

Draft Minutes
INCITS Fibre Channel (T11) Technical Committee plenary meeting #78
7 December 2006 - 3:30 PM to 6 PM
Indian Wells CA

1 Opening remarks and Introductions

1.1 Introductory Remarks

The chair convened plenary meeting #78 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 7 December 2006 at 3:05 PM. He introduced himself as Bob Snively (Brocade), and thanked Broadcom for the meeting facilities.

1.2 Procedure

1.2.1 Patent information

The chair indicated that among the rules and policies under which T11 operates are the INCITS intellectual property policies. He requested persons wishing to make statements relevant to this policy to do so at the call for patents later in this meeting. A record of that call may be found in clause 16. The current record of responses to prior calls for patents can be found in T11/06-739v0.

The INCITS intellectual property policies are specified in subclause 8.4 of RD-1, "Policies and Guidelines", available at

http://www.incits.org/sd9_rev1c.htm#p8-4

A summary of the INCITS intellectual property policies as applicable to the work of this meeting is given in document T11/05-385v1, which is available on www.t11.org.

1.2.2 Anti-trust guidelines

The chair indicated that among the rules and policies under which T11 operates are the INCITS Antitrust Guidelines. Any member of the meeting is responsible for objecting if he believes discussion in the meeting violates those guidelines. As examples, there should never be discussion of the following topics at any INCITS or INCITS subgroup meeting:

- 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.

If such discussion is not immediately terminated, it is the chairperson's responsibility to terminate the meeting. The INCITS Antitrust Guidelines are available at

<http://www.incits.org/inatrust.htm>

1.3 Attendance

The chair instructed those present how to register using the electronic attendance list for this meeting. He reminded those present that the electronic attendance list would become the only formal record of attendance at this meeting.

1.4 Meeting documents

The chair instructed those present how to access meeting documents via the red check mark on the T11 Web Site Center page (<http://www.t11.org/t11/docreg.nsf/center>).

The chair stated that the deadline for the next T11 mailing would be 11:59 PM, December 21, 2006. Documents are placed in the mailing by posting them to the www.t11.org website. Postings can be made by any member. Begin by using the "Docs" button, then using the "number document" button. After successfully filling out the registration form for the document, you will be supplied with the several means of uploading the document.

1.5 Self-introductions

Claudio DeSanti (Cisco) introduced himself as vice-chair and Bob Nixon (Emulex) introduced himself as secretary. Members introduced themselves.

2 Approval of the Agenda

An electronic version of the agenda, T11/06-769v2, and supporting documents were made available among the documents for this meeting. The agenda was in HTML format with links to the appropriate supporting documents. The chair presented the agenda, pointed out additions requested since the last posting of the agenda, and made a call for any new agenda items. No additional new items were requested.

Jim Coomes (Seagate) moved and Jeanne Truestedt (TrueFocus) seconded that T11/06-769v2 be approved with changes introduced at this meeting as the agenda for this meeting. The motion passed unanimously.

3 Attendance and Membership

3.1 Membership policy

The chair encouraged those who attend T11 meetings regularly or intend to attend T11 meetings regularly and are not T11 members to consider joining the organization.

Information on how membership is gained, maintained, and lost in any INCITS Technical Committee or Task Group may be found at www.incits.org/rd2/main.htm. An overview of these requirements was introduced by the chair and was available to all attendees in the electronically distributed meeting documents.

The chair presented the current list of members and representatives, and invited corrections. The membership effective for this meeting, as adjusted for changes introduced at this meeting, is shown in annex A.1. Attendance for this meeting is shown in annex A.2.

3.2 Changes in representation since last meeting

The following changes in member representation have been made since the last meeting:

- Amphenol:
 - > Greg McSorley becomes Principal representative for Amphenol, replacing Michael Wingard.
 - > Michael Wingard becomes Alternate representative for Amphenol, replacing Ron Kleckowski.
- AGERE:
 - > Lane Smith becomes Alternate representative for AGERE, replacing Stephan Bedrosian.
 - > Adam Healey remains Principal representative for AGERE.
- McData:
 - > David Peterson becomes Additional Alternate representative for McData.
 - > Scott Kipp remains Principal representative for McData.
 - > Larry Hofer remains Alternate representative for McData.
- PacketLight:
 - > Oded David becomes Alternate representative for PacketLight, replacing Koby Reshef.
 - > Eyal Gabay remains Principal representative for PacketLight.
- HP:
 - > Don Fraser becomes Principal representative for HP, replacing Bill Ham.
 - > Don Fraser is no longer Alternate representative for HP.
- CIENA:
 - > Martin Hunt becomes Alternate representative for CIENA, replacing Chris Janz.
 - > Sashi Thiagarajan remains Principal representative for CIENA.
- Hitachi America:
 - > Junji Kinoshita becomes Alternate representative for Hitachi America, replacing Nobuyuki Osaki.
 - > Hidehisa Shitomi remains Principal representative for Hitachi America.

3.3 New voting memberships

No organizations have met the prerequisites for membership and requested voting membership at this meeting:

3.4 Voting memberships in jeopardy for attendance

All representatives of member organizations Avago, CIENA, Corrigent, FCI, FSI, Hitachi GST, Intel, Microsoft, Northrop Grumman, and PacketLight were informed by email and by document T11/06-757v0 that their organization was in jeopardy of losing its voting membership as the result of not attending the required number of committee meetings.

- No representative of Avago was present at this meeting. As a result, the membership of Avago has been changed from voting to advisory effective at this meeting.
- Representatives Sashi Thigarajan and Martin Hunt of CIENA were present at this meeting and so CIENA retains voting membership in this committee.
- No representative of Corrigent was present at this meeting. As a result, the membership of Corrigent has been changed from voting to advisory effective at this meeting.
- No representative of FCI was present at this meeting. As a result, the membership of FCI has been changed from voting to advisory effective at this meeting.
- Representative Gary Stephens of FSI was present at this meeting and so FSI retains voting membership in this committee.
- Representative Dan Colegrove of Hitachi GST was present at this meeting and so Hitachi GST retains voting membership in this committee.
- No representative of Intel was present at this meeting. As a result, the membership of Intel has been changed from voting to advisory effective at this meeting.
- Representative Robert Griswold of Microsoft was present at this meeting and so Microsoft retains voting membership in this committee.
- No representative of Northrop Grumman was present at this meeting. As a result, the membership of Northrop Grumman has been changed from voting to advisory effective at this meeting.

- Representative Oded David of PacketLight was present at this meeting and so PacketLight retains voting membership in this committee.

3.5 Voting memberships in jeopardy for letter ballot performance

No member organization is currently in jeopardy of losing its voting membership as the result of not responding to the required number of letter ballots.

3.6 Membership for this meeting

Voting membership was 50 at the T11 plenary meeting 5 October 2006. With 5 voting member organizations losing voting membership for not attending the required number of meetings, the voting membership of T11 has decreased by 5 members to 45 effective at this meeting.

Reflecting the above changes, the voting membership of T11 for this meeting is recorded in annex A.1.1.

Reflecting the above changes, the advisory (i.e., nonvoting) membership of T11 for this meeting is recorded in annex A.1.2.

4 Document Distribution

The chair described the process for T11 document distribution via the T11 Web Site. He also reminded those present how to access meeting documents via the red check mark on the T11 Web Site Center page (<http://www.t11.org/t11/docreg.nsf/center>).

5 Approval of Minutes - Meeting #77

The prior plenary meeting of the INCITS Fibre Channel (T11) Technical Committee was #77 on 5 October 2006. The draft minutes of that meeting were posted as document T11/06-759v0.

T11 minutes review is done by reviewing the version that is posted on the web site and requesting corrections either before the subsequent meeting by email request to the T11 secretary (bob.nixon@emulex.com) or at the subsequent meeting in person.

No corrections were received via the reflector.

No corrections were requested at this meeting.

Bill Martin (Emulex) moved and Horst Truestedt (TrueFocus) seconded to accept T11/06-759v0 as posted as the minutes of T11 meeting #77 on 5 October 2006. The motion passed unanimously.

ACTION T11 Secretary to post approved minutes of T11 meeting #77 as agreed at T11 meeting #78.

6 Review of Old Action Items

- 05-048 Following representatives to provide IP letters for ISO FC-FS.
- > Cisco Systems: Completed. See T11/06-405v0.
 - > IBM: Completed. See T11/06-758v0.
 - > McData: Completed. See T11/06-550v0.
- 05-050 Chair to send E-mail to Intel, Microsoft, Compaq/HP to solicit letters licensing publication of FC-VI, Oct. 5, 2005.
- > Microsoft has granted a license. See T11/05-822v0.
 - > HP, formerly Compaq, has granted a license. See T11/06-390v0
 - > Intel has proper person identified.
 - > A phone call and reminder e-mail was sent to Intel on May 16, 2006. A reminder e-mail was sent to Intel on September 7, 2006. Additional e-mails were exchanged September 21, 2006.
- 05-065 Chair to forward recommendation on access to withdrawn standards to INCITS.
- > Completed.
 - > Withdrawn standards are identified on the INCITS website at www.incits.org under the button "standards". They may be ordered by directly contacting Lynn Barra. To date, she has not received any request for such a document, regardless of technical committee.
- 05-084 Chair to get OID for T11.
- > In process. INCITS has received its number and is in the final stages of preparing a policy and procedure.
 - > Chair discussed this with INCITS at Officer's Symposium. Placeholder is now present on www.incits.org.
 - > Reminder e-mail sent to INCITS on September 7, 2006 with continuing contact.
 - > T11 OID obtained. Action will be held open to assure INCITS registration process is properly implemented.
- 06-001 TG Chairs to update Project Status Sheet.
- > Ongoing
- 06-002 All editors, when posting drafts, upload zip of source to hidden directory
- > Ongoing.
- 06-041 Chair to send letter to appropriate party in IEEE 802.3 to inform them of the formal relationship of Adam Healey as Liaison between IEEE 802.3 and T11.
- > In progress. E-mail sent to Bob Grow, August 7, 2006.
- 06-043 Chairs of all TGs and TC will discuss the allocation of Liaison reports to determine how to expedite TG and TC plenary meetings by having Liaison reports presented only where appropriate.
- > Completed. Liaison report duplication minimized where possible.

- 06-049 Chair to write a letter to IEEE requesting Eric Hibbard be formal liaison between T11 and IEEE P1619 and related projects.
- Completed. See T11/06-772v0.
- 06-060 Chair to inform INCITS of the name, "INCITS Fibre Channel Physical Task Group (FC Phy)," for the T11.2 Task group.
- > Completed. See T11/06-761v0
- 06-061 Claudio Desanti to prepare a new draft of the document on mechanisms for indicating when new standards replace old.
- > In process
- 06-062 Chair to carry results of the motion on maintenance actions to INCITS.
- > Completed. See T11/06-764v0.
- 06-063 Bill Ham and Dean Wallace to prepare 06-525v2 FCSM-2 version 4 (T11/06-525v2) for letter ballot.
- > Completed. See T11/06-525v2.
- 06-064 Chair to perform a letter ballot on FCSM-2 version 4 (T11/06-525v3) for further processing.
- > Completed. See T11/06-773v0.
- 06-065 Chair to forward the proposal to modify the title and scope of project 1647-D (FC-PI-4) (T11/06-634v0) to INCITS.
- > Completed. See T11/06-766v0.
- 06-066 Chair to perform a Letter Ballot for approval of Revision 1.00 of FC-FS-2 Amendment 1 (T11/06-623v2), Project 1619-D for first public review.
- > Completed. See T11/06-762v0.
- 06-067 Chair to forward 06-143v2 to IEEE.
- > Completed. See T11/06-767v0.
- 06-068 Craig Carlson to forward 06-687v1 to the ANSI editor as resolution of the editors comments of FC-GS-5.
- > Completed by e-mail of October 10, 2006.
- 06-069 IETF Liaison to forward 06-679v0 to the IETF imss Working Group as a formal T11 position
- > Completed. See e-mail October 5, 2006, David Black to imss reflector.
- 06-070 Chair to forward T11/06-065v3 as a modified Project Proposal for SM-HBA-2 to INCITS for further processing
- > Completed. See T11/06-512v1.

- 06-071 Chair to forward the latest draft of FAIS (06-220v7) to INCITS for further processing toward first public review.
- > Completed. See T11/06-771v0.
- 06-072 Chair to thank Nick DeRose and his manager for the significant help in the transition to the new server hosted at Brocade.
- > Completed. Brocade recognition provided to Nick DeRose with notification to his manager.
- 06-073 Secretary to post the approved minutes of the August meeting.
- > Completed. See 619v1.
- 06-074 Chair to generate appropriate Liaison reports.
- > Completed. See T11/06-760v0.
- 06-075 Dave Peterson to forward the NWIPs to INCITS.
- > Completed.
- 06-077 Dave Peterson to forward INCITS 412-2006 Standard for Multi-path Management API to INCITS for fast track processing.
- > In process
 - > 7 December 2006: Forwarded to the INCITS 412-2006 editor at SNIA to complete ISO edits.

7 Review of T11 Project and Proposal Status

7.1 Project status review

The T11 Project status sheet was displayed. See www.t11.org, using the button "Projects".

7.2 INCITS project status report (T11/06-779v0)

Bob Snively (Brocade) presented the following information on project status at INCITS (posted as T11/06-779v0).

- *Project proposals approved:*
 - > *SM-HBA-2*
 - *The project proposal for Information technology - Storage Management Host Bus Adapter Application Programming Interface 2nd Generation (SM-HBA- 2) was approved and assigned project number 1841. The project was reviewed from July 24 to July 31, 2006. The project must be reapproved with Clause 3.3.2 completed.*
 - *Clause 3.3.2 was completed in the October meeting, the project proposal was resubmitted and was approved in INCITS document in061269.*
 - > *FC-PI-4 revision*
 - *The revised project proposal was approved in INCITS document in061270.*
- *Documents in approval process:*
 - > *FAIS*
 - *Public Review period is 11/10/2006 to 12/25/2006. The ANSI Editor had no queries on this draft (a PERFECT draft - CONGRATULATIONS TO CRAIG!); BSR copy is scheduled for close of public*

review. If no comments are received, Management Review will be ready for SDB Liaison recommendation (10 business days), SDB Liaison review (7 calendar days), INCITS EB 30-day letter ballot, request for ANSI BSR-9 approval and subsequent ANSI publication.

- > FC-FS-2
 - *First public review began May 12, 2006 and ended June 26, 2006. Second public review closed October 23, 2006. Queries resolved. There will be a management review, an INCITS EB vote, a request for ANSI approval via BSR-9, then publication.*
- > FC-GS-5
 - *Public Review closed 09/18/2006. BSR Copy sent to T11 project editor for sign-off. Management Review preparation for SDB Liaison recommendation (10 business days) and SDB review (7 calendar days) follows, high possibility of this afternoon. Then, INCITS EB 30-day letter ballot followed by request for ANSI BSR-9 approval then publication.*
- > FC-SP
 - *Sent to SDB Liaison for recommendation and subsequent SDB review. To be followed by INCITS EB 30-day letter ballot, request for ANSI BSR-9 approval and then publication.*
- > FC-SW-4
 - *INCITS EB 30-day letter ballot closes 12/06/06. ANSI BSR-9 request for approval will follow with subsequent publication upon approval. Expected date of publication is this year.*
- > SM-HBA
 - *Management Review sent to SDB Liaison for recommendation and subsequent SDB review. To be followed by INCITS EB 30-day letter ballot, request for ANSI BSR-9 approval and then publication.*
- *Projects withdrawn:*
 - > *None*
- *Documents published*
 - > FC-PI-2
 - *Project 1506-D, INCITS 404:2006, Information technology - Fibre Channel Physical Interfaces - 2 (FC-PI-2) was published in late August.*
- *Documents in liaison*
 - > *Project 1789-L, INCITS 413, RapidIO™ Interconnect (version 1.3).*
 - *Management Review sent to SDB Liaison for recommendation and subsequent SDB review. To be followed by INCITS EB 30-day letter ballot, request for ANSI BSR-9 approval and then publication.*
 - > *Project 1787-L, INCITS 411, iSCSI Management API (IMA), Version 1.4*
 - *This is a SNIA Project to develop an American National Standard using the INCITS Fast Track process. Third public review period is 10/27/2006 to 12/ 11/2006. Document is available as T11/06-765v0. Queries have gone out from the ANSI Editor.*
 - > *INCITS project 1642-L, Revision of INCITS 388:2004, SMI-S*
 - *Public Review period closed 10/09/2006. One comment was received. SNIA will submit a revised draft for second public review.*
- *Documents in maintenance.*
 - > *Nine documents with maintenance recommendations for 2007. Recommendations were received; public review period is 11/10/2006 to 12/ 25/2006. INCITS EB 30-day letter ballot will follow, then request for ANSI BSR-9 approval. SD-4 data base is updated.*
- *International Processing*
 - > *FC-AL-2 Amendment 2 (ISO/IEC NP s14165-122 AM 2)*
 - *US vote was forwarded for ballot closing January 29, 2007.*
 - > *Project 1788-L, INCITS 412:2006, Information technology - SNIA Multipath Management API Specification, Version 1.0.1*
 - *INCITS EB letter ballot to approve INCITS 412:2006 as candidate for Fast-Tracking in JTC 1 closes 12006-11-25. This week, INCITS 412:2006 will be sent to ISO Team for forwarding to JTC 1 for Fast-Track process. Here is what will take place -*
 - 1) *One-month review in JTC 1 by NBs of JTC 1. JTC 1 N numbered document issued and sent to INCITS EB, INCITS TC chairs, etc.*

- 2) *If no contradictions, then five-month DIS ballot will be issued.*
- > *New Work Item Proposals submitted for:*
 - *FC-PI-2 (transmitted)*
 - *FC-DA (transmitted)*
 - *FC-SB-3 (to be sent shortly)*
 - *FC-SP (to be sent shortly)*
 - *FC-MI-2 (transmitted)*
 - *FC-FS-2 (to be sent shortly)*
 - *FC-BB-3 (to be sent shortly)*
 - *FAIS (to be sent shortly)*
 - *FC-SW-4 (BSR to be sent shortly)*
 - *FC-GS-5 (BSR to be sent shortly)*
 - *SM-HBA (BSR to be sent shortly)*
 - *FC-BaseT (to be sent shortly)*
 - > *Awaiting international publication of:*
 - *ISO/IEC TR 14165-117 (FC-MJSQ)*
 - *ISO/IEC 14165-414 (FC-GS-4)*

8 Results of non-ISO Letter Ballots

8.1 FC-FS-2 Amendment 1 to INCITS for further processing

The question of forwarding FC-FS-2 Amendment 1 to INCITS for further processing (T11/06-762v0) passed 35 Favoring, 2 Opposing, 1 Abstaining, 12 Not Voting. One favoring response offered comments.

8.2 TR FCSM-2 to INCITS for further processing

The question of forwarding TR FCSM-2 to INCITS for further processing (T11/06-773v0) passed 38 Favoring, 2 Opposing, 5 Abstaining, 5 Not Voting. One favoring response offered comments.

9 Old Business

9.1 Virtual Interface Specifications

The current status of this issue is recorded in the action items.

9.2 Consider mechanisms for indicating when new standards replace old.

The current status of this issue is that dependency information is being studied, and Claudio DeSanti is acting as editor.

9.3 5 Year Maintenance Actions (T11/06-764v0)

T11 recommendations on 5-year maintenance actions were forwarded to INCITS as document T11/06-764v0.

10 Task Group T11.2 - Physical Interfaces

10.1 Report to T11 Plenary

Tom Palkert (Xilinx) presented the following information on activity at T11.2:

- *Summary:*
 - > *Action items:*

<i>TG2//06-007</i>	<i>Mike Jenkins to recommend a compliant test pattern that emulates scrambling</i>	<i>Done</i>
<i>TG2//06-008</i>	<i>Snively to determine procedure to change the name of FC-PI-4</i>	<i>Done</i>
<i>TG2/06-009</i>	<i>Tom Palkert to take the motions for FC-PI-4 project proposal and for the modification of the FC-PI-3 project to T11</i>	<i>Done</i>
<i>TG2/06-010</i>	<i>Chair to inform T11 that a T11 letter ballot for FCSM-2 will be requested in approximately 3 weeks.</i>	<i>Done</i>
<i>TG2//06-0010</i>	<i>Tom Palkert and Bob Snively to review project status table</i>	<i>New</i>
<i>TG2//06-0011</i>	<i>Tom Palkert to review PI-4 draft revisions on web site (Multiple revisions are available)</i>	<i>New</i>
- *Optical working group: Significant progress made*
 - > *Recommend using SFF-8431 test fixtures for delta points*
 - > *Some issues remain for Tx and limiting and linear Rx specs*
 - > *8G SW optical link budget proposed*
 - *Mike Dudek to clarify numbers for later discussion*
 - > *8G Fabry Perot based 1.5km 1310 SM link proposed*
 - *Motion to accept specs (except max Rx Pavg is TBD)*
- *Electrical:*
 - > *Convergence on Delta Point Eye Mask definitions*
 - > *Defer FC-PI-4 ballot until after February Plenary*
 - > *Proposal for Delta Point Output Amplitudes, (T11/06-789v1), Mike Jenkins, LSI Logic*
 - > *Basic 8GFC Issues, (T11/06-719v1), Tom Lindsay, ClariPhy*
 - > *JSPAT Spectral Analysis, (T11/06-nnnv0), Mark Marlett, LSI Logic*
 - > *Review of presentation for FCIA, Tom Palkert Xilinx*
- *FC-Base-T Monday meeting:*
 - > *19 people attended, representing 16 organizations*
 - > *Completed comment resolution!*
 - *188 total comments resolved*
 - > *Plan to forward at the February T11 plenary*
- *FC-MSQS:*
 - > *After FC-PI-4 is technical stable, hopefully after the Feb 2007 T11 meeting week, off cycle meetings may resume (details are TBD)*
- *FCSM-2:*
 - > *The meeting focused on comment resolution FCSM-2. Over 50% of the technical comments were addressed*
- *FC-PI-3 & FC-PI-4 Working Group*
 - > *Presentation by Lane Smith Agere, 8GFC jitter budget for the limiting delta point interface.*
 - > *FC-PI-4 Rev 4.00 comment resolution. Went through all the technical comments submitted by Mike Dudek, Mike Jenkins and Adam Healey.*
 - > *The comments will be incorporated into a Rev 5.00 by the editor (Hossein Hashemi) before the holidays.*
 - > *Comments against Rev 5.00 will be reviewed at the interim meeting*
- *Future Meeting Schedule*

- > The following face to face ad hoc meetings were authorized for the August 2006 T11 plenary week:
 - FC-BaseT 2:00 to 5:00 Mon
 - FCSM-2 1:30 to 5:30 Mon
 - FC0 optical 9:00 to 12:30 Tue
 - FC0 electrical 2:00 to 5:00 Tue
 - FC-PI-4 meeting 9:00 to 5:30 on Wed
- > The following face to face ad hoc meetings were authorized for the interim period:
 - PI-4 (facilitator Brocade) San Jose Wednesday, Jan 10, 2007 target (9 to 5)
- Motions: None

10.2 Proposals for new projects

No new projects were requested.

10.3 Other actions

10.3.1 Forward FC-BaseT to INCITS for first public review

This topic was deferred until February 2007. The chair reminded those organizations that had opposed forwarding to consider changing their positions.

10.4 Other items

No other items were presented.

11 Task Group T11.3 - Interconnection Schemes

11.1 Report to T11 Plenary (T11/06-869v0)

Craig Carlson (QLogic) presented the following information on activity at T11.3 (posted as T11/06-869v0):

- 32 Members
- Project Status
 - > FC-AE-x – No meeting this week. Work on FC-AE-1533 Complete, expect to forward in Feb.
 - > FC-BaseT – Completed T11 LB comment resolution, expect to forward in Feb.
 - > FC-BB-4 – Reviewed FC over MPLS/PW contribution
 - > FC-FS-2 AM1 – Completed T11 LB comment resolution, requesting 1PR
 - > FC-GS-6 – Accepted FDMI II Proposal, reviewed Area ID Scope Fix, discussed need for FC-DA-2
 - > FC-IFR – ELS Processing and Embedded N_Port_IDs, Class 2 Support, Multi-hop IFR Management, FC-SP-2 ramifications
 - > FC-LS – Accepted late comment contained in 06-803v0, will be requesting forward for 1PR
 - > FC-SATA – Approved FC-SATA State Machines, reviewed protocol examples
 - > FC-SB-3 AM 1 Study - Document is complete, requesting LB
 - > FC-SCM – Discussed updated FCIA MRD
 - > FC-SP-2 – More IFR Security, Discussed work items for SP-2 clarification
 - > FC-SW-5 – Discussed Link aggregation, FC4 Type terminology consistency

11.2 Proposals for new projects

11.2.1 Project proposal for FC-SB-3, Amendment 1 (T11/06-676v1)

Craig Carlson (QLogic) moved and Roger Hathorn (IBM) seconded to approve the project proposal for FC-SB-3, Amendment 1 (T11/06-676v1) and to forward the project proposal for FC-SB-3, Amendment 1 (T11/06-676v1) to

INCITS for further processing. This question requires approval by a 2/3 majority of the membership. A roll call vote was used. The motion passed 31 Favoring, 0 Opposing, 1 Abstaining, 13 Not Voting. The roll call record may be found in annex B.1.

ACTION T11 Chair to forward the project proposal for FC-SB-3, Amendment 1 (T11/06-676v1) to INCITS for further processing.

11.3 Other actions

11.3.1 Forward FC-LS to INCITS for first public review

Opposing votes were cast by Emulex and Sierra Logic in the letter ballot of this question.

On behalf of Emulex, in consideration of the changes made to FC-LS since the opposing vote was cast, Bob Nixon changed the opposing vote of Emulex in the letter ballot to favoring.

In an email to the chair on behalf of Sierra Logic, in consideration of the changes made to FC-LS since the opposing vote was cast, Bill Martin changed the opposing vote of Sierra Logic in the letter ballot to favoring.

Craig Carlson (QLogic) moved and Don Fraser (HP) seconded to accept T11/06-113vC as the resolution of the letter ballot comments on FC-LS and to forward Revision 1.62 of FC-LS (T11/06-393v6), Project 1620-D, to INCITS for further processing including public review. This question requires approval by a 2/3 majority of the membership as determined by roll call. The motion passed 31 Favoring, 0 Opposing, 1 Abstaining, 13 Not Voting. The roll call record may be found in annex B.2.

ACTION T11 Chair to forward Revision 1.62 of FC-LS (T11/06-393v6), Project 1620-D, to INCITS for further processing including public review.

11.3.2 Forward FC-AE-1553 to INCITS for first public review

This topic was deferred until February 2007.

11.3.3 Forward FC-BaseT to INCITS for first public review

This topic was deferred until February 2007. The chair reminded those organizations that had opposed forwarding to consider changing their positions.

11.3.4 Forward FC-FS-2 Amendment 1 to INCITS for first public review

Opposing votes were cast by Cisco and Smiths Aerospace in letter ballot of this question.

On behalf of Cisco, in consideration of the changes made to FC-FS-2 Amendment 1 since the opposing vote was cast, Claudio DeSanti changed the opposing vote of Cisco in the letter ballot to favoring.

In an email received on behalf of Smiths Aerospace, in consideration of the changes made to FC-FS-2 Amendment 1 since the opposing votes were cast, John Schroeder changed the opposing vote of Smiths Aerospace in the letter ballot to favoring.

Craig Carlson (QLogic) moved and Don Fraser (HP) seconded to accept T11/06-768v3 as the resolution of the letter ballot comments on FC-FS-2 Amendment 1 and to forward Revision 1.02 of FC-FS-2 Amendment 1 (T11/06-623v4), Project 1331-M, to INCITS for further processing including public review. This question requires approval by a 2/3 majority of the membership. A roll call vote was used. The motion passed 31 Favoring, 0 Opposing, 1 Abstaining, 13 Not Voting. The roll call record may be found in annex B.3.

ACTION T11 Chair to forward Revision 1.02 of FC-FS-2 Amendment 1 (T11/06-623v4), Project 1331-M, to INCITS for further processing including public review.

11.3.5 Approve ANSI editor changes to FC-GS-5 (T11/06-687v2)

Craig Carlson (QLogic) moved and Don Fraser (HP) seconded to approve the responses to the ANSI Editor comments (06-687v2) against the FC-GS-5 draft and approve second public review of FC-GS-5 draft (project 1677-D). This question requires approval by a 2/3 majority of the membership as determined by roll call. The motion passed 31 Favoring, 0 Opposing, 1 Abstaining, 13 Not Voting. The roll call record may be found in annex B.4.

ACTION T11 Chair to forward Revision 8.51 of FC-GS-5 (T11/06-192v3), Project 1677-D, to INCITS for further processing including second public review.

11.4 Other items

11.4.1 Request LB for FC-SB-3 Amendment 1 (T11/06-802v1)

Craig Carlson requested the T11 chair to perform a Letter Ballot for approval forwarding Revision 1.01 of FC-SB-3 Amendment 1 (T11/06-802v1), Project TBD, to INCITS for first public review.

The chair accepted.

ACTION T11 Chair to perform a Letter Ballot for approval of forwarding Revision 1.01 of FC-SB-3 Amendment 1 (T11/06-802v1), Project TBD, to INCITS for first public review.

11.4.2 Request LB for 10GFC Amendment 1 (T11/06-776v0)

Craig Carlson requested the T11 chair to perform a Letter Ballot for approval of forwarding Revision 0.1 of 10GFC Amendment 1 (T11/06-776v0), Project 1413-D, to INCITS for first public review.

The chair accepted.

ACTION T11 Chair to perform a Letter Ballot for approval of forwarding Revision 0.1 of 10GFC Amendment 1 (T11/06-802v1), Project 1413-D, to INCITS for first public review.

12 Joint T11.2/T11.3 Call for Issues

12.1 INCITS Registry for Auto-Negotiation Selector Field to identify FC-BaseT

No activity was reported.

12.2 FC-FS-2 Amendment 1 (Scrambling) involves both T11.2 and T11.3 considerations

Activity on FC-FS-2 Amendment 1 (Scrambling) is included in the report of Task Group T11.3 (see 11.3.4).

13 Task Group T11.5 - Storage Network Management

13.1 Report to T11 Plenary

Roger Cummings (Symantec) presented the following information on activity at T11.5.

- *31 people attended Plenary #26 on Thursday 12/07*
- *No member organizations were lost or gained. Membership of T11.5 remains @ 24 orgs*
- *Ad Hoc Reports*
 - > *API Ad Hoc (SM-HBA-2 & SNPing)*
 - *7 people attended on 12/06*
 - *First draft of SM-HBA-2 & virtualization model reviewed*
 - *Additional definitions reviewed for SNPing*
 - *Request 2 hours @ next Plenary week*
 - > *FAIS-2 Ad Hoc*
 - *10 people from 8 orgs attended on 12/06*
 - *Reviewed 2 presentations on FAIS events*
 - *Request 2 hours @ next Plenary week*
 - > *Management Ad Hoc (SM-SPM, SNPing)*
 - *7 people from 6 orgs attended on 12/06*
 - *Reviewed status of SP MIB project (SM-SPM)*
 - *Major discussions on Policy & SA MIB modules*
 - *Request 3 hours @ next Plenary week*
- *Meeting requests for February 2007*
 - > *API Ad Hoc - 3 hours*
 - > *FAIS-2 Ad Hoc - 2 hours*
 - > *Management Ad Hoc - 3 hours*
 - > *Plenary - 1 hour*
- *Interim Meetings*
 - > *None requested*

13.2 Proposals for new projects

None were presented.

13.3 Other actions

None were presented.

13.4 Other items

None were presented.

14 Review of International Activity

14.1 ISO Status Report (T11/06-851v0)

Dave Peterson (McDATA) presented the following information on project status at ISO (posted as T11/06-851v0).

ISO/IEC Status Report to T11					
1	1.25.13.13.15	FC-GS-4	14165-414	S3	<i>FDIS approved, moved to be published.</i>
2	1.25.13.13.18	FC-AV	14165-321	S6	<i>FDIS approved, in final editing.</i>
3	1.25.13.13.22	FC-FS	14165-251	S5	<i>FDIS out for ballot, US voted YES, all Patent LoA now received</i>
4	1.25.13.13.25	FC-SW-3	14165-133	S1	<i>NWIP T11/04-234v1 sent to SC25, need FCD text, NWIP to be sent for ballot.</i>
5	1.25.13.13.26	FC-VI	14165-331	S6	<i>FDIS approved with comments. Need response to comments and final FDIS text and copyright approvals.</i>
6	1.15.13.13.27	10GFC	14165-116	S7	<i>Sent for publication.</i>
7	1.15.13.13.28	MJSQ	14165-117	S7	<i>Waiting for publication.</i>
8	1.25.13.13.06-1	FC-AL-2-1	14165-122	S7	<i>Published.</i>
9	1.25.13.13.06-2	FC-AL-2-2	14165-122	S1	<i>Project lost, NWIP and text resubmitted.</i>
10	1.25.13.10.14	RL	24740	S3	<i>US voted to approve FCD in T10.</i>
11	1.25.13.19	SMI-S	24775	S3	<i>Approved as FCD, FDIS ballot ready to begin. T11 voted to approve. ISO ballot approved and doc IS24775-2006 goes to ITTF for publishing.</i>
12	1.25.13.16	RIO	18372	S1	<i>Now being edited for publishing by ANSI. Checking for patents. NWIP sent to SC25.</i>
13	1.15.13.13.nn	FAIS	14165-521	S2	<i>Waiting for ANSI publication.</i>
14	1.15.13.13.nn	FC-BaseT	14165-151	S2	<i>Waiting for ANSI publication.</i>
15	1.15.13.13.nn	FC-BB-3	14165-243	S2	<i>Waiting for ISO edits.</i>
16	1.15.13.13.nn	FC-DA	14165-341	S2	<i>Waiting for ISO edits.</i>
17	1.15.13.13.nn	FC-FS-2	14165-252	S2	<i>Waiting for ANSI publication.</i>
18	1.15.13.13.nn	FC-GS-5	14165-415	S2	<i>Waiting for ANSI publication.</i>
19	1.15.13.13.nn	FC-MI-2	14165-372	S2	<i>Waiting for ISO edits.</i>

ISO/IEC Status Report to T11					
20	1.15.13.13.nn	FC-PI-2	14165-142	S2	Waiting for ISO edits.
21	1.15.13.13.nn	FC-SB-3	14165-223	S2	Waiting for ISO edits.
22	1.15.13.13.nn	FCSM	14165-119	S2	NWIP out for ballot in SC25 as Type 3 TR.
23	1.15.13.13.nn	FC-SP	14165-431	S2	Waiting for ANSI publication.
24	1.15.13.13.nn	FC-SW-4	14165-134	S2	Waiting for ANSI publication.
25	1.15.13.13.nn	SM-HBA	14165-512	S2	Waiting for ANSI publication.
26	1.15.13.13.nn	FC-AE-1553	14165-312	S1	NWIP vote today 06-861v0.
27	1.15.13.13.nn	FC-AE-ASM	14165-313	S1	NWIP vote today 06-862v0.
28	1.15.13.13.nn	FC-AE-RDMA	14165-314	S1	NWIP vote today 06-863v0.
29	1.15.13.nn	SNIA MMA		S2	Submitted as Fast-Track: preliminary ISO edits done, source sent to editor for further ISO editing
30	1.15.13.nn	SNIA IMA			To be submitted as Fast-Track Candidate following Third Public Review closing 12/11/06

Step	S1	S2	S3	S4	S5	S6	S7
Stage	NWIP	Convert to ISO	FCD	Edit/DoC	FDIS	Edit/DoC	Publish
Ballot Time	2 months		4 months		2 months		
IEC	10	20	40		50	60	60.60

14.2 Other ISO Motions and Actions (US roll call votes)

14.2.1 Motion 1: Withdrawal of ISO FC-VI project

This motion was deferred.

14.2.2 Motion 2: ISO actions (T11/06-873v0)

Dave Peterson (McDATA) moved and Jim Coomes (Seagate) seconded that T11 recommend the NWIPs specified in table 1 as US contributions to JTC1/SC25 and approve the NWIPs to be issued by SC25, answering the first 6

questions specified in table 2 as “Yes” and naming David Peterson as project editor, and question 7 in table 2 as “Accelerated Timeframe”.

Table 1 — T11 Proposed ISO/IEC NWIPs

Standard/ Technical Report	ISO/IEC doc	T11 Editor	NWIP doc	ANSI/INCITS doc
FC-AE-1553	4165-312	Glass	T11/06-861v0	T11/Project 1648-DT latest revision
FC-AE-ASM	14165-313	Nelson	T11/06-862v0	INCITS TR-41:2006
FC-AE-RDMA	14165-314	To be assigned	T11/06-863v0	INCITS TR-40:2005

Table 2 — ISO/IEC NWIP questions

A. Vote	YES	NO	Comments
Q.1 Do you accept the proposal in document JTC 1 (SC) N XXXX as a sufficient definition of the new work item? (If you have responded “NO” to the above question, you are required to comment.)			
Q.2 Do you support the addition of the new work item to the programme of work of the joint technical committee?			
B. Participation			
Q.3 Do you commit yourself to participate in the development of this new work item?			
Q.4 Are you able to offer a project editor who will dedicate his/her efforts to the advancement and maintenance of this project? (If “YES” please identify _____)			
C. Documentation			
Q.5 Do you have a major contribution or a reference document ready for submittal?			
Q.6 Will you have such a contribution in ninety days?			
Q.7 Which standard development track is proposed			

This question requires approval of a simple majority of the US-domiciled membership as determined by roll call limited to US-domiciled members. The motion passed 30 Favoring, 0 Opposing, 0 Abstaining, 11 Not Voting. The roll call record may be found in annex B.5.

ACTION International Representative to forward document T11/06-873v0 to INCITS as a recommendation from T11 for actions at ISO.

14.3 Other ISO Action items

14.3.1 Action 1: Provide appropriate patent declarations as requested.

The form and cover letter for ISO patent declarations may be found in T11/05-805v0.

14.3.2 Patent declaration from IBM for ISO FC-FS (T11/06-758v0)

IBM has submitted the ISO patent declaration posted as T11/06-758v0.

14.4 ISO Guide (T11/06-317v0)

Gary Robinson has provided a guide to the relationships of T11 to ISO the organization, posted as T11/06-317v0.

14.5 ISO Numbering (T11/06-392v1)

The most recent posting of ISO project numbers for projects contributed by T11 and its predecessor organizations is T11/06-392v1.

15 T11 New Business and New Technical Items

15.1 Withdraw HIPPI-6400-SC (INCITS 324-1999)

It was reported by the chair that INCITS records show that HIPPI-6400-SC (INCITS 324-1999) has been withdrawn. T11 records do not show any withdrawal action for that document. After consultation with appropriate experts, the chair has concluded that it is appropriate for T11 to formalize the present state of "withdrawn" to INCITS, which would match their present records.

Jim Coomes (Seagate) moved and Gary Stephens (FSI) seconded to recommend to INCITS to change the status of HIPPI-6400-SC (INCITS 324-1999) to "Withdrawn without archival copy maintained". This question requires approval by a 2/3 majority of the membership as determined by roll call. The motion passed 34 Favoring, 0 Opposing, 0 Abstaining, 11 Not Voting. The roll call record may be found in annex B.6.

ACTION T11 Chair to notify INCITS of T11 recommendation to withdraw HIPPI-6400-SC (INCITS 324-1999).

16 Patents

16.1 Patent information

The chair indicated that the current record of responses to prior calls for patents can be found in T11/06-739v0.

16.2 ANSI patent policy

The INCITS intellectual property policies are specified in subclause 8.4 of RD-1, "Policies and Guidelines", available at

http://www.incits.org/sd9_rev1c.htm#p8-4

A summary of the INCITS intellectual property policies as applicable to the work of this meeting is given in document T11/05-385v1, which is available on www.t11.org.

16.3 Call for patents

In accordance with the INCITS patent policies and guidelines, the chair made a call for patents that related to the standards being developed by this task group.

The chair announced that Neoscale has submitted a response to the call for patents, of which an electronic copy has been posted as T11/06-872v0.

17 Liaison Reports

17.1 INCITS Liaison, activities other than T11 project status (T11/06-780v0)

Bob Snively (Brocade) presented the following information on activity at INCITS (posted in T11/06-809v0):

- *INCITS Activities*
 - > *August Business Model Meeting*
 - *Preliminary information. Fees will be restructured, granting more alternates, but costing a little more money. The report to the Standards Policy Board is a confidential document.*
 - > *T11.2 new name: doc is in061302.*
- *JTC-1 Activities*
 - > *SC-25 WG4 meeting, Jeju Island, Korea*
 - *Scheduled September 24-27, 2007*
 - *SC-25 Plenary September 28, 2007*
 - *WG4 meeting may be moved to Japan*

17.1.1 Public review, SNIA iSCSI Management API, closes Dec 11, 2006 (T11/06-765v0)

Bob Snively (Brocade) reported that INCITS is now soliciting public review comments on the SNIA iSCSI Management API, which is posted as T11/06-765v0 for the convenience of those T11 members that want to review it.

17.2 TC T10 (T11/06-809v0)

John Lohmeyer (LSI Logic) directed the attention of the meeting to the following information on activity at INCITS Technical Committee T10 (posted in T11/06-809v0):

- *T10 met last in Las Vegas, NV on Thursday November 9, 2006 with 46 people present.*
- *Membership is at 46 voting organizations.*
- *Concluding the 2007 five-year reviews, T10 recommended that MMC be withdrawn and that MMC-3 be reaffirmed.*
- *MMC-4 rev 4 was forwarded to INCITS for second public review, which will end 22 January 2007.*
- *No comments were received on the SAT public review, so it is now at INCITS for approval.*
- *Symantec will host the next meeting of T10 January 18, 2007 in Lake Mary, FL at the Orlando Marriott Lake Mary Hotel.*
 - > *Reservations: <http://marriott.com/property/propertypage/mcoml?groupCode=ansansa&app=resvlink>*

- > The meeting will begin at 9:00 a.m. on Thursday. Several ad hoc meetings are also scheduled earlier that week and as follows:

Meeting	Date	Location / Contact
SAS Protocol Call(s)	TBA	TBA via T10 reflector / Elliott
SAS PHY Calls	Weekly Thu 10a CST	TBA via T10 reflector / Cox
SMC-3 Call	Nov 27 8-10a PST	TBA via T10 reflector / Banther
SSC-3 Call	Dec 11 TBD time	TBA via T10 reflector / Peterson
SAT-2 WG	Mon Feb 19	Irvine, CA (with T13) / Stevens

- > Please see www.t10.org/meeting.htm for additional information on these meetings.
- The T10 web, ftp, and reflector sites are:
 - > <http://www.t10.org/> mirror site: <http://www.t11.org/t10/> <ftp://ftp.t10.org/>
 - > reflector: majordomo@t10.org
 - > T10 Minutes: http://www.t10.org/t10_mins.htm

17.3 FCIA

Skip Jones (QLogic) presented the following information on activity at FCIA:

FCIA Update - 12/7/6

- Tuesday Speaker - Dr. Cary Gunn; Luxtera Co-Founder and CTO
- NetApp Welcome - Jeff Eckard; NetApp Senior Product Manager, FCIA Board Member
- Roadmap Forum Meeting – Skip Jones; QLogic Director, FCIA Board/Rdmap Chr
 - > Roadmap Update
 - Three “Base” Market Education
 - Sanity Checks (ES/MRD vs Standard)
 - FC-BaseT Changes for 4G inclusion
 - > T11.2 Update – Tom P
 - Schedules, Priorities
- Marketing and Alliances
 - > SNW Fall '06
 - > SNW Spring '07 Opportunities
 - FCIA Booth
 - SNIA Tutorials
 - HoL Hands-On-Lab
 - > FCIA/SNIA Alliance
 - > Roadmap Education
 - > PR – NetApp, Healthy FC, Alliances, PI-4
 - > Finalized SCM MRD

17.4 IEEE 802

There was no report on activity at IEEE 802 at this meeting.

17.5 IETF (T11/06-864v0)

David Black (EMC) presented the following information on activity at IETF (posted in T11/06-864v0) at the plenary meetings of Task Groups T11.3 and T11.5 today. It was not repeated at this meeting.

17.6 INCITS TC CS1 (T11/06-870v0)

Eric Hibbard (HDS) presented the following information on activity at INCITS Technical Committee CS1 (posted as T11/06-870v0).

- *Background*
 - > U.S. TAG to ISO/IEC JTC1/SC 27 (IT Security Techniques)
 - > Last CS1: 7th meeting held in Atlanta, GA on October 3-4, 2006
 - > Next CS1: 8th meeting to be held in San Jose, CA on January 25-26, 2007
 - > Next SC 27: May 4-12, 2007 in Moscow, Russia
- *Summary of Activities*
 - > US delegation (authorized by INCITS/CS1) participated in the SC 27 meeting held November 13-17, 2006 in Pretoria, South Africa
 - > Responded to a Government Accounting Office (GAO) requested for information on ISO security standards that provide guidance on encrypting data
 - > CS1 leadership was asked about the appropriate placement of formal standardization efforts of key management services for storage
 - > Recent CS1 Letter Ballots
 - 30-Day Letter Ballot for Approval of the Revised Project Proposal for the Enterprise Dynamic Access Control (EDAC) Model
 - 19 day accelerated Letter Ballot FDIS 27006: Information technology -- Security techniques -- Requirements for the accreditation of bodies providing certification of information security management systems

17.7 IEEE 1619 (T11/06-866v0)

17.7.1 Letter for liaison to IEEE 1619 (T11/06-772v0)

As reported in Action Item 06-049, the chair has sent a letter to IEEE requesting assignment of Eric Hibbard (HDS) as liaison to T11 from IEEE working group P1619.

17.7.2 Liaison Report

Eric Hibbard (HDS) presented the following information on activity at IEEE 1619 (posted in T11/06-866v0):

- *Background*
 - > Current Focus - Encryption for storage (disk & tape)
 - > Upcoming SISWG Meetings:
 - 1619 call: 1/15/2007
 - 1619.1 call: 12/13/2006
 - 1619.2 call: 12/12/2006
 - P1619 F2F: 1/15/2007 in Orlando, FL (in conjunction with T10)
- 1619 – Standard Architecture for Encrypted Shared Storage Media
 - > Purpose
 - IEEE 1619 describes a method of encryption for data-at-rest in sector-based devices. It also specifies the encryption transform and a method for exporting/importing encryption keys for compatibility between different implementations.
 - > Recent Developments:

- *At the Sep-2006 meeting, LRW was replaced by XEX (designated as XEX-AES) as the base of narrow block mode (targeted toward disk encryption). In addition, the standard will be AES 128-bit or 256-bit, but not mixed with the appropriate key lengths.*
- *PAR for 1619 was renewed.*
- *A further renaming has occurred in the form of XTC-AES-128 and XTC 128 and XTC- AES-256 to clarify details about the modes.*
- *The 1619 editor has been tasked with producing a draft by 12/10/2006*
- *SISWG has approved the submittal of this draft to the IEEE Editor*
- *SISWG has approved the initiation of a 30-day WG letter ballot, which is to commence on 12/11/2006. This letter ballot is similar to T11 letter ballots.*
- *Comments are welcome from all sources (including non-voting organizations)*
- **1619.1 – Standard for Authenticated Encryption with Length Expansion for Storage Devices**
 - > *Purpose:*
 - *IEEE 1619.1 describes methods suitable for ensuring the privacy and integrity of stored data within applications requiring a high level of assurance. It specifies the Advanced Encryption Standard (AES) cipher as used in the GCM and CCM authenticated-encryption modes, which provide strong protection by specifying encryption with authentication and length expansion.*
 - > *Recent Developments:*
 - *Technical changes to 1619.1 continue, with excellent coordination and cooperation with INCITS/T10 (SSC in particular)*
 - *The 1619.1 editor posted draft D13 on 12/5/2006*
 - *There is a strong possibility that SISWG will approve the initiation of a 30-day WG letter ballot either next week or at the Jan-2007 face -to-face meeting.*
- **1619.2 – Standard for Wide Standard for Wide-Block Encryption for Shared Storage Media**
 - > *Purpose:*
 - *IEEE 1619.2 describes an architecture for media security and enabling components. The standard is oriented towards fixed-size encryption blocks without data expansion, but anticipates an optional data expansion mode to resist attacks involving data tampering. Wide encryption blocks are well suited to environments where the attacker has repeated access to cryptographic communication or ciphertext, or is able to perform traffic analysis of data access patterns.*
 - > *Recent Developments:*
 - *IEEE-SA has approved the Project Authorization Request (PAR)*
 - *SISWG held the first 1619.2 meeting on November 6, 2006*
 - *The initial 1619.2 membership has been established*
 - *Presentations were made on XCB, EME*, and other wide-block modes*
- **Miscellaneous**
 - > *Interested parties wishing to participate in the IEEE membership vote associated with the P1619 standards need to join IEEE-SA to be eligible.*
 - > *SISWG authorized the creation of a study group for the purposes of developing the 1619.3 PAR, covering key management services.*

18 Administrative Matters

18.1 Appreciation to Bill Ham

It was moved by Bob Snively and seconded by John Lohmeyer to express the appreciation of INCITS Fibre Channel (T11) Technical Committee to Bill Ham for his many years of enthusiastic support, valued advice, and dedicated service. The motion passed unanimously.

ACTION T11 chair to send a letter of appreciation to Bill Ham for his many years of enthusiastic support, valued advice, and dedicated service.

18.2 Officer Appointments

T11 Chair	Robert Snively
T11 International Representative	Gary Robinson
T11 Secretary	Bob Nixon
T11 Vice-Chair	Claudio DeSanti
T11.2 Chair	Tom Palkert
T11.2 Secretary	Mark Marlett
T11.2 Vice-Chair	Dean Wallace
T11.3 Chair	Craig Carlson
T11.3 Secretary	Scott Kipp
T11.3 Vice-Chair	William Martin
T11.5 Chair	Roger Cummings
T11.5 Clerk	Ralph Weber
T11.5 Vice-Chair	Scott Kipp

18.2.1 Call for volunteers, T11.2 Secretary

This position has been filled by Mark Marlett (LSI).

18.2.2 Call for volunteers, T11.3 Secretary

This position has been filled by Scott Kipp (McDATA).

18.2.3 Second call for T11 IR (in061279)

One person has volunteered. The call is still open.

18.3 T11 Information Technology

18.3.1 Web site status (T11/06-858v0)

Roger Cummings (Symantec) presented the following information on the status of the T11 web site (posted as T11/06-858v0).

- *No news is REALLY good news*
 - > *The last two months have been fairly quiet*
 - *The new server seems to be working well*
 - > *Issue with letter ballot comment attachments not being forwarded to the officers & editors*
 - *Was an old kludge in the code in 3 places that didn't work in the new configuration*
 - *Now changed to use a single config variable*
- *Possible Problems*
 - > *Some people have complained about e-mail from the server not being received*

- *Have seen issues in the log with deliveries to QLogic, Emulex, LSIL, EMC mail servers that last for 1 day then seem to stop*
- *Anyone else been missing LB reminders, membership updates messages etc.?*
- > *Server only keeps about 10 days of mail logs before discarding, so please let me know of the issues in a timely manner*
- *Web Site Help*
 - > *Top level Help page at:*
 - *<http://www.t11.org/help.html>*
 - > *Also "Help" link in the navigation frame*
 - > *Contains links to tutorial, user guide and the OCLC article about the web site*
- *Addresses for Reporting Problems*
 - > *Server problems (web or ftp sites down etc.) or web site design problems*
 - *webmaster@mail.t11.org*
 - > *Mail Reflector problems*
 - *mailmaster@mail.t11.org*
 - > *Web site content problems (including membership problems, people and document register listings)*
 - *the officers of the relevant TC or TG*

18.4 Other matters

18.4.1 Review of T10 and T11 document templates

No report was presented on the status of this activity.

19 Future Meeting Schedule

19.1 Plenary week meeting map for February 2007 T11 meetings

The next T11 meeting week will be hosted by QLogic in Dana Point CA, 4-7 February 2007.

Refer to the T11 web site, <http://www.t11.org/t11/docreg.nsf/center>, for the meeting announcement, which will always contain the latest information on future T11 plenary meetings.

19.2 Authorization of adhoc meetings

Authorization of Ad Hoc meetings is delegated to the appropriate TG, if any. There were no exceptions at this meeting.

Refer to the T11 web site, <http://www.t11.org/t11/docreg.nsf/center>, which will always contain the latest announcements of pending work group interim meetings and teleconferences.

19.3 Request for hosts - 2006-2008

The chair announced the following schedule for future meetings, and solicited volunteers for those dates that are not yet hosted

Date	Location	Host
Dec 4-8, 2006	Indian Wells (Palm Springs), CA	Ali Ghiasi
Feb 5-9, 2007	Dana Point, CA	Skip Jones

Apr 2-6, 2007	San Diego, CA	Robert Snively
Jun 4-8, 2007	Minneapolis, MN	Horst Truedted
Aug 6-10, 2007	Seattle, WA	Bob Nixon
Oct 8-12, 2007	Coeur d' Alene, ID	Chris Lyon
Dec 3-7, 2007	Orlando, FL	Roger Cummings
Feb 4-8, 2008	(tbd)	Skip Jones
Apr 7-11, 2008	(tbd)	Robert Snively
Jun 2-6, 2008	(tbd)	Chris Lyon
Aug 4-8, 2008	(tbd)	(tbd)
Oct 6-10, 2008	(tbd)	(tbd)
Dec 8-12, 2008	(tbd)	(tbd)

19.4 Guidelines for hosting T11 meetings (T11/06-815v0)

The chair advised that a new revision to the guidelines for hosting a T11 plenary week has been posted to the website as T11/06-815v0. It is required reading for those who are considering providing this service, summarizing the needs of the committee for meeting facilities and considerations that may reduce costs for the host. The room-night history is also available on the web site. The URL for the page is <http://www.t11.org/t11/meet.nsf/host>.

19.5 Approval of meeting venues

There were no new meeting venues to approve.

19.6 Next meeting information, hosted by QLogic in Dana Point CA, 4-7 February 2007

Hosted by QLogic	
Dates	
Start Date	02/05/2007
End Date	02/09/2007
Host	
Host Person	Skip Jones
Host Person EMail	skip.jones@qlogic.com
Hotel	
Hotel	Laguna Cliffs Marriott Resort and Spa
Address	25135 Park Lantern
City	Dana Point
State/Province	CA
Zip or PostCode	92629
Country	USA
Phone	949-661-5000
Toll Free Phone	
Fax	
Group Name	T11 QLogic Corporation
Cutoff Date	01/15/2007
Room Rate	\$209
Description	
	Parking is \$18 per day. There is a Technology Package with Guest room high-speed internet and long distance for \$9.95

20 Final Attendance Notice/Check

The chair reviewed the electronically registered attendance list, advised that the list was about to close, and reminded those who had not registered that the list would then become the only formal record of attendance at this meeting.

21 Review of Action Items

- 05-050 Chair to send E-mail to Intel, Microsoft, Compaq/HP to solicit letters licensing publication of FC-VI, Oct. 5, 2005.
- > Microsoft has granted a license. See T11/05-822v0.
 - > HP, formerly Compaq, has granted a license. See T11/06-390v0
 - > Intel has proper person identified.
 - > A phone call and reminder e-mail was sent to Intel on May 16, 2006. A reminder e-mail was sent to Intel on September 7, 2006. Additional e-mails were exchanged September 21, 2006.
- 05-084 Chair to complete registration of OID for T11.
- > In process. T11 OID was received.
 - > Placeholder is now present on www.incits.org.
 - > INCITS is in the final stages of preparing a policy and procedure.
 - > Reminder e-mail sent to INCITS on September 7, 2006.
- 06-001 TG Chairs to update Project Status Sheet.
- > Ongoing
- 06-002 All editors, when posting drafts, upload zip of source to hidden directory
- > Ongoing.
- 06-041 Chair to send letter to appropriate party in IEEE 802.3 to inform them of the formal relationship of Adam Healey as Liaison between IEEE 802.3 and T11.
- > In progress. E-mail sent to Bob Grow, August 7, 2006.
- 06-061 Claudio Desanti to prepare a new draft of the document on mechanisms for indicating when new standards replace old.
- > In process
- 06-077 Dave Peterson to forward INCITS 412-2006 Standard for Multi-path Management API to INCITS for fast track processing.
- > In process
- 06-078 T11 Secretary to post approved minutes of T11 meeting #77 as agreed at T11 meeting #78.
- 06-079 T11 Chair to forward the project proposal for FC-SB-3, Amendment 1 (T11/06-676v1) to INCITS for further processing.
- 06-080 T11 Chair to forward Revision 1.62 of FC-LS (T11/06-393v6), Project 1620-D, to INCITS for further processing including public review.
- 06-081 T11 Chair to forward Revision 1.02 of FC-FS-2 Amendment 1 (T11/06-623v4), Project 1331-M, to INCITS for further processing including public review.
- 06-082 T11 Chair to forward Revision 8.51 of FC-GS-5 (T11/06-192v3), Project 1677-D, to INCITS for further processing including second public review.
- 06-083 T11 Chair to perform a Letter Ballot for approval of forwarding Revision 1.01 of FC-SB-3 Amendment 1 (T11/06-802v1), Project TBD, to INCITS for first public review

- 06-084 T11 Chair to perform a Letter Ballot for approval of forwarding Revision 0.1 of 10GFC Amendment 1 (T11/06-802v1), Project 1413-D, to INCITS for first public review.
- 06-085 International Representative to forward document T11/06-873v0 to INCITS as a recommendation from T11 for actions at ISO.
- 06-086 T11 Chair to notify INCITS of T11 recommendation to withdraw HIPPI-6400-SC (INCITS 324-1999).
- 06-087 Chair to generate appropriate Liaison reports.
- 06-088 Chair to propose means to make information and process for potential members clearly visible from the T11 home pages.
- 06-089 T11 chair to send a letter of appreciation to Bill Ham for his many years of enthusiastic support, valued advice, and dedicated service.

22 Adjournment

Jeanne Truedstedt (TrueFocus) moved and Ali Ghiasi (Broadcom) seconded to adjourn at 5:04 PM. The motion passed unanimously.

Annex A Membership and Attendance

A.1 Membership for this meeting

A.1.1 Voting Members

The following is the list of companies and their representatives that are voting members of record for plenary meeting 78 of the INCITS Fibre Channel (T11) Technical Committee:

Company Represented	P: Prncpl A: Altrnt A#: Adl Alt	Representative
AGERE	P	Adam Healey
	A	Lane Smith
BROADCOM	P	Ali Ghiasi
	A	Scott Powell
Brocade	P	Robert Snively
	A	Steven L. Wilson
Catalyst	P	Jan Dedek
	A	Bart Raudebaugh
CIENA	P	Sashi Thiagarajan
	A	Martin Hunt
Cisco Systems	P	Claudio DeSanti
	A	Fabio Maino
Corning	P	Doug Coleman
	A	Steven E. Swanson
EMC	P	Gary S. Robinson
	A	David Black
Emulex	P	Bob Nixon
	A	William R. Martin
ENDL Texas	P	Ralph Weber
	A	Dal Allan
eSilicon	P	Frank Barber
	A	Rakesh Chadha
Finisar	P	Tim Beyers

Company Represented	P: Prncpl A: Altrnt A#: Adl Alt	Representative
	A	Henry Poelstra
	A#	Mike Lawson
FSI	P	Gary Stephens
Fujitsu	P	Mike Fitzpatrick
Hitachi America	P	Hidehisa Shitomi
	A	Junji Kinoshita
Hitachi DS	P	Eric Hibbard
Hitachi GST	P	Dan Colegrove
	A	Jim Wong
HP	P	Don Fraser
IBM	P	Scott Carlson
	A	Roger Hathorn
JDS Uniphase	P	Dave Lewis
	A	Wenbin Jiang
Lightsand	P	Alex Goral
	A	Ilya Alexandrovich
LSI Logic	P	Curtis Ridgeway
	A	Michael Jenkins
	A#	John Lohmeyer
Lucent	P	Richard DiPasquale
Marvell	P	Paul Wassenberg
	A	David Geddes
McData	P	Scott Kipp
	A	Larry Hofer
	A#	David Peterson
Microsoft	P	Robert Griswold
	A	Jeff Mastro
	A#	Jeffrey Goldner
Molex	P	Jay Neer

Company Represented	P: Prncpl A: Altrnt A#: Adl Alt	Representative
Neoscale	P	Landon Noll
	A	Robert Lockhart
NORTEL	P	Graham Copley
PacketLight	P	Eyal Gabay
	A	Oded David
Picolight	P	Mike Dudek
	A	Mark Hillesheim
PMC-Sierra	P	Roy Elsbernd
	A	Brett Clark
PrecisionFC	P	Gary Warden
	A	Jing Kwok
QLogic	P	Craig W. Carlson
	A	Skip Jones
Samsung	P	Hitoshi Okamura
	A	Kihong Kim
Seagate	P	James Coomes
	A	Allen Kramer
Smiths Aerospace	P	John Schroeder
	A	Todd Pepper
Solution Technology	P	Robert Kembel
	A	David Deming
ST	P	Gianfranco Scherini
	A	Massimo Pozzoni
Sun Microsystems	P	Matt Gaffney
	A	Vit Novak
	A#	Michael Roy
Symantec	P	Roger Cummings
Texas Instruments	P	Rajeev Jain
	A	Stephen Hubbins

Company Represented	P: Prncpl A: Altrnt A#: Adl Alt	Representative
TrueFocus	P	Horst Truededt
	A	Jeanne Truededt
Tyco	P	Andrew Nowak
	A	Michael Fogg
Xyratex	P	Paul Levin
	A	Rich Ramos

A.1.2 Advisory Members

The following is the list of companies and their representatives that are advisory (i.e., nonvoting) members of record for plenary meeting 78 of the INCITS Fibre Channel (T11) Technical Committee:

Company Represented	P: Prncpl A: Altrnt A#: Adl Alt	Representative
3Leaf	P	Seth Cohen
	A	Rohit Jnagal
Amphenol	P	Gregory McSorley
	A	Michael Wingard
Avago	P	Randy Clark
	A	Dan Rausch
Corrigent	P	Moran Roth
	A	Luis Aguirre-Torres
Crossroads Systems	P	John Tyndall
	A	Bill Moody
Data Device Corporation	P	Mike Glass
	A	Joe Gelish
FCI	P	Kevin Oursler
	A	David Sideck
Fujitsu Takamisawa	P	Bob Thornton
General Dynamics	P	Tim Luthens

Company Represented	P: Prncpl A: Altrnt A#: Adl Alt	Representative
	A	Kent Lindell
Google	P	Hong Liu
Intel	P	Rodrigo Natal
	A	Jesse Chin
Liberty Intl	P	Phil Zuniga
Neophotonics	P	Weiqi Li
	A	Jingsheng Xia
Northrop Grumman	P	James Nelson
Phyworks	P	Brad Weaterton
	A	Arthur Macdougall
Quake	P	Brad Booth
	A	John McNicol
Unisys	P	Wayne Gentry

A.2 Attendance at this meeting

The following is the list of companies and their representatives recorded as attending plenary meeting 78 of the INCITS Fibre Channel (T11) Technical Committee, as reported in the online attendance registry:

Organization	Representative
AGERE SYSTEMS	Lane Smith
AMPHENOL INTERCONNECT	Gregory McSorley
BROADCOM	Ali Ghiasi
BROCADE COMMUNICATIONS	Robert Snively
BROCADE COMMUNICATIONS	Steven L. Wilson
CIENA	Martin Hunt
CIENA	Sashi Thiagarajan
CISCO SYSTEMS	Claudio DeSanti
CORNING	Doug Coleman
EMC	David Black
EMC	Gary S. Robinson

Organization	Representative
EMULEX	Bob Nixon
EMULEX	William R. Martin
ENDL TEXAS	Ralph Weber
FINISAR	Tim Beyers
FSI CONSULTING SVCS	Gary Stephens
FUJITSU COMPUTER PRODUCTS OF AMERICA	Mike Fitzpatrick
HEWLETT PACKARD	Don Fraser
HITACHI AMERICA	Hidehisa Shitomi
HITACHI DATA SYSTEMS	Eric Hibbard
HITACHI GLOBAL STORAGE TECHNOLOGIES	Dan Colegrove
IBM	Roger Hathorn
IBM	Scott Carlson
JDSU	Dave Lewis
LSI LOGIC	John Lohmeyer
LSI LOGIC	Michael Jenkins
LUCENT TECHNOLOGIES	Richard DiPasquale
MCDATA	David Peterson
MCDATA	Scott Kipp
MICROSOFT	Robert Griswold
MOLEX	Jay Neer
NEOSCALE SYSTEMS	Landon Noll
NORTEL NETWORKS	Graham Copley
PACKETLIGHT NETWORKS	Oded David
PICOLIGHT	Mike Dudek
PMC-SIERRA	Roy Elsbernd
QLOGIC	Craig W. Carlson
RIDOLFO CONSULTING	Denise Ridolfo
SEAGATE TECHNOLOGY	James Coomes
SOLUTION TECHNOLOGY	Robert Kembel

Organization	Representative
SUN MICROSYSTEMS	Matt Gaffney
SYMANTEC	Roger Cummings
TRUE FOCUS	Horst Truedstedt
TRUE FOCUS	Jeanne Truedstedt
TYCO ELECTRONICS	Michael Fogg
XILINX	Tom Palkert

Annex B Roll Call Vote Tallies

B.1 Project proposal for FC-SB-3, Amendment 1 (T11/06-676v1)

The response to the roll call on the question to approve the project proposal for FC-SB-3, Amendment 1 (T11/06-676v1) and to forward the project proposal for FC-SB-3, Amendment 1 (T11/06-676v1) to INCITS for further processing was as follows:

Company	Type	Representatives	Vote
Agere			nv
Broadcom			nv
Brocade Comms.	A	Steven L. Wilson	y
Catalyst			nv
Ciena	P	Sashi Thiagarajan	y
Cisco	P	Claudio DeSanti	y
Corning	P	Doug Coleman	y
EMC	A	David Black	y
Emulex	A	William R. Martin	y
ENDL	P	Ralph Weber	y
eSilicon Corporation			nv
Finisar	P	Tim Beyers	y
FSI	P	Gary Stephens	y
Fujitsu	P	Mike Fitzpatrick	y
Hitachi America	P	Hidehisa Shitomi	y
Hitachi Data Sys	P	Eric Hibbard	y
Hitachi GST	P	Dan Colegrove	y
Hewlett Packard	P	Don Fraser	y
IBM	P	Scott Carlson	y
JDS	P	Dave Lewis	y
LightSand			nv
LSI Logic	A	Michael Jenkins	y
Lucent			nv
Marvell			nv
McData	P	Scott Kipp	y

Company	Type	Representatives	Vote
Microsoft	P	Robert Griswold	y
Molex	P	Jay Neer	y
Neoscale	P	Landon Noll	y
Nortel	P	Graham Copley	y
PacketLight	A	Oded David	y
Picolight	P	Mike Dudek	y
PMC-Sierra	P	Roy Elsbernd	y
PrecisionFC			nv
QLogic	P	Craig Carlson	y
Samsung			nv
Seagate	P	James Coomes	y
Smiths Aerospace			nv
Solution Tech.	P	Robert Kembel	y
ST			nv
Sun	P	Matt Gaffney	y
Symantec	P	Roger Cummings	y
TI			nv
TrueFocus	P	Horst Truedtedt	y
Tyco	A	Michael Fogg	a
Xyratex			nv

B.2 Forward FC-LS to INCITS for first public review

The response to the roll call on the question to accept T11/06-113vC as the resolution of the letter ballot comments on FC-LS and to forward Revision 1.62 of FC-LS (T11/06-393v6), Project 1620-D, to INCITS for further processing including public review was as follows:

Company	Type	Representatives	Vote
Agere			nv
Broadcom			nv
Brocade Comms.	A	Steven L. Wilson	y
Catalyst			nv
Ciena	P	Sashi Thiagarajan	y
Cisco	P	Claudio DeSanti	y
Corning	P	Doug Coleman	y
EMC	A	David Black	y
Emulex	A	William R. Martin	y
ENDL	P	Ralph Weber	y
eSilicon Corporation			nv
Finisar	P	Tim Beyers	y
FSI	P	Gary Stephens	y
Fujitsu	P	Mike Fitzpatrick	y
Hitachi America	P	Hidehisa Shitomi	y
Hitachi Data Sys	P	Eric Hibbard	y
Hitachi GST	P	Dan Colegrove	y
Hewlett Packard	P	Don Fraser	y
IBM	P	Scott Carlson	y
JDS	P	Dave Lewis	y
LightSand			nv
LSI Logic	A	Michael Jenkins	y
Lucent			nv
Marvell			nv
McData	P	Scott Kipp	y
Microsoft	P	Robert Griswold	y

Company	Type	Representatives	Vote
Molex	P	Jay Neer	y
Neoscale	P	Landon Noll	y
Nortel	P	Graham Copley	y
PacketLight	A	Oded David	y
Picolight	P	Mike Dudek	y
PMC-Sierra	P	Roy Elsbernd	y
PrecisionFC			nv
QLogic	P	Craig Carlson	y
Samsung			nv
Seagate	P	James Coomes	y
Smiths Aerospace			nv
Solution Tech.	P	Robert Kembel	y
ST			nv
Sun	P	Matt Gaffney	y
Symantec	P	Roger Cummings	y
TI			nv
TrueFocus	P	Horst Truedtedt	y
Tyco	A	Michael Fogg	a
Xyratex			nv

B.3 Forward FC-FS-2 Amendment 1 to INCITS for first public review

The response to the roll call on the question to accept T11/06-768v3 as the resolution of the letter ballot comments on FC-FS-2 Amendment 1 and to forward Revision 1.02 of FC-FS-2 Amendment 1 (T11/06-623v4), Project 1331-M, to INCITS for further processing including public review was as follows:

Company	Type	Representatives	Vote
Agere			nv
Broadcom			nv
Brocade Comms.	A	Steven L. Wilson	y
Catalyst			nv
Ciena	P	Sashi Thiagarajan	y

Company	Type	Representatives	Vote
Cisco	P	Claudio DeSanti	y
Corning	P	Doug Coleman	y
EMC	A	David Black	y
Emulex	A	William R. Martin	y
ENDL	P	Ralph Weber	y
eSilicon Corporation			nv
Finisar	P	Tim Beyers	y
FSI	P	Gary Stephens	y
Fujitsu	P	Mike Fitzpatrick	y
Hitachi America	P	Hidehisa Shitomi	y
Hitachi Data Sys	P	Eric Hibbard	y
Hitachi GST	P	Dan Colegrove	y
Hewlett Packard	P	Don Fraser	y
IBM	P	Scott Carlson	y
JDS	P	Dave Lewis	y
LightSand			nv
LSI Logic	A	Michael Jenkins	y
Lucent			nv
Marvell			nv
McData	P	Scott Kipp	y
Microsoft	P	Robert Griswold	y
Molex	P	Jay Neer	y
Neoscale	P	Landon Noll	y
Nortel	P	Graham Copley	y
PacketLight	A	Oded David	y
Picolight	P	Mike Dudek	y
PMC-Sierra	P	Roy Elsbernd	y
PrecisionFC			nv
QLogic	P	Craig Carlson	y
Samsung			nv

Company	Type	Representatives	Vote
Seagate	P	James Coomes	y
Smiths Aerospace			nv
Solution Tech.	P	Robert Kembel	y
ST			nv
Sun	P	Matt Gaffney	y
Symantec	P	Roger Cummings	y
TI			nv
TrueFocus	P	Horst Truedtedt	y
Tyco	A	Michael Fogg	a
Xyratex			nv

B.4 Approve ANSI editor changes to FC-GS-5 (T11/06-687v2)

The response to the roll call on the question to approve the responses to the ANSI Editor comments (06-687v2) against the FC-GS-5 draft and approve second public review of FC-GS-5 draft (project 1677-D) was as follows:

Company	Type	Representatives	Vote
Agere			nv
Broadcom			nv
Brocade Comms.	A	Steven L. Wilson	y
Catalyst			nv
Ciena	P	Sashi Thiagarajan	y
Cisco	P	Claudio DeSanti	y
Corning	P	Doug Coleman	y
EMC	A	David Black	y
Emulex	A	William R. Martin	y
ENDL	P	Ralph Weber	y
eSilicon Corporation			nv
Finisar	P	Tim Beyers	y
FSI	P	Gary Stephens	y
Fujitsu	P	Mike Fitzpatrick	y
Hitachi America	P	Hidehisa Shitomi	y

Company	Type	Representatives	Vote
Hitachi Data Sys	P	Eric Hibbard	y
Hitachi GST	P	Dan Colegrove	y
Hewlett Packard	P	Don Fraser	y
IBM	P	Scott Carlson	y
JDS	P	Dave Lewis	y
LightSand			nv
LSI Logic	A	Michael Jenkins	y
Lucent			nv
Marvell			nv
McData	P	Scott Kipp	y
Microsoft	P	Robert Griswold	y
Molex	P	Jay Neer	y
Neoscale	P	Landon Noll	y
Nortel	P	Graham Copley	y
PacketLight	A	Oded David	y
Picolight	P	Mike Dudek	y
PMC-Sierra	P	Roy Elsbernd	y
PrecisionFC			nv
QLogic	P	Craig Carlson	y
Samsung			nv
Seagate	P	James Coomes	y
Smiths Aerospace			nv
Solution Tech.	P	Robert Kembel	y
ST			nv
Sun	P	Matt Gaffney	y
Symantec	P	Roger Cummings	y
TI			nv
TrueFocus	P	Horst Truedtedt	y
Tyco	A	Michael Fogg	a
Xyratex			nv

B.5 ISO Motion 2: ISO actions (T11/06-873v0)

The response to the roll call of US-domiciled organizations on the question that T11 recommend the NWIPs specified in table 1 as US contributions to JTC1/SC25 and approve the NWIPs to be issued by SC25, answering the first 6 questions specified in table 2 as “Yes” and naming David Peterson as project editor, and question 7 in table 2 as “Accelerated Timeframe” was as follows:

Company	Type	Representatives	Vote
Agere	A	Lane Smith	y
Broadcom			nv
Brocade Comms	A	Steven L. Wilson	y
Catalyst			nv
Ciena	P	Sashi Thiagarajan	y
Cisco	A	Fabio Maino	y
Corning	P	Doug Coleman	y
EMC	A	David Black	y
Emulex	P	Bob Nixon	y
ENDL	P	Ralph Weber	y
eSilicon Corporation			nv
Finisar			nv
FSI	P	Gary Stephens	y
Fujitsu	P	Mike Fitzpatrick	y
Hitachi America	P	Hidehisa Shitomi	y
Hitachi Data Sys	P	Eric Hibbard	y
Hitachi GST	P	Dan Colegrove	y
Hewlett Packard	P	Don Fraser	y
IBM	P	Scott Carlson	y
JDS	P	Dave Lewis	y
LightSand			nv
LSI Logic	A	Michael Jenkins	y
Lucent			nv
Marvell			nv
McData	P	Scott Kipp	y
Microsoft	P	Robert Griswold	y

Company	Type	Representatives	Vote
Molex	P	Jay Neer	y
Neoscale	P	Landon Noll	y
Picolight	P	Mike Dudek	y
PMC-Sierra	P	Roy Elsbernd	y
PrecisionFC			nv
QLogic	P	Craig Carlson	y
Seagate	P	James Coomes	y
Smiths Aerospace			nv
Solution Tech.	P	Robert Kembel	y
ST			nv
Sun	P	Matt Gaffney	y
Symantec	P	Roger Cummings	y
TI			nv
TrueFocus	P	Horst Truedtedt	y
Tyco	A	Michael Fogg	y

B.6 Withdraw HIPPI-6400-SC (INCITS 324-1999)

The response to the roll call on the question to recommend to INCITS to change the status of HIPPI-6400-SC (INCITS 324-1999) to "Withdrawn without archival copy maintained" was as follows:

Company	Type	Representatives	Vote
Agere	A	Lane Smith	y
Broadcom	P	Ali Ghiasi	y
Brocade Comms.	A	Steven L. Wilson	y
Catalyst			nv
Ciena	P	Sashi Thiagarajan	y
Cisco	A	Fabio Maino	y
Corning	P	Doug Coleman	y
EMC	A	David Black	y
Emulex	P	Bob Nixon	y
ENDL	P	Ralph Weber	y

Company	Type	Representatives	Vote
eSilicon Corporation			nv
Finisar	P	Tim Beyers	y
FSI	P	Gary Stephens	y
Fujitsu	P	Mike Fitzpatrick	y
Hitachi America	P	Hidehisa Shitomi	y
Hitachi Data Sys	P	Eric Hibbard	y
Hitachi GST	P	Dan Colegrove	y
Hewlett Packard	P	Don Fraser	y
IBM	P	Scott Carlson	y
JDS	P	Dave Lewis	y
LightSand			nv
LSI Logic	A	Michael Jenkins	y
Lucent			nv
Marvell			nv
McData	A#	Dave Peterson	y
Microsoft	P	Robert Griswold	y
Molex	P	Jay Neer	y
Neoscale	P	Landon Noll	y
Nortel	P	Graham Copley	y
PacketLight	A	Oded David	y
Picolight	P	Mike Dudek	y
PMC-Sierra	P	Roy Elsbernd	y
PrecisionFC			nv
QLogic	P	Craig Carlson	y
Samsung			nv
Seagate	P	James Coomes	y
Smiths Aerospace			nv
Solution Tech.	P	Robert Kembel	y
ST			nv
Sun	P	Matt Gaffney	y

Company	Type	Representatives	Vote
Symantec	P	Roger Cummings	y
TI			nv
TrueFocus	P	Horst Truedstedt	y
Tyco	A	Michael Fogg	y
Xyratex			nv