion passed on a vote of 18:0:14:9=41.

10.6 Actions on CAP Working Group Recommendations

George Penokie reviewed the following proposals recommended for inclusion in SAM-4:

- 07-105r2 (Comments from Adam Richter) [Penokie]
- 07-139r1 (Task Tag Length and FCP) [Peterson]

George Penokie moved that 07-105r2 be approved for inclusion in SAM-4. Erich Oetting seconded the motion. The motion passed on a vote of 26:0:8:7=41.

Erich Oetting invoked the two-week rule regarding 07-139r1. After a brief but vocal discussion, the consensus of the committee was that 07-139r1 should be remanded to the CAP working group for further consideration.

George Penokie reviewed the following proposals recommended for inclusion in SAM-4 and SAS-2:

- 07-066r1 (QUERY TASK SET task management function) [Elliott]
- 07-067r1 (QUERY UNIT ATTENTION task management function) [Elliott]

Rob Elliott moved that 07-066r1 and 07-067r1 be approved for inclusion in SAM-4 and SAS-2. Chris Fore seconded the motion. The motion passed on a vote of 18:0:13:10=41.

George Penokie reviewed the following proposals recommended for inclusion in SPC-4:

- 07-056r0 (Editorial change: IEEE P1667 to IEEE 1667) [Shimor]
- 07-100r0 (Digital Signing of Microcode) [Banther]
- 06-369r8 (Security Association Model for SPC-4) [Weber]
- 07-080r2 (Persistent reservations self-preempting clarification) [Elliott]
- 07-111r1 (Duplicate persistent reservation wording removal) [Penokie]
- 07-077r0 (Stop fruitless attempts to shackle users via the IALUAE Control Ext. Mode bit) [Weber]

Ralph Weber moved that 07-056r0, 07-100r0, 06-369r8, 07-080r2, 07-111r1, and 07-077r0 be approved for inclusion in SPC-4. Erich Oetting seconded the motion. The motion passed on a vote of 19:0:11:11=41.

George Penokie reviewed the following proposals recommended for inclusion in SBC-3:

- 07-110r0 (Update Block Limits VPD Page for ORWRITE) [Cummings]
- 07-113r0 (Maximum transfer sizes for XPWRITE XDWRITE XDREAD PRE-FETCH) [Elliott and Houlder]

Rob Elliott moved that 07-110r0 and 07-113r0 be approved for inclusion in SBC-3. Gerry Houlder seconded the motion. The motion passed on a vote of 15:0:14:12=41.

George Penokie reviewed the following proposals recommended for inclusion in SES-2:

- 07-092r0 (Additional Element Status Bay Number for Fibre Channel) [Elliott]
- 07-095r0 (Cooling element Requested Speed Code of zero) [Elliott]
- 07-097r1 (Add failure indicator support to most elements) [Elliott]
- 07-104r1 (Clarify IDENT bit for unusual elements) [Elliott]
- 07-096r1 (Overall element handling) [Elliott]
- 07-098r0 (Additional Element Status for Enclosure Services Controller Electronics) [Elliott]

Rob Elliott moved that 07-092r0, 07-095r0, 07-097r1, 07-104r1, 07-096r1, and 07-098r0 be approved for inclusion in SES-2. Kevin Marks seconded the motion. The motion passed on a vote of 20:0:8:13=41.

10.7 Actions on Other Working Group Recommendations

No recommendations were made by other working groups.

11. ISO/IEC

11.1 ISO/IEC Report [Robinson]

In the absence of Gary Robinson, John Lohmeyer presented the ISO/IEC report (see enclosure (2)).

11.2 ISO/IEC Business [Robinson]

No ISO/IEC business was presented to the committee.

12. Liaison Reports

12.1 T11 Liaison Report [Snively]

In the absence of Bob Snively, John Lohmeyer briefly presented Bob's electronic liaison report (07-109).

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.

12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, no SFF Industry Group liaison report was available.

12.4 SCSI Trade Association (STA) [Czekalski]

Marty Czekalski presented an electronic report (07-147r0) on the activities of the SCSI Trade Association.

12.5 IETF SCSI over IP [Black]

David Black reported that a corrections and clarifications draft is going to All IETF Last Call soon. The draft describes minor that are applicable to iSCSI, particularly for task management for parallel connections.

12.6 SNIA [open]

No report was made.

12.7 Trusted Computing Group [Fitzpatrick]

Mike Fitzpatrick reported that the disk specification is still in the approval cycle, but it should be available in the April timeframe.

12.8 IEEE P1667 [Shimor]

Kevin Marks reported that P1667 has been published and recommended that this item be removed from future agendas.

12.9 MIPI Alliance [Shimor]

No report was made.

12.10 IEEE P1619 [Ball]

Matt Ball presented an electronic report (07-138r0).

Ralph Weber moved that a P1619 Liaison reported be added to the agenda. Bill Martin seconded the motion. In the absence of objections, the motion passed unanimously.

John Lohmeyer took an action item to report the addition of the IEEE P1619 Liaison to INCITS.

13. Review of Action Items

- 651 Bob Nixon will coordinate bi-directional read/write issues between FCP and OSD-2.
- 655 John Lohmeyer will forward the nomination Bill Ham as an Emeritus Member to INCITS for their approval.
- 656 John Lohmeyer will report the addition of the IEEE P1619 Liaison to INCITS.
- 657 John Lohmeyer will forward 07-086r1 to INCITS for their approval as the new T10 policy for T10 plenary meetings and accompanying meeting weeks.

14. Meeting Schedule

The next plenary meeting of T10 will be Thursday May 10, 2007 in Seattle, WA at the Bellevue Hotel (425-462-1234) hosted by Microsoft Corp. The meeting will begin at 1:30 p.m. on Thursday.

The meeting list for the next plenary week is:

May 2007 Meeting Map
(2007/03/15 Version)

Monday 5/7	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
		ADI-2 WG			/	SMC-3 WG							(15)
	+=====+												
		SAS Protocol WG											(40)
	+=====+												
		IEEE P1619.3			/	P1619.1							(20)
	+-----+												
						CSS on R Fuji SWG*						(15)	
	+-----+												
Tuesday 5/8	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
		SAS Physical WG											(45)
	+=====+												
		SAT WG				STA Marcom	*						(20)
	+=====+												
		TCG KMSS	*			TCG SIIF	*						(20)
	+-----+												
		FCP-4	/	SSC-3 WG									(25)
	+=====+												
		Mt Fuji											(25)
	+-----+												
Wednesday 5/9	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
		CAP WG											(45)
	+=====+												
								SFF					(25)
	+-----+												
		MMC WG											(25)
	+=====+												
		STA Plenary	*	/	TCC*								(20)
	+-----+												
Thursday 5/10	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
		CAP WG			////	T10 Plenary/SAM Edit							(50/10)
	+=====+												
Friday 5/11	9	10	11	12	1	2	3	4	5	6	7	8	
	No meetings planned for Friday												

/ 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
SAS Protocol Call(s)	TBA	TBA via T10 reflector / Elliott
SAS PHY Calls	Weekly Thu 10a CDT	TBA via T10 reflector / Cox
Error Hist (06-362) Call	Mar 27 10a-12n CDT	TBA via T10 reflector / Elliott
ADC-2 Call	Apr 04 8a-10a PDT	TBA via T10 reflector / Banther
SSC-3 Call	Apr 10 8a-10a PDT	TBA via T10 reflector / Peterson
ADC-2 Call	Apr 18 8a-10a PDT	TBA via T10 reflector / Banther
SMC Call	Apr 11 8a-10a PDT	TBA via T10 reflector / Banther
CAP Security WG	Apr 17 9a-6p	Houston, TX TBA via T10 reflector / Elliott
SAS Phy WG	Apr 17 9a-6p Apr 18 9a-2p	Houston, TX TBA via T10 reflector / Elliott
SAS Prot WG	Apr 18 1p - 6p Apr 19 9a - 6p	Houston, TX TBA via T10 reflector / Elliott

Map Abbreviation Key:

ad hoc: a.k.a., working group
ADI: Automation Drive Interface (tape library interface)
Amnd: Amendment
CAP: Commands, Architecture, and Protocols
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
PH or PHY: Physical (Connectors, Cables, Transceivers, etc.)
Prot: Protocol
Plenary: Full Committee Meeting
Res: Resolution
SAS: Serial Attached SCSI
SAT: SCSI / ATA Translation
SBC-2: SCSI Block Commands - 2
SCSI: Small Computer System Interface
SES: SCSI Enclosure Services
SFF: SFF Industry Group (not an INCITS activity)
SG: Study Group
SMC-3: SCSI Medium Changer - 3 Commands
SPC-4: SCSI Primary Commands - 4 (4th generation)
SSC-3: SCSI Stream Commands - 2 (includes Tape)
STA: SCSI Trade Association (Closed meeting -- not an INCITS activity)
STA Marcom: STA Marketing Communications (Closed meeting -- not an INCITS activity)
STP: Serial ATA Tunneled Protocol
T10: SCSI Storage Interfaces Technical Committee
T11: Device Level Interfaces Technical Committee
TCG: Trusted Computing Group
TCG SIIF: Trusted Computing Group Storage Interface Interactions Forum
WG: Working Group (same as Ad Hoc Group)

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

Activity	Contact	Telephone/Email
ADT, ADC, ADT-2, ADC-2	Paul Entzel	(720) 406-5782 paul.entzel@quantum.com
SBC-2, SES-2, SAS-1.1, SAS-2, BCC, SDI	Rob Elliott	(281) 518-5037 Elliott@hp.com
MMC-5, MMC-6	Bill McFerrin	(325) 423-1560 billmc37@ctesc.net
SBP-3	Peter Johansson	(510) 527-3926 PJohansson@ACM.org
SAM-4, SBC-3	George Penokie	(507) 253-5208 gop@us.ibm.com
SAT	Bob Sheffield	(480) 554-8597 robert.l.sheffield@intel.com
SAT-2	Mark Overby	(425) 417-9412 moverby@nvidia.com
SMC-2	Erich Oetting	(303) 673-2178 Erich_Oetting@Stortek.com
SMC-3	Noud Snelder	+31408446108 Noud.snelder@bdt.de
SPC-3, SAM-3, SPC-4, OSD-2	Ralph Weber	(214) 912-1373 roweber@acm.org
SSC-3, FCP-3, FCP-4	Dave Peterson	(763) 268-6139 david.peterson@mcddata.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Approved dates and locations for 2007:		
Mar 12-16, 2007	Memphis, TN	SCSI Trade Association
May 7-11, 2007	Seattle, WA	Microsoft Corp.
Jul 9-13, 2007	Colorado Springs, CO	LSI Logic
Sep 17-21, 2007	Vancouver, BC Canada	PMC-Sierra
Nov 5-9, 2007	Las Vegas, NV	Hitachi GST
Approved dates and proposed locations and hosts for 2008:		
Jan 14-18, 2008	Santa Ana, CA	Western Digital
Mar 10-14, 2008	Raleigh, NC	Network Appliance
May 5-9, 2008	Santa Clara, CA	Nvidia
Jul 14-18, 2008	Colorado Springs, CO	LSI Logic
Sep 8-12, 2008		
Nov 3-7, 2008	Orlando, FL	Symantec
Proposed dates for 2009:		
Jan 12-16, 2009		
Mar 9-13, 2009		
May 4-8, 2009		
Jul 13-17, 2009		
Sep 7-11, 2009		
Nov 9-13, 2009		

Mark Overby moved that room rate for the May, 2008 be \$229. Landon Noll seconded the motion. The motion passed 25:0:4:12=41.

John Lohmeyer moved and Bill Martin seconded that T10 approve the 2008 meeting locations and hosts, except September 2008 for which we do not yet have a volunteer. In the absence of any objections, the motion passed unanimously.

John Lohmeyer noted that proposed dates for 2009 meeting weeks have been added to the list. Please contact John if you notice a significant conflict with these dates. He also asked people interested hosting one of the above meetings 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. Working groups should strive to achieve consensus prior to bringing issues to T10.

Bill Martin moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of April 2007. Mark Evans 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 3:40 p.m. on Thursday March 15, 2007.

Enclosure(1) -- Meeting Attendees

Name	S	Organization
Mr. Chris Fore	P	Adaptec, Inc.
Mr. Paul von Stamwitz	P	AMCC
Mr. Gregory McSorley	P	Amphenol Interconnect
Mr. Gregory Tabor	P	Dallas Semiconductor
Mr. Gideon Avida	P	Decru
Mr. Kevin Marks	P	Dell, Inc.
Mr. David Black	A	EMC Corp.
Mr. William Martin	P	Emulex
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Douglas Wagner	P	FCI
Mr. Mike Fitzpatrick	P	Fujitsu
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Dan Colegrove	P	Hitachi Global Storage Tech.
Mr. George O. Penokie	P	IBM Corp.
Mr. Robert Sheffield	P	Intel Corp.
Mr. Joel Silverman	P	Kawasaki Microelectronics Am
Mr. John Geldman	P	Lexar Media, Inc.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Paul Wassenberg	A	Marvell Semiconductor, Inc.
Mr. David Walp	A#	Microsoft Corp
Mr. Jay Neer	P	Molex Inc.
Mr. Landon Noll	AV	NeoScale Systems Inc.
Mr. Frederick Knight	A	Network Appliance
Mr. Mark Overby	P	Nvidia Corp.
Mr. Takaharu Ai	A	Panasonic AVC Networks Co.
Mr. Tim Symons	P	PMC-Sierra
Mr. Matthew Ball	V	Quantum Corp.
Mr. Paul Entzel	P	Quantum Corp.
Mr. Michael Rogers	A	Samsung
Mr. Alvin Cox	A	Seagate Technology
Mr. Martin Czekalski	V	Seagate Technology
Mr. Gerald Houlder	P	Seagate Technology
Mr. Stephen Finch	P	STMicroelectronics, Inc.
Mr. Erich Oetting	P	Sun Microsystems, Inc.
Mr. Dan Gorenc	A	TycoElectronics
Mr. Jim Scott	P	Vitesse Semiconductor
Mr. Mark Evans	A	Western Digital
Mr. Curtis Stevens	P	Western Digital
Mr. Rich Ramos	P	Xyratex

39 People Present

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

Enclosure(2) -- ISO Status**T10 ISO Status Report - 02/15/2007**

ISO Proj.	Acronym	Part Num.	Last Step Completed	Comments
1.25.13.10.14	RL	24740	S3: FCD Ballot completed	FCD Approved, 25n1257, Japan needs to supply FDIS text
1.25.13.11.13	SMC	14776-351	S7: IS Published	
1.25.13.11.19	SAM-2	14776-412	S7: IS Published	Published
1.25.13.11.22	SES-2	14776-372	S2: NWIP Approved	Waiting for FCD text
1.25.13.11.28	SPI-4	14776-114	S8: WITHDRAWAL, INCITS as JTC1 TAG votes	INCITS Approved Withdrawal
1.25.13.11.31	SBC-2	14776-322	S7: IS Published	
1.25.13.11.33	SPC-3	14776-453	S1: SC25 started ballot on NWIP	NWIP in ballot, SC25 N1247, US voted YES, FCD text available
1.25.13.11.37	SSM-2	14776-132	S8: WITHDRAWAL, SC25 Resolution	Voted to remove from SC25 Program of Work., Resolution BL-WG4-11
1.25.13.11.38	PIP	14776-121	S3: FCD Ballot completed	FCD Approved, SC25n1226, need FDIS text
1.25.13.11.39	SBP-3	14776-233	S8: WITHDRAWAL, SC25 Resolution	Voted to remove from SC25 Program of Work, Resolution BL-WG4-13
1.25.13.11.45	SAM-3	14776-413	S5: INCITS votes on FDIS in JTC1	US approved FDIS, responded to pre-publishing questions 01/05/2007
1.25.13.11.46	SAS-1.1	14776-151	S2: FCD Text sent to INCITS	NWIP approved, need text
1.25.13.11.47	FCP-3	14776-223	S2: NWIP Approved	NWIP approved, need text
1.25.13.18	ATAPI-7	24739-1	S3: FCD Ballot completed	FCD Approved. , 25n1260, Need FDIS text. This is volume 1 of 3. , need ISO text of volumes 2 and 3

T10 ISO Status Report - 02/15/2007

ISO Proj.	Acronym	Part Num.	Last Step Completed	Comments
1.25.13._____ _	SPC	14776- 311/451	S8: WITHDRAWAL, INCITS as JTC1 TAG votes	INCITS Approved Withdrawal

Enclosure(3) -- T10 Attendance Database

Generated on 2007/03/19 at 09:55:06

Mr. Chris Fore (P) Phone: (919) 287-2024
Adaptec, Inc. Fax: (919) 287-2099
523 Davis Drive, Suite 500 Email: chris_fore at adaptec dot com
Durham, NC 27713

Mr. Tom Treadway (A) Phone: 321-207-1267
Adaptec, Inc. Fax:
2602 Challenger Tech Court Email: tom_treadway at adaptec dot com
Suite 190
Orlando, FL 32826

Mr. Ziad Matni (AV) Phone: 610-712-3569
Agere Systems Fax:
1110 American Parkway NE Email: matni at agere dot com
Allentown, PA 18109

Mr. Ken Paist (AV) Phone: (610) 712-3265
Agere Systems Fax:
Room 12D-225B Email: paist at agere dot com
1110 American Parkway NE
Allentown, PA 18109-9138

Mr. Paul von Stamwitz (P) Phone: (408) 542-8767
AMCC Fax: (408) 542-8605
215 Moffett Park Drive Email: pvstamwitz at amcc dot com
Sunnyvale, CA 95089

Mr. Gregory McSorley (P) Phone: 508-829-6523
Amphenol Interconnect Fax: 508-829-6523
66 Mixer Rd. Email: greg dot mcsorley at aipce dot com
Holden, MA 01520

Mr. Michael Wingard (A) Phone: (607) 786-4241
Amphenol Interconnect Fax: (607) 786-4311
20 Valley St. Email: mike dot wingard at aipce dot com
Endicott, NY 13760

Mr. Paul Griffith (AV) Phone: 408-313-6643
Broadcom Corp. Fax:
2451 Mission College Email: griffith at broadcom dot com
Santa Clara, CA 95054

Mr. David Peterson (P) Phone: (763) 268-6139
Brocade Fax:
6000 Nathan Lane North Email: david dot peterson at brocade dot

Minneapolis, MN 55442 com

Mr. Robert Snively (A) Phone: (408) 333-8135
Brocade Fax:
1745 Technology Drive Email: rsnively at brocade dot com
San Jose, CA 95110

Dr. Claudio DeSanti (AV) Phone: (408) 853-9172
Cisco Systems, Inc. Fax: (408) 853-9172
170 W. Tasman Dr. Email: cds at cisco dot com
San Jose, CA 95134

Mr. Fabio Maino (AV) Phone: (408) 853-7530
Cisco Systems, Inc. Fax: (408) 853-7530
170 W. Tasman Dr. Email: fmaino at cisco dot com
San Jose, CA 95134

Mr. John Tyndall (AV) Phone: (512) 928-7282
Crossroads Systems, Inc. Fax:
8300 North Mopac Expressway Email: jtyndall at crossroads dot com
Austin, TX 78749

Mr. Gregory Tabor (P) Phone: 719-278-2063
Dallas Semiconductor Fax:
4747 Centennial Blvd. Email: greg dot tabor at dalsemi dot com
Colorado Springs, CO 80919

Mr. Steve Robalino (A) Phone: (512) 423-6198
Dallas Semiconductor Fax:
Email: Steven dot robalino at dalsemi dot
com

Mr. Gideon Avida (P) Phone: (650)413-6700
Decru Fax: (650)413-6790
275 Shoreline Dr. Email: gideon at decru dot com
Suite 450
Redwood City, CA 94065

Mr. Kevin Marks (P) Phone: (512) 723-9173
Dell, Inc. Fax: (512) 723-6657
One Dell Way - MS 8540 Email: kevin_marks at dell dot com
Round Rock, TX 78682

Mr. Gary S. Robinson (P) Phone: (617) 512-8859

EMC Corp.
85 East India Row
Apt 18C
Boston, MA, 02110

Fax:
Email: g dot robinson at computer dot org

Mr. David Black (A)
EMC Corp.
176 South St.
Hopkinton, MA 01748

Phone: (508) 293-7953
Fax: (508) 293-7786
Email: black_david at emc dot com

Mr. Mickey Felton (A#)
EMC Corp.
21 coslin Drive
Southboro, MA 01772

Phone: 508 382 7206
Fax:
Email: felton_mickey at emc dot com

Mr. William Martin (P)
Emulex
7213 Marblethorpe Dr
Roseville, CA 95747

Phone: (916) 772-3658
Fax: (916) 771-5416
Email: bill dot martin at emulex dot com

Mr. Robert H. Nixon (A)
Emulex
3333 Susan St.
Costa Mesa, CA 92626

Phone: (714) 885-3525
Fax: (714) 885-3794
Email: bob dot nixon at emulex dot com

Mr. I. Dal Allan (A)
ENDL
14426 Black Walnut Ct.
Saratoga, CA 95070

Phone: (408) 867-6630
Fax: (408) 867-2115
Email: endlcom at acm dot org

Mr. Ralph O. Weber (P)
ENDL Texas
Suite 102#178
18484 Preston Rd.
Dallas, TX 75252

Phone: (214) 912-1373
Fax: (972) 596-2775
Email: roweber at ieee dot org

Mr. Keith Holt (A)
Engenio Information Tech.
3718 N. Rock Rd.
Wichita, KS 67226-1397

Phone: (316) 636-8665
Fax:
Email: keith dot holt at lsi dot com

Mr. Douglas Wagner (P)
FCI
472 Delwood Ct.
Newbury Park, CA 91320-4819

Phone: (805) 498-0325
Fax:
Email: dwagner at fciconnect dot com

Mr. Elwood Parsons (P)

Phone: (717) 558-7518 x141

Foxconn Electronics
100 S. 38th St.

Harrisburg, PA 17105

Fax: (717) 558-9306
Email: elwood dot parsons at foxconn dot com

Mr. Mike Fitzpatrick (P)
Fujitsu
1255 East Arques Ave.

Sunnyvale, CA 94085

Phone: (405) 820-5809
Fax: (405) 755-8073
Email: mfitzpatrick at us dot fujitsu dot com

Mr. Ben-Koon Lin (A)
Fujitsu
2904 Orchard Pkwy.
San Jose, CA 95134

Phone: (408) 894-3979
Fax: (408) 894-3908
Email: blin at fcpa dot fujitsu dot com

Mr. Erhard Weiss (AV)
Fujitsu Siemens Comp. GmbH
Department: FSC VP CC TEC

Burgermeister Ulrich Str 100
D-86199 Augsburg, Germany

Phone: 49-821-804-3602
Fax: 49-821-804-3662
Email: erhard dot weiss at fujitsu-siemens dot com

Mr. Bob Thornton (AV)
Fujitsu Takamisawa America
250 E. Caribbean Dr.
Sunnyvale, CA 94089

Phone: (408) 745-4932
Fax: (408) 745-4971
Email: bthornto at fta dot fujitsu dot com

Mr. Nathan Hastad (P)
General Dynamics
8800 Queen Avenue South
Bloomington, MN 55431

Phone: (952) 921-6237
Fax: (952) 956-5445
Email: nathan dot hastad at gd-ais dot com

Mr. Tim Mackley (A)
General Dynamics
8800 Queen Ave. S.

Bloomington, MN 55431

Phone: (952) 921-6866
Fax:
Email: timothy dot mackley at gd-ais dot com

Ms. Liza Hunt (XO)
Global Engineering Documents
15 Inverness Way East
Englewood, CO 80112-5704

Phone:
Fax:
Email:

Mr. Rob Elliott (P)
Hewlett Packard Co.
MC140801

Phone: (281) 518-5037
Fax: (281) 518-7135
Email: Elliott at hp dot com

PO Box 692000
Houston, TX 77269-2000

Mr. Michael Banther (A)
Hewlett Packard Co.
Filton Road
Stoke Gifford
Bristol BS34 8QZ England

Phone: (44 117) 312-9503
Fax: (44 117) 312-9978
Email: michael_banther at hp dot com

Mr. Zane Daggett (P)
Hitachi Cable Manchester
900 Holt Ave.
Manchester, NH 03109

Phone: (603) 669-4347 x236
Fax: (603) 669-9621
Email: zdaggett at hcm dot hitachi dot com

Mr. Mike Guzman (A)
Hitachi Cable Manchester
900 Holt Ave.
Manchester, NH 03109

Phone: (603) 669-4347
Fax: (603) 669-9621
Email: mguzman at hcm dot hitachi dot com

Mr. Hitoshi (Todd) Horita (A#)
Hitachi Cable Manchester
900 Holt Ave

Manchester, NH 03109

Phone: (603) 669-4347
Fax: (603) 669-9621
Email: horita dot hitoshi at hitachi-cable dot co dot jp

Mr. Dan Colegrove (P)
Hitachi Global Storage Tech.
2903 Carmelo Dr.
Henderson, NV 89052

Phone: (702) 614-6119
Fax: (702) 614-7955
Email: daniel dot colegrove at hgst dot com

Ms. Sally Castillo (A)
Hitachi Global Storage Tech.
3055 41st Street NW
Rochester, MN, 55901

Phone: (507) 322-2316
Fax: (507) 322-2413
Email: Sally dot Castillo at hgst dot com

Mr. George O. Penokie (P)
IBM Corp.
MS 2C6
3605 Highway 52 N.
Rochester, MN 55901

Phone: (507) 253-5208
Fax: (507) 253-2880
Email: gop at us dot ibm dot com

Mr. Kevin Butt (A)
IBM Corp.
M/S 9032-2 6TY
9000 S. Rita Rd.
Tucson, AZ 85744

Phone: (520) 799-5280
Fax:
Email: kdbutt at us dot ibm dot com

Mr. Robert Sheffield (P)
Intel Corp.

Phone: (480) 554-8597
Fax: (480) 554-7347

5000 W. Chandler Blvd.
Chandler, AZ 85226-3699

Email: robert dot l dot sheffield at intel dot com

Dr. Mark Seidel (A)
Intel Corp.
5000 W. Chandler Blvd.
Chandler, AZ 85226

Phone: (480) 554-9755
Fax:
Email: mark dot n dot seidel at intel dot com

Mr. Roger Jeppsen (AV)
Intel Corporation
5000 W. Chandler Blvd.
M/S CH6-332
Chandler, AZ 85226

Phone: 480-552-0584
Fax: 480-554-6617
Email: roger dot c dot jeppsen at intel dot com

Mr. Robert Payne (P)
Iomega Corp.
1821 Iomega Way
Roy, UT 84067

Phone: (801) 332-4438
Fax: (801) 778-4170
Email: PayneR at iomega dot com

Mr. Joel Silverman (P)
Kawasaki Microelectronics Am
2570 North 1st Street #301
San Jose, CA 95131

Phone: (408) 570-0555 x405
Fax:
Email: joel at k-micro dot us

Mr. Hugh Curley (AV)
KnowledgeTek
3405 Larkspur Drive
Longmont, Co 80503

Phone: 303-682-1886
Fax:
Email: hcurley at indra dot com

Mr. Dennis Moore (P)
KnowledgeTek, Inc.
8620 Wolff Ct., Suite 108
Westminster, CO 80031

Phone: (303) 465-1800
Fax: (303) 426-2600
Email: dmoore at ix dot netcom dot com

Mr. John Geldman (P)
Lexar Media, Inc.
47300 Bayside Parkway
Fremont, CA 94538

Phone: (510) 580 8715
Fax: (510) 580 0504
Email: jgeldman at lexar dot com

Mr. Martin Furuhjelm (A)
Lexar Media, Inc.
47300 Bayside Parkway
Fremont, CA 94538

Phone: (510) 580-2368
Fax: (510) 580-0478
Email: mfuluhjelm at lexar dot com

Mr. Pat LaVarre (A#) Phone: (510) 743 4533
Lexar Media, Inc. Fax: (510) 580 0504
47300 Bayside Parkway Email: p dot lavarre at ieee dot org
Fremont, CA 94538

Mr. John Lohmeyer (P) Phone: (719) 533-7560
LSI Logic Corp. Fax: (719) 533-7183
4420 ArrowsWest Dr. Email: lohmeier at t10 dot org
Colorado Springs, CO 80907

Mr. David Geddes (P) Phone: (408) 222-3307
Marvell Semiconductor, Inc. Fax: (408) 988-0136
5488 Marvell Lane Email: dgeddes at marvell dot com
E-203
Santa Clara CA 95054

Mr. Paul Wassenberg (A) Phone: 949-614-7714
Marvell Semiconductor, Inc. Fax: 949-614-7780
26880 Aliso Viejo Pkwy, #100 Email: paulw at marvell dot com
Aliso Viejo, CA 92656

Mr. Wei Zhou (A#) Phone: (408) 314-0355
Marvell Semiconductor, Inc. Fax:
700 First Avenue Email: wzhou at marvell dot com
Sunnyvale CA 94089

Mr. Tim Brackett (AV) Phone: (707) 836-7883
Meritec Fax: (707) 836-7959
1382 West Jackson Street Email: tbrackett at meritec dot com
Painesville, OH 44077

Mr. Edward Cady (AV) Phone: (503) 359-4556
Meritec Fax: (503) 359-9273
1382 West Jackson Street Email: ecady at meritec dot com
Painesville, OH 44077

Mr. David Walp (A#) Phone: (425)7034187
Microsoft Corp Fax:
1 Microsoft Way Email: dwalp at microsoft dot com
Redmond, WA 98052

Mr. Robert Griswold (A) Phone: (425) 707-0271
Microsoft Corp. Fax: (425) 936-7329
One Microsoft Way. Email: rogris at microsoft dot com
Redmond, WA 98052

Mr. Mark Benedikt (P) Phone: (425) 704-9998
Microsoft Corporation Fax: (425) 936-7329
One Microsoft Way Email: markben at microsoft dot com
Redmond, WA 98052

Mr. Jay Neer (P) Phone: (561) 447-2907 x3889
Molex Inc. Fax: (561) 447-2908
399 W. Camino Gardens Blvd. Email: jay dot neer at molex dot com
Suite 103
Boca Raton, FL 33432

Mr. Galen Fromm (A#) Phone: (630) 718-5270
Molex Inc. Fax:
2222 Wellington Ct. Email: galen dot fromm at molex dot com
Lisle, IL 60532

Mr. Jerry Kachlic (A) Phone: (630) 718-5991
Molex Inc. Fax: (630) 512-8622
2216 Wellington Court Email: jerry dot kachlic at molex dot com
Lisle, IL 60532

Mr. Faisal Faruqui (AV) Phone: (408) 473-1370
NeoScale Systems Inc. Fax: (408) 473-1307
1655 McCarthy Boulevard Email: ffaruqui at neoscale dot com
Milpitas, CA 95035-8000

Mr. Landon Noll (AV) Phone: (408) 473-1300
NeoScale Systems Inc. Fax:
1655 McCarthy Boulevard Email: lnoll at neoscale dot com
Milpitas, CA 95035-8000

Mr. Frederick Knight (A) Phone: (919) 476-5362
Network Appliance Fax:
7301 Kit Creek Road Email: Frederick dot Knight at netapp dot
com
P.O. Box 13917
RTP, NC 27709

Mr. Mark Overby (P) Phone: (425) 417-9412
Nvidia Corp. Fax:
2701 San Thomas Expry Email: moverby at nvidia dot com
Santa Clara, CA 95050

Mr. Andrew Currid (A) Phone: (408) 486-2000
Nvidia Corp. Fax:
2701 San Thomas Expry Email: acurrid at nvidia dot com
Santa Clara, CA 95051

Mr. William Bridge (AV) Phone: (650) 506-6350
Oracle Fax: (650) 506-6350
500 Oracle Parkway Email: Bill dot Bridge at Oracle dot com
Mailstop: 4op1220
Redwood Shores, CA 94065

Mr. James Williams (AV) Phone: (650) 506-5120
Oracle Fax: (650) 506-5120
500 Oracle Parkway Email: James dot A dot Williams at oracle
dot com
Mailstop: 4op1220
Redwood Shores, CA 94065

Mr. Takaharu Ai (A) Phone: +81-6-6906-2706
Panasonic AVC Networks Co. Fax: +81-6-6905-4697
1-15, Matsuo-choy Email: ai dot takaharu at jp dot panasonic
dot com
Kadoma, Osaka
Japan 571-8504

Dr. Terence J. Nelson (P) Phone: (908) 464-1652
Panasonic Technologies, Inc Fax: (908) 464-0149
167 Maple St. Email: terry at tjnelson dot com
New Providence, NJ 07974

Mr. Bill Galloway (AV) Phone: (281) 516-6002
Pivot3, Inc. Fax: (281) 516-6099
6605 Cypresswood Dr. Email: billg at pivot3 dot com
Suite 350
Spring, TX 77379

Mr. Thomas Grieff (AV) Phone: (281) 516-6042
Pivot3, Inc. Fax: (281) 516-6099
6605 Cypresswood Dr. Email: tomg at pivot3 dot com
Suite 350
Spring, TX 77379

Mr. Tim Symons (P) Phone: (604) 415 6000 x2264
PMC-Sierra Fax:
100-2700 Production Way Email: Tim_Symons at pmc-sierra dot com
Burnaby,
BC, V5A 4X1. Canada

Mr. Craig W. Carlson (AV) Phone: (952) 932-4064
QLogic Corp. Fax:
6321 Bury Drive Email: craig dot carlson at qlogic dot com
Eden Prairie, MN 55346

Mr. Skip Jones (AV) Phone: (949) 389-6368
QLogic Corp. Fax: (949) 389-6114

26600 Laguna Hills Dr.
Aliso Viejo, CA 92656

Email: skip dot jones at qlogic dot com

Mr. Paul Entzel (P)
Quantum Corp.
4001 Discovery Dr.
Boulder, CO 80303

Phone: (720) 406-5782
Fax: (720) 406-5762
Email: paul dot entzel at quantum dot com

Dr. Paul Suhler (A)
Quantum Corp.
1650 Sunflower Ave.
Costa Mesa, CA 97626

Phone: (714) 641-2485
Fax: (714) 966-7328
Email: paul dot suhler at quantum dot com

Mr. John A. Fobel (AV)
Rancho Technology, Inc.
10783 Bell Court
Rancho Cucamonga, CA 91730

Phone: (909) 987-3966
Fax: (909) 989-2365
Email: johnf at rancho dot com

Mr. Joseph Chen (P)
Samsung
75 W. Plumeria Dr.
San Jose, CA 95134

Phone: (408) 544-5766
Fax:
Email: joseph dot chen at samsung dot com

Mr. Michael Rogers (A)
Samsung
75 W. Plumeria Dr.
San Jose, CA 95134

Phone: (408) 544-5838
Fax:
Email: m dot rogers at samsung dot com

Mr. Avraham Shimor (P)
SanDisk Corporation
7 Atir Yeda Str

Kfar Saba 44425
Israel

Phone: +972528444610
Fax: +97235466888
Email: avraham dot shimor at sandisk dot com

Mr. Donald Rich (A#)
SanDisk Corporation
7 Atir Yeda St.
Kfar Saba Israel 44425

Phone: +972 54 922 2188
Fax: +972 3 548 8666
Email: donald dot rich at sandisk dot com

Mr. Ariel Sobelman (A)
SanDisk Corporation
7 Atir Yeda St

Kfar Saba, 44425
Israel

Phone: +972-52-4444104
Fax:
Email: ariel dot sobelman at sandisk dot com

Mr. Gerald Houlder (P) Phone: (952) 402-2869
Seagate Technology Fax: (952) 402-3471
Mailstop SHK231 Email: gerry dot houlder at seagate dot com
1280 Disc Drive
Shakopee, MN 55379-1863

Mr. Alvin Cox (A) Phone: (405) 350-7424
Seagate Technology Fax:
1849 Ridgeway Drive Email: Alvin dot Cox at seagate dot com
Yukon, OK 73099

Mr. James T. Lie (AV) Phone: (510) 490-7795
SiliconStor Inc. Fax:
48430 Lakeview Blvd. Email: jlie at siliconstor dot com
Fremont, CA 94538

Mr. Stephen Finch (P) Phone: (303) 381-3587
STMicroelectronics, Inc. Fax: (303) 381-3660
1625 S Fordham St, Suite 500 Email: steve dot finch at st dot com
Longmont, CO 80503

Mr. Erich Oetting (P) Phone: (303) 673-2178
Sun Microsystems, Inc. Fax:
One Storagetek Drive Email: erich dot oetting at sun dot com
Louisville, CO 80028-4272

Mr. Vit Novak (A) Phone: (650) 786-6175
Sun Microsystems, Inc. Fax: (650) 786-6515
MS MPK15-103 Email: vit dot novak at sun dot com
15 Network Circle.
Menlo Park, CA 94025

Mr. Scott Painter (A#) Phone: 303-673-7806
Sun Microsystems, Inc. Fax:
1 StorageTek Dr. Email: scott dot painter at sun dot com
Louisville, CO 80028-5209

Mr. Roger Cummings (P) Phone: (407) 357-7257
Symantec Fax:
Post Stop HR03-3 Email: roger_cummings at symantec dot com
1001 Heathrow Park Lane
Heathrow, FL 32746

Mr. Raymond Gilson (A) Phone: 651.746.7281
Symantec Corporation Fax: 651.746.6713
Mail Stop ROS2-3 Email: raymond_gilson at symantec dot com
2815 Cleveland Avenue
Roseville, MN 55113

Mr. Halvard Eriksen (AV) Phone: +47-22189090
Tandberg Data ASA Fax:
PO Box 134 Kjelsas Email: halvard dot eriksen at tandberg dot
com
N-0411
Oslo, Norway

Mr. Kjartan Nesbakken Haugen (AV) Phone:
Tandberg Storage Fax:
PO Box 196 Kjelsaas, N-0411 Oslo Email: kjartan dot haugen at
tandbergstorage dot com
Norway

Mr. Anders Liverud (AV) Phone: +4722189555
Tandberg Storage Fax: +4722189257
PO Box 196 Kjelsas Email: anders dot liverud at
tandbergstorage dot com
N-0411 Oslo
Norway

Mr. Tom McGoldrick (AV) Phone: (949) 462-7575
Toshiba America Fax: (949) 462-7510
9740 Irvine Blvd. Email: Tom dot McGoldrick at tais dot
toshiba dot com
Irvine, CA 92618

Mr. Scott Wright (AV) Phone: (949) 462-7551
Toshiba America Fax: (949) 581-1170
9740 Irvine Blvd. Email: Scott dot Wright at tais dot
toshiba dot com
Irvine, CA 92618

Ms. Ashlie Fan (P) Phone: (508) 926-4148
TycoElectronics Fax: (508) 752-4230
125 Goddard Memorial Drive Email: afan at madisoncable dot com
Worcester, MA 01603

Mr. Dan Gorenc (A) Phone: (717) 986-3518
TycoElectronics Fax: (717) 592-2566
M/S 128-053 Email: daniel dot gorenc at
tycoelectronics dot com
PO Box 3608
Harrisburg, PA 17105-3608

Mr. Ron Mathews (AV) Phone: (949) 380-5077
UNISYS Corporation Fax: (949) 380-5858
N1101 Email: ronald dot mathews at unisys dot com
25725 Jeronimo Road
Mission Viejo, CA 92691

Mr. Phil Shelton (AV) Phone: (949) 380-5111
UNISYS Corporation Fax: (949) 380-5858
MV201 Email: phil dot shelton at unisys dot com
25725 Jeronimo Road
Mission Viejo, CA 92691

Mr. George Ren (AV) Phone: (408) 235-3002
Universal Scientific Industrial Co Fax: (408) 982-0145
3600 Peterson Way Email: ren at ms dot usi dot com dot tw
Santa Clara, CA 95054

Mr. Robin Yan (AV) Phone: (408) 235-3002
Universal Scientific Industrial Co Fax: (408) 982-0145
3600 Peterson Way Email: robin_y at ms dot usi dot com dot tw
Santa Clara, CA 95054

Mr. Jim Scott (P) Phone: 719 867 6295
Vitesse Semiconductor Fax: 719 867 6202
4323 ArrowsWest Dr. Email: jims at vitesse dot com
Colorado Springs, CO 80907

Mr. David Allen (A) Phone: 719-867-6280
Vitesse Semiconductor Fax:
4323 ArrowsWest Dr. Email: dallen at vitesse dot com
Colorado Springs, CO 80907

Mr. Mahbubul Bari (A#) Phone: (719) 867-4419
Vitesse Semiconductor Fax:
4323 ArrowsWest Dr.0 80907 Email: bari at vitesse dot com
Colorado Springs, CO 80907

Mr. Curtis Stevens (P) Phone: 949-672-7933
Western Digital Fax:
20511 Lake Forest Dr. Email: Curtis dot Stevens at wdc dot com
Lake Forest, Ca. 92630

Mr. Mark Evans (A) Phone: (408) 363-5257
Western Digital Fax: (408) 363-5139
5863 Rue Ferrari Email: Mark dot Evans at wdc dot com
San Jose, CA 95138

Mr. Jeff Williams (AV) Phone: (952) 983-2445
Xiotech Corp. Fax: (952) 983-2320
6455 Flying Cloud Drive Email: jeff_williams at xiotech dot com
Eden Prarie, MN 55344

Mr. Rich Ramos (AV)
Xyratex
860 Embarcadero Dr
Ste 10
W. Sacramento CA 95691

Phone: (312) 224-8852
Fax:
Email: rich_ramos at us dot xyratex dot com